

# European Mineral Statistics



2005–09



## European Mineral Statistics 2005–09

A product of the World Mineral Statistics database

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*Cover photograph:* Fjardaal Aluminium Smelter at Reydarfjordur in Iceland opened by Alcoa Inc in 2007. Designed to comply with Iceland's stringent environmental standards, Fjardaal uses advanced technologies and is powered by hydro-electricity. Iceland submitted an application to join the European Union in July 2009 and appears in this volume for the first time as a new candidate country. Photo: T J Brown. BGS © NERC

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# Commentary

## 1. Introduction

Europe's relatively restricted land mass has a remarkable variety of geological terranes. It includes ancient crystalline 'shields' and massifs, complex younger fold-belts penetrated by igneous intrusions, deep sedimentary basins containing coal, petroleum and other minerals, and landscapes profoundly modified by a recent ice age. As a consequence Europe has a rich endowment of all the major groups of minerals. In the nineteenth century the continent's burgeoning industrial economies were built on its resources of metals and coal. The productive capacity of those resources was, with some exceptions, largely outgrown in the twentieth century but Europe continues to obtain a high proportion of its needs for industrial and construction minerals from within its own borders. In addition, a recent bonanza has been the discovery and exploitation of the offshore resources of petroleum and natural gas beneath the North Sea and other areas of the continental shelf.

During the industrial revolution of the eighteenth and nineteenth centuries the interest of sovereign states in their own economic and demographic performance led to the development of statism, that is, the direction and control of their internal affairs to a much greater degree than before. From statism came the concept of statistics – the numbers collected and compiled as the basis for such action by the state. Among many other things, almost all European countries compile annual statistics of national mineral production and trade and these form the basis of this European compilation<sup>1</sup>.

For many countries, from antiquity, the ownership of precious metals has been vested in the state or the sovereign and for the majority of European countries state ownership extends to all metals and high-value industrial minerals. Chiefly as a result, in Europe and the world as a whole, there is a direct correspondence between the unit value of a mineral commodity and the amount and accuracy of official statistical information available on it. At the extreme high end of the value range this relationship tends to break down so that data on gemstones and precious metals is less straightforward than that on base metals. However, as a rule the state does not claim ownership of low-value construction minerals, such as sand and gravel, crushed rock aggregate and others. Partly as a consequence, the statistics for such minerals tend to be less comprehensive, less reliable and more difficult to compile and compare than those for other minerals. It is ironic that with modern environmental concerns and pressures on land-use in Europe it is precisely these less well-documented minerals – their occurrence, production, trade and consumption – that are of greatest concern to local and national governments.

As far as possible, the statistics of production compiled by the BGS are the official data for the countries concerned, whose government departments and agencies compile and publish them on the basis of returns from annual, or more frequent, inquiries in the form of mandatory questionnaires to producers. Trade statistics published by BGS are invariably compiled, directly or indirectly, from official publications. Where official production data are not available, or where there is reasonable cause to doubt the accuracy or completeness of such data, information is sought from other sources such as geological survey organizations, chambers of mines, universities, trade associations and the primary producers themselves. Time and resources preclude double-checking in any but the most necessary of cases.

An increasing problem, particularly in Europe, is the invocation of rules that bar a government body from divulging national production data if there is only a small number of producers, the object being the maintenance of commercial confidentiality. However, we often find in such cases that the primary producers themselves are willing to release the information for publication. A further issue lies in the

<sup>1</sup> For this compilation 'Europe' is defined as the 27 EU members (as of 1 February 2008), the EU associates Norway and Switzerland and the EU candidate countries Croatia, Iceland, Macedonia and Turkey; this group of 33 countries is for convenience referred to as 'EU33'.

desire of governments, everywhere, to recover costs by asking for payment for official information – which is often marketed through an agent. This situation is coupled with an increasing apparent disregard for the value (as distinct from the price) of impartial mineral statistics and a conviction that their compilation should be funded entirely by the users of the data, or by the industrial sector concerned. It is true that no other industrial sector has a statistical operation wholly dedicated to its physical (as opposed to financial) activities. The reason is that no other industrial sector is so crucial to the maintenance of civilisation and so little understood by the population at large.

## 2. Construction minerals

The most important construction minerals and their chief uses are summarised below (Table 1):

**Table 1** Construction minerals and their principal uses.

|  |  |
|--|--|
| Aggregates, natural sand and gravel crushed rock (limestone, sandstone, igneous rock etc.) | <i>concrete, building sand and fill roadstone, fill, concrete</i>  |
| Clay and shale   | <i>bricks, pipes, tiles and cement manufacture</i>   |
| Gypsum <sup>2</sup>  | <i>plaster, plasterboard and cement</i>  |
| Limestone and dolomite   | <i>crushed-rock aggregate, cement, other industrial and agricultural uses</i>  |
| Building stone (dimension stone)   | <i>this comprises almost any competent rock-type that may be used in the form of shaped and/or sized blocks for either structural or decorative purposes. It normally includes roofing stone and slate</i> |

### 2.1 Statistical problems of aggregate minerals

Aggregates suffer from the incompleteness of available production data and incompatibility of different countries' production statistics for this group. The European data for aggregates presented here represent an attempt at compiling reliable data and we would welcome any comments, amendments and corrections that users may wish to make. Other problems are related to the terminology used by different countries. These can include such categories as:

- ‘gravel and crushed rock’ with no distinction between types of aggregate minerals
- ‘building stone’ that incorporates both crushed-rock aggregate and dimension stone
- ‘limestone’ and other purely petrological descriptions with no indication of the construction/industrial use split
- ‘sand’ with no distinction between material for construction sand and special sand for industrial uses e.g. for glass

With the establishment of the European single market on 1st January 1993 a new statistical system was introduced across the EU to measure production for sale (Prodcom). It covers many activities, including mining and quarrying. Information is presented on the volume and value of sales and the headings are compatible with trade headings, the intention being to provide an assessment of the apparent consumption of a particular product. However, the data for minerals are of highly variable quality.

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<sup>2</sup> Statistics for gypsum are complicated by the availability of large quantities of synthetic gypsum, which is not covered in this publication.

## **2.2 European situation**

The statistical tables in this volume show that it is possible to account in detail for a total approximately 2488 million tonnes of primary aggregate production in the EU33 countries in 2009. This represents a fall of 14 per cent from 2898 million tonnes in 2008. The European Aggregates Association (UEPG) ([www.uepg.eu](http://www.uepg.eu)) has estimated that the production of primary aggregates in only 23 European countries is higher than the figures shown here at 3253 million tonnes for 2008 (no figures for 2009 were available at the time of writing).

These totals easily exceed the total tonnage of all other minerals produced in the EU. This fact highlights the concerns expressed in many countries about the sustainability of the resource, both in terms of tonnage remaining and also the land-use and environmental issues that are raised by the implicit need for the expansion of quarries to maintain the level of output.

All European countries consume construction minerals, generally in proportion to their size of their individual economies. The majority of the EU member countries are self-sufficient in supply of aggregate minerals but while some, e.g. Finland, produce approximately equal quantities of sand & gravel and crushed rock aggregates others are, for obvious geological and topographic reasons, deficient in one or the other. For example, Netherlands lacks resources suitable for the production of hard rock aggregates while Austria, landlocked and without broad alluvial lowlands, is a net importer of sand and gravel. Simple statistical analysis, especially if only 'gross' national trade positions are examined, can be misleading: aggregates are low-cost minerals and are, as a result, sensitive to transport costs. They may be imported via a short cross-border route at lower cost than if they were carried a much greater distance within national borders.

For countries bordering the North Sea production of marine-dredged sand and gravel is a significant part of supply. In the case of the UK this source amounts to approximately 15 million tonnes per year or 23 per cent of total UK sand and gravel production in 2009. Of this marine-dredged material 37 per cent is landed at foreign ports as exports. Crushed rock produced from onshore sites is also conveyed by sea from Norway and Scotland.

Recycled and secondary aggregates have become an increasingly important part of supply, in response to environmental constraints on the production of primary (quarried) material. In Great Britain these materials account for approximately 26 per cent of total supply. This is the highest in the EU33 countries in percentage terms although Germany produces a greater total tonnage.

## **3. Industrial (non-construction) minerals**

These comprise a wide range of non-metallic, non-energy minerals used as feedstocks for manufacturing or industrial processing aids, exemplified by barytes, fluorspar, magnesite, kaolin (china clay), mica, and salt. The category includes metallic minerals used for non-metallic products, e.g. barite, chromite, ilmenite and also 'construction minerals' used for non-construction purposes, e.g. limestone. Unlike metals, where whatever is extracted or the ultimate refined marketable product is produced to a few accepted standards for use in a variety of applications, industrial minerals depend to a great extent on their intrinsic 'as mined' physical and chemical qualities. Thus, for industrial minerals the two most significant variables are the grade of the deposit, that is, how much useful mineral it contains, and the quality of the mineral, that is, its suitability for specific end-uses. The quality may be a combination of physical properties such as particle size and shape, brightness, viscosity in suspension, specific gravity, hardness, strength and insulating properties. Several industrial minerals are valued for their chemical

composition, for example, the essential plant nutrients potassium and phosphorus or the halogens chlorine and fluorine and many other elements used as chemical feedstocks.

It has been suggested that the point at which the value of a country's industrial mineral production (including construction minerals) overtakes that of its metal (mine) production marks its transition to a mature industrial economy. Certainly this point was attained long ago for the major economies of Europe: the value of metal production in France, Germany, Italy and the UK is negligible compared to the value of industrial minerals output.

A problem for the compiler of statistics on industrial minerals is that many of them cannot be precisely defined, but grade into one another. Thus, kaolin grades into kaolinitic clay, bauxite into high-alumina clay, dolomite into limestone, and this has implications for the comparability of statistics between deposits and countries. Many industrial minerals are produced and marketed in either a 'wet', 'dried' or 'calcined' forms; this can markedly affect the weight of the material. In this compilation every effort has been made to ensure comparability between countries in this respect. Some mineral-derived elements may be obtained by a number of mineral-based but different routes: sulphur is obtained, in Europe, as a by-product from oil refining, from sour gas, from base metal smelting and as a primary product from pyrites (iron sulphide). Some semi-processed materials<sup>3</sup> can be obtained from completely different sources, for example magnesia (magnesium oxide), which is produced from both magnesite and a combination of sea-water and dolomite. Salt is a further example, being extracted as a solid (rock salt), as brine and by the evaporation of sea water.

European production of industrial minerals<sup>4</sup> supplies a fairly high proportion of the continent's requirements, in contrast to the position with metals. However, in the cases of several minerals, production is dominated by one country and the majority are still dependent on imports for all but a few of these minerals. The proportions of selected minerals produced by Europe is given in Table 2.

**Table 2** EU33 production of selected industrial minerals as world percentages

| <b>Industrial mineral</b> | <b>% of world</b> | <b>EU33 countries with &gt;2% of world output in 2009</b> |
|---------------------------|-------------------|---|
| Feldspar                  | 58.4              | Italy (25%), Turkey, France, Spain, Poland, Czech Rep.    |
| Kaolin                    | 31.1              | Germany (18%), UK, Czech Republic                         |
| Bentonite                 | 21.1              | Greece (7%), Turkey, Germany                              |
| Gypsum                    | 20.1              | Spain (7%), France, Turkey                                |
| Salt                      | 20.0              | Germany (6%), France, Netherlands, UK                     |
| Magnesite                 | 16.7              | Turkey (8%), Austria, Slovakia                            |
| Talc                      | 16.7              | Finland (7%), France                                      |
| Diatomite                 | 14.7              | Denmark (8%), France, Spain                               |
| Potash                    | 12.9              | Germany (9%), Spain                                       |
| Mica                      | 10.2              | France (7%), Finland                                      |
| Barytes                   | 4.0               | Turkey (2%)   |
| Fluorspar                 | 3.3               | Spain (2%)  |

<sup>3</sup>In the case of several oxides, hydroxides and salts the yardstick for inclusion in this compilation is that the material should be the basis for a further transformation process although the compilers accept that this criterion has been applied in a flexible way.

<sup>4</sup>The tabulated statistics show that availability of reported data is much lower for industrial minerals than for metals, with many estimated totals being shown.

## 4. Metals

Until the middle of the nineteenth century the demands of industry in Europe were met by indigenous metal mines but thereafter it became clear that the resources of other continents would become an important source of supply, having, as they did, very large and rich ore bodies that could be worked at relatively low cost. Initially, ores and concentrates were transported to Europe for processing. Many high-volume ores, notably iron ore, are still imported but smelting and refining of base metal concentrates has been increasingly undertaken at or near the sites of the overseas mines. Europe as a whole is now heavily dependent on extra-European sources of virtually all metals although recycling makes an important contribution and, as the statistical tables show, several European countries still have significant mine production of one or more metals.

Certain European countries are major mine producers of particular metals, e.g. Turkey for chromium (9.5 per cent of the world total in 2009), Norway for titanium (6.5 per cent) and Poland for silver (5.2 per cent), but the majority of European countries depend chiefly on imports from other continents. Between 2008 and 2009, the overall mine production for most metals produced in the EU33 decreased by between two per cent (silver) and 26 per cent (bauxite). However, there were increases in the mine production of copper (up three per cent) and gold (up nearly 10 per cent). The overall EU33 position of mine production of selected metals in 2009 is shown in Table 3.

**Table 3** EU33 mine production of selected metals as world percentages.

| <b>Metal</b>        | <b>% world</b> | <b>EU33 countries with &gt;1% of world output in 2009</b> |
|---------------------|----------------|---|
| Chromium            | 10.8           | Turkey (9.5%), Finland                                    |
| Silver              | 8.1            | Poland (5.2%, Sweden, Turkey)                             |
| Zinc                | 7.6            | Ireland (3.4%), Sweden, Poland                            |
| Lead                | 6.7            | Sweden (1.8%), Poland, Ireland, Macedonia                 |
| Titanium            | 6.5            | Norway (6.5%)   |
| Copper              | 5.2            | Poland (2.8%)   |
| Tungsten            | 3.1            | Austria (1.4%), Portugal                                  |
| Nickel              | 3.0            | –   |
| Aluminium (bauxite) | 1.4            | Greece (1.0%)   |
| Iron                | 1.4            | –   |
| Gold                | 1.2            | –   |

European smelting and refining of imported ores and concentrates provides the bulk of supply in the cases of iron, aluminium (bauxite), zinc, lead, and copper. Refining in Europe of semi-processed materials from other continents accounts for a large part of nickel and tin supply but vanadium and cobalt metal are entirely imported. Ferro-alloys of a number of metals are produced in Europe but imports of the major types are an indispensable part of total supply. The balance of metals supply is made up of imports of refined metal. It is emphasised that the situation of individual countries may vary widely from one to another, as the statistics indicate.

In 2009, China consumed 36 per cent of the world's total production of primary aluminium, 39 per cent of refined copper, 43 per cent of refined lead, 41 per cent of refined nickel, 44 per cent of refined tin, and 43 per cent of slab zinc (World Bureau of Metal Statistics). It continues to be the largest consuming country of these metals, often by a significant margin. China also consumed 35 per cent of crude steel production, but, although its per capita consumption increased to 340.5 kilograms, it is still lower than the EU(27) at 402.8 kilograms per capita (World Steel Association).

## 5. Energy minerals

These comprise petroleum, natural gas, coal and uranium. Statistics for production and trade of petroleum and coal are fairly complete and present few problems to compilers. However, the data for petroleum conceal the distribution of differing grades of crude oil. For example, although the UK is the second largest exporter of petroleum from the EU33 countries, there is also a significant import of heavy crude which is a necessary requirement that cannot be supplied by the North Sea and other offshore fields.

Before 1975, European production of both petroleum and natural gas was negligible but Europe produced 9.5 per cent of the world total for natural gas in 2009 and 5.7 per cent of petroleum. These percentages both show reductions on the 2005 figures which were 11.1 per cent and 6.8 per cent, respectively.

In 2009, Norway produced 3.1 per cent of total world output of oil and the United Kingdom produced 1.7 per cent. Production of oil in Norway has decreased by 17.7 per cent between 2005 and 2009, and in the UK by 18.6 per cent. Norway also produced 3.3 per cent of the total world output of natural gas in 2009; the Netherlands produced 2.4 per cent and the UK 2.0 per cent. While the UK's production of natural gas declined between 2005 and 2009 by 32.7 per cent, output from Norway increased by 22 per cent and production from the Netherlands remained relatively constant.

Coal output in Europe has been declining steadily for many years as deep mines become increasingly uncompetitive with sources in other continents. In 1981 production from the present EU33 countries was 1351 million tonnes. In 2009 production from the same territories was 632 million tonnes, of which half was provided by Germany (2.7 per cent of the world total) and Poland (1.9 per cent).

'Black coal' or 'hard coal' is normally taken to mean bituminous coal and anthracite. 'Brown coal' comprises sub-bituminous coal and lignite. Black coals have a higher calorific value and lower volatile content than brown coals, the use of the latter is almost confined to burning in electricity generating stations. Within black coals a fundamental division is made into 'steam coal', for power generation, and 'coking coal', used for metallurgical purposes, predominantly iron smelting in blast furnaces. An important distinction in mining methods is that between deep mines (with shafts or deep declines) and opencast or open pit mines. The latter have, as a rule, lower costs and are therefore more profitable. Both methods give rise to planning and social concerns.

In 2009, mine production of uranium in the EU33 countries amounted to 497 tonnes U<sub>3</sub>O<sub>8</sub> equivalent, or 0.8 per cent of the world total, chiefly attributable to the Czech Republic. The EU33 countries occupy the top four positions for the proportion of electricity generated from nuclear power in 2009 (International Atomic Energy Agency). These countries are Lithuania, France, Slovakia, and Belgium with the proportions ranging from 76.23 per cent to 51.65 per cent.

The overall EU33 position with regard to production of energy minerals in 2009 is shown in Table 4.

**Table 4** EU33 production of energy minerals as world percentages.

| <b>Mineral</b> | <b>% world</b> | <b>EU33 countries with &gt; 1% of world output 2009</b> |
|----------------|----------------|---|
| Coal           | 9.1            | Germany (2.7%), Poland, Turkey                          |
| Natural gas    | 9.5            | Norway (3.3%), Netherlands, UK                          |
| Petroleum      | 5.7            | Norway (3.1%), UK                                       |
| Uranium        | 0.8            | -   |

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## Explanatory notes

The statistics in this publication are from the World Mineral Statistics database.

## Coverage

*European Mineral Statistics* covers the majority of economically important, and internationally traded, mineral commodities. For each commodity constant efforts are made to ensure that as many producing and trading countries as possible are reported and that trade data cover all major traded forms. For some commodities, where statistics on production and trade are not publicly available, estimates are made. Users of this compilation are advised that more statistical information than can be included in a publication of this nature is held in the BGS files and is available for consultation.

## Production

**Metals** Mine production of many metals is expressed in terms of metal content. This is clearly indicated adjacent to the commodity description. Unless otherwise specified, metal production statistics relate to metal recovered from both domestic and imported materials, whether primary or secondary, but exclude remelted material.

## **Trade**

Although every effort has been made to provide comprehensive coverage of trade statistics the resulting trade compilations depend on the nature of the data available. The fact that a country is not shown as trading in a particular commodity does not necessarily imply that there is no trade in that item. The commodity may not be separately identified in the available trade statistics or may not be traded in significant quantities.

Where an estimate for a trade statistic has been reconstructed from the imports/exports of other countries, the resulting figure may be conservative, as complete coverage of world trade is seldom available. Export statistics may include re-exports.

Tables showing trade in the following metals covered by Harmonised System Chapter 81 include under the term 'metal', unwrought and wrought forms, powder, alloys, waste and scrap, unless these are separately shown: antimony, bismuth, cadmium, chromium, cobalt, manganese, molybdenum, tantalum-niobium, titanium, tungsten, vanadium and zirconium. Trade tables of other metals include only unwrought forms under the term 'metal'.

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Particular acknowledgement is made to the Mines Departments and other government agencies of many countries whose regular statements, yearbooks and other reports are worthy of direct consultations by readers in search of detail.

Specialist commodity organisations which have kindly allowed information to be reproduced include the International Copper Study Group, the International Lead and Zinc Study Group, the International Nickel Study Group and the International Fertilizer Industry Association Ltd. In a few instances, information on specific commodities has been obtained directly from company sources. The co-operation of other members of the International Consultative Group on Non-Ferrous Metal Statistics is also gratefully acknowledged.

Supplementary information is also obtained from publications dealing with a wider range of commodities such as Société de l'Industrie Minérale, *Annuaire Statistique Mondial des Minéraux et Métaux*; Mining Journal, *Country and Commodity Reports*; World Bureau of Metal Statistics, *World Metal Statistics* and *Metallstatistik*; publications of the Interstate Statistical Committee of the CIS, the United States Geological Survey, and the United Nations Statistics Division.

In addition, information has been obtained from the websites of the following organisations, companies, statistical offices and government departments: United Nations; Kalin & Plastic Clay Europe; International Iron and Steel Institute (now known as the World Steel Association); Eurofer; World Nuclear Association; Barytes Association; Eurostat; European Aggregates Association; Energy Information Agency; Inmet Mining; Aluminium de Grece; New Boliden; Eurozinc Mining Corporation; Rio Narcea; Lundin Mining; Vereinigung der Österreichischen Zementindustrie, Austria; Federation de l'Industrie Cementiere Belge, Belgium; Statistics Belgium; Czech Republic Statistical Office; Statistics Denmark; Danish Energy Agency, Denmark; Geological Survey of Finland; Fédération des Minéraux, Mineraux Industrielles et Metaux non Ferreux, France; Comité Professionnel de Pétrole, France; Ministère de l'Economie, des Finances et de l'Industrie, France; Unicem, France; Infociments, France; Statistisches Bundesamt Deutschland, Germany; National Statistical Service of Greece; Federacciai, Italy; Unione Petrolifera, Italy; Istituto Nazionale di Statistica, Italy; Stattec, Luxembourg; Centraal Bureau voor de Statistiek, Netherlands; Staatsstoezicht op de Mijnen, Netherlands; Statistisk Sentralbyra, Norway; Geological Survey of Norway; Instituto Nacional de Estatística, Portugal; Statistical Office of the Republic of Slovenia; Unesid, Spain; Sveriges Geologiska Undersökning, Sweden; Jernkontoret, Sweden; Statistiska Centralbyrån, Sweden; CemSuisse, Switzerland; Department for Business, Innovation and Skills, United Kingdom; Office for National Statistics, United Kingdom; The Crown Estate, United Kingdom.

## Units

The Statistics shown in this volume are expressed in metric units. The following factors are given for converting to non-metric units:

tonnes  $\times 0.9842$  = long tons

tonnes  $\times 1.1023$  = short tons

kilograms  $\times 2.2046$  = pounds

kilograms  $\times 32.1507$  = troy ounces

cubic metres  $\times 35.3147$  = cubic feet

1 tonne of crude petroleum equals on average 7 barrels of crude petroleum

1 flask mercury = 34.5 kilograms

1 metric ton unit = 10 kilograms

Conversion of national currencies to pounds sterling has been made using the annual average factors shown for each country in *International Financial Statistics* published by the International Monetary Fund.

## Symbols

|        |   |
|--------|---|
| ...    | figures not available   |
| 0      | quantity less than half unit shown  |
| —      | nil   |
| *      | estimated   |
| BGS    | British Geological Survey   |
| c.i.f. | Cost, Insurance and Freight. The seller's price includes the cost of the goods, the insurance of the goods to their destination port, and the cost of freight.          |
| f.o.b. | Free on Board. The seller is responsible for the cost of delivering goods to the ship. The buyer is responsible for transportation and insurance costs from that point. |

# Table notes for country tables

## Aggregates – production

- (1) So far as possible, these statistics include construction sands; gravel, pebbles, shingle and flint; crushed stone used for concrete aggregates, roadstone and other construction use; granules, chippings and powders, listed under Prodcom codes 14211190, 14211210, 14211230, 14211250, 14211290
- (2) Where official sources show more than one series for aggregates the higher series has generally been used in this compilation
- (3) Where marine sands and gravels have been identified, these are included
- (4) Information may be incomplete or absent due to reporting methods, confidentiality or lack of available information. All EU33 countries produce sand and gravel and crushed rock
- (5) Production from many small operations are not officially compiled. The minimum number of employees for which establishments are required to report production varies between different countries and can also vary from year to year within a country
- (6) Quantities of sand from sand and gravel operations may be discarded due to low demand. This may or may not be included in the statistics

## Aggregates - exports and imports

- (1) These statistics include construction sands; pebbles, gravel, shingle, flint; crushed rock; granules, chippings and powders covered by the Harmonised System codes 2505.90, 2517.10, 2517.41 and 2517.49
- (2) Exports include marine dredged sand and gravel landed at foreign ports

## Bauxite - production

- (1) Including production of refractory bauxite

## Alumina - production

- (1) Where possible figures show the alumina equivalent ( $\text{Al}_2\text{O}_3$ ) of total hydrate produced, whether or not calcined

## Bauxite, alumina and aluminium - exports and imports

- (1) Except where alumina hydrate is separately specified, national trade figures for alumina can be considered as inclusive of hydrate
- (2) The term 'unwrought' aluminium corresponds to item 7601 of the Harmonised System and comprises ingots, blocks, unwrought bars, etc.
- (3) Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys

## Antimony - mine production

- (1) Including antimony content of antimonial lead alloys

## White arsenic - production

- (1) Including calculated trioxide equivalent of arsenic metal produced except where this would involve double counting

## Arsenic - exports and imports

- (1) Data relating to arsenic are not fully recorded by many countries

## Barytes - production

- (1) Small quantities of witherite may be included

## Barytes - exports and imports

- (1) Trade in barytes is reported under item 2511 of the Harmonised System and is described as 'barytes and witherite'. However, only small quantities of witherite are traded

## Bentonite and fuller's earth - production

- (1) Bentonites consist of montmorillonite (one of the smectite group of clay minerals) and occur in two main varieties, calcium bentonite, the most commonly occurring, and sodium bentonite, industrially the more important
- (2) Calcium bentonite can be converted to sodium bentonite by a sodium-exchange process
- (3) In some countries, such as the United Kingdom, calcium bentonite is known as fuller's earth, a term which is also used to refer attapulgite, a mineralogically distinct clay mineral but exhibiting similar properties

## Bentonite and fuller's earth - exports and imports

- (1) See notes 1 - 3 under production
- (2) The figures refer to natural and sodium-exchanged bentonite, and fuller's earth, Harmonised System 2508.10 and 2580.20
- (3) Activated bentonite and fuller's earth, Harmonised System 3802.90 are excluded
- (4) Some countries are believed to include sodium-exchanged bentonite, often referred to as activated bentonite, under Harmonised System 3802.90, e.g. Italy
- (5) From 2007 Harmonised System 2508.20, used for fuller's earth, is no longer available

## Bismuth - mine production

- (1) In some instances the figures are derived from reported bismuth content of refined and impure metal plus recoverable in ores and concentrates exported
- (2) Production for some countries may include bismuth produced from imported ores but it is thought that any resulting duplication is insignificant in the countries shown

## Bromine - exports and imports

- (1) Trade in bromine is not separately distinguished from other halogens by many countries

## Cadmium - production

- (1) Data exclude secondary metal

## Chromium - exports and imports

- (1) Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys

## Coal - production

- (1) There is no international agreement as to the separate definition of lignite and brown coal. In some cases they are distinguished. Elsewhere both may be aggregated under one or other term

## Coal - exports

- (1) Excludes bunker shipments

## Cobalt metal - production

- (1) In addition, several countries including the United Kingdom, Finland and France are known to produce substantial amounts of cobalt compounds

## Copper - smelter production

- (1) Primary metal in the form of blister and anode produced from concentrates is shown, and may include copper produced from scrap but this is excluded when it can be separately identified

## Refined copper - production

- (1) Figures relate to both primary and secondary refined copper, whether electrolytic or fire refined. Metal recovered from secondary materials by remelting alone is excluded

## Copper - exports and imports

- (1) The term ‘unwrought’ copper corresponds to items 7402, 7403 and 7405 of the Harmonised System and includes both unrefined (including blister) and refined copper
- (2) The term ‘unwrought’, as used here, includes alloys unless these are separately specified. The term ‘scrap’ includes scrap alloys

#### Diamond - exports and imports

- (1) Carats have been used as the unit except where the only obtainable figure is the value. In these cases the national currency figure has been converted to £ sterling
- (2) See explanatory notes regarding currency conversion
- (3) The term ‘Dust’ corresponds to item 7105.10 of the Harmonised System and includes both natural and synthetic diamond dust

#### Gold - mine production

- (1) In several countries substantial amounts of gold produced in small operations are not recorded in the official statistics

#### Gold - exports and imports

- (1) The term ‘metal’ includes both unwrought and partly worked gold and alloys but excludes gold coin
- (2) Kilograms have been used as the unit except where the only obtainable figure is the value. In these cases the national currency figure has been converted to £ sterling.
- (3) See explanatory notes regarding currency conversion

#### Graphite - production

- (1) Including all forms of amorphous and crystalline graphite but excluding synthetic material

#### Graphite - exports and imports

- (1) Excluding synthetic graphite

#### Gypsum - production

- (1) Some countries produce large quantities of synthetic gypsum. Where possible, this output is excluded

#### Gypsum - exports & imports

- (1) The term ‘crude’ may include some anhydrite

#### Pig iron - production

- (1) Sponge iron and direct reduced iron (DRI) are included where these have been separately identified

#### Crude steel - production

- (1) Figures include production from scrap unless otherwise indicated

#### Iron, steel and ferro-alloys - exports and imports

- (1) The term ‘ingots, blooms, billets’ corresponds to items 7206, 7207, 7218 and 7224 of the Harmonised System which includes those of alloy and high carbon steel

#### Refined Lead - production

- (1) Figures relate to both primary and secondary refined lead and include the lead content of antimonial lead. Metal recovered from materials by remelting alone is excluded

#### Lead - exports and imports

- (1) The term ‘unwrought’ lead corresponds to item 7801 of the Harmonised System and comprises base bullion, pigs, unwrought bars, etc
- (2) The term ‘unwrought’, as used here, includes alloys unless these are separately identified.

#### Magnesite and magnesia - exports and imports

- (1) The term ‘magnesia’, as used here, includes dead-burned, sintered and caustic-burned (caustic calcined) material

#### Manganese - exports and imports

- (1) Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys

#### Mercury - production

- (1) Several countries are believed to have unrecorded production of mercury from copper electrowinning processes

#### Mica - exports and imports

- (1) Data show unmanufactured mica and include sheet, block, splittings, ground and waste, unless these are separately specified. Mica powder is included under the term ‘ground’

#### Molybdenum - exports and imports

- (1) Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys

#### Nickel - smelter/refinery production

- (1) Data relate to refined nickel plus the nickel content of ferro-nickel, nickel oxide and nickel salts

#### Nickel - exports and imports

- (1) The term ‘unwrought’ nickel corresponds to item 7502 of the Harmonised System which excludes all electro-plating anodes
- (2) Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys

#### Crude petroleum - production

- (1) The figures include natural gas liquids

#### Natural gas - production

- (1) Flared or reinjected gas is excluded as far as possible

#### Natural Gas - exports and imports

- (1) This table includes both liquified natural gas (HS code: 271111) in tonnes and natural gas in gaseous state (HS code 271121) in tonnes of oil equivalent
- (2) To convert figures from million tonnes (of oil equivalent) to billion m<sup>3</sup>, multiply by 1.11

#### Platinum group metals - exports and imports

- (1) The term ‘Platinum’ and/or ‘Platinum metals’ includes unwrought, partly worked and alloys
- (2) Kilograms have been used as the unit except where the only obtainable figure is the value. In these cases the national currency figure has been converted to £ sterling.
- (3) See explanatory notes regarding currency conversion

#### Rare earths - exports and imports

- (1) Rare earths are here taken to include yttrium and scandium

#### Salt - production

- (1) Refined salt is excluded
- (2) Salt is known to be produced in many countries for which statistics are not available.

#### Sillimanite minerals - production

- (1) A number of other countries produce sillimanite minerals but details of output are not reported

#### Sillimanite minerals - exports and imports

- (1) ‘Sillimanite minerals’ is understood to include any or all of andalusite, kyanite, sillimanite and mullite

#### Silver - exports and imports

- (1) Excluding silver coin but including silver shipped for minting
- (2) The term ‘metal’ includes both unwrought and partly worked silver and alloys

Tantalum and niobium - exports and imports

- (1) Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys

Tin - exports and imports

- (1) The term ‘unwrought’ tin corresponds to item 8001 of the Harmonised System and comprises ingots, pigs, unwrought bars, sticks, etc

Titanium minerals - production

- (1) The figures refer to gross tonnage of titanium concentrates

Titanium - exports and imports

- (1) Significant quantities of titanium slag are traded, but it is not always possible to identify this material in national trade accounts
- (2) So far as possible, the term ‘oxides’, includes oxides and oxide based pigments classified under Harmonised System items 2823 and 3206.10
- (3) Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys

Tungsten - exports and imports

- (1) Significant amounts of tungsten are traded in the forms of ammonium paratungstate (APT) and carbide. Though statistics are included where available, most countries do not separately distinguish these forms in their trade accounts
- (2) Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys

Uranium – mine production

- (1) Excludes uranium production from decommissioning operations.

Vanadium - exports and imports

- (1) The term ‘pentoxide’ also includes vanadium oxides and hydroxides, if any
- (2) Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys

Zinc - exports and imports

- (1) The term ‘unwrought’ zinc corresponds to item 7901 of the Harmonised System and comprises blocks, pigs, slabs, etc

Zirconium - exports and imports

- (1) Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys

## **STATISTICAL TABLES BY COUNTRY**

Austria

## Austria

### Production

| Commodity                  | Units                    | 2005       | 2006       | 2007       | 2008       | 2009        |
|----------------------------|--------------------------|------------|------------|------------|------------|-------------|
| Primary aggregates         |                          |            |            |            |            |             |
| Sand and gravel (a)        | tonnes                   | 29 065 350 | 27 281 864 | 29 230 545 | 32 440 624 | 30 457 247  |
| Crushed rock (a)           | tonnes                   | 25 093 602 | 26 536 938 | 25 248 136 | 33 867 686 | 33 046 433  |
| Cement                     |                          |            |            |            |            |             |
| Cement clinker             | tonnes                   | 90 053     | 188 588    | 221 684    | 287 911    | 167 641     |
| Cement, finished           | tonnes                   | 4 676 768  | 5 293 370  | 5 518 303  | 6 131 257  | 5 230 755   |
| Coal                       |                          |            |            |            |            |             |
| Brown coal and lignite (b) | tonnes                   | 13 931     | 7 854      | —          | —          | —           |
| Copper, refined            | tonnes                   | 72 300     | 72 600     | 81 400     | 106 700    | 96 200      |
| Graphite                   | tonnes                   | —          | —          | —          | (c) 250    | (c) 750     |
| Gypsum                     |                          |            |            |            |            |             |
| Gypsum                     | tonnes                   | 911 162    | 936 072    | 1 006 416  | 1 022 983  | (d) 910 945 |
| Anhydrite                  | tonnes                   | 106 032    | 135 380    | 57 428     | 64 276     | ...         |
| Iron ore (e)               | tonnes                   | 2 047 950  | 2 092 996  | 2 152 825  | 2 032 671  | 2 002 131   |
| Pig iron                   | tonnes                   | 5 444 000  | 5 547 000  | 5 908 000  | 5 795 000  | 4 353 000   |
| Crude steel                | tonnes                   | 7 031 000  | 7 129 000  | 7 577 000  | 7 593 000  | 5 662 000   |
| Ferro-alloys               |                          |            |            |            |            |             |
| Ferro- molybdenum          | tonnes                   | 5 000      | 5 000      | 5 000      | 4 500      | 4 000       |
| Ferro-nickel               | tonnes                   | 2 500      | 2 500      | 3 000      | 2 000      | 2 500       |
| Ferro-vanadium             | tonnes                   | 6 250      | 6 250      | 6 500      | 6 300      | 6 200       |
| Kaolin                     | tonnes                   | 16 410     | 17 431     | 16 929     | 16 460     | 18 148      |
| Lead, refined              | tonnes                   | * 24 000   | * 22 000   | * 22 000   | * 22 000   | * 22 000    |
| Magnesite                  | tonnes                   | 693 754    | 769 188    | 811 556    | 837 476    | 544 716     |
| Nickel, smelter/refinery   | tonnes                   | 1 000      | 900        | 900        | 500        | 700         |
| Crude petroleum            | tonnes                   | 933 040    | 856 270    | 853 549    | 861 639    | 905 031     |
| Natural gas                | million m <sup>3</sup>   | 1 654      | 1 765      | 1 835      | 1 544      | 1 559       |
| Salt                       |                          |            |            |            |            |             |
| Rock salt                  | tonnes                   | 1 497      | 1 336      | 1 172      | 503        | —           |
| Salt in brine              | tonnes                   | 771 455    | 764 103    | 735 724    | 866 674    | 1 035 044   |
| Sulphur and pyrites        |                          |            |            |            |            |             |
| Recovered (f)              | tonnes (sulphur content) | 54 377     | 50 097     | 50 501     | 48 024     | 48 624      |
| Talc                       | tonnes                   | 166 569    | 159 447    | 153 409    | 154 577    | 111 388     |
| Tungsten, mine             | tonnes (metal content)   | 1 280      | 1 153      | 1 117      | 1 122      | 887         |

Note(s)

(1) Austria is believed to produce arsenic and bentonite

- (a) Sales
- (b) Coal; all forms
- (c) Crude
- (d) Including anhydrite
- (e) Including micaceous iron oxide
- (f) From petroleum refining and/or Natural gas

### Exports

| Commodity                    | Units  | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------------------------|--------|-----------|-----------|-----------|-----------|-----------|
| Primary aggregates           | tonnes | 2 745 393 | 3 086 027 | 3 394 988 | 3 130 358 | 2 634 211 |
| Aluminium and bauxite        |        |           |           |           |           |           |
| Bauxite                      | tonnes | 980       | 765       | 1 225     | 1 202     | 546       |
| Unwrought                    | tonnes | 6 616     | 7 630     | 8 294     | 4 120     | 2 332     |
| Unwrought alloys             | tonnes | 125 796   | 119 058   | 111 571   | 109 757   | 98 966    |
| Scrap                        | tonnes | 67 434    | 80 200    | 91 960    | 90 825    | 118 028   |
| Antimony                     |        |           |           |           |           |           |
| Metal                        | tonnes | 1 089     | 3         | 1         | 0         | —         |
| Barytes                      | tonnes | 1 407     | 5 830     | 3 023     | 2 440     | 1 276     |
| Bentonite and fuller's earth |        |           |           |           |           |           |
| Bentonite                    | tonnes | 10 173    | 8 112     | 5 589     | 5 225     | 4 350     |
| Bismuth                      |        |           |           |           |           |           |
| Metal                        | tonnes | 8         | 0         | 12        | 1         | 1         |

## Exports continued

| Commodity                    | Units     | 2005        | 2006        | 2007        | 2008        | 2009        |
|------------------------------|-----------|-------------|-------------|-------------|-------------|-------------|
| Cement                       |           |             |             |             |             |             |
| Cement clinkers              | tonnes    | 32 877      | 136 381     | 189 450     | 243 906     | 146 991     |
| Portland cement              | tonnes    | 151 330     | 201 687     | 314 112     | 344 338     | 272 440     |
| Other cement                 | tonnes    | 53 951      | 38 926      | 59 361      | 82 570      | 56 934      |
| Chromium                     |           |             |             |             |             |             |
| Ores and concentrates        | tonnes    | 276         | 136         | 491         | 833         | 333         |
| Metal                        | tonnes    | 8 893       | 11 770      | 14 739      | 6 596       | 5 845       |
| Cobalt                       |           |             |             |             |             |             |
| Metal                        | tonnes    | 5           | 10          | 19          | 31          | 60          |
| Copper                       |           |             |             |             |             |             |
| Matte and cement             | tonnes    | 2 901       | 651         | 2 323       | 719         | 3 109       |
| Unwrought                    | tonnes    | 83 750      | 84 104      | 82 985      | 114 978     | 115 697     |
| Unwrought alloys             | tonnes    | 604         | 2 509       | 1 239       | 938         | 1 058       |
| Scrap                        | tonnes    | 33 274      | 39 169      | 38 642      | 35 582      | 50 748      |
| Diamond                      |           |             |             |             |             |             |
| Unsorted                     | carats    | £188 000    | £211 000    | £85 000     | £71 000     | £189 000    |
| Gem, cut                     | carats    | £2 895 000  | £3 157 000  | £2 792 000  | £5 778 000  | £4 053 000  |
| Dust                         | carats    | £406 000    | £45 000     | £115 000    | £165 000    | £260 000    |
| Diatomite                    | tonnes    | 5 375       | 4 171       | 4 455       | 3 043       | 3 286       |
| Feldspar                     | tonnes    | 18 998      | 17 977      | 15 058      | 15 194      | 14 025      |
| Gold                         |           |             |             |             |             |             |
| Metal                        | kilograms | 8 500       | 11 100      | 14 900      | 18 700      | 18 800      |
| Waste and scrap              | kilograms | 5 500       | 600         | 17 300      | 2 200       | 2 700       |
| Graphite                     | tonnes    | 7 082       | 7 416       | 7 460       | 8 853       | 6 260       |
| Gypsum                       |           |             |             |             |             |             |
| Crude                        | tonnes    | 21 433      | 30 002      | 89 128      | 26 402      | 20 694      |
| Calcined                     | tonnes    | 94 207      | 99 013      | 121 473     | 89 906      | 78 839      |
| Iodine                       | kilograms | 37          | 600         | 300         | 100         | 300         |
| Iron, steel and ferro-alloys |           |             |             |             |             |             |
| Pig iron                     | tonnes    | 6 614       | 5 695       | 6 958       | 7 539       | 2 354       |
| Ferro-alloys                 | tonnes    | 9 476       | 10 218      | 9 100       | 7 541       | 5 953       |
| Silicon metal                | tonnes    | 628         | 1 884       | 5 166       | 5 412       | 4 795       |
| Ingots, blooms, billets      | tonnes    | 484 431     | 303 284     | 286 765     | 284 063     | 187 410     |
| Scrap                        | tonnes    | 1 024 301   | 1 140 091   | 1 279 775   | 1 351 725   | 1 067 926   |
| Kaolin                       | tonnes    | 3 019       | 3 649       | 2 292       | 2 445       | 8 954       |
| Lead                         |           |             |             |             |             |             |
| Unwrought                    | tonnes    | 10 746      | 13 129      | 13 629      | 13 844      | 12 512      |
| Scrap                        | tonnes    | 1 514       | 1 027       | 1 018       | 600         | 2 173       |
| Magnesite and magnesia       |           |             |             |             |             |             |
| Magnesite                    | tonnes    | 1 338       | 1 231       | 760         | 602         | 1 746       |
| Magnesia                     | tonnes    | 59 283      | 45 311      | 57 964      | 28 779      | 26 716      |
| Manganese                    |           |             |             |             |             |             |
| Metal                        | tonnes    | 5 470       | 306         | 116         | 130         | 225         |
| Mercury                      | kilograms | 4 100       | 214         | 5 000       | 200         | 2 000       |
| Mica                         | tonnes    | 4 915       | 4 102       | 4 234       | 4 274       | 3 328       |
| Molybdenum                   |           |             |             |             |             |             |
| Metal (a)                    | tonnes    | * 4 700     | * 3 000     | * 3 500     | * 3 000     | * 1 800     |
| Natural gas                  | tonnes    | 1 082 286   | 1 645 995   | 2 688 210   | 2 812 303   | 2 164 960   |
| Nickel                       |           |             |             |             |             |             |
| Unwrought (b)                | tonnes    | 226         | 197         | 333         | 225         | 265         |
| Scrap                        | tonnes    | 1 927       | 2 337       | 2 208       | 1 910       | 1 775       |
| Phosphate rock               | tonnes    | 1           | 942         | —           | ...         | 621         |
| Platinum metals              |           |             |             |             |             |             |
| Platinum and platinum metals | kilograms | £12 253 000 | £14 817 000 | £30 801 000 | £52 298 000 | £38 485 000 |
| Waste and scrap              | kilograms | £397 000    | £281 000    | £621 000    | £621 000    | £295 000    |
| Potash                       |           |             |             |             |             |             |
| Potassic fertilisers         | tonnes    | 4 713       | 8 584       | 13 595      | 14 613      | 13 843      |
| Rare earths                  |           |             |             |             |             |             |
| Cerium compounds             | tonnes    | 1 980       | 1 569       | 2 596       | 2 702       | 2 035       |
| Other rare earth compounds   | tonnes    | 6 449       | 5 911       | 9 039       | 8 508       | 8 437       |
| Metals                       | tonnes    | 421         | 333         | 359         | 373         | 244         |
| Salt                         | tonnes    | 199 133     | 202 465     | 235 775     | 388 681     | 491 981     |
| Silver                       |           |             |             |             |             |             |
| Metal                        | kilograms | 62 600      | 120 400     | 115 100     | 95 000      | 98 600      |

Austria

Exports continued

| Commodity                          | Units  | 2005    | 2006    | 2007    | 2008    | 2009    |
|------------------------------------|--------|---------|---------|---------|---------|---------|
| Sulphur and pyrites                |        |         |         |         |         |         |
| Pyrites                            | tonnes | 2 641   | 2 881   | 2 645   | 2 672   | 1 740   |
| Sulphur                            | tonnes | 141     | 225     | 3 006   | 3 292   | 472     |
| Sulphur, sublimed and precipitated | tonnes | 9 245   | 4 881   | 492     | 3 906   | 7 423   |
| Talc                               | tonnes | 158 799 | 165 923 | 153 457 | 135 390 | 106 423 |
| Tantalum and niobium               |        |         |         |         |         |         |
| Tantalum                           | tonnes | —       | —       | 13      | 20      | 35      |
| Tin                                |        |         |         |         |         |         |
| Unwrought (b)                      | tonnes | 116     | 110     | 167     | 177     | 71      |
| Scrap                              | tonnes | 62      | 125     | 103     | 141     | 53      |
| Titanium                           |        |         |         |         |         |         |
| Metal                              | tonnes | 317     | 513     | 576     | 717     | 203     |
| Oxides                             | tonnes | 3 457   | 3 976   | 4 885   | 6 444   | 5 344   |
| Tungsten                           |        |         |         |         |         |         |
| Metal (a)                          | tonnes | * 2 100 | * 2 000 | * 1 600 | * 1 600 | * 4 300 |
| Zinc                               |        |         |         |         |         |         |
| Unwrought (b)                      | tonnes | 13 469  | 19 981  | 14 682  | 13 794  | 5 703   |
| Scrap                              | tonnes | 3 559   | 4 329   | 2 132   | 8 176   | 6 052   |

Note(s)

(a) BGS estimates, based on known imports into certain countries

(b) Including alloys

## Imports

| Commodity                    | Units     | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Primary aggregates           | tonnes    | 2 516 839 | 2 622 855 | 3 961 223 | 3 447 013 | 2 924 359 |
| Aluminium and bauxite        |           |           |           |           |           |           |
| Bauxite                      | tonnes    | 36 123    | 25 291    | 16 717    | 21 727    | 2 370     |
| Alumina                      | tonnes    | 41 269    | 45 777    | 49 728    | 55 639    | 27 193    |
| Alumina hydrate              | tonnes    | 10 125    | 12 821    | 16 056    | 20 205    | 13 219    |
| Unwrought                    | tonnes    | 82 597    | 113 047   | 140 286   | 154 792   | 103 145   |
| Unwrought alloys             | tonnes    | 214 611   | 235 053   | 250 209   | 218 902   | 175 583   |
| Scrap                        | tonnes    | 150 412   | 157 256   | 161 995   | 170 315   | 168 055   |
| Antimony                     |           |           |           |           |           |           |
| Metal                        | tonnes    | 74        | 51        | 104       | 63        | 64        |
| Oxide                        | tonnes    | 263       | 271       | 277       | 245       | 192       |
| Barytes                      | tonnes    | 5 863     | 12 550    | 4 898     | 6 234     | 2 733     |
| Bentonite and fuller's earth |           |           |           |           |           |           |
| Bentonite                    | tonnes    | 58 344    | 60 667    | 58 727    | 68 703    | 66 575    |
| Fuller's earth               | tonnes    | 374       | 427       | ...       | ...       | ...       |
| Bismuth                      |           |           |           |           |           |           |
| Metal                        | tonnes    | 62        | 114       | 42        | 148       | 80        |
| Bromine                      | kilograms | 222 000   | 228 600   | 463 900   | 488 000   | 65 300    |
| Cement                       |           |           |           |           |           |           |
| Cement clinkers              | tonnes    | 532 745   | 487 406   | 520 714   | 456 127   | 404 998   |
| Portland cement              | tonnes    | 860 087   | 686 652   | 626 723   | 753 529   | 639 545   |
| Other cement                 | tonnes    | 43 083    | 31 100    | 39 568    | 40 766    | 52 715    |
| Chromium                     |           |           |           |           |           |           |
| Ores and concentrates        | tonnes    | 21 398    | 37 326    | 39 071    | 42 008    | 25 891    |
| Metal                        | tonnes    | 4 440     | 8 879     | 14 480    | 8 006     | 4 325     |
| Coal                         |           |           |           |           |           |           |
| Hard coal (a)                | tonnes    | 4 108 821 | 3 912 731 | 4 509 917 | 4 118 906 | 4 082 877 |
| Lignite                      | tonnes    | 2 139     | 2 294     | 53 331    | 46 392    | 72 734    |
| Briquettes                   | tonnes    | 96 318    | 101 162   | 13 045    | 26 474    | 30 538    |
| Cobalt                       |           |           |           |           |           |           |
| Metal                        | tonnes    | 694       | 438       | 631       | 740       | 331       |
| Oxides                       | tonnes    | 5         | 7         | 4         | 40        | 5         |
| Copper                       |           |           |           |           |           |           |
| Unwrought, unrefined         | tonnes    | 20 081    | 26 508    | 26 678    | 39 590    | 24 445    |
| Unwrought, refined           | tonnes    | 21 176    | 29 298    | 20 614    | 8 855     | 4 868     |
| Unwrought alloys             | tonnes    | 2 260     | 2 979     | 2 485     | 1 866     | 1 617     |
| Scrap                        | tonnes    | 82 787    | 88 684    | 91 043    | 113 109   | 134 063   |

## Imports continued

| Commodity                                | Units     | 2005       | 2006       | 2007       | 2008         | 2009        |
|--|-----------|------------|------------|------------|--------------|-------------|
| Diamond                                  |           |            |            |            |              |             |
| Unsorted                                 | carats    | £1 218 000 | £978 000   | £957 000   | £1 648 000   | £543 000    |
| Gem, cut                                 | carats    | £5 743 000 | £5 892 000 | £6 405 000 | £8 881 000   | £9 795 000  |
| Industrial                               | carats    | £706 000   | £841 000   | £884 000   | £473 000     | £313 000    |
| Dust                                     | carats    | 23 000 000 | 28 000 000 | 26 000 000 | 33 000 000   | 17 000 000  |
| Diatomite                                | tonnes    | 12 892     | 11 693     | 13 710     | 12 561       | 16 327      |
| Feldspar                                 | tonnes    | 1 549      | 2 220      | 3 816      | 1 928        | 1 933       |
| Fluorspar                                | tonnes    | 2 561      | 2 722      | 2 517      | 3 405        | 1 956       |
| Gold                                     |           |            |            |            |              |             |
| Metal                                    | kilograms | 22 100     | 9 300      | 30 900     | 72 300       | 86 500      |
| Waste and scrap                          | kilograms | 1 800      | 300        | 100        | 400          | 1 700       |
| Graphite                                 | tonnes    | 13 655     | 10 704     | 17 757     | 30 863       | 4 622       |
| Gypsum                                   |           |            |            |            |              |             |
| Crude                                    | tonnes    | 15 280     | 11 057     | 14 651     | 10 118       | 12 098      |
| Calcined                                 | tonnes    | 66 118     | 61 713     | 97 281     | 67 712       | 73 588      |
| Iodine                                   | kilograms | 92 700     | 173 600    | 145 500    | 139 700      | 204 100     |
| Iron ore (b)                             | tonnes    | 7 423 189  | 8 412 038  | 9 061 870  | 7 996 632    | 6 095 762   |
| Iron, steel and ferro-alloys             |           |            |            |            |              |             |
| Pig iron                                 | tonnes    | 51 982     | 40 133     | 69 614     | 43 663       | 30 084      |
| Sponge and powder                        | tonnes    | 25 214     | 20 542     | 31 775     | 56 471       | 13 980      |
| Ferro-chrome                             | tonnes    | 41 046     | 34 196     | 49 977     | 47 748       | 20 400      |
| Ferro-silico-magnesium                   | tonnes    | 678        | 522        | 1 746      | 2 021        | 1 843       |
| Ferro-manganese                          | tonnes    | 37 865     | 29 385     | 38 857     | 36 491       | 18 962      |
| Ferro-silico-manganese                   | tonnes    | 26 572     | 22 456     | 30 340     | 22 322       | 17 927      |
| Ferro-molybdenum                         | tonnes    | 617        | 1 632      | 1 370      | 1 552        | 801         |
| Ferro-niobium                            | tonnes    | 899        | 955        | 956        | 1 125        | 665         |
| Ferro-phosphorus                         | tonnes    | 1 749      | 1 520      | 1 692      | 2 011        | 1 095       |
| Ferro-silicon                            | tonnes    | 32 445     | 25 609     | 26 180     | 27 850       | 12 825      |
| Ferro-titanium and ferro-silico-titanium | tonnes    | 1 121      | 1 081      | 793        | 879          | 388         |
| Ferro-tungsten and ferro-silico-tungsten | tonnes    | 535        | 677        | 796        | 1 277        | 208         |
| Ferro-vanadium                           | tonnes    | 256        | 100        | 186        | 289          | 32          |
| Other ferro-alloys                       | tonnes    | 1 554      | 1 611      | 7          | 61           | 1           |
| Silicon metal                            | tonnes    | 11 698     | 12 937     | 16 581     | 15 601       | 7 288       |
| Ingots, blooms, billets                  | tonnes    | 108 004    | 132 901    | 208 910    | 191 426      | 46 762      |
| Scrap                                    | tonnes    | 1 113 082  | 1 089 942  | 1 371 393  | 1 629 170    | 1 196 327   |
| Kaolin                                   | tonnes    | 234 906    | 222 007    | 218 813    | 226 682      | 192 860     |
| Lead                                     |           |            |            |            |              |             |
| Unwrought                                | tonnes    | 23 062     | 29 184     | 27 015     | 27 475       | 21 580      |
| Scrap                                    | tonnes    | 1 068      | 890        | 661        | 263          | 826         |
| Lithium                                  |           |            |            |            |              |             |
| Carbonate                                | tonnes    | 182        | 199        | 248        | 333          | 327         |
| Magnesite and magnesia                   |           |            |            |            |              |             |
| Magnesite                                | tonnes    | 17 019     | 1 653      | 933        | 2 319        | 937         |
| Magnesia                                 | tonnes    | 188 449    | 213 760    | 317 952    | 248 037      | 21 708      |
| Manganese                                |           |            |            |            |              |             |
| Ores and concentrates                    | tonnes    | 110        | 368        | 383        | 215          | 184         |
| Metal                                    | tonnes    | 8 707      | 12 059     | 17 543     | 14 275       | 11 512      |
| Mercury                                  | kilograms | 1 600      | 2 000      | 4 400      | 200          | —           |
| Mica                                     | tonnes    | 512        | 615        | 722        | 857          | 492         |
| Molybdenum                               |           |            |            |            |              |             |
| Metal                                    | tonnes    | 599        | 1 342      | 1 243      | 1 502        | 430         |
| Nickel                                   |           |            |            |            |              |             |
| Mattes, sinters etc                      | tonnes    | 460        | 684        | 443        | 476          | 216         |
| Unwrought (c)                            | tonnes    | 6 903      | 7 599      | 7 874      | 10 511       | 4 142       |
| Scrap                                    | tonnes    | 447        | 670        | 605        | 1 164        | 367         |
| Oxides                                   | tonnes    | 312        | 195        | 78         | 82           | 11          |
| Crude petroleum                          | tonnes    | 7 836 688  | 7 698 169  | 7 645 010  | 7 945 639    | 7 428 183   |
| Natural gas                              | tonnes    | 6 922 117  | 7 593 331  | 6 988 269  | 7 136 000    | 7 566 509   |
| Phosphate rock                           | tonnes    | 67 853     | 94 630     | 106 018    | (d)* 158 000 | (d)* 58 000 |
| Platinum metals                          |           |            |            |            |              |             |
| Platinum and platinum metals             | kilograms | 7 200      | 8 400      | 1 100      | 700          | 1 600       |
| Potash                                   |           |            |            |            |              |             |
| Fertiliser salts                         | tonnes    | 23 685     | 23 423     | ...        | ...          | ...         |
| Sulphate                                 | tonnes    | 13 377     | 17 797     | 13 026     | 10 432       | 4 241       |
| Chloride                                 | tonnes    | 144 234    | 133 514    | 123 747    | 119 347      | 28 000      |
| Other potassic fertilisers               | tonnes    | 2 336      | 3 199      | 26 199     | 25 862       | 9 139       |

Austria

Imports continued

| Commodity                          | Units     | 2005     | 2006     | 2007     | 2008     | 2009     |
|------------------------------------|-----------|----------|----------|----------|----------|----------|
| Rare earths                        |           |          |          |          |          |          |
| Cerium compounds                   | tonnes    | 3 055    | 2 009    | 3 431    | 3 487    | 1 985    |
| Other rare earth compounds         | tonnes    | 2 685    | 2 618    | 3 762    | 3 589    | 2 471    |
| Metals                             | tonnes    | 374      | 403      | 512      | 561      | 269      |
| Salt                               | tonnes    | 210 736  | 429 515  | 143 538  | 105 335  | 230 979  |
| Sillimanite minerals               | tonnes    | 2 194    | 2 100    | 3 160    | 2 639    | 1 353    |
| Silver                             |           |          |          |          |          |          |
| Metal                              | kilograms | 127 900  | 168 300  | 151 600  | 441 900  | 431 500  |
| Sulphur and pyrites                |           |          |          |          |          |          |
| Pyrites                            | tonnes    | 3 251    | 3 537    | 3 809    | 3 754    | 1 614    |
| Sulphur                            | tonnes    | 60 054   | 70 350   | 84 659   | 89 038   | 68 881   |
| Sulphur, sublimed and precipitated | tonnes    | 9 589    | 10 850   | 5 556    | 17 842   | 14 961   |
| Talc                               | tonnes    | 50 768   | 49 900   | 58 500   | 68 797   | 37 648   |
| Tantalum and niobium               |           |          |          |          |          |          |
| Tantalum                           | tonnes    | 0        | 0        | 70       | —        | —        |
| Tin                                |           |          |          |          |          |          |
| Unwrought (c)                      | tonnes    | 1 926    | 2 177    | 2 486    | 2 679    | 1 915    |
| Titanium                           |           |          |          |          |          |          |
| Titanium minerals                  | tonnes    | 349      | 575      | 451      | 520      | 362      |
| Metal                              | tonnes    | 1 691    | 1 873    | 3 851    | 2 455    | 1 346    |
| Oxides                             | tonnes    | 25 640   | 27 485   | 26 856   | 30 861   | 28 258   |
| Tungsten                           |           |          |          |          |          |          |
| Metal                              | tonnes    | 825      | 670      | 548      | 435      | 369      |
| Vanadium                           |           |          |          |          |          |          |
| Vanadiferous residues              | tonnes    | * 29 000 | * 29 000 | * 37 000 | * 36 000 | * 35 000 |
| Ores and concentrates              | tonnes    | 1 565    | 792      | 543      | 460      | ...      |
| Pentoxide (d)                      | tonnes    | * 260    | * 50     | ...      | * —      | * 30     |
| Zinc                               |           |          |          |          |          |          |
| Unwrought                          | tonnes    | 58 838   | 61 856   | 65 391   | 61 877   | 37 864   |
| Unwrought alloys                   | tonnes    | 28 955   | 41 002   | 33 939   | 33 911   | 27 886   |
| Zirconium                          |           |          |          |          |          |          |
| Concentrates                       | tonnes    | 1 200    | 1 285    | 2 054    | 2 163    | 1 298    |

Note(s)

- (a) Including anthracite
- (b) Including burnt pyrites
- (c) Including alloys
- (d) BGS estimates, based on known exports from certain countries

## Belgium

### Production

| Commodity               | Units                    | 2005       | 2006       | 2007         | 2008         | 2009         |
|-------------------------|--------------------------|------------|------------|--------------|--------------|--------------|
| Primary aggregates      |                          |            |            |              |              |              |
| Sand and gravel (a) (b) | tonnes                   | 8 330 239  | 8 636 966  | * 8 600 000  | * 8 600 000  | * 8 000 000  |
| Crushed rock (a) (c)    | tonnes                   | 38 826 735 | 39 937 651 | * 43 000 000 | * 42 000 000 | * 40 000 000 |
| White arsenic           | tonnes                   | * 1 000    | * 1 000    | * 1 000      | * 1 000      | * 1 000      |
| Cement                  |                          |            |            |              |              |              |
| Cement, finished        | tonnes                   | 6 587 000  | 6 965 000  | 6 930 000    | 7 135 000    | 6 113 000    |
| Cobalt metal (d)        | tonnes                   | 3 298      | 2 840      | 2 825        | 3 020        | 2 150        |
| Copper, refined         | tonnes                   | 382 900    | 378 600    | 394 000      | 395 800      | 373 700      |
| Pig iron                | tonnes                   | 7 254 000  | 7 516 000  | 6 577 000    | 6 977 000    | 7 407 000    |
| Crude steel             | tonnes                   | 10 422 000 | 11 631 000 | 10 692 000   | 10 673 000   | 5 635 000    |
| Kaolin                  | tonnes                   | * 300 000  | * 300 000  | * 300 000    | * 300 000    | * 300 000    |
| Lead, refined           | tonnes                   | 103 000    | 101 000    | 117 000      | 104 000      | 109 000      |
| Selenium metal          | tonnes                   | * 200      | * 200      | * 200        | * 200        | * 200        |
| Sulphur and pyrites     |                          |            |            |              |              |              |
| Recovered (e) (f)       | tonnes (sulphur content) | 376 000    | 391 000    | 395 000      | 394 000      | 322 000      |
| Tin, smelter            | tonnes                   | 7 700      | 8 000      | 8 400        | 9 200        | 8 700        |
| Slab Zinc               | tonnes                   | 222 000    | 238 000    | 254 000      | 251 000      | 137 000      |

#### Note(s)

- (a) Deliveries
- (b) Includes construction sand and silica sand. Excludes gravel
- (c) Includes gravel
- (d) Some metal production in China is recorded in Belgium
- (e) From metal sulphide processing
- (f) From petroleum refining and/or Natural gas

## Luxembourg

### Production

| Commodity        | Units  | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------------|--------|-----------|-----------|-----------|-----------|-----------|
| Cement           |        |           |           |           |           |           |
| Cement, finished | tonnes | 767 000   | 796 000   | 908 000   | 907 500   | 929 820   |
| Cement clinker   | tonnes | 834 000   | 816 000   | 817 000   | 761 800   | 706 426   |
| Crude steel      | tonnes | 2 194 000 | 2 802 000 | 2 858 000 | 2 582 000 | 2 141 000 |

## Belgium-Luxembourg

### Exports

| Commodity             | Units  | 2005       | 2006       | 2007       | 2008       | 2009       |
|-----------------------|--------|------------|------------|------------|------------|------------|
| Primary aggregates    | tonnes | 14 573 270 | 15 452 434 | 16 081 634 | 15 843 526 | 13 721 097 |
| Aluminium and bauxite |        |            |            |            |            |            |
| Bauxite               | tonnes | 46 717     | 53 680     | 75 904     | 53 444     | 223 631    |
| Alumina               | tonnes | 10 714     | 18 151     | 13 629     | 4 858      | 5 686      |
| Unwrought             | tonnes | 267 811    | 210 559    | 164 800    | 160 684    | 121 708    |
| Unwrought alloys      | tonnes | 38 889     | 29 871     | 268 119    | 175 510    | 108 301    |
| Scrap                 | tonnes | 149 914    | 186 613    | 208 272    | 190 301    | 44 530     |
| Antimony              |        |            |            |            |            |            |
| Ores and concentrates | tonnes | 77         | 360        | 301        | 228        | 530        |
| Metal                 | tonnes | 693        | 1 580      | 974        | 494        | 533        |
| Oxide                 | tonnes | 11 526     | 12 661     | 11 643     | 9 636      | 8 811      |
| Arsenic               |        |            |            |            |            |            |
| Metallic arsenic      | tonnes | 101        | 2 542      | 117        | 77         | 42         |

## Belgium-Luxembourg

## Exports continued

| Commodity                    | Units     | 2005        | 2006        | 2007        | 2008       | 2009       |
|------------------------------|-----------|-------------|-------------|-------------|------------|------------|
| Asbestos                     |           |             |             |             |            |            |
| Unmanufactured               | tonnes    | ...         | 164         | 17          | —          | —          |
| Barytes                      | tonnes    | 4 016       | 19 004      | 506         | 1 381      | 2 638      |
| Bentonite and fuller's earth |           |             |             |             |            |            |
| Bentonite                    | tonnes    | 26 049      | 32 407      | 18 504      | 34 034     | 36 264     |
| Fuller's earth               | tonnes    | 501         | 303         | ...         | ...        | ...        |
| Bismuth                      |           |             |             |             |            |            |
| Metal                        | tonnes    | * —         | * —         | 355         | 162        | 413        |
| Bromine                      | kilograms | 19 124 000  | 20 738 100  | 17 430 000  | 20 963 000 | 17 466 300 |
| Cadmium                      |           |             |             |             |            |            |
| Metal                        | tonnes    | 639         | 298         | 181         | 442        | 452        |
| Sulphide                     | tonnes    | 29          | 7           | ...         | ...        | ...        |
| Cement                       |           |             |             |             |            |            |
| Cement clinkers              | tonnes    | 833 257     | 544 183     | 1 078 149   | 1 075 183  | 994 914    |
| Portland cement              | tonnes    | 1 715 979   | 1 811 884   | 2 087 094   | 2 069 807  | 1 841 912  |
| Other cement                 | tonnes    | 612 642     | 609 236     | 606 807     | 821 103    | 555 773    |
| Chromium                     |           |             |             |             |            |            |
| Ores and concentrates        | tonnes    | 10 777      | 14 485      | 11 405      | 48 086     | 15 562     |
| Metal                        | tonnes    | 782         | 520         | 635         | 772        | 1 228      |
| Coal                         |           |             |             |             |            |            |
| Anthracite                   | tonnes    | 1 463 646   | 1 521 523   | 1 454 115   | 1 400 377  | 675 097    |
| Other coal                   | tonnes    | 2 948 838   | 3 734 518   | 3 670 706   | 4 416 217  | 4 640 602  |
| Briquettes                   | tonnes    | 11 682      | 7 923       | 8 214       | 11 331     | 11 453     |
| Cobalt                       |           |             |             |             |            |            |
| Ore                          | tonnes    | 543         | 197         | 1 204       | 1 112      | 1 227      |
| Metal                        | tonnes    | (a)* 3 100  | 4 329       | 5 104       | 4 393      | 2 714      |
| Oxides (a)                   | tonnes    | * 5 500     | * 5 800     | * 6 000     | * 7 000    | * 4 600    |
| Copper                       |           |             |             |             |            |            |
| Ores and concentrates        | tonnes    | 1 887       | 1 778       | 1 061       | 2 155      | 4 594      |
| Matte and cement             | tonnes    | 401         | 1 026       | 1 104       | 4 139      | 2 432      |
| Unwrought, unrefined         | tonnes    | 4 499       | 8 833       | 10 730      | 10 534     | 11 571     |
| Unwrought, refined           | tonnes    | 241 363     | 236 804     | 199 650     | 257 907    | 248 501    |
| Unwrought alloys             | tonnes    | 14 463      | 13 419      | 15 081      | 12 929     | 9 264      |
| Scrap                        | tonnes    | 177 787     | 163 418     | 194 666     | 164 502    | 112 142    |
| Diamond                      |           |             |             |             |            |            |
| Unsorted                     | carats    | £785 000    | £889 000    | ...         | £503 000   | £2 292 000 |
| Gem, rough                   | carats    | 147 000 000 | 128 000 000 | 135 000 000 | 99 500 000 | 85 500 000 |
| Gem, cut                     | carats    | 5 500 000   | 4 500 000   | 8 035 000   | 5 950 000  | 5 178 000  |
| Industrial                   | carats    | 5 500 000   | 2 000 000   | 5 000 000   | 4 100 000  | 1 600 000  |
| Dust                         | carats    | 40 000 000  | 35 500 000  | 27 000 000  | 23 000 000 | 18 000 000 |
| Diatomite                    | tonnes    | 1 330       | 1 949       | 1 145       | 2 633      | 1 919      |
| Feldspar                     | tonnes    | ...         | ...         | ...         | 994        | 1 137      |
| Fluorspar                    | tonnes    | 26 395      | 110 965     | 105 822     | 156 066    | 84 491     |
| Gold                         |           |             |             |             |            |            |
| Metal                        | kilograms | 100         | 300         | 16 200      | 56 100     | 38 000     |
| Waste and scrap              | kilograms | 458 400     | 438 000     | 128 400     | 134 500    | 29 100     |
| Graphite                     | tonnes    | 834         | 460         | 438         | 3 815      | 2 634      |
| Gypsum                       |           |             |             |             |            |            |
| Crude                        | tonnes    | 46 691      | 62 303      | 54 953      | 89 627     | 113 954    |
| Calcined                     | tonnes    | 2 709       | 4 707       | 4 271       | 4 369      | 2 484      |
| Iodine                       | kilograms | 3 460 200   | 3 272 600   | 2 633 100   | 3 560 100  | 2 582 300  |
| Iron ore                     | tonnes    | 81 560      | 43 555      | 41 440      | 85 701     | 178 567    |
| Iron, steel and ferro-alloys |           |             |             |             |            |            |
| Pig iron                     | tonnes    | 201 577     | 230 490     | 275 411     | 283 034    | 106 120    |
| Sponge and powder            | tonnes    | 15 850      | 19 750      | 36 997      | 20 773     | 14 655     |
| Ferro-chrome                 | tonnes    | 31 851      | 38 401      | 54 201      | 38 927     | 20 403     |
| Ferro-silico-chrome          | tonnes    | 9 107       | 17 169      | 15 141      | 12 463     | 15 645     |
| Ferro-silico-magnesium       | tonnes    | 11          | 52          | 6 744       | 6 172      | 782        |
| Ferro-manganese              | tonnes    | 11 674      | 11 122      | 16 126      | 24 024     | 9 923      |
| Ferro-silico-manganese       | tonnes    | 29 858      | 41 422      | 52 431      | 40 777     | 31 374     |
| Ferro-molybdenum             | tonnes    | 22 420      | 22 679      | 20 153      | 17 759     | 16 936     |
| Ferro-silicon                | tonnes    | 21 812      | 39 501      | 68 385      | 54 905     | 47 214     |
| Other ferro-alloys           | tonnes    | 6 689       | 6 498       | 1 988       | 5 401      | 1 651      |
| Silicon metal                | tonnes    | 9 095       | 6 765       | 5 869       | 6 673      | 5 954      |
| Ingots, blooms, billets      | tonnes    | 639 936     | 859 247     | 1 089 364   | 958 406    | 296 473    |
| Scrap                        | tonnes    | 2 712 683   | 3 052 438   | 3 268 578   | 3 754 867  | 3 360 083  |

## Exports continued

| Commodity                          | Units     | 2005       | 2006       | 2007       | 2008       | 2009      |
|------------------------------------|-----------|------------|------------|------------|------------|-----------|
| Kaolin                             | tonnes    | 777 451    | 628 479    | 612 062    | 1 030 344  | 783 924   |
| Lead                               |           |            |            |            |            |           |
| Ores and concentrates              | tonnes    | 96 610     | 113 576    | 96 059     | 114 105    | 148 562   |
| Unwrought                          | tonnes    | 110 372    | 98 077     | 111 344    | 95 883     | 108 442   |
| Scrap                              | tonnes    | 9 142      | 15 071     | 20 780     | 18 639     | 22 085    |
| Lithium                            |           |            |            |            |            |           |
| Oxides                             | tonnes    | 1 545      | 1 236      | 1 370      | 1 281      | 781       |
| Carbonate                          | tonnes    | 4 999      | 5 107      | 4 915      | 3 567      | 3 042     |
| Magnesite and magnesia             |           |            |            |            |            |           |
| Magnesite                          | tonnes    | 575        | 1 520      | 1 958      | 2 392      | 1 467     |
| Magnesia                           | tonnes    | 52 665     | 75 011     | 64 293     | 81 186     | 59 644    |
| Manganese                          |           |            |            |            |            |           |
| Ores and concentrates              | tonnes    | 10 648     | 5 138      | 15 819     | 8 578      | 5 192     |
| Metal                              | tonnes    | 1 826      | 7 045      | 4 060      | 1 947      | 837       |
| Mercury                            | kilograms | 8 800      | 42 300     | 3 300      | 110 800    | 1 400     |
| Mica                               | tonnes    | 3 226      | 3 225      | 3 226      | 2 127      | 1 562     |
| Molybdenum                         |           |            |            |            |            |           |
| Ores and concentrates              | tonnes    | 17 683     | 24 320     | 22 340     | 11 314     | 15 581    |
| Metal                              | tonnes    | 342        | 194        | 556        | 243        | 105       |
| Oxides                             | tonnes    | 687        | 905        | 829        | 379        | 91        |
| Nickel                             |           |            |            |            |            |           |
| Ores and concentrates              | tonnes    | 853        | 877        | 1 423      | 2 750      | 6 883     |
| Mattes, sinters etc                | tonnes    | 209        | 559        | 68         | 115        | 921       |
| Unwrought                          | tonnes    | 13 376     | 14 324     | 15 642     | 13 298     | 11 883    |
| Unwrought alloys                   | tonnes    | 2 510      | 1 994      | 2 401      | 2 152      | 2 479     |
| Scrap                              | tonnes    | 1 008      | 3 656      | 4 954      | 2 872      | 1 212     |
| Oxides                             | tonnes    | 702        | 685        | 476        | 1 196      | 843       |
| Crude petroleum                    | tonnes    | 2 616 977  | 2 833 897  | 2 422 211  | 2 496 349  | 2 390 390 |
| Natural gas                        | tonnes    | 17 889 507 | 39 448 874 | 20 807 227 | 59 248 950 | 7 659 170 |
| Phosphate rock                     | tonnes    | 108 238    | 82 232     | 115 628    | 84 619     | 15 794    |
| Platinum metals                    |           |            |            |            |            |           |
| Platinum                           | kilograms | 700        | 2 600      | 4 100      | 7 800      | 2 200     |
| Platinum metals                    | kilograms | 2 100      | 3 000      | 6 400      | 6 400      | 3 500     |
| Waste and scrap                    | kilograms | 305 700    | 934 000    | 592 300    | 649 800    | 339 900   |
| Potash                             |           |            |            |            |            |           |
| Fertiliser salts                   | tonnes    | 127        | ...        | ...        | ...        | ...       |
| Sulphate (a)                       | tonnes    | * 628 000  | * 424 000  | * 433 000  | * 311 000  | * 135 000 |
| Chloride                           | tonnes    | 116 930    | 102 641    | 137 689    | 84 791     | 58 882    |
| Other potassic fertilisers         | tonnes    | 9 819      | 10 560     | 6 043      | 7 034      | 175       |
| Rare earths                        |           |            |            |            |            |           |
| Rare earth compounds               | tonnes    | 413        | 302        | 802        | 408        | 335       |
| Metals                             | tonnes    | 187        | 444        | 253        | 299        | 273       |
| Salt                               | tonnes    | 121 103    | 94 196     | 55 208     | 61 231     | 125 475   |
| Sillimanite minerals               | tonnes    | 77 463     | 48 825     | 47 141     | 62 423     | 39 809    |
| Silver                             |           |            |            |            |            |           |
| Ores and concentrates              | kilograms | 7 200      | 8 000      | 47 600     | 33 100     | 6 200     |
| Metal                              | kilograms | 12 600     | 45 200     | 31 200     | 42 000     | 69 900    |
| Sulphur and pyrites                |           |            |            |            |            |           |
| Sulphur                            | tonnes    | 47 927     | 38 494     | 18 393     | 73 317     | 74 240    |
| Sulphur, sublimed and precipitated | tonnes    | 290        | 465        | 531        | 368        | 345       |
| Talc                               | tonnes    | 168 900    | 144 081    | 165 105    | 139 619    | 113 000   |
| Tantalum and niobium               |           |            |            |            |            |           |
| Tantalum                           | tonnes    | ...        | 0          | 3          | 26         | 3         |
| Tin                                |           |            |            |            |            |           |
| Concentrates                       | tonnes    | 286        | 118        | 68         | 161        | 42        |
| Unwrought                          | tonnes    | 6 814      | 1 633      | 2 734      | 7 274      | 4 753     |
| Unwrought alloys                   | tonnes    | 388        | 7 421      | 7 072      | 2 448      | 5 000     |
| Scrap                              | tonnes    | 362        | 216        | 148        | 233        | 127       |
| Titanium                           |           |            |            |            |            |           |
| Titanium minerals                  | tonnes    | 131 597    | 100 498    | 129 722    | 100 210    | 58 687    |
| Titanium slag                      | tonnes    | 4 219      | 20 830     | 3 209      | 5 085      | ...       |
| Metal                              | tonnes    | 1 093      | 1 490      | 2 074      | 1 174      | 1 096     |
| Oxides                             | tonnes    | 366 632    | 401 614    | 422 885    | 401 906    | 369 495   |
| Tungsten                           |           |            |            |            |            |           |
| Metal                              | tonnes    | 452        | 484        | 387        | 405        | 422       |
| Carbide                            | tonnes    | 25         | 62         | 54         | 36         | 32        |

Belgium-Luxembourg

Exports continued

| Commodity             | Units  | 2005    | 2006    | 2007    | 2008    | 2009    |
|-----------------------|--------|---------|---------|---------|---------|---------|
| Vanadium              |        |         |         |         |         |         |
| Ores and concentrates | tonnes | 2 600   | 791     | 297     | 327     | 131     |
| Zinc                  |        |         |         |         |         |         |
| Ores and concentrates | tonnes | 511 730 | 540 810 | 479 825 | 735 050 | 785 125 |
| Unwrought             | tonnes | 10 058  | 13 275  | 22 114  | 8 379   | 13 626  |
| Scrap                 | tonnes | 37 754  | 57 851  | 42 673  | 15 900  | 17 067  |
| Zirconium             |        |         |         |         |         |         |
| Concentrates          | tonnes | 22 965  | 27 054  | 23 645  | 16 056  | 28 907  |
| Metal                 | tonnes | 222     | 144     | 251     | 157     | 125     |

Note(s)

(a) BGS estimates, based on known imports into certain countries

## Imports

| Commodity                    | Units     | 2005       | 2006       | 2007       | 2008       | 2009       |
|------------------------------|-----------|------------|------------|------------|------------|------------|
| Primary aggregates           | tonnes    | 20 831 220 | 22 303 782 | 23 810 336 | 27 170 472 | 23 932 936 |
| Aluminium and bauxite        |           |            |            |            |            |            |
| Bauxite                      | tonnes    | 87 376     | 59 874     | 85 963     | 88 894     | 40 840     |
| Alumina                      | tonnes    | 10 879     | 28 030     | 28 985     | 14 918     | 8 104      |
| Alumina hydrate              | tonnes    | 37 831     | 45 723     | 46 815     | 36 100     | 30 199     |
| Unwrought                    | tonnes    | 497 013    | 451 309    | 485 128    | 372 140    | 356 107    |
| Unwrought alloys             | tonnes    | 265 937    | 286 345    | 329 777    | 245 870    | 130 970    |
| Scrap                        | tonnes    | 158 799    | 197 942    | 380 317    | 320 354    | 252 712    |
| Antimony                     |           |            |            |            |            |            |
| Metal                        | tonnes    | 10 722     | 11 543     | 11 915     | 8 851      | 7 523      |
| Oxide                        | tonnes    | 1 735      | 2 524      | 2 342      | 920        | 750        |
| Arsenic                      |           |            |            |            |            |            |
| Metallic arsenic             | tonnes    | 164        | 105        | 466        | 65         | 17         |
| Asbestos                     |           |            |            |            |            |            |
| Unmanufactured               | tonnes    | 13         | 200        | 200        | 6          | 166        |
| Barytes                      | tonnes    | 26 832     | 32 196     | 39 041     | 33 685     | 20 867     |
| Bentonite and fuller's earth |           |            |            |            |            |            |
| Bentonite                    | tonnes    | 45 282     | 48 871     | 42 816     | 74 621     | 63 062     |
| Fuller's earth               | tonnes    | 8 028      | 7 036      | ...        | ...        | ...        |
| Bismuth                      |           |            |            |            |            |            |
| Metal                        | tonnes    | 27         | 109        | 111        | 190        | 9          |
| Bromine                      | kilograms | 25 108 000 | 24 553 300 | 21 768 500 | 26 540 000 | 20 618 700 |
| Cadmium                      |           |            |            |            |            |            |
| Metal                        | tonnes    | 4 779      | 3 948      | 5 038      | 5 511      | 3 439      |
| Sulphide                     | tonnes    | 29         | 13         | ...        | ...        | ...        |
| Cement                       |           |            |            |            |            |            |
| Cement clinkers              | tonnes    | 442 986    | 545 575    | 798 670    | 664 109    | 702 461    |
| Portland cement              | tonnes    | 898 871    | 897 315    | 892 981    | 988 208    | 836 178    |
| Other cement                 | tonnes    | 275 177    | 277 825    | 391 850    | 315 620    | 308 913    |
| Chromium                     |           |            |            |            |            |            |
| Ores and concentrates        | tonnes    | 18 464     | 22 053     | 20 761     | 56 183     | 19 050     |
| Metal                        | tonnes    | 1 245      | 1 264      | 1 188      | 1 114      | 874        |
| Coal                         |           |            |            |            |            |            |
| Anthracite                   | tonnes    | 3 293 344  | 2 608 840  | 2 864 554  | 3 999 349  | 1 453 024  |
| Other coal                   | tonnes    | 8 997 265  | 10 534 424 | 9 679 689  | 10 252 899 | 5 890 867  |
| Lignite                      | tonnes    | 229 192    | 279 982    | 278 700    | 372 271    | 263 260    |
| Briquettes                   | tonnes    | 14 120     | 29 848     | 26 260     | 21 776     | 32 151     |
| Cobalt                       |           |            |            |            |            |            |
| Ore                          | tonnes    | 263        | 107        | 153        | 222        | 274        |
| Metal (a)                    | tonnes    | * 4 700    | * 4 300    | * 6 600    | * 4 600    | * 3 200    |
| Oxides (a)                   | tonnes    | * 1 300    | * 600      | * 600      | * 600      | * 100      |

## Imports continued

| Commodity                                | Units     | 2005        | 2006        | 2007        | 2008         | 2009         |
|--|-----------|-------------|-------------|-------------|--------------|--------------|
| Copper                                   |           |             |             |             |              |              |
| Ores and concentrates                    | tonnes    | 5 225       | 17 263      | 21 137      | 12 039       | 17 380       |
| Matte and cement                         | tonnes    | 370         | 1 112       | 6 360       | 4 485        | 36 357       |
| Unwrought, unrefined                     | tonnes    | 237 645     | 267 505     | 224 439     | 206 660      | 212 932      |
| Unwrought, refined                       | tonnes    | 9 515       | 21 818      | 28 746      | 54 463       | 79 524       |
| Unwrought alloys                         | tonnes    | 1 906       | 1 083       | 3 324       | 1 898        | 2 678        |
| Scrap                                    | tonnes    | 257 738     | 300 260     | 328 676     | 258 551      | 222 735      |
| Diamond                                  |           |             |             |             |              |              |
| Unsorted                                 | carats    | £37 971 000 | £38 530 000 | £32 612 000 | £27 166 000  | £27 288 000  |
| Gem, rough                               | carats    | 134 500 000 | 67 500 000  | 63 500 000  | 55 000 000   | 44 000 000   |
| Gem, cut                                 | carats    | 6 500 000   | 6 000 000   | 29 500 000  | 91 500 000   | 109 500 000  |
| Industrial                               | carats    | £46 159 000 | £44 325 000 | £35 072 000 | £41 557 000  | £24 632 000  |
| Dust                                     | carats    | £8 989 000  | £7 464 000  | £9 606 000  | £13 140 000  | £9 500 000   |
| Diatomite                                | tonnes    | 8 192       | 7 450       | 8 633       | 8 506        | 6 708        |
| Feldspar                                 | tonnes    | 25 876      | 21 483      | 26 151      | 34 988       | 27 237       |
| Fluorspar                                | tonnes    | 70 149      | 123 392     | 130 437     | 170 562      | 92 546       |
| Gold                                     |           |             |             |             |              |              |
| Metal                                    | kilograms | 14 400      | 9 600       | 18 300      | 53 000       | 23 100       |
| Waste and scrap                          | kilograms | (a)* 34 000 | 147 099     | 362 364     | (a)* 124 000 | (a)* 116 000 |
| Graphite                                 | tonnes    | 3 040       | 1 836       | 2 323       | 3 625        | 5 049        |
| Gypsum                                   |           |             |             |             |              |              |
| Crude                                    | tonnes    | 768 702     | 811 923     | 1 118 788   | 1 232 112    | 704 775      |
| Calcined                                 | tonnes    | 460 067     | 449 433     | 521 942     | 531 049      | 440 258      |
| Iodine                                   | kilograms | 3 332 800   | 3 513 200   | 2 774 500   | 3 586 200    | 3 189 200    |
| Iron ore (b)                             | tonnes    | 9 384 885   | 11 387 178  | 9 583 857   | 12 337 572   | 3 279 543    |
| Iron, steel and ferro-alloys             |           |             |             |             |              |              |
| Pig iron                                 | tonnes    | 330 709     | 560 116     | 552 212     | 548 129      | 282 010      |
| Sponge and powder                        | tonnes    | 48 915      | 102 543     | 33 539      | 22 021       | 19 441       |
| Ferro-chrome                             | tonnes    | 220 896     | 342 280     | 452 118     | 378 018      | 185 436      |
| Ferro-silico-chrome                      | tonnes    | 9 587       | 19 190      | 17 149      | 15 483       | 0            |
| Ferro-silico-magnesium                   | tonnes    | 1 656       | 2 040       | 12 168      | 10 433       | 5 000        |
| Ferro-manganese                          | tonnes    | 60 564      | 54 402      | 65 987      | 89 088       | 22 459       |
| Ferro-silico-manganese                   | tonnes    | 60 454      | 69 526      | 149 121     | 92 194       | 62 548       |
| Ferro-molybdenum                         | tonnes    | 5 199       | 5 929       | 5 405       | 2 339        | 2 225        |
| Ferro-nickel                             | tonnes    | 61 454      | 73 384      | 90 808      | 89 430       | 46 248       |
| Ferro-niobium                            | tonnes    | 849         | 936         | 3 252       | 2 003        | 1 225        |
| Ferro-phosphorus                         | tonnes    | 1 700       | 1 607       | 2 185       | 10 421       | 3 124        |
| Ferro-silicon                            | tonnes    | 79 901      | 109 389     | 150 254     | 126 700      | 65 734       |
| Ferro-titanium and ferro-silico-titanium | tonnes    | 2 141       | 3 016       | 3 553       | 5 595        | 2 182        |
| Ferro-vanadium                           | tonnes    | 650         | 338         | 615         | 693          | 396          |
| Other ferro-alloys                       | tonnes    | 7 499       | 6 887       | —           | —            | 160          |
| Silicon metal                            | tonnes    | 18 563      | 20 117      | 17 307      | 20 098       | 19 002       |
| Ingots, blooms, billets                  | tonnes    | 3 452 850   | 2 876 977   | 3 500 081   | 3 540 429    | 2 331 000    |
| Scrap                                    | tonnes    | 3 761 788   | 4 297 928   | 7 416 312   | 8 095 587    | 5 508 621    |
| Kaolin                                   | tonnes    | 962 536     | 868 255     | 862 714     | 1 476 705    | 912 100      |
| Lead                                     |           |             |             |             |              |              |
| Ores and concentrates                    | tonnes    | 134 300     | 120 136     | 108 165     | 97 474       | 192 496      |
| Unwrought                                | tonnes    | 18 807      | 15 081      | 36 620      | 30 543       | 18 267       |
| Scrap                                    | tonnes    | 26 699      | 41 070      | 55 153      | 25 873       | 34 096       |
| Lithium                                  |           |             |             |             |              |              |
| Oxides                                   | tonnes    | 2 014       | 1 201       | 1 784       | 1 851        | 1 179        |
| Carbonate                                | tonnes    | 6 205       | 5 357       | 5 895       | 4 414        | 3 410        |
| Magnesite and magnesia                   |           |             |             |             |              |              |
| Magnesite                                | tonnes    | 767         | 3 872       | 4 326       | 4 064        | 4 514        |
| Magnesia                                 | tonnes    | 84 730      | 152 330     | 101 911     | 141 283      | 104 627      |
| Manganese                                |           |             |             |             |              |              |
| Ores and concentrates                    | tonnes    | 66 840      | 65 462      | 79 022      | 83 909       | 61 980       |
| Metal                                    | tonnes    | 4 150       | 10 114      | 6 403       | 4 425        | 3 093        |
| Mercury                                  | kilograms | 18 658      | 44 852      | 8 369       | 133 278      | 16 212       |
| Mica                                     |           |             |             |             |              |              |
| Unmanufactured                           | tonnes    | 913         | 470         | 1 204       | 2 155        | 3 454        |
| Ground                                   | tonnes    | 2 996       | 2 646       | 3 461       | 5 410        | 3 507        |
| Waste                                    | tonnes    | ...         | ...         | 4 364       | 2 107        | 45           |
| Molybdenum                               |           |             |             |             |              |              |
| Ores and concentrates                    | tonnes    | 54 452      | 47 122      | 43 932      | 37 964       | 37 101       |
| Metal                                    | tonnes    | 383         | 490         | 752         | 360          | 344          |
| Oxides                                   | tonnes    | 2 072       | 2 618       | 2 796       | 2 075        | 968          |

## Imports continued

| Commodity                                | Units     | 2005       | 2006        | 2007        | 2008        | 2009        |
|--|-----------|------------|-------------|-------------|-------------|-------------|
| Nickel                                   |           |            |             |             |             |             |
| Mattes, sinters etc                      | tonnes    | 214        | 203         | 1 194       | 1 250       | 499         |
| Unwrought                                | tonnes    | 41 364     | 51 130      | 37 554      | 29 492      | 12 037      |
| Unwrought alloys                         | tonnes    | 822        | 483         | 427         | 734         | 734         |
| Scrap                                    | tonnes    | 1 221      | 271         | 9 946       | 566         | 288         |
| Oxides                                   | tonnes    | 324        | 349         | 241         | 618         | 565         |
| Crude petroleum                          | tonnes    | 32 376 844 | 33 843 960  | 34 847 067  | 35 556 838  | 32 376 844  |
| Natural gas                              | tonnes    | 31 896 566 | 32 123 464  | 29 397 014  | 29 615 925  | 32 320 773  |
| Phosphate rock                           | tonnes    | 1 688 029  | 1 299 125   | 1 512 076   | 1 458 336   | 579 427     |
| Platinum metals                          |           |            |             |             |             |             |
| Platinum                                 | kilograms | 88 976     | 6 421       | 13 300      | 28 600      | 5 900       |
| Platinum metals                          | kilograms | 2 873      | 4 061       | 2 000       | 100         | 200         |
| Potash                                   |           |            |             |             |             |             |
| Fertiliser salts                         | tonnes    | 17 331     | 2 628       | ...         | ...         | ...         |
| Sulphate                                 | tonnes    | 260 839    | 2 839       | 5 073       | 7 317       | 18 355      |
| Chloride                                 | tonnes    | 1 211 640  | 576 972     | 587 275     | 559 104     | 293 965     |
| Other potassic fertilisers               | tonnes    | 17 698     | 7 693       | 612         | 825         | 2 109       |
| Rare earths                              |           |            |             |             |             |             |
| Cerium compounds                         | tonnes    | 411        | 280         | 490         | 259         | 421         |
| Other rare earth compounds               | tonnes    | 139        | 138         | 353         | 142         | 292         |
| Ferro-cerium and other pyrophoric alloys | tonnes    | 5          | 5           | 2           | 3           | 62          |
| Metals                                   | tonnes    | 252        | 443         | 297         | 259         | 323         |
| Salt                                     | tonnes    | 1 315 385  | 2 275 674   | 1 230 983   | 1 220 421   | 1 371 028   |
| Sillimanite minerals                     | tonnes    | 81 538     | 50 726      | 52 899      | 68 986      | 40 981      |
| Silver                                   |           |            |             |             |             |             |
| Ores and concentrates                    | kilograms | 625        | 536 600     | 195 900     | 254 200     | 1 567 600   |
| Metal                                    | kilograms | 175 200    | 258 700     | 443 200     | 354 200     | 233 900     |
| Sulphur and pyrites                      |           |            |             |             |             |             |
| Sulphur, crude                           | tonnes    | 167 624    | ...         | ...         | 265 363     | ...         |
| Sulphur, refined                         | tonnes    | 322 649    | (c) 574 515 | (c) 506 662 | 351 577     | (c) 463 971 |
| Sulphur, sublimed and precipitated       | tonnes    | 127        | 156         | 311         | 1 852       | 750         |
| Talc                                     | tonnes    | 224 624    | 186 227     | 202 593     | 194 833     | 149 768     |
| Tin                                      |           |            |             |             |             |             |
| Concentrates                             | tonnes    | 377        | 154         | 17          | 318         | 16          |
| Unwrought                                | tonnes    | 1 210      | 1 312       | 1 657       | 1 112       | 1 364       |
| Unwrought alloys                         | tonnes    | 1 284      | 1 368       | 2 719       | 2 235       | 2 638       |
| Scrap                                    | tonnes    | 1 382      | 4 866       | 3 907       | 2 422       | 2 327       |
| Titanium                                 |           |            |             |             |             |             |
| Ilmenite                                 | tonnes    | —          | 720         | —           | 1 337       | 586         |
| Other titanium minerals                  | tonnes    | 165 711    | 156 771     | 221 173     | 203 355     | 109 443     |
| Metal                                    | tonnes    | 2 289      | 1 857       | 4 139       | 3 904       | 2 198       |
| Oxides                                   | tonnes    | 291 670    | 314 131     | 145 929     | 133 378     | 109 696     |
| Tungsten                                 |           |            |             |             |             |             |
| Metal                                    | tonnes    | 340        | 454         | 513         | 426         | 327         |
| Carbide                                  | tonnes    | 42         | 64          | 1 182       | 1 028       | 500         |
| Vanadium                                 |           |            |             |             |             |             |
| Ores and concentrates                    | tonnes    | 894        | 197         | 162         | 202         | 123         |
| Pentoxide                                | tonnes    | 267        | 12          | 64          | 38          | 94          |
| Metal                                    | tonnes    | 60         | 67          | ...         | ...         | ...         |
| Zinc                                     |           |            |             |             |             |             |
| Ores and concentrates                    | tonnes    | 1 182 083  | 1 109 923   | 1 100 875   | * 1 100 000 | * 550 000   |
| Unwrought                                | tonnes    | 46 505     | 73 894      | 218 660     | 211 576     | 243 790     |
| Unwrought alloys                         | tonnes    | 35 653     | 24 414      | 13 475      | 8 612       | 13 536      |
| Scrap                                    | tonnes    | 44 890     | 44 221      | 60 039      | 40 657      | 61 433      |
| Zirconium                                |           |            |             |             |             |             |
| Concentrates                             | tonnes    | 14 504     | 18 763      | 17 593      | 17 337      | 28 897      |
| Metal                                    | tonnes    | 605        | 556         | 469         | 433         | 214         |

## Note(s)

- (a) BGS estimates, based on known exports from certain countries  
 (b) Including burnt pyrites  
 (c) Including crude

## Bulgaria

### Production

| Commodity                    | Units                     | 2005       | 2006       | 2007        | 2008       | 2009       |
|------------------------------|---------------------------|------------|------------|-------------|------------|------------|
| Primary aggregates           |                           |            |            |             |            |            |
| Sand and gravel              | tonnes                    | 12 835 622 | 15 289 051 | 17 607 212  | 19 697 937 | 12 882 651 |
| Crushed rock                 | tonnes                    | 8 121 646  | 8 889 017  | 12 199 339  | 21 094 047 | 15 667 880 |
| Barytes                      | tonnes                    | 76 600     | 74 500     | 50 900      | 40 100     | 14 300     |
| Bentonite and fuller's earth | tonnes                    | 181 200    | 134 500    | 99 000      | 178 700    | 108 400    |
| Bentonite                    |                           |            |            |             |            |            |
| Bismuth, mine                | tonnes (metal content)    | * 40       | * 45       | * 45        | * 45       | ...        |
| Cadmium                      | tonnes                    | 319        | 320        | 318         | 376        | 413        |
| Cement                       |                           |            |            |             |            |            |
| Cement clinker               | tonnes                    | ...        | ...        | ...         | 3 509 817  | 1 858 850  |
| Cement, finished             | tonnes                    | 3 559 420  | 4 003 664  | * 4 290 000 | 4 900 336  | 2 660 176  |
| Coal                         |                           |            |            |             |            |            |
| Lignite                      | tonnes                    | 22 146 100 | 22 749 500 | 25 325 000  | 26 007 800 | 25 014 800 |
| Brown coal                   | tonnes                    | 2 469 200  | 2 556 900  | 2 833 500   | 2 643 200  | 2 243 800  |
| Copper, mine                 | tonnes (metal content)    | 112 536    | 123 571    | 116 157     | 107 195    | 110 652    |
| Copper, smelter              | tonnes                    | 225 000    | 217 000    | 217 600     | 257 100    | 256 200    |
| Copper, refined              | tonnes                    | 60 500     | 65 500     | 69 900      | 126 700    | 196 900    |
| Feldspar                     | tonnes                    | 72 867     | 93 091     | * 90 000    | * 90 000   | * 90 000   |
| Gold, mine                   | kilograms (metal content) | 3 868      | 3 818      | 3 964       | 4 160      | 4 482      |
| Gypsum                       | tonnes                    | 187 700    | 215 800    | 234 300     | 21 200     | 127 600    |
| Pig iron                     | tonnes                    | 1 115 000  | 1 147 000  | 1 069 000   | 441 000    | ...        |
| Crude steel                  | tonnes                    | 1 969 000  | 2 102 000  | 1 909 000   | 1 330 000  | 726 000    |
| Ferro-alloys                 |                           |            |            |             |            |            |
| Ferro-silicon                | tonnes                    | * 10 000   | * 10 000   | * 10 000    | * 10 000   | * 10 000   |
| Kaolin                       | tonnes                    | * 200 000  | * 240 000  | * 240 000   | * 220 000  | * 140 000  |
| Lead, mine (c)               | tonnes (metal content)    | 24 354     | 19 571     | 17 768      | 14 577     | 12 981     |
| Lead, refined                | tonnes                    | 81 000     | 76 000     | 87 000      | 90 900     | 83 100     |
| Manganese ore                | tonnes                    | 38 500     | 20 500     | 27 900      | 39 100     | 28 300     |
| Perlite                      | tonnes                    | 15 300     | 4 500      | 13 900      | 7 400      | 14 800     |
| Crude petroleum              | tonnes                    | 30 000     | 27 500     | 25 700      | 23 000     | 23 800     |
| Natural gas                  | million m <sup>3</sup>    | 573        | 519        | 295         | 218        | 15         |
| Salt                         | tonnes                    | 1 900 000  | 2 000 000  | 2 000 000   | 2 100 000  | 1 300 000  |
| Silver, mine                 | kilograms (metal content) | * 55 000   | * 65 000   | * 55 000    | * 55 000   | * 55 000   |
| Sulphur and pyrites          |                           |            |            |             |            |            |
| Recovered (a)                | tonnes (sulphur content)  | 312 000    | 340 000    | 359 000     | 352 000    | 379 000    |
| Recovered (b)                | tonnes (sulphur content)  | 30 000     | 35 000     | 35 000      | 30 000     | 35 000     |
| Zinc, mine (c)               | tonnes (metal content)    | 20 875     | 16 108     | 14 453      | 12 819     | 9 339      |
| Slab Zinc                    | tonnes                    | 92 500     | 85 900     | 98 100      | 101 700    | 92 700     |

#### Note(s)

(1) Bulgaria is believed to produce chromite, fluorspar, magnesite and platinum group metals

- (a) From metal sulphide processing
- (b) From petroleum refining and/or Natural gas
- (c) Metal content of ore

### Exports

| Commodity                    | Units  | 2005    | 2006    | 2007    | 2008    | 2009   |
|------------------------------|--------|---------|---------|---------|---------|--------|
| Primary aggregates           | tonnes | 160 032 | 282 018 | 330 088 | 268 120 | 76 129 |
| Aluminium and bauxite        |        |         |         |         |         |        |
| Unwrought alloys             | tonnes | 5 254   | 11 692  | 10 290  | 8 931   | 2 775  |
| Scrap                        | tonnes | 21 902  | 29 245  | 23 577  | 18 478  | 20 577 |
| Barytes                      | tonnes | 76 644  | 74 523  | 50 922  | 46 907  | 14 326 |
| Bentonite and fuller's earth |        |         |         |         |         |        |
| Bentonite                    | tonnes | 76 614  | 89 531  | 74 412  | 103 106 | 79 359 |
| Cadmium                      |        |         |         |         |         |        |
| Metal                        | tonnes | 316     | 369     | 434     | 374     | 569    |

## Bulgaria

## Exports continued

| Commodity                    | Units     | 2005     | 2006     | 2007     | 2008    | 2009     |
|------------------------------|-----------|----------|----------|----------|---------|----------|
| Cement                       |           |          |          |          |         |          |
| Cement clinkers              | tonnes    | 338 505  | 293 031  | 353 996  | 120 588 | 14 836   |
| Portland cement              | tonnes    | 455 824  | 334 013  | 52 803   | 130 932 | 109 923  |
| Other cement                 | tonnes    | 27       | 40       | 1 067    | 22 589  | 394      |
| Coal                         |           |          |          |          |         |          |
| Hard coal (a)                | tonnes    | 3 920    | 5 372    | 17 358   | 36 095  | 11 511   |
| Copper                       |           |          |          |          |         |          |
| Ores and concentrates        | tonnes    | 124 717  | 193 389  | 168 155  | 105 889 | 134 910  |
| Matte and cement             | tonnes    | 5 750    | 4 818    | 6 335    | 3 559   | 4 749    |
| Unwrought                    | tonnes    | 219 009  | 210 520  | 185 012  | 252 018 | 226 404  |
| Scrap                        | tonnes    | 8 244    | 13 163   | 11 590   | 10 547  | 10 717   |
| Feldspar                     | tonnes    | 452      | 6 159    | 22 519   | 16 912  | 15 007   |
| Gypsum                       |           |          |          |          |         |          |
| Crude and calcined           | tonnes    | 2 347    | 2 439    | 1 439    | 787     | 11 965   |
| Iodine                       | kilograms | 1 199    | 781      | 51 610   | 200     | 300      |
| Iron, steel and ferro-alloys |           |          |          |          |         |          |
| Pig iron                     | tonnes    | 51       | 44 549   | 62 032   | 23 553  | 1 420    |
| Ferro-silico-manganese       | tonnes    | 1 501    | 3 638    | 6 845    | 288     | ...      |
| Ferro-silicon                | tonnes    | 1 499    | 3 345    | 4 972    | 2 076   | 2 890    |
| Other ferro-alloys           | tonnes    | 72       | 180      | 2 072    | 550     | 9 867    |
| Silicon metal                | tonnes    | 15       | 11       | 2 374    | 46      | ...      |
| Ingots, blooms, billets      | tonnes    | 97 757   | 163 020  | 135 710  | 85 466  | 54 115   |
| Scrap                        | tonnes    | 784 778  | 722 261  | 677 347  | 740 414 | 510 997  |
| Kaolin                       | tonnes    | 124 899  | 149 559  | 160 372  | 139 069 | 119 736  |
| Lead                         |           |          |          |          |         |          |
| Ores and concentrates        | tonnes    | 6 165    | 10 900   | 23 417   | 9 555   | 4 188    |
| Unwrought                    | tonnes    | 69 825   | 65 400   | 66 384   | 80 972  | 77 713   |
| Manganese                    |           |          |          |          |         |          |
| Ores and concentrates        | tonnes    | 53 559   | 25 595   | 19 335   | 17 369  | 29 715   |
| Molybdenum                   |           |          |          |          |         |          |
| Metal                        | tonnes    | 105      | 87       | 99       | 123     | 132      |
| Nickel                       |           |          |          |          |         |          |
| Scrap                        | tonnes    | 12       | 4        | 20       | 48      | 364      |
| Platinum metals              |           |          |          |          |         |          |
| Waste and scrap (b)          | kilograms | * 31 400 | * 73 200 | * 94 700 | * 1 400 | * 44 000 |
| Salt                         | tonnes    | 10 090   | 16 020   | 13 943   | 8 239   | 2 689    |
| Silver                       |           |          |          |          |         |          |
| Metal                        | kilograms | ...      | ...      | 49 468   | 36 516  | 58 565   |
| Sulphur and pyrites          |           |          |          |          |         |          |
| Sulphur                      | tonnes    | 25 019   | 31 737   | 33 039   | 28 993  | 20 840   |
| Titanium                     |           |          |          |          |         |          |
| Metal                        | tonnes    | 9        | 4        | 28       | 835     | 2        |
| Zinc                         |           |          |          |          |         |          |
| Ores and concentrates        | tonnes    | ...      | 492      | 4 384    | 7 982   | 2 076    |
| Unwrought (c)                | tonnes    | 82 902   | 227 543  | 90 573   | 96 678  | 87 008   |
| Scrap                        | tonnes    | 1 576    | 1 854    | 1 511    | 1 293   | 2 226    |

## Note(s)

(a) Including anthracite

(b) BGS estimates, based on known imports into certain countries

(c) Including alloys

## Imports

| Commodity                    | Units     | 2005           | 2006           | 2007       | 2008      | 2009      |
|------------------------------|-----------|----------------|----------------|------------|-----------|-----------|
| Primary aggregates           | tonnes    | 17 200         | 19 383         | 41 782     | 41 256    | 22 189    |
| Aluminium and bauxite        |           |                |                |            |           |           |
| Alumina                      | tonnes    | 1 401          | 2 039          | 2 368      | 1 370     | 1 859     |
| Unwrought                    | tonnes    | 25 562         | 46 154         | 39 850     | 42 738    | 39 759    |
| Unwrought alloys             | tonnes    | 15 185         | 20 490         | 19 617     | 18 557    | 16 050    |
| Scrap                        | tonnes    | 1 449          | 2 179          | 3 554      | 4 028     | 3 014     |
| Antimony                     |           |                |                |            |           |           |
| Metal                        | tonnes    | ...            | 34             | 100        | 35        | 40        |
| Arsenic                      |           |                |                |            |           |           |
| Metallic arsenic             | tonnes    | 5              | 10             | 30         | 12        | 11        |
| Bentonite and fuller's earth |           |                |                |            |           |           |
| Bentonite                    | tonnes    | 1 178          | 1 455          | 2 979      | 3 386     | 2 422     |
| Fuller's earth               | tonnes    | 422            | 537            | ...        | ...       | ...       |
| Cement                       |           |                |                |            |           |           |
| Cement clinkers              | tonnes    | 180 254        | 586 194        | 123 806    | 248 737   | 45 002    |
| Portland cement              | tonnes    | 23 787         | 9 127          | 5 690      | 13 645    | 481 991   |
| Other cement                 | tonnes    | 1 128          | 1 665          | 1 829      | 1 110     | 955       |
| Chromium                     |           |                |                |            |           |           |
| Ores and concentrates        | tonnes    | 997            | 1 440          | 969        | 793       | 637       |
| Coal                         |           |                |                |            |           |           |
| Anthracite                   | tonnes    | 2 016 911      | 2 170 631      | 2 229 619  | 2 841 458 | 1 938 000 |
| Other coal                   | tonnes    | 1 853 556      | 2 221 526      | 2 415 165  | 2 054 649 | 1 130 146 |
| Briquettes                   | tonnes    | 986            | 61             | 112 769    | 66 678    | 10 238    |
| Copper                       |           |                |                |            |           |           |
| Ores and concentrates        | tonnes    | 632 255        | 581 055        | 539 325    | 609 258   | 635 039   |
| Matte and cement             | tonnes    | 562            | 5 003          | 10 025     | 34 997    | 15 160    |
| Unwrought                    | tonnes    | 18 613         | 19 735         | 28 226     | 30 422    | 8 016     |
| Scrap                        | tonnes    | 5 094          | 7 784          | 12 899     | 23 856    | 20 730    |
| Diamond                      |           |                |                |            |           |           |
| Dust                         | carats    | ...            | ...            | 14 770 306 | 7 623 860 | 4 940 300 |
| Diatomite                    | tonnes    | 1 312          | 1 156          | 436        | 587       | 404       |
| Feldspar                     | tonnes    | 34 723         | 40 416         | 35 851     | 31 346    | 54 178    |
| Fluorspar                    | tonnes    | 1 210          | 2 321          | 1 326      | 651       | 778       |
| Graphite                     | tonnes    | 319            | 433            | 250        | 158       | 132       |
| Gypsum                       |           |                |                |            |           |           |
| Crude                        | tonnes    | 18 684         | 10 088         | 8 240      | 12 223    | 15 830    |
| Calcined                     | tonnes    | 49 163         | 56 869         | 58 880     | 70 280    | 42 086    |
| Iodine                       | kilograms | 5 080          | 3 990          | 6 500      | 2 900     | 2 900     |
| Iron ore                     |           |                |                |            |           |           |
| Iron ore                     | tonnes    | 1 050 925      | 1 305 110      | 919 785    | 208 559   | 3 110     |
| Burnt pyrites                | tonnes    | 437 710        | 450 004        | 464 580    | 188 923   | 15 831    |
| Iron, steel and ferro-alloys |           |                |                |            |           |           |
| Pig iron                     | tonnes    | 19 624         | 15 278         | 26 932     | 27 941    | 6 736     |
| Sponge and powder            | tonnes    | 384            | 542            | 31 306     | 1 282     | 14 572    |
| Ferro-chrome                 | tonnes    | 836            | 1 088          | 916        | 656       | 182       |
| Ferro-manganese              | tonnes    | 5 540          | 6 133          | 7 981      | 4 206     | 3 137     |
| Ferro-silico-manganese       | tonnes    | 666            | 1 885          | 3 336      | 4 325     | 3 479     |
| Ferro-silicon                | tonnes    | 3 897          | 4 410          | 2 977      | 3 331     | 1 152     |
| Other ferro-alloys           | tonnes    | 1 140          | 1 789          | 2 390      | 1 906     | 1 033     |
| Silicon metal                | tonnes    | 585            | 9 733          | 873        | 763       | 247       |
| Ingots, blooms, billets      | tonnes    | 275 001        | 417 485        | 462 348    | 567 381   | 306 020   |
| Scrap                        | tonnes    | 108 450        | 188 698        | 295 555    | 237 055   | 202 276   |
| Kaolin                       | tonnes    | 76 231         | 91 831         | 29 717     | 28 748    | 20 623    |
| Lead                         |           |                |                |            |           |           |
| Ores and concentrates        | tonnes    | 83 398         | 100 736        | 92 929     | 119 522   | 63 185    |
| Unwrought                    | tonnes    | 10 723         | 11 305         | 15 854     | 15 529    | 10 182    |
| Scrap                        | tonnes    | 1 227          | 1 346          | 3 338      | 5 830     | 12 145    |
| Magnesite and magnesia       | tonnes    | 8 500          | 6 551          | 4 670      | 6 296     | 3 180     |
| Manganese                    |           |                |                |            |           |           |
| Ores and concentrates        | tonnes    | 13 631         | 17 367         | 27 602     | —         | 20        |
| Molybdenum                   |           |                |                |            |           |           |
| Metal                        | tonnes    | 108            | 73             | 47         | 15        | 47        |
| Nickel                       |           |                |                |            |           |           |
| Unwrought (a)                | tonnes    | 202            | 205            | 195        | 204       | 90        |
| Crude petroleum              | tonnes    | (b)* 3 752 000 | (b)* 4 866 000 | 7 162 499  | 7 262 658 | 5 770 397 |
| Phosphate rock               | tonnes    | 543 637        | 449 874        | 462 247    | 534 734   | 309 564   |

Bulgaria

Imports continued

| Commodity                    | Units     | 2005    | 2006    | 2007    | 2008    | 2009    |
|------------------------------|-----------|---------|---------|---------|---------|---------|
| Platinum metals              |           |         |         |         |         |         |
| Platinum and platinum metals | kilograms | 366     | 31      | 82 367  | 613     | 16      |
| Potash                       |           |         |         |         |         |         |
| Potassic fertilisers         | tonnes    | 7 794   | 9 102   | 4 845   | 4 633   | 1 970   |
| Salt                         | tonnes    | 165 727 | 181 801 | 71 848  | 103 007 | 102 272 |
| Silver                       |           |         |         |         |         |         |
| Metal                        | kilograms | ...     | ...     | 10 521  | 2 189   | 871     |
| Sulphur and pyrites          |           |         |         |         |         |         |
| Sulphur                      | tonnes    | 1 076   | 767     | 1 039   | 487     | 162     |
| Talc                         | tonnes    | 599     | 626     | 688     | 1 048   | 747     |
| Tin                          |           |         |         |         |         |         |
| Unwrought (a)                | tonnes    | 51      | 278     | 51      | 69      | 22      |
| Titanium                     |           |         |         |         |         |         |
| Titanium minerals            | tonnes    | 1 287   | 300     | 712     | 42      | 105     |
| Oxides                       | tonnes    | 3 959   | 4 750   | 5 398   | 5 955   | 5 329   |
| Zinc                         |           |         |         |         |         |         |
| Ores and concentrates        | tonnes    | 149 735 | 198 504 | 208 313 | 146 655 | 147 579 |
| Unwrought (a)                | tonnes    | 1 450   | 9 994   | 3 330   | 5 095   | 2 480   |
| Zirconium                    |           |         |         |         |         |         |
| Concentrates                 | tonnes    | 1 589   | 1 421   | 1 357   | 1 081   | 573     |

Note(s)

(a) Including alloys

(b) BGS estimates, based on known exports from certain countries

## Croatia

### Production

| Commodity                    | Units                    | 2005    | 2006    | 2007    | 2008      | 2009      |
|------------------------------|--------------------------|---------|---------|---------|-----------|-----------|
| Primary aggregates           |                          |         |         |         |           |           |
| Sand and gravel              | tonnes                   | ...     | ...     | ...     | 7 275 077 | 6 583 880 |
| Bentonite and fuller's earth |                          |         |         |         |           |           |
| Bentonite                    | tonnes                   | 17 391  | 16 410  | 19 578  | 19 759    | * 20 000  |
| Gypsum                       | tonnes                   | 196 133 | 170 351 | 170 721 | * 250 000 | 318 139   |
| Crude steel                  | tonnes                   | 73 640  | 80 516  | 76 252  | 121 759   | 51 583    |
| Crude petroleum              | tonnes                   | 980 486 | 950 859 | 911 207 | 867 027   | * 900 000 |
| Natural gas                  | million m <sup>3</sup>   | 2 384   | 2 714   | 2 892   | 1 229     | 1 238     |
| Salt                         | tonnes                   | 36 970  | 29 589  | 32 536  | 54 937    | 57 186    |
| Sulphur and pyrites          |                          |         |         |         |           |           |
| Recovered (a)                | tonnes (sulphur content) | 9 000   | 7 000   | 9 000   | 7 000     | 11 000    |

Note(s)

(a) From petroleum refining and/or Natural gas

### Exports

| Commodity                    | Units     | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Primary aggregates           | tonnes    | 1 908 732 | 2 390 517 | 3 334 229 | 2 950 159 | 3 087 216 |
| Aluminium and bauxite        |           |           |           |           |           |           |
| Scrap                        | tonnes    | 15 927    | 19 832    | 20 886    | 17 769    | 15 779    |
| Cement                       |           |           |           |           |           |           |
| Cement clinkers              | tonnes    | 196 594   | 244 043   | 310 378   | 235 377   | 169 394   |
| Portland cement              | tonnes    | 1 254 309 | 1 282 560 | 855 579   | 667 503   | 615 827   |
| Other cement                 | tonnes    | 92 074    | 89 957    | 94 185    | 468 597   | 276 981   |
| Copper                       |           |           |           |           |           |           |
| Scrap                        | tonnes    | 10 814    | 12 105    | 12 378    | 10 884    | 10 202    |
| Gypsum                       |           |           |           |           |           |           |
| Crude and calcined           | tonnes    | 4 890     | 6 349     | 4 808     | 4 738     | 3 119     |
| Iron, steel and ferro-alloys |           |           |           |           |           |           |
| Scrap                        | tonnes    | 318 840   | 398 070   | 427 540   | 357 487   | 302 085   |
| Lead                         |           |           |           |           |           |           |
| Scrap                        | tonnes    | 794       | 1 057     | 3 590     | 1 872     | 1 025     |
| Natural gas                  | tonnes    | 601 267   | 871 768   | 540 782   | 457 192   | 570 296   |
| Platinum metals              |           |           |           |           |           |           |
| Waste and scrap              | kilograms | 76 039    | 27 719    | 18 314    | 27 018    | 27 959    |
| Salt                         | tonnes    | 5 688     | 9 759     | 3 986     | 4 530     | 9 995     |
| Silver                       |           |           |           |           |           |           |
| Metal                        | kilograms | 352       | ...       | ...       | ...       | ...       |
| Sulphur and pyrites          |           |           |           |           |           |           |
| Sulphur                      | tonnes    | 8 028     | 6 606     | 8 614     | 7 604     | 8 664     |
| Titanium                     |           |           |           |           |           |           |
| Oxides                       | tonnes    | 155       | 419       | 489       | 417       | 331       |
| Zinc                         |           |           |           |           |           |           |
| Scrap                        | tonnes    | 417       | 511       | 683       | 700       | 708       |

### Imports

| Commodity             | Units  | 2005      | 2006      | 2007      | 2008      | 2009      |
|-----------------------|--------|-----------|-----------|-----------|-----------|-----------|
| Primary aggregates    | tonnes | 4 603 358 | 3 867 559 | 4 583 241 | 4 618 579 | 1 871 236 |
| Aluminium and bauxite |        |           |           |           |           |           |
| Bauxite               | tonnes | 112 007   | 80 441    | 115 367   | 107 237   | 72 103    |
| Alumina               | tonnes | 1 672     | 1 405     | 2 431     | 2 440     | 1 021     |
| Unwrought             | tonnes | 56 509    | 53 021    | 54 067    | 57 828    | 37 828    |
| Unwrought alloys      | tonnes | 14 915    | 18 893    | 22 039    | 20 786    | 28 251    |

## Croatia

## Imports continued

| Commodity                          | Units     | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Asbestos                           |           |           |           |           |           |           |
| Unmanufactured                     | tonnes    | 2 429     | ...       | ...       | ...       | ...       |
| Barytes                            | tonnes    | 715       | 893       | 98        | 1 525     | 889       |
| Bentonite and fuller's earth       |           |           |           |           |           |           |
| Bentonite                          | tonnes    | 1 897     | 2 053     | 7 633     | 39 289    | 22 383    |
| Fuller's earth                     | tonnes    | 136       | 260       | ...       | ...       | ...       |
| Bismuth                            |           |           |           |           |           |           |
| Metal                              | tonnes    | 10        | 5         | 10        | 8         | —         |
| Cement                             |           |           |           |           |           |           |
| Portland cement                    | tonnes    | 379 711   | 447 202   | 340 112   | 393 886   | 393 613   |
| Other cement                       | tonnes    | 1 569     | 5 547     | 5 242     | 7 447     | 10 620    |
| Chromium                           |           |           |           |           |           |           |
| Ores and concentrates              | tonnes    | 537       | 615       | 584       | 568       | 282       |
| Metal                              | tonnes    | 54        | 51        | 280       | 394       | 307       |
| Coal                               |           |           |           |           |           |           |
| Hard coal (a)                      | tonnes    | 957 899   | 1 082 446 | 1 101 803 | 1 189 379 | 712 873   |
| Lignite                            | tonnes    | 77 959    | 78 226    | 62 789    | 58 417    | 47 504    |
| Briquettes                         | tonnes    | 4 733     | 6 084     | 2 604     | 2 796     | 1 730     |
| Diatomite                          |           |           |           |           |           |           |
| Feldspar                           |           |           |           |           |           |           |
| Fluorspar                          |           |           |           |           |           |           |
| Gold                               |           |           |           |           |           |           |
| Metal                              | kilograms | 1 083     | 992       | 1 608     | 693       | 1 221     |
| Gypsum                             |           |           |           |           |           |           |
| Crude                              | tonnes    | 41 665    | 25 095    | 48 775    | 38 120    | 14 470    |
| Calcined                           | tonnes    | 33 316    | 37 052    | 37 034    | 34 224    | 22 154    |
| Iron ore (b)                       | tonnes    | 12 605    | 12 604    | 14 444    | 17 177    | 12 057    |
| Iron, steel and ferro-alloys       |           |           |           |           |           |           |
| Pig iron                           | tonnes    | 15 270    | 16 994    | 17 011    | 15 031    | 8 420     |
| Ferro-alloys                       | tonnes    | 2 893     | 3 031     | 3 027     | 4 790     | 2 239     |
| Ingots, blooms, billets            | tonnes    | 12 421    | 27 291    | 20 953    | 20 077    | 19 396    |
| Scrap                              | tonnes    | 18 407    | 17 563    | 29 553    | 19 400    | 10 628    |
| Kaolin                             | tonnes    | 7 941     | 16 423    | 21 845    | 24 009    | 14 486    |
| Lead                               |           |           |           |           |           |           |
| Unwrought                          | tonnes    | 1 492     | 1 415     | 911       | 680       | 376       |
| Magnesite and magnesia             | tonnes    | 1 647     | 1 564     | 1 872     | 1 682     | 1 289     |
| Manganese                          |           |           |           |           |           |           |
| Metal                              | tonnes    | 93        | 89        | 586       | 64        | 53        |
| Crude petroleum                    | tonnes    | 3 855 070 | 3 778 918 | 4 285 565 | 3 476 266 | 4 044 874 |
| Natural gas                        | tonnes    | 1 088 406 | 1 085 554 | 700 955   | 855 326   | 738 109   |
| Phosphate rock                     | tonnes    | 272 005   | 317 571   | 327 936   | 328 599   | 117 441   |
| Platinum metals                    |           |           |           |           |           |           |
| Platinum and platinum metals       | kilograms | 12 320    | 107       | 171       | 152       | 76        |
| Potash                             |           |           |           |           |           |           |
| Chloride                           | tonnes    | 131 567   | 149 424   | 159 288   | 157 994   | 10 538    |
| Other potassic fertilisers         | tonnes    | 2 083     | 3 594     | 3 564     | 2 958     | 1 091     |
| Salt                               |           |           |           |           |           |           |
| Silver                             |           |           |           |           |           |           |
| Metal                              | kilograms | 3 837     | 5 043     | 3 684     | 3 293     | 2 353     |
| Sulphur and pyrites                |           |           |           |           |           |           |
| Pyrites                            | tonnes    | 101       | 122       | 75        | 32        | 124       |
| Sulphur                            | tonnes    | 70 897    | 86 431    | 71 965    | 98 785    | 10 349    |
| Sulphur, sublimed and precipitated | tonnes    | 1 923     | 3 492     | 2 425     | 4         | 51        |
| Talc                               |           |           |           |           |           |           |
| Titanium                           |           |           |           |           |           |           |
| Oxides                             |           |           |           |           |           |           |
| Zinc                               |           |           |           |           |           |           |
| Unwrought (c)                      | tonnes    | 3 329     | 11 506    | 4 674     | 4 656     | 3 149     |

## Note(s)

- (a) Including anthracite
- (b) Including burnt pyrites
- (c) Including alloys

## Cyprus

### Production

| Commodity                    | Units                  | 2005       | 2006       | 2007       | 2008       | 2009       |
|------------------------------|------------------------|------------|------------|------------|------------|------------|
| Primary aggregates           |                        |            |            |            |            |            |
| Crushed rock                 | tonnes                 | 12 064 112 | 12 198 513 | 13 129 470 | 14 174 480 | 11 467 987 |
| Bentonite and fuller's earth |                        |            |            |            |            |            |
| Bentonite                    | tonnes                 | 172 366    | 150 620    | 154 655    | 155 125    | 152 722    |
| Cement                       |                        |            |            |            |            |            |
| Cement clinker               | tonnes                 | 37 891     | 97 846     | —          | —          | 30 286     |
| Cement, finished             | tonnes                 | 1 804 645  | 1 786 488  | 1 872 531  | 1 913 620  | 1 480 843  |
| Copper, mine                 | tonnes (metal content) | —          | 900        | 2 900      | 3 000      | 2 500      |
| Copper, refined              | tonnes                 | —          | 880        | 3 012      | 2 986      | 2 380      |
| Gypsum                       | tonnes                 | 215 500    | 270 000    | 330 000    | 412 000    | 317 000    |

### Exports

| Commodity                    | Units  | 2005    | 2006    | 2007    | 2008    | 2009    |
|------------------------------|--------|---------|---------|---------|---------|---------|
| Primary aggregates           | tonnes | 55      | 5 118   | 148 994 | 124 576 | 38 469  |
| Aluminium and bauxite        |        |         |         |         |         |         |
| Scrap                        | tonnes | 4 578   | 4 880   | 4 745   | 4 409   | 5 934   |
| Bentonite and fuller's earth |        |         |         |         |         |         |
| Bentonite                    | tonnes | 85 724  | 159 472 | 156 871 | 92 089  | 95 674  |
| Cement                       |        |         |         |         |         |         |
| Cement clinkers              | tonnes | 37 891  | 91 635  | 0       | ...     | 24 215  |
| Portland cement              | tonnes | 219 460 | 155 271 | 51 022  | ...     | 27 324  |
| Copper                       |        |         |         |         |         |         |
| Unwrought                    | tonnes | ...     | 879     | 3 006   | 2 986   | 2 449   |
| Scrap                        | tonnes | 2 548   | 2 684   | 2 122   | 2 381   | 3 400   |
| Gypsum                       |        |         |         |         |         |         |
| Crude and calcined           | tonnes | 73 741  | 152 621 | 203 109 | 279 902 | 236 427 |
| Iron, steel and ferro-alloys |        |         |         |         |         |         |
| Scrap                        | tonnes | 55 240  | 65 998  | 63 662  | 72 106  | 80 349  |
| Lead                         |        |         |         |         |         |         |
| Scrap                        | tonnes | 1 212   | 129     | 488     | —       | 188     |
| Phosphate rock               | tonnes | ...     | ...     | ...     | 2 960   | ...     |
| Salt                         | tonnes | 635     | 521     | 769     | 956     | 2 910   |
| Zinc                         |        |         |         |         |         |         |
| Scrap                        | tonnes | 63      | 69      | 1 746   | ...     | 118     |

### Imports

| Commodity                    | Units     | 2005     | 2006       | 2007       | 2008       | 2009       |
|------------------------------|-----------|----------|------------|------------|------------|------------|
| Primary aggregates           | tonnes    | 5 921    | 11 605     | 15 497     | 28 990     | 11 564     |
| Aluminium and bauxite        |           |          |            |            |            |            |
| Unwrought alloys             | tonnes    | 9 898    | 12 481     | 13 868     | 13 408     | 8 721      |
| Bentonite and fuller's earth |           |          |            |            |            |            |
| Bentonite                    | tonnes    | 3 057    | 9 063      | 10 556     | 12 496     | 5 709      |
| Cement                       |           |          |            |            |            |            |
| Cement clinkers              | tonnes    | 43 375   | 17 819     | 17 498     | 66 787     | 15 455     |
| Portland cement              | tonnes    | 2 339    | 1 241      | 1 017      | 29 311     | 249        |
| Coal                         |           |          |            |            |            |            |
| Hard coal (a)                | tonnes    | 3        | 23 473     | 56 896     | 46 258     | 28 911     |
| Diamond                      |           |          |            |            |            |            |
| Gem, cut                     | carats    | £690 000 | £1 387 000 | £1 311 000 | £1 564 000 | £1 724 000 |
| Industrial                   | carats    | £750 000 | £1 072 000 | £1 042 000 | £1 311 000 | £587 000   |
| Gypsum                       |           |          |            |            |            |            |
| Crude and calcined           | tonnes    | 3 501    | 9 849      | 12 932     | 15 045     | 10 807     |
| Platinum metals              |           |          |            |            |            |            |
| Platinum and platinum metals | kilograms | 97       | 73         | 70         | 528        | 1 900      |

## Imports

| Commodity           | Units     | 2005   | 2006   | 2007   | 2008   | 2009   |
|---------------------|-----------|--------|--------|--------|--------|--------|
| Salt                | tonnes    | 13 795 | 13 647 | 12 208 | 13 445 | 16 822 |
| Silver Metal        | kilograms | 5 675  | 2 866  | 3 746  | 2 863  | 1 993  |
| Sulphur and pyrites |           |        |        |        |        |        |
| Sulphur             | tonnes    | 1 356  | 893    | 995    | 895    | 1 011  |
| Talc                | tonnes    | 386    | 307    | 343    | 521    | 290    |
| Titanium Oxides     | tonnes    | 1 286  | 1 227  | 1 243  | 1 603  | 1 189  |

Note(s)

(a) Including anthracite

## Czech Republic

### Production

| Commodity                    | Units                    | 2005       | 2006       | 2007       | 2008       | 2009       |
|------------------------------|--------------------------|------------|------------|------------|------------|------------|
| Primary aggregates           |                          |            |            |            |            |            |
| Sand and gravel              | tonnes                   | 15 672 765 | 16 931 536 | 16 036 363 | 17 943 635 | 15 876 221 |
| Crushed rock                 | tonnes                   | 30 221 600 | 32 731 255 | 35 302 421 | 36 282 774 | 24 760 133 |
| Bentonite and fuller's earth |                          |            |            |            |            |            |
| Bentonite                    | tonnes                   | 216 000    | 267 000    | 335 000    | 235 000    | 181 000    |
| Cement                       |                          |            |            |            |            |            |
| Cement clinker               | tonnes                   | ...        | ...        | 3 127 530  | 3 137 828  | 2 433 746  |
| Cement, finished             | tonnes                   | 3 978 056  | 4 677 150  | 4 898 530  | 4 804 845  | 3 851 100  |
| Coal                         |                          |            |            |            |            |            |
| Bituminous                   | tonnes                   | 12 778 000 | 13 017 000 | 12 462 000 | 12 197 000 | 10 621 000 |
| Lignite                      | tonnes                   | 467 000    | 459 000    | 437 000    | 416 000    | 262 000    |
| Brown coal                   | tonnes                   | 48 658 000 | 48 915 000 | 49 134 000 | 47 456 000 | 45 354 000 |
| Diatomite                    | tonnes                   | 4 100      | 4 827      | 3 600      | 4 100      | 3 100      |
| Feldspar                     | tonnes                   | 472 000    | 487 000    | 514 000    | 488 000    | 431 000    |
| Graphite                     | tonnes                   | 3 000      | 5 000      | 3 000      | 3 000      | —          |
| Gypsum                       | tonnes                   | 25 000     | 16 000     | 66 000     | 35 000     | 13 000     |
| Pig iron                     | tonnes                   | 4 627 000  | 5 192 000  | 5 287 000  | 4 737 000  | 3 483 000  |
| Crude steel                  | tonnes                   | 6 189 000  | 6 862 000  | 7 059 000  | 6 387 000  | 4 594 000  |
| Ferro-alloys                 |                          |            |            |            |            |            |
| Ferro-vanadium               | tonnes                   | * 2 600    | * 2 800    | * 1 700    | * 2 800    | * 1 900    |
| Kaolin (a)                   | tonnes                   | 649 000    | 673 000    | 682 000    | 672 000    | 525 000    |
| Lead, refined                | tonnes                   | 26 000     | 26 000     | 26 000     | 26 000     | 26 000     |
| Crude petroleum              | tonnes                   | 306 000    | 259 000    | 240 000    | 236 000    | 217 000    |
| Natural gas                  | million m <sup>3</sup>   | 356        | 148        | 148        | 167        | 180        |
| Sulphur and pyrites          |                          |            |            |            |            |            |
| Recovered (b)                | tonnes (sulphur content) | 65 000     | 65 000     | 65 000     | 61 000     | 55 000     |
| Uranium, mine                | tonnes (metal content)   | 420        | 383        | 322        | 290        | 286        |

Note(s)

- (a) Beneficiated
- (b) From petroleum refining and/or Natural gas

### Exports

| Commodity                    | Units  | 2005      | 2006      | 2007      | 2008       | 2009       |
|------------------------------|--------|-----------|-----------|-----------|------------|------------|
| Primary aggregates           | tonnes | 468 540   | 772 913   | 716 787   | 699 987    | 597 101    |
| Aluminium and bauxite        |        |           |           |           |            |            |
| Unwrought (a)                | tonnes | 48 885    | 45 876    | 54 457    | 53 682     | 59 913     |
| Scrap                        | tonnes | 39 297    | 53 986    | 61 067    | 59 196     | 49 251     |
| Antimony                     |        |           |           |           |            |            |
| Oxide                        | tonnes | 145       | 108       | 139       | 133        | 89         |
| Bentonite and fuller's earth |        |           |           |           |            |            |
| Bentonite                    | tonnes | 85 093    | 86 296    | 97 358    | 105 403    | 99 584     |
| Cement                       |        |           |           |           |            |            |
| Cement clinkers              | tonnes | 29 169    | 32 521    | 29 924    | 19 039     | 85 427     |
| Portland cement              | tonnes | 526 784   | 394 105   | 458 701   | 436 600    | 374 515    |
| Other cement                 | tonnes | 34 046    | 67 930    | 151 422   | 196 133    | 156 650    |
| Chromium                     |        |           |           |           |            |            |
| Ores and concentrates        | tonnes | 523       | 645       | 800       | 507        | 369        |
| Metal                        | tonnes | 109       | 2 104     | 946       | 594        | 662        |
| Coal                         |        |           |           |           |            |            |
| Hard coal (b)                | tonnes | 5 260 739 | 6 690 917 | 6 732 974 | 5 993 824  | 6 028 577  |
| Lignite                      | tonnes | 1 324 025 | 1 300 406 | 1 076 140 | 1 561 097  | 1 207 715  |
| Briquettes                   | tonnes | 148 966   | 213 621   | ...       | 75 459     | 93 479     |
| Copper                       |        |           |           |           |            |            |
| Unwrought                    | tonnes | 4 251     | 12 651    | 10 301    | 7 829      | 14 645     |
| Scrap                        | tonnes | 53 707    | 57 152    | 58 534    | 63 825     | 105 230    |
| Diamond                      |        |           |           |           |            |            |
| Gem, cut                     | carats | £331 000  | £451 000  | £529 000  | £3 947 000 | £3 046 000 |

Czech Republic

Exports continued

| Commodity                          | Units     | 2005       | 2006      | 2007      | 2008      | 2009      |
|------------------------------------|-----------|------------|-----------|-----------|-----------|-----------|
| Diatomite                          | tonnes    | 4 247      | 4 566     | 1 094     | 4 128     | 3 789     |
| Feldspar                           | tonnes    | 160 469    | 154 672   | 168 259   | 171 596   | 135 533   |
| Fluorspar                          | tonnes    | 8 677      | 9 954     | 8 415     | 4 488     | 6 147     |
| Gold                               |           |            |           |           |           |           |
| Metal                              | kilograms | 1 100      | 4 100     | 3 900     | 4 000     | 9 800     |
| Waste and scrap                    | kilograms | 600        | 700       | 6 100     | 5 200     | 5 600     |
| Graphite                           | tonnes    | 3 489      | 3 518     | 4 029     | 4 076     | 2 150     |
| Gypsum                             |           |            |           |           |           |           |
| Crude                              | tonnes    | 33 307     | 46 837    | 105 394   | 60 018    | 10 195    |
| Calcined                           | tonnes    | 4 272      | 6 249     | 5 973     | 7 881     | 6 430     |
| Iodine                             | kilograms | 1 000      | 800       | 1 000     | 300       | 500       |
| Iron, steel and ferro-alloys       |           |            |           |           |           |           |
| Pig iron                           | tonnes    | 15 526     | 17 599    | 31 182    | 30 457    | 24 041    |
| Ferro-silicon                      | tonnes    | 5 396      | 6 516     | 8 254     | 8 780     | 4 285     |
| Ferro-vanadium                     | tonnes    | 2 613      | 2 763     | 1 685     | 2 830     | 1 868     |
| Other ferro-alloys                 | tonnes    | 14 358     | 15 078    | 8 704     | 13 897    | 12 274    |
| Silicon metal                      | tonnes    | 512        | 1 040     | 1 118     | 1 375     | 783       |
| Ingots, blooms, billets            | tonnes    | 251 513    | 324 619   | 587 296   | 500 423   | 222 780   |
| Scrap                              | tonnes    | 1 351 676  | 1 456 061 | 1 678 565 | 1 792 889 | 1 442 865 |
| Kaolin                             | tonnes    | 268 850    | 261 019   | 173 251   | 233 819   | 174 814   |
| Lead                               |           |            |           |           |           |           |
| Unwrought                          | tonnes    | 8 665      | 10 359    | 16 707    | 18 713    | 23 617    |
| Scrap                              | tonnes    | 4 948      | 6 648     | 6 855     | 8 136     | 4 832     |
| Magnesite and magnesia             | tonnes    | 6 273      | 4 099     | 3 988     | 4 540     | 3 728     |
| Mercury                            | kilograms | 8 200      | 1 700     | 3 600     | 6 300     | 6 400     |
| Nickel                             |           |            |           |           |           |           |
| Unwrought (a)                      | tonnes    | 57         | 690       | 171       | 758       | 228       |
| Scrap                              | tonnes    | 843        | 1 036     | 1 245     | 601       | 2 420     |
| Oxides                             | tonnes    | 658        | 602       | 617       | 643       | 275       |
| Crude petroleum                    | tonnes    | 57 522     | 41 794    | 16 573    | 18 130    | 21 600    |
| Natural gas                        | tonnes    | 58 767     | —         | —         | —         | 834 462   |
| Phosphate rock                     | tonnes    | 545        | 726       | 732       | 1 091     | 817       |
| Platinum metals                    |           |            |           |           |           |           |
| Platinum and platinum metals       | kilograms | (c)* 3 300 | (c)* 500  | (c)* 800  | 3 400     | 5 200     |
| Waste and scrap                    | kilograms | 4 500      | 4 700     | 1 900     | 700       | —         |
| Potash                             |           |            |           |           |           |           |
| Potassic fertilisers               | tonnes    | 3 458      | 3 143     | 3 096     | 3 322     | 6 843     |
| Rare earths                        |           |            |           |           |           |           |
| Cerium compounds                   | tonnes    | 8          | 8         | 6         | 3         | 3         |
| Other rare earth compounds         | tonnes    | 4          | 5         | 6         | 5         | 0         |
| Salt                               | tonnes    | 13 833     | 30 648    | 18 760    | 14 116    | 31 068    |
| Silver                             |           |            |           |           |           |           |
| Metal                              | kilograms | 29 337     | 98 354    | 102 968   | 117 325   | 77 000    |
| Sulphur and pyrites                |           |            |           |           |           |           |
| Sulphur                            | tonnes    | 9 294      | 11 718    | 5 579     | 16 670    | 20 153    |
| Sulphur, sublimed and precipitated | tonnes    | 503        | 113       | 114       | 658       | 86        |
| Tantalum and niobium               |           |            |           |           |           |           |
| Tantalum                           | tonnes    | 68         | 53        | 66        | 97        | 62        |
| Tin                                |           |            |           |           |           |           |
| Unwrought (a)                      | tonnes    | 381        | 74        | 253       | 86        | 76        |
| Scrap                              | tonnes    | 65         | 249       | 958       | 85        | 118       |
| Titanium                           |           |            |           |           |           |           |
| Titanium minerals                  | tonnes    | 340        | 492       | 745       | 641       | 452       |
| Metal                              | tonnes    | 358        | 424       | 126       | 84        | 339       |
| Oxides                             | tonnes    | 40 707     | 43 010    | 43 166    | 42 860    | 46 753    |
| Tungsten                           |           |            |           |           |           |           |
| Metal                              | tonnes    | 185        | 142       | 102       | 86        | 30        |
| Carbide                            | tonnes    | ...        | 579       | 605       | 592       | 307       |
| Zinc                               |           |            |           |           |           |           |
| Unwrought (a)                      | tonnes    | 7 865      | 10 669    | 18 786    | 17 258    | 19 982    |
| Scrap                              | tonnes    | 2 498      | 3 086     | 2 981     | 2 705     | 2 716     |

Note(s)

- (a) Including alloys
- (b) Including anthracite
- (c) BGS estimates, based on known imports into certain countries

## Imports

| Commodity                    | Units     | 2005      | 2006      | 2007          | 2008          | 2009          |
|------------------------------|-----------|-----------|-----------|---------------|---------------|---------------|
| Primary aggregates           | tonnes    | 574 008   | 690 730   | 252 049       | 333 726       | 398 613       |
| Aluminium and bauxite        |           |           |           |               |               |               |
| Bauxite                      | tonnes    | 24 315    | 24 829    | 26 865        | 17 698        | 9 857         |
| Alumina                      | tonnes    | 28 458    | 24 078    | 30 523        | 28 245        | 5 995         |
| Alumina hydrate              | tonnes    | 10 898    | 9 782     | 7 834         | 6 916         | 6 672         |
| Unwrought                    | tonnes    | 69 977    | 74 392    | 82 910        | 68 362        | 62 972        |
| Unwrought alloys             | tonnes    | 96 702    | 104 238   | 119 773       | 124 643       | 108 231       |
| Scrap                        | tonnes    | 34 226    | 48 937    | 63 508        | 58 424        | 50 379        |
| Antimony                     |           |           |           |               |               |               |
| Metal                        | tonnes    | 72        | 82        | 64            | 131           | 55            |
| Oxide                        | tonnes    | 588       | 503       | 604           | 521           | 209           |
| Arsenic                      |           |           |           |               |               |               |
| Metallic arsenic             | tonnes    | 9         | 11        | 10            | 26            | —             |
| Barytes                      | tonnes    | 8 552     | 7 195     | 6 358         | 7 388         | 4 641         |
| Bentonite and fuller's earth |           |           |           |               |               |               |
| Bentonite                    | tonnes    | 14 776    | 18 452    | 23 559        | 24 239        | 25 129        |
| Fuller's earth               | tonnes    | 1 290     | 1 039     | ...           | ...           | ...           |
| Bismuth                      |           |           |           |               |               |               |
| Metal                        | tonnes    | 50        | 77        | 70            | 78            | 53            |
| Bromine                      | kilograms | 1 174     | 5 066     | 7 700         | 12 000        | 2 600         |
| Cadmium                      |           |           |           |               |               |               |
| Oxide                        | tonnes    | 251       | ...       | 338           | 463           | 396           |
| Sulphide                     | tonnes    | 21        | 14        | ...           | ...           | ...           |
| Cement                       |           |           |           |               |               |               |
| Cement clinkers              | tonnes    | 95 108    | 117 477   | 109 392       | 134 179       | 101 031       |
| Portland cement              | tonnes    | 1 027 011 | 1 001 321 | 918 739       | 932 685       | 890 776       |
| Other cement                 | tonnes    | 38 434    | 38 439    | 30 602        | 23 816        | 51 482        |
| Chromium                     |           |           |           |               |               |               |
| Ores and concentrates        | tonnes    | 12 440    | 11 380    | 13 936        | 12 990        | 7 798         |
| Metal                        | tonnes    | 149       | 123       | 281           | 282           | 83            |
| Coal                         |           |           |           |               |               |               |
| Anthracite                   | tonnes    | 43 713    | 61 255    | 45 114        | 39 211        | 24 054        |
| Other coal                   | tonnes    | 1 192 214 | 1 896 977 | 2 507 091     | 2 181 691     | 1 761 947     |
| Lignite                      | tonnes    | 1 371     | 24 412    | 33 472        | 33 579        | 36 617        |
| Briquettes                   | tonnes    | 853       | 23 837    | 1 393         | 18 654        | 60 962        |
| Cobalt                       |           |           |           |               |               |               |
| Metal                        | tonnes    | 75        | 84        | 108           | 199           | 220           |
| Copper                       |           |           |           |               |               |               |
| Unwrought                    | tonnes    | 4 196     | 5 412     | 15 156        | 11 474        | 21 475        |
| Unwrought alloys             | tonnes    | 355       | 2 909     | 3 755         | 3 862         | 3 050         |
| Scrap                        | tonnes    | 6 114     | 8 104     | 8 966         | 8 677         | 9 639         |
| Diamond                      |           |           |           |               |               |               |
| Gem, cut                     | carats    | 2 755     | 18 182    | 5 837         | 116 669       | 7 306         |
| Industrial                   | carats    | 27 453    | 30 377    | 43 006        | 30 181        | 7 640         |
| Dust                         | carats    | £ 956 000 | £ 867 000 | £ 884 000     | £ 1 369 000   | £ 977 000     |
| Diatomite                    | tonnes    | 2 263     | 2 288     | 3 318         | 4 768         | 3 173         |
| Feldspar                     | tonnes    | 13 315    | 16 032    | 14 213        | 11 414        | 5 330         |
| Fluorspar                    | tonnes    | 24 009    | 24 637    | 24 915        | 3 440         | 8 626         |
| Gold                         |           |           |           |               |               |               |
| Metal                        | kilograms | 769       | 1 570     | 8 813         | 3 047         | 3 055         |
| Waste and scrap              | kilograms | 12 931    | 14 953    | 45 718        | 19 140        | 60 440        |
| Graphite                     | tonnes    | 4 787     | 3 485     | 5 301         | 6 233         | 2 554         |
| Gypsum                       |           |           |           |               |               |               |
| Crude                        | tonnes    | 19 253    | 38 983    | 70 972        | 76 119        | 83 819        |
| Calcined                     | tonnes    | 37 637    | 43 282    | 45 167        | 75 278        | 53 954        |
| Iodine                       | kilograms | 28 400    | 31 600    | 32 300        | 25 200        | 31 900        |
| Iron ore                     | tonnes    | 6 576 885 | 7 984 718 | (a) 6 578 116 | (a) 6 799 756 | (a) 4 803 009 |

## Czech Republic

## Imports continued

| Commodity                                | Units     | 2005      | 2006      | 2007      | 2008      | 2009      |
|--|-----------|-----------|-----------|-----------|-----------|-----------|
| Iron, steel and ferro-alloys             |           |           |           |           |           |           |
| Pig iron                                 | tonnes    | 88 549    | 150 032   | 108 715   | 111 872   | 47 666    |
| Sponge and powder                        | tonnes    | 6 130     | 10 136    | 20 580    | 24 791    | 10 006    |
| Ferro-chrome                             | tonnes    | 16 772    | 20 492    | 34 123    | 26 043    | 14 715    |
| Ferro-silico-magnesium                   | tonnes    | 941       | 1 236     | 6 297     | 5 778     | 3 192     |
| Ferro-manganese                          | tonnes    | 30 921    | 32 355    | 35 500    | 33 704    | 23 630    |
| Ferro-silico-manganese                   | tonnes    | 53 258    | 57 857    | 52 153    | 48 962    | 34 418    |
| Ferro-molybdenum                         | tonnes    | 1 744     | 1 889     | 2 025     | 2 049     | 949       |
| Ferro-silicon                            | tonnes    | 34 114    | 36 361    | 41 482    | 37 230    | 23 936    |
| Ferro-vanadium                           | tonnes    | 564       | 429       | 440       | 578       | 299       |
| Other ferro-alloys                       | tonnes    | 10 018    | 9 080     | 1 697     | 1 644     | 836       |
| Silicon metal                            | tonnes    | 2 589     | 4 986     | 6 584     | 5 826     | 4 408     |
| Ingots, blooms, billets                  | tonnes    | 484 450   | 409 753   | 445 181   | 525 598   | 220 524   |
| Scrap                                    | tonnes    | 392 135   | 560 676   | 521 779   | 502 256   | 377 942   |
| Kaolin                                   | tonnes    | 16 895    | 22 962    | 23 461    | 20 662    | 13 228    |
| Lead                                     |           |           |           |           |           |           |
| Unwrought                                | tonnes    | 69 135    | 67 850    | 66 060    | 59 318    | 65 896    |
| Scrap                                    | tonnes    | 4 147     | 4 411     | 6 519     | 4 672     | 4 150     |
| Lithium                                  |           |           |           |           |           |           |
| Carbonate                                | tonnes    | 71        | 118       | 146       | 64        | 35        |
| Magnesite and magnesia                   |           |           |           |           |           |           |
| Magnesite                                | tonnes    | 6 860     | 5 320     | 6 527     | 4 193     | 3 460     |
| Magnesia                                 | tonnes    | 43 277    | 51 674    | 52 330    | 54 246    | 38 048    |
| Manganese                                |           |           |           |           |           |           |
| Ores and concentrates                    | tonnes    | 13 820    | 14 335    | 16 079    | 15 715    | 16 063    |
| Metal                                    | tonnes    | 619       | 674       | 757       | 2 542     | 2 219     |
| Mercury                                  | kilograms | 1 100     | 4 000     | 3 200     | 3 700     | 4 400     |
| Mica                                     | tonnes    | 819       | 1 629     | 2 262     | 1 958     | 981       |
| Molybdenum                               |           |           |           |           |           |           |
| Ores and concentrates                    | tonnes    | 189       | 139       | 213       | 284       | 1 040     |
| Metal                                    | tonnes    | 89        | 175       | 130       | 560       | 127       |
| Nickel                                   |           |           |           |           |           |           |
| Scrap                                    | tonnes    | 69        | 152       | 294       | 473       | 1 468     |
| Unwrought (b)                            | tonnes    | 2 520     | 3 531     | 4 429     | 3 728     | 2 179     |
| Oxides                                   | tonnes    | 785       | 844       | 919       | 838       | 319       |
| Crude petroleum                          | tonnes    | 7 674 771 | 7 752 356 | 7 179 766 | 8 141 759 | 7 451 765 |
| Natural gas                              | tonnes    | 6 733 431 | 5 489 325 | 5 478 515 | 6 264 909 | 7 080 247 |
| Phosphate rock                           | tonnes    | 22 633    | 28 141    | 33 954    | 20 928    | 543       |
| Platinum metals                          |           |           |           |           |           |           |
| Platinum and platinum metals             | kilograms | 1 289     | 4 599     | 576       | 90 290    | 82 291    |
| Waste and scrap                          | kilograms | 55        | 86        | 913       | 4 300     | 700       |
| Potash                                   |           |           |           |           |           |           |
| Chloride                                 | tonnes    | 97 723    | 43 238    | 32 745    | 28 052    | 36 125    |
| Other potassic fertilisers               | tonnes    | 3 783     | 3 475     | 4 215     | 5 025     | 2 430     |
| Rare earths                              |           |           |           |           |           |           |
| Rare earth compounds                     | tonnes    | 198       | 227       | 228       | 155       | 124       |
| Ferro-cerium and other pyrophoric alloys | tonnes    | 3         | 6         | 4         | 5         | 5         |
| Salt                                     | tonnes    | 891 667   | 1 151 331 | 567 960   | 610 149   | 711 374   |
| Sillimanite minerals                     | tonnes    | 3 733     | 6 765     | 5 601     | 6 686     | 4 717     |
| Silver                                   |           |           |           |           |           |           |
| Ores and concentrates                    | kilograms | ...       | ...       | ...       | ...       | 5 700     |
| Metal                                    | kilograms | 103 373   | 602 527   | 647 818   | 1 557 076 | 163 316   |
| Sulphur and pyrites                      |           |           |           |           |           |           |
| Pyrites                                  | tonnes    | 134       | 223       | 281       | 1 576     | 299       |
| Sulphur                                  | tonnes    | 16 983    | 40 147    | 55 196    | 43 473    | 20 986    |
| Sulphur, sublimed and precipitated       | tonnes    | 89 595    | 70 555    | 57 410    | 65 242    | 71 033    |
| Talc                                     | tonnes    | 9 986     | 10 855    | 12 993    | 11 007    | 9 312     |
| Tantalum and niobium                     |           |           |           |           |           |           |
| Tantalum                                 | tonnes    | 141       | 164       | 206       | 253       | 141       |
| Tin                                      |           |           |           |           |           |           |
| Unwrought (b)                            | tonnes    | 634       | 665       | 616       | 802       | 937       |
| Titanium                                 |           |           |           |           |           |           |
| Titanium minerals                        | tonnes    | 80 407    | 149 925   | 179 323   | 193 858   | 140 394   |
| Metal                                    | tonnes    | 1 143     | 1 155     | 1 086     | 1 122     | 918       |
| Oxides                                   | tonnes    | 8 008     | 8 734     | 10 529    | 8 765     | 7 248     |

## Imports continued

| Commodity        | Units  | 2005   | 2006   | 2007   | 2008   | 2009   |
|------------------|--------|--------|--------|--------|--------|--------|
| Tungsten         |        |        |        |        |        |        |
| Metal            | tonnes | 173    | 197    | 837    | 206    | 4 184  |
| Vanadium         |        |        |        |        |        |        |
| Pentoxide        | tonnes | 3 831  | 4 858  | 3 210  | 5 135  | 2 702  |
| Zinc             |        |        |        |        |        |        |
| Unwrought        | tonnes | 28 263 | 33 732 | 35 666 | 36 733 | 24 660 |
| Unwrought alloys | tonnes | 8 039  | 11 113 | 11 992 | 11 344 | 7 155  |
| Scrap            | tonnes | 565    | 334    | 4 008  | 2 792  | 2 434  |
| Zirconium        |        |        |        |        |        |        |
| Concentrates     | tonnes | 655    | 1 498  | 1 482  | 751    | 268    |
| Metal            | tonnes | 60     | 86     | 78     | 101    | 45     |

## Note(s)

- (a) Including burnt pyrites
- (b) Including alloys

Denmark

## Denmark

### Production

| Commodity                    | Units                    | 2005       | 2006       | 2007       | 2008       | 2009       |
|------------------------------|--------------------------|------------|------------|------------|------------|------------|
| Primary aggregates           |                          |            |            |            |            |            |
| Sand and gravel              | tonnes                   | 69 500 000 | 72 508 000 | 68 255 000 | 59 937 000 | 46 932 000 |
| Crushed rock                 | tonnes                   | 378 000    | 372 000    | 410 000    | 384 000    | 312 000    |
| Bentonite and fuller's earth |                          |            |            |            |            |            |
| Bentonite                    | tonnes                   | 18 515     | 19 211     | 20 093     | 22 458     | 24 040     |
| Cement                       |                          |            |            |            |            |            |
| Cement clinker               | tonnes                   | 42 691     | 5 499      | 21 209     | 16 092     | 122        |
| Cement, finished             | tonnes                   | 2 880 554  | 2 937 132  | 2 871 402  | 2 538 822  | 1 578 614  |
| Diatomite                    |                          |            |            |            |            |            |
| Moler (a)                    | tonnes                   | 209 000    | 196 000    | 201 000    | 210 000    | 168 000    |
| Crude petroleum              | tonnes                   | 18 822 000 | 17 068 000 | 15 552 000 | 14 338 000 | 13 045 000 |
| Natural gas                  | million m <sup>3</sup>   | 9 909      | 9 861      | 8 760      | 9 564      | 7 590      |
| Salt                         | tonnes                   | * 600 000  | * 600 000  | * 600 000  | * 600 000  | * 600 000  |
| Sulphur and pyrites          |                          |            |            |            |            |            |
| Recovered (b)                | tonnes (sulphur content) | 4 223      | 4 142      | 3 896      | 3 467      | 4 200      |

#### Note(s)

- (1) Denmark is believed to produce kaolin
- (2) In addition to the countries producing sillimanite minerals, synthetic mullite is known to be produced in Denmark

(a) Moler is an impure diatomite containing a large proportion of clay

(b) From petroleum refining and/or Natural gas

### Exports

| Commodity                    | Units     | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Primary aggregates           | tonnes    | 787 389   | 973 497   | 1 194 349 | 846 490   | 955 036   |
| Aluminium and bauxite        |           |           |           |           |           |           |
| Alumina                      | tonnes    | 3 579     | 3 470     | 5 471     | 5 300     | 4 002     |
| Unwrought alloys             | tonnes    | 23 509    | 31 768    | 36 831    | 32 499    | 7 505     |
| Scrap                        | tonnes    | 70 828    | 62 734    | 50 164    | 56 727    | 70 649    |
| Bentonite and fuller's earth |           |           |           |           |           |           |
| Bentonite                    | tonnes    | 17 066    | 19 214    | 19 495    | 15 734    | 13 004    |
| Cement                       |           |           |           |           |           |           |
| Cement clinkers              | tonnes    | 54 542    | 11 981    | 9 673     | 7 287     | 7 784     |
| Portland cement              | tonnes    | 1 235 477 | 1 290 816 | 1 094 730 | 969 666   | 568 656   |
| Other cement                 | tonnes    | 13 118    | 14 153    | 16 222    | 25 482    | 20 751    |
| Chromium                     |           |           |           |           |           |           |
| Metal                        | tonnes    | 703       | 855       | 549       | 1 262     | 659       |
| Coal                         |           |           |           |           |           |           |
| Hard coal (a)                | tonnes    | 86 739    | 54 338    | 75 866    | 27 070    | 1 973 198 |
| Copper                       |           |           |           |           |           |           |
| Scrap                        | tonnes    | 27 227    | 31 076    | 31 569    | 33 421    | 31 711    |
| Diatomite (b)                | tonnes    | * 69 300  | * 71 500  | * 63 600  | * 67 800  | * 57 520  |
| Gold                         |           |           |           |           |           |           |
| Metal                        | kilograms | 1 064     | 1 253     | 366       | 397       | 100       |
| Waste and scrap              | kilograms | 120       | 3 531     | 600       | 600       | 500       |
| Gypsum                       |           |           |           |           |           |           |
| Crude                        | tonnes    | 111 720   | 165 656   | 197 920   | 141 124   | 8 440     |
| Calcined                     | tonnes    | 25 474    | 356 443   | 1 740     | 4 173     | 1 455     |
| Iodine                       | kilograms | 3 058     | 6 301     | 100       | 1         | 1 500     |
| Iron, steel and ferro-alloys |           |           |           |           |           |           |
| Ferro-silicon                | tonnes    | 23 295    | 14 611    | 64        | 70        | 85        |
| Other ferro-alloys           | tonnes    | 139       | 238       | 701       | 585       | 330       |
| Ingots, blooms, billets      | tonnes    | 1 203     | 2 199     | 12 820    | 16 775    | 13 287    |
| Scrap                        | tonnes    | 1 402 982 | 1 414 060 | 1 263 987 | 1 372 424 | 1 335 754 |
| Kaolin                       | tonnes    | 637       | 443       | 351       | 486       | 352       |
| Lead                         |           |           |           |           |           |           |
| Unwrought                    | tonnes    | 1 312     | 1 071     | 721       | 78        | 615       |
| Scrap                        | tonnes    | 3 067     | 2 954     | 1 685     | 1 159     | 4 057     |

## Exports continued

| Commodity                    | Units     | 2005       | 2006       | 2007      | 2008      | 2009      |
|------------------------------|-----------|------------|------------|-----------|-----------|-----------|
| Magnesite and magnesia       | tonnes    | 232        | 307        | 451       | 461       | 518       |
| Nickel                       |           |            |            |           |           |           |
| Scrap                        | tonnes    | 676        | 585        | 482       | 642       | 1 063     |
| Crude petroleum              | tonnes    | 13 567 566 | 11 456 257 | 9 493 573 | 8 593 198 | 8 520 980 |
| Natural gas                  | tonnes    | 3 466 835  | 3 818 822  | 3 786 580 | 4 023 305 | 2 906 339 |
| Platinum metals              |           |            |            |           |           |           |
| Platinum and platinum metals | kilograms | 1 435      | 32         | 48        | 1         | 7 000     |
| Potash                       |           |            |            |           |           |           |
| Chloride                     | tonnes    | 1 052      | 29 533     | 127       | 45        | 59        |
| Rare earths                  |           |            |            |           |           |           |
| Metals                       | tonnes    | 0          | 0          | 4         | 2         | —         |
| Salt                         | tonnes    | 355 887    | 115 980    | 261 895   | 265 036   | 333 383   |
| Silver                       |           |            |            |           |           |           |
| Metal                        | kilograms | 14 748     | 24 299     | 43 775    | 18 782    | 37 200    |
| Tin                          |           |            |            |           |           |           |
| Scrap                        | tonnes    | 68         | 124        | 90        | 28        | 37        |
| Titanium                     |           |            |            |           |           |           |
| Metal                        | tonnes    | 184        | 146        | 162       | 152       | 102       |
| Oxides                       | tonnes    | 1 136      | 1 134      | 1 121     | 460       | 442       |
| Tungsten                     |           |            |            |           |           |           |
| Metal                        | tonnes    | 5          | 86         | 112       | 121       | 91        |
| Zinc                         |           |            |            |           |           |           |
| Scrap                        | tonnes    | 3 538      | 3 628      | 2 388     | 2 028     | 2 622     |

## Note(s)

(a) Including anthracite

(b) BGS estimates, based on known imports into certain countries

## Imports

| Commodity                    | Units     | 2005       | 2006       | 2007       | 2008       | 2009       |
|------------------------------|-----------|------------|------------|------------|------------|------------|
| Primary aggregates           | tonnes    | 2 804 325  | 3 151 321  | 3 077 714  | 3 346 209  | 2 932 586  |
| Aluminium and bauxite        |           |            |            |            |            |            |
| Bauxite                      | tonnes    | 9 148      | 9 025      | 6 572      | 7 317      | 8 108      |
| Alumina                      | tonnes    | 21 979     | 28 709     | 25 643     | 27 582     | 21 968     |
| Unwrought (a)                | tonnes    | 70 617     | 79 573     | 86 389     | 85 420     | 61 259     |
| Scrap                        | tonnes    | 63 678     | 64 803     | 66 038     | 70 726     | 5 321      |
| Barytes                      | tonnes    | 28 788     | 58 303     | 38 096     | 22 324     | 27 656     |
| Bentonite and fuller's earth |           |            |            |            |            |            |
| Bentonite                    | tonnes    | 47 386     | 49 695     | 43 555     | 34 012     | 35 089     |
| Fuller's earth               | tonnes    | 137        | 921        | ...        | ...        | ...        |
| Bromine                      | kilograms | ...        | ...        | ...        | ...        | ...        |
| Cement                       |           |            |            |            |            |            |
| Cement clinkers              | tonnes    | 31 634     | 46 600     | 35 555     | 33 825     | 31 847     |
| Portland cement              | tonnes    | 230 842    | 274 151    | 243 348    | 289 307    | 208 467    |
| Other cement                 | tonnes    | 36 753     | 54 194     | 52 662     | 38 687     | 46 117     |
| Chromium                     |           |            |            |            |            |            |
| Ores and concentrates        | tonnes    | 837        | 774        | 945        | 974        | 384        |
| Coal                         |           |            |            |            |            |            |
| Anthracite                   | tonnes    | 52 143     | 85 883     | 47 233     | 45 282     | 12 593     |
| Other coal                   | tonnes    | 5 881 938  | 9 234 248  | 8 034 596  | 7 412 557  | 6 423 923  |
| Briquettes                   | tonnes    | 15 865     | 511        | 194        | 1 000      | 455        |
| Copper                       |           |            |            |            |            |            |
| Unwrought                    | tonnes    | 1 702      | 4 081      | 2 901      | 2 818      | 1 413      |
| Scrap                        | tonnes    | 13 827     | 14 646     | 9 187      | 11 235     | 10 388     |
| Diamond                      |           |            |            |            |            |            |
| Unsorted                     | carats    | £597 000   | £686 000   | £928 000   | £1 168 000 | £40 000    |
| Gem, cut                     | carats    | £6 506 000 | £7 252 000 | £8 473 000 | £7 424 000 | £4 680 000 |
| Industrial                   | carats    | £81 000    | £184 000   | £388 000   | £104 000   | £223 000   |
| Dust                         | carats    | 696 038    | 769 511    | 1 056 203  | 791 502    | 10 000 000 |
| Diatomite                    | tonnes    | 6 561      | 4 974      | 4 244      | 5 849      | 3 347      |
| Feldspar                     | tonnes    | 3 868      | 2 590      | 3 145      | 2 678      | 2 666      |
| Fluorspar                    | tonnes    | 15 124     | 12 635     | 8 218      | 17 003     | 33 149     |

Denmark

Imports continued

| Commodity                    | Units     | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Gold                         |           |           |           |           |           |           |
| Metal                        | kilograms | 2 095     | 1 643     | 2 350     | 2 000     | 3 100     |
| Graphite                     | tonnes    | 288       | 268       | 212       | 185       | 269       |
| Gypsum                       |           |           |           |           |           |           |
| Crude                        | tonnes    | 317 736   | 330 476   | 388 662   | 379 094   | 106 304   |
| Calcined                     | tonnes    | 45 691    | 52 788    | 53 647    | 52 087    | 58 675    |
| Iodine                       | kilograms | 13 109    | 16 345    | 1 973 090 | 1 122 386 | 6 791     |
| Iron ore                     |           |           |           |           |           |           |
| Iron ore                     | tonnes    | 8 450     | 4 318     | 72 806    | 111 302   | 58 894    |
| Burnt pyrites                | tonnes    | 86 399    | 81 341    | 9 231     | —         | —         |
| Iron, steel and ferro-alloys |           |           |           |           |           |           |
| Pig iron                     | tonnes    | 12 720    | 18 128    | 18 349    | 14 064    | 10 299    |
| Sponge and powder            | tonnes    | 29 188    | 80 148    | 61 079    | 3 602     | 1 742     |
| Ferro-silico-magnesium       | tonnes    | —         | 1 322     | 1 795     | 1 465     | 348       |
| Ferro-silicon                | tonnes    | 2 548     | 4 069     | 1 887     | 1 702     | 569       |
| Other ferro-alloys           | tonnes    | 1 345     | 1 771     | 595       | 1 080     | 217       |
| Silicon metal                | tonnes    | 659       | 1 586     | 741       | 263       | 65        |
| Ingots, blooms, billets      | tonnes    | 551 407   | 588 053   | 780 837   | 672 439   | 328 893   |
| Scrap                        | tonnes    | 313 558   | 238 142   | 213 776   | 392 453   | 269 841   |
| Kaolin                       | tonnes    | 14 117    | 19 572    | 35 288    | 47 525    | 37 738    |
| Lead                         |           |           |           |           |           |           |
| Unwrought                    | tonnes    | 2 135     | 2 322     | 1 033     | 192       | 107       |
| Scrap                        | tonnes    | 2 288     | 2 209     | 2 228     | 1 984     | 2 583     |
| Lithium                      |           |           |           |           |           |           |
| Carbonate                    | tonnes    | 81        | 164       | 155       | 311       | 402       |
| Magnesite and magnesia       |           |           |           |           |           |           |
| Magnesite                    | tonnes    | 2 002     | 444       | 512       | 456       | 2 680     |
| Magnesia                     | tonnes    | 4 560     | 4 478     | 3 327     | 4 149     | 5 472     |
| Manganese                    |           |           |           |           |           |           |
| Ores and concentrates        | tonnes    | 111       | 788       | 775       | 698       | 1 158     |
| Metal                        | tonnes    | 157       | 161       | 317       | 233       | 136       |
| Mercury                      | kilograms | 2 901     | 129       | 300       | 400       | 100       |
| Mica                         | tonnes    | 413       | 1 596     | 366       | 276       | 242       |
| Molybdenum                   |           |           |           |           |           |           |
| Oxides                       | tonnes    | 247       | 196       | 432       | 361       | 388       |
| Nickel                       |           |           |           |           |           |           |
| Scrap                        | tonnes    | 317       | 403       | 529       | 100       | 122       |
| Crude petroleum              | tonnes    | 2 666 384 | 2 576 191 | 2 136 643 | 2 240 240 | 3 320 486 |
| Natural gas                  | tonnes    | 242 936   | —         | —         | —         | —         |
| Platinum metals              |           |           |           |           |           |           |
| Platinum and platinum metals | kilograms | 2 076     | 2 962     | 6 952     | 6 448     | 4 699     |
| Potash                       |           |           |           |           |           |           |
| Sulphate                     | tonnes    | 2 683     | 4 778     | 6 077     | 1 878     | 1 019     |
| Chloride                     | tonnes    | 38 706    | 106 772   | 34 292    | 47 885    | 4 917     |
| Other potassic fertilisers   | tonnes    | 29 605    | 13 150    | 13 742    | 24 438    | 11 052    |
| Rare earths                  |           |           |           |           |           |           |
| Cerium compounds             | tonnes    | ...       | 1         | 1         | 11        | 734       |
| Other rare earth compounds   | tonnes    | 16        | 41        | 30        | 10        | 36        |
| Salt                         | tonnes    | 436 794   | 520 735   | 230 787   | 213 931   | 421 109   |
| Sillimanite minerals         | tonnes    | 2 909     | 3 023     | 3 377     | 2 482     | 2 598     |
| Silver                       |           |           |           |           |           |           |
| Metal                        | kilograms | 18 173    | 26 104    | 62 049    | 51 992    | 1 873 817 |
| Sulphur and pyrites          |           |           |           |           |           |           |
| Sulphur                      | tonnes    | 7 066     | 2 335     | 204       | 2 082     | 4 447     |
| Talc                         | tonnes    | 14 103    | 13 299    | 10 830    | 12 055    | 8 035     |
| Titanium                     |           |           |           |           |           |           |
| Metal                        | tonnes    | 770       | 788       | 623       | 774       | 670       |
| Oxides                       | tonnes    | 23 156    | 24 678    | 19 514    | 17 055    | 17 511    |
| Tungsten                     |           |           |           |           |           |           |
| Metal                        | tonnes    | 307       | 523       | 113       | 110       | 105       |
| Zinc                         |           |           |           |           |           |           |
| Unwrought                    | tonnes    | 9 855     | 11 494    | 9 931     | 12 591    | 6 063     |
| Unwrought alloys             | tonnes    | 1 457     | 1 320     | 1 345     | 910       | 771       |

Note(s)

(a) Including alloys

## Estonia

### Production

| Commodity           | Units  | 2005      | 2006      | 2007      | 2008      | 2009      |
|---------------------|--------|-----------|-----------|-----------|-----------|-----------|
| Primary aggregates  |        |           |           |           |           |           |
| Sand and gravel     | tonnes | 3 459 760 | 4 209 080 | 6 531 740 | 3 635 700 | 3 911 980 |
| Crushed rock        | tonnes | 6 828 600 | 8 298 400 | 8 855 800 | 7 945 900 | 6 034 500 |
| Cement              |        |           |           |           |           |           |
| Cement, finished    | tonnes | 726 000   | 848 900   | 937 400   | 808 000   | 326 200   |
| Cement clinker      | tonnes | 635 500   | 704 700   | 1 042 800 | 1 040 000 | 448 500   |
| Lead, refined       | tonnes | 7 000     | 9 000     | 10 000    | 10 000    | 10 000    |
| Crude petroleum (a) | tonnes | 1 690 000 | 1 624 000 | 1 901 600 | 1 869 500 | 1 733 000 |

Note(s)

(1) Small amounts of steel are believed to be produced in Estonia

(a) From oil shale

### Exports

| Commodity                    | Units     | 2005     | 2006    | 2007       | 2008    | 2009    |
|------------------------------|-----------|----------|---------|------------|---------|---------|
| Primary aggregates           | tonnes    | 522 792  | 563 697 | 573 530    | 701 067 | 503 048 |
| Aluminium and bauxite        |           |          |         |            |         |         |
| Unwrought (a)                | tonnes    | 2 414    | 3 013   | 8 083      | 27 839  | 8 357   |
| Scrap                        | tonnes    | 10 686   | 8 263   | 10 379     | 19 895  | 6 958   |
| Cement                       |           |          |         |            |         |         |
| Cement clinkers              | tonnes    | 97 442   | 87 638  | 325 263    | 426 384 | 395 641 |
| Portland cement              | tonnes    | 225 729  | 228 971 | 274 997    | 383 449 | 120 294 |
| Other cement                 | tonnes    | 13       | 29      | 452        | 1 387   | 59      |
| Coal                         |           |          |         |            |         |         |
| Hard coal (b)                | tonnes    | 9 054    | 3 164   | 2 035      | ...     | 20 296  |
| Copper                       |           |          |         |            |         |         |
| Scrap                        | tonnes    | 6 660    | 11 801  | 7 784      | 8 185   | 5 633   |
| Iron, steel and ferro-alloys |           |          |         |            |         |         |
| Pig iron                     | tonnes    | (c)* 200 | ...     | (c)* 1 360 | 1       | (f)* 1  |
| Ferro-alloys                 | tonnes    | 665      | 672     | 159        | 153     | 100     |
| Ingots, blooms, billets      | tonnes    | ...      | 425     | 5 985      | 1 392   | 3 159   |
| Scrap                        | tonnes    | 440 622  | 592 372 | 572 216    | 650 099 | 384 299 |
| Lead                         |           |          |         |            |         |         |
| Unwrought                    | tonnes    | 7 774    | 6 054   | 10 091     | 10 473  | 8 861   |
| Manganese                    |           |          |         |            |         |         |
| Metal                        | tonnes    | 663      | 222     | 464        | 226     | 137     |
| Mercury                      | kilograms | 3 400    | —       | —          | —       | —       |
| Nickel                       |           |          |         |            |         |         |
| Scrap                        | tonnes    | 34       | 713     | 1 260      | 840     | 89      |
| Rare earths                  |           |          |         |            |         |         |
| Metals                       | tonnes    | 3        | 1       | 1          | 1       | 1       |
| Rare earth compounds         | tonnes    | 2 319    | 6 819   | 3 183      | 2 916   | 2 679   |
| Salt                         |           |          |         |            |         |         |
| Tantalum and niobium         | tonnes    | 149      | 572     | 429        | 121     | 277     |
| Tantalum                     | tonnes    | 65       | 51      | 43         | 67      | 47      |
| Tin                          |           |          |         |            |         |         |
| Scrap                        | tonnes    | 125      | 17      | 71         | 88      | 124     |
| Titanium                     |           |          |         |            |         |         |
| Metal                        | tonnes    | 31       | 49      | 11         | 13      | 30      |
| Oxides                       | tonnes    | 144      | 163     | 1 491      | 579     | 158     |

Estonia

Exports continued

| Commodity     | Units  | 2005 | 2006  | 2007 | 2008  | 2009  |
|---------------|--------|------|-------|------|-------|-------|
| Zinc<br>Scrap | tonnes | 539  | 1 121 | 725  | 2 860 | 1 065 |

Note(s)

- (a) Including alloys
- (b) Including anthracite
- (c) BGS estimates, based on known imports into certain countries

## Imports

| Commodity                    | Units     | 2005    | 2006    | 2007    | 2008    | 2009      |
|------------------------------|-----------|---------|---------|---------|---------|-----------|
| Primary aggregates           | tonnes    | 933 376 | 932 688 | 929 218 | 988 981 | 1 006 376 |
| Aluminium and bauxite        |           |         |         |         |         |           |
| Unwrought (a)                | tonnes    | 1 686   | 7 021   | 3 035   | 26 545  | 5 956     |
| Scrap                        | tonnes    | 453     | 1 338   | 808     | 485     | 535       |
| Bentonite and fuller's earth |           |         |         |         |         |           |
| Bentonite                    | tonnes    | 2 014   | 2 223   | 1 995   | 1 506   | 1 631     |
| Cement                       |           |         |         |         |         |           |
| Cement clinkers              | tonnes    | 21 219  | 44 059  | 31 127  | 25 438  | —         |
| Portland cement              | tonnes    | 3 311   | 1 833   | 2 536   | 4 613   | 30 424    |
| Coal                         |           |         |         |         |         |           |
| Hard coal (b)                | tonnes    | 53 647  | 95 079  | 175 599 | 123 194 | 30 413    |
| Gold                         |           |         |         |         |         |           |
| Metal                        | kilograms | 234     | 365     | 900     | 1 200   | 300       |
| Gypsum                       |           |         |         |         |         |           |
| Crude and calcined           | tonnes    | 20 957  | 40 876  | 46 336  | 38 062  | 9 141     |
| Iron, steel and ferro-alloys |           |         |         |         |         |           |
| Ferro-alloys                 | tonnes    | 2 125   | 1 815   | 1 240   | 1 114   | 305       |
| Scrap                        | tonnes    | 111 930 | 64 110  | 53 155  | 37 774  | 9 267     |
| Kaolin                       | tonnes    | 1 058   | 1 090   | 3 214   | 3 902   | 1 588     |
| Manganese                    |           |         |         |         |         |           |
| Metal                        | tonnes    | 552     | 909     | 836     | 478     | 168       |
| Natural gas                  | tonnes    | 155 659 | 154 926 | 726 823 | 717 831 | 477 844   |
| Nickel                       |           |         |         |         |         |           |
| Scrap                        | tonnes    | 125     | 562     | 803     | 129     | —         |
| Unwrought (a)                | tonnes    | 548     | 1 378   | 350     | 34      | 15        |
| Potash                       |           |         |         |         |         |           |
| Chloride                     | tonnes    | 14 509  | 11 173  | 7 048   | 8 665   | 1         |
| Rare earths                  |           |         |         |         |         |           |
| Rare earth compounds         | tonnes    | 4 352   | 6 804   | 4 721   | 4 469   | 4 125     |
| Metals                       | tonnes    | 8       | 10      | ...     | ...     | —         |
| Salt                         | tonnes    | 58 269  | 78 483  | 72 445  | 72 149  | 73 931    |
| Silver                       |           |         |         |         |         |           |
| Metal                        | kilograms | 133 123 | 10 100  | 3 100   | 5 800   | 2 900     |
| Talc                         | tonnes    | 300     | 295     | 418     | 331     | 332       |
| Titanium                     |           |         |         |         |         |           |
| Metal                        | tonnes    | 294     | 74      | 393     | 97      | 50        |
| Oxides                       | tonnes    | 1 367   | 2 193   | 2 548   | 2 106   | 1 349     |
| Zinc                         |           |         |         |         |         |           |
| Unwrought (a)                | tonnes    | 9 129   | 7 253   | 4 362   | 7 676   | 1 595     |

Note(s)

- (a) Including alloys
- (b) Including anthracite

## Finland

### Production

| Commodity                      | Units                     | 2005       | 2006       | 2007       | 2008         | 2009         |
|--------------------------------|---------------------------|------------|------------|------------|--------------|--------------|
| Primary aggregates             |                           |            |            |            |              |              |
| Sand and gravel                | tonnes                    | 53 000 000 | 54 000 000 | 59 000 000 | * 59 000 000 | * 47 000 000 |
| Crushed rock                   | tonnes                    | 45 000 000 | 46 000 000 | 54 000 000 | * 54 000 000 | * 43 000 000 |
| Cement                         |                           |            |            |            |              |              |
| Cement, finished (a)           | tonnes                    | 1 347 000  | 1 684 507  | 1 771 000  | 1 638 000    | * 1 042 000  |
| Chromium ores and concentrates | tonnes                    | 572 000    | 549 000    | 556 000    | 614 000      | 247 000      |
| Cobalt metal                   | tonnes                    | 8 171      | 8 582      | 9 173      | 9 645        | 8 962        |
| Cobalt, mine                   | tonnes (metal content)    | * 100      | * 100      | * 120      | * 100        | * 27         |
| Copper, mine                   | tonnes (metal content)    | 15 000     | 13 000     | 13 600     | 13 300       | 14 600       |
| Copper, smelter                | tonnes                    | 157 933    | 164 306    | 118 911    | 142 154      | 110 479      |
| Copper, refined                | tonnes                    | 132 126    | 137 961    | 109 870    | 131 249      | 105 549      |
| Feldspar                       | tonnes                    | 42 783     | 43 187     | 48 980     | 45 250       | * 45 000     |
| Gold, mine                     | kilograms (metal content) | 3 747      | 5 292      | 4 621      | 4 148        | * 1 785      |
| Pig iron                       | tonnes                    | 3 056 165  | 3 157 894  | 2 915 130  | 2 942 946    | 2 042 000    |
| Crude steel                    | tonnes                    | 4 738 446  | 5 053 714  | 4 430 726  | 4 416 792    | 3 078 000    |
| Ferro-alloys                   |                           |            |            |            |              |              |
| Ferro-chrome                   | tonnes                    | 234 881    | 243 350    | 241 760    | 233 550      | 123 310      |
| Mercury                        | kilograms                 | 34 200     | 22 820     | 45 195     | 33 120       | 6 210        |
| Mica                           | tonnes                    | 9 500      | 8 097      | 11 449     | 10 706       | * 10 000     |
| Nickel, mine                   | tonnes (metal content)    | 3 400      | 3 000      | 3 600      | 6 200        | 1 600        |
| Nickel, smelter/refinery       | tonnes                    | 39 159     | 47 469     | 55 000     | 51 963       | 40 800       |
| Phosphate rock                 | tonnes                    | 822 987    | 857 922    | 830 989    | 780 000      | 660 405      |
| Selenium metal                 | tonnes                    | 66         | 70         | 52         | 65           | 66           |
| Silver, mine                   | kilograms (metal content) | 47 462     | 50 843     | 44 895     | 69 906       | 69 600       |
| Sulphur and pyrites            |                           |            |            |            |              |              |
| Pyrites                        | tonnes (sulphur content)  | 184 400    | 199 700    | 194 400    | 226 000      | 153 600      |
| Recovered (b)                  | tonnes (sulphur content)  | 304 751    | 325 793    | * 326 000  | 331 000      | 273 600      |
| Recovered (c)                  | tonnes (sulphur content)  | 70 000     | 70 000     | 125 000    | 117 000      | 127 000      |
| Talc                           | tonnes                    | 508 169    | 547 146    | 535 882    | 527 686      | * 500 000    |
| Wollastonite                   | tonnes                    | 15 950     | 16 200     | 16 364     | 15 600       | * 16 000     |
| Zinc, mine                     | tonnes (metal content)    | 40 500     | 35 700     | 38 900     | 27 800       | 30 233       |
| Slab Zinc                      | tonnes                    | 281 904    | 282 238    | 305 543    | 297 722      | 295 049      |

#### Note(s)

(1) Finland is believed to produce arsenic

- (a) Sales
- (b) From metal sulphide processing
- (c) From petroleum refining and/or Natural gas

### Exports

| Commodity                    | Units  | 2005    | 2006    | 2007    | 2008    | 2009    |
|------------------------------|--------|---------|---------|---------|---------|---------|
| Primary aggregates           | tonnes | 580 815 | 735 655 | 837 957 | 850 685 | 645 609 |
| Aluminium and bauxite        |        |         |         |         |         |         |
| Unwrought alloys             | tonnes | 14 107  | 11 411  | 12 924  | 14 239  | 8 939   |
| Scrap                        | tonnes | 21 053  | 25 921  | 38 364  | 37 345  | 34 910  |
| Bentonite and fuller's earth |        |         |         |         |         |         |
| Bentonite                    | tonnes | 155     | 232     | 115     | 42      | 803     |
| Cement                       |        |         |         |         |         |         |
| Portland cement              | tonnes | 3 367   | 647     | 982     | 2 618   | 1 275   |
| Other cement                 | tonnes | ...     | ...     | ...     | ...     | ...     |
| Chromium                     |        |         |         |         |         |         |
| Ores and concentrates        | tonnes | 841     | 1 570   | 2 492   | 3 041   | 2 050   |
| Metal                        | tonnes | 1       | 5       | —       | 1 034   | 1 577   |
| Cobalt                       |        |         |         |         |         |         |
| Metal (a)                    | tonnes | * 5 800 | * 5 700 | * 5 700 | * 5 700 | * 4 500 |
| Oxides (a)                   | tonnes | * 1 700 | * 2 200 | * 2 400 | * 2 600 | * 3 100 |

## Finland

## Exports continued

| Commodity                    | Units     | 2005      | 2006       | 2007      | 2008      | 2009      |
|------------------------------|-----------|-----------|------------|-----------|-----------|-----------|
| Copper                       |           |           |            |           |           |           |
| Unwrought, unrefined         | tonnes    | 29 685    | 34 962     | 10 490    | 27 525    | 37 084    |
| Unwrought, refined           | tonnes    | 40 170    | 55 239     | 32 956    | 67 908    | 40 864    |
| Unwrought alloys             | tonnes    | 746       | 1 533      | 587       | 423       | 275       |
| Scrap                        | tonnes    | 30 577    | 31 182     | 32 872    | 32 585    | 32 762    |
| Feldspar                     | tonnes    | 37 386    | 41 437     | 37 392    | 36 482    | 26 613    |
| Gold                         |           |           |            |           |           |           |
| Waste and scrap              | kilograms | 778       | 886        | 200       | 466       | 539       |
| Graphite                     | tonnes    | 0         | 2          | 46 162    | 0         | 5         |
| Iron ore                     |           |           |            |           |           |           |
| Burnt pyrites                | tonnes    | 59 433    | 67 503     | 146 844   | 396 064   | 244 225   |
| Iron, steel and ferro-alloys |           |           |            |           |           |           |
| Pig iron                     | tonnes    | 8 040     | 3 045      | 0         | 14 070    | 11 317    |
| Ferro-chrome                 | tonnes    | 39 341    | 37 663     | 100 022   | 37 709    | 61 319    |
| Ingots, blooms, billets      | tonnes    | 436 083   | 284 313    | 185 229   | 281 325   | 253 440   |
| Scrap                        | tonnes    | 286 494   | 220 124    | 253 732   | 308 047   | 276 010   |
| Kaolin                       | tonnes    | 7 378     | 8 373      | 10 597    | 8 587     | 13 832    |
| Lead                         |           |           |            |           |           |           |
| Scrap                        | tonnes    | 3 589     | 2 421      | 605       | 588       | 357       |
| Manganese                    |           |           |            |           |           |           |
| Metal                        | tonnes    | ...       | 0          | 31        | 98        | 341       |
| Mercury                      | kilograms | 32 090    | 24 859     | 45 600    | 35 000    | 6 211     |
| Mica                         |           |           |            |           |           |           |
| Ground                       | tonnes    | 5 745     | 6 603      | 8 956     | 7 138     | 6 125     |
| Natural gas                  | tonnes    | 328       | —          | 1 218     | 1 420     | 4 557     |
| Nickel                       |           |           |            |           |           |           |
| Ores and concentrates        | tonnes    | ...       | —          | —         | 14 069    | —         |
| Unwrought                    | tonnes    | 30 628    | 37 747     | 43 427    | 40 108    | 37 202    |
| Scrap                        | tonnes    | 28        | 47         | 441       | 27        | 1 511     |
| Oxides (a)                   | tonnes    | * 300     | * 600      | * 600     | * 500     | * 200     |
| Phosphate rock               | tonnes    | 996       | 1 141      | 6 942     | 3 248     | 3 796     |
| Platinum metals              |           |           |            |           |           |           |
| Platinum and platinum metals | kilograms | 5         | 23         | 19        | 30        | 34 126    |
| Waste and scrap              | kilograms | 75 669    | 713        | 463       | 218       | 267       |
| Potash                       |           |           |            |           |           |           |
| Sulphate                     | tonnes    | 33 484    | (a)* 7 900 | 49 485    | 17 181    | 45 818    |
| Chloride                     | tonnes    | 38 915    | 65 003     | 50 342    | 50 822    | 26        |
| Rare earths                  |           |           |            |           |           |           |
| Rare earth compounds         | tonnes    | 2         | 1          | 1         | 103       | 0         |
| Metals                       | tonnes    | ...       | ...        | 104       | ...       | —         |
| Salt                         | tonnes    | 384       | 531        | 424       | 336       | 336       |
| Silver                       |           |           |            |           |           |           |
| Ores and concentrates        | kilograms | 416 650   | 262 669    | 700       | 38        | —         |
| Metal                        | kilograms | 6 764     | 6 041      | 3 400     | 3 400     | 1 680     |
| Sulphur and pyrites          |           |           |            |           |           |           |
| Pyrites (a)                  | tonnes    | * 100 000 | * 73 000   | * 90 000  | * 386 000 | * 88 000  |
| Sulphur                      | tonnes    | 3 135     | 3 674      | 3 513     | 2 521     | 35 701    |
| Talc (a)                     | tonnes    | * 278 000 | * 246 000  | * 284 000 | * 320 000 | * 174 000 |
| Tin                          |           |           |            |           |           |           |
| Unwrought (b)                | tonnes    | 66        | 95         | 56        | 77        | 36        |
| Scrap                        | tonnes    | 58        | 89         | 201       | 193       | 124       |
| Titanium                     |           |           |            |           |           |           |
| Metal                        | tonnes    | 44        | 35         | 30        | 11        | 14        |
| Oxides (a)                   | tonnes    | * 104 000 | * 103 000  | * 103 000 | * 106 000 | * 86 000  |
| Tungsten                     |           |           |            |           |           |           |
| Metal                        | tonnes    | 77        | 80         | 113       | 360       | 291       |
| Zinc                         |           |           |            |           |           |           |
| Unwrought (b)                | tonnes    | 235 403   | 233 231    | 260 434   | 257 411   | 268 893   |
| Scrap                        | tonnes    | 2 116     | 1 650      | 1 274     | 964       | 1 012     |

## Note(s)

- (a) BGS estimates, based on known imports into certain countries  
 (b) Including alloys

## Imports

| Commodity                                | Units     | 2005       | 2006       | 2007       | 2008       | 2009       |
|--|-----------|------------|------------|------------|------------|------------|
| Primary aggregates                       | tonnes    | 43 488     | 254 665    | 326 347    | 280 600    | 330 108    |
| Aluminium and bauxite                    |           |            |            |            |            |            |
| Bauxite                                  | tonnes    | 3 661      | 6 366      | 4 909      | 10 461     | 1 584      |
| Alumina                                  | tonnes    | 2 659      | 2 327      | 3 296      | 2 350      | 1 733      |
| Alumina hydrate                          | tonnes    | 28 300     | 31 024     | 37 163     | 22 243     | 20 614     |
| Unwrought                                | tonnes    | 4 057      | 1 145      | 1 213      | 1 332      | 1 204      |
| Unwrought alloys                         | tonnes    | 40 510     | 39 755     | 49 299     | 41 635     | 29 303     |
| Scrap                                    | tonnes    | 15 537     | 14 906     | 19 051     | 21 978     | 10 998     |
| Antimony                                 |           |            |            |            |            |            |
| Oxide                                    | tonnes    | 199        | 256        | 281        | 160        | 101        |
| Barytes                                  | tonnes    | 3 931      | 4 498      | 5 018      | 4 735      | 2 573      |
| Bentonite and fuller's earth             |           |            |            |            |            |            |
| Bentonite                                | tonnes    | 26 395     | 32 520     | 37 741     | 31 445     | 19 429     |
| Fuller's earth                           | tonnes    | 201        | 109        | ...        | ...        | ...        |
| Bromine                                  | kilograms | 71 000     | 36 158     | 100        | 146 800    | 242 982    |
| Cement                                   |           |            |            |            |            |            |
| Cement clinkers                          | tonnes    | 17 594     | 95 730     | 314 436    | 236 439    | 536        |
| Portland cement                          | tonnes    | 383 260    | 380 296    | 341 748    | 281 924    | 320 084    |
| Other cement                             | tonnes    | 13 211     | 12 176     | 16 006     | 15 911     | 12 232     |
| Chromium                                 |           |            |            |            |            |            |
| Ores and concentrates                    | tonnes    | 6 962      | 8 388      | 9 324      | 8 866      | 4 521      |
| Metal                                    | tonnes    | 258        | 575        | 282        | 327        | 105        |
| Coal                                     |           |            |            |            |            |            |
| Hard coal (a)                            | tonnes    | 4 724 392  | 6 683 990  | 6 669 717  | 5 671 385  | 5 937 153  |
| Cobalt                                   |           |            |            |            |            |            |
| Ore                                      | tonnes    | 54 794     | 31 186     | 26 449     | 26 500     | 15 146     |
| Metal                                    | tonnes    | 13 611     | 26 928     | 27 590     | 36 405     | 24 002     |
| Oxides                                   | tonnes    | 336        | 186        | 346        | 167        | 46         |
| Copper                                   |           |            |            |            |            |            |
| Ores and concentrates                    | tonnes    | 504 658    | 544 149    | 448 119    | 536 584    | 352 370    |
| Unwrought                                | tonnes    | 35         | 21         | 2 777      | 2 490      | 16 298     |
| Unwrought alloys                         | tonnes    | 3 229      | 3 996      | 4 178      | 3 542      | 2 415      |
| Scrap                                    | tonnes    | 2 423      | 1 259      | 2 644      | 4 146      | 7 349      |
| Diamond                                  |           |            |            |            |            |            |
| Gem, cut                                 | carats    | £3 082 000 | £3 264 000 | £3 004 000 | £3 698 000 | £3 133 000 |
| Dust                                     | carats    | 450 000    | 620 000    | 682 850    | 625 200    | 273 415    |
| Diatomite                                | tonnes    | 2 700      | 2 339      | 3 510      | 3 344      | 3 015      |
| Feldspar                                 | tonnes    | 380        | 796        | 1 023      | 699        | 851        |
| Fluorspar                                | tonnes    | 16 597     | 15 011     | 15 064     | 12 366     | 23 178     |
| Gold                                     |           |            |            |            |            |            |
| Waste and scrap                          | kilograms | 22 981     | 4          | 1          | —          | 35         |
| Gypsum                                   |           |            |            |            |            |            |
| Crude                                    | tonnes    | 341 680    | 310 245    | 423 355    | 408 509    | 146 141    |
| Calcined                                 | tonnes    | 7 517      | 9 958      | 8 588      | 6 598      | 5 664      |
| Iodine                                   | kilograms | 6 209      | 2 066      | 3 400      | 3 400      | 2 901      |
| Iron ore                                 | tonnes    | 4 215 633  | 3 481 019  | 3 156 096  | 3 121 303  | 2 204 018  |
| Iron, steel and ferro-alloys             |           |            |            |            |            |            |
| Pig iron                                 | tonnes    | 27 160     | 45 364     | 53 901     | 42 681     | 18 097     |
| Sponge and powder                        | tonnes    | 969        | 779 146    | 880 575    | 942 664    | 493 087    |
| Ferro-chrome                             | tonnes    | 7 404      | 17 926     | 9 650      | 11 182     | 5 094      |
| Ferro-manganese                          | tonnes    | 14 728     | 14 828     | 18 138     | 15 709     | 5 985      |
| Ferro-silico-manganese                   | tonnes    | 38 375     | 38 440     | 34 994     | 34 139     | 20 642     |
| Ferro-molybdenum                         | tonnes    | 2 293      | 1 948      | 1 892      | 1 730      | 584        |
| Ferro-nickel                             | tonnes    | 47 531     | 53 741     | 54 106     | 50 294     | 17 098     |
| Ferro-niobium                            | tonnes    | 478        | 493        | 570        | 757        | 318        |
| Ferro-phosphorus                         | tonnes    | 489        | 550        | 560        | 380        | 285        |
| Ferro-silicon                            | tonnes    | 25 723     | 36 659     | 31 814     | 29 740     | 21 437     |
| Ferro-titanium and ferro-silico-titanium | tonnes    | 1 912      | 1 558      | 1 707      | 1 857      | 710        |
| Other ferro-alloys                       | tonnes    | 4 849      | 4 252      | 4 300      | 4 193      | 1 428      |
| Silicon metal                            | tonnes    | 1 306      | 1 402      | 1 318      | 1 638      | 548        |
| Ingots, blooms, billets                  | tonnes    | 51 678     | 5 138      | 7 649      | 11 114     | 30 206     |
| Scrap                                    | tonnes    | 756 267    | 1 013 675  | 687 887    | 596 792    | 467 642    |
| Kaolin                                   | tonnes    | 1 144 335  | 1 261 699  | 1 155 041  | 1 147 687  | 708 210    |
| Lead                                     |           |            |            |            |            |            |
| Unwrought                                | tonnes    | 2 854      | 1 571      | 2 283      | 3 195      | 2 346      |
| Lithium                                  |           |            |            |            |            |            |
| Carbonate                                | tonnes    | 77         | 85         | 73         | 84         | 41         |

## Finland

## Imports continued

| Commodity                    | Units     | 2005        | 2006        | 2007       | 2008       | 2009       |
|------------------------------|-----------|-------------|-------------|------------|------------|------------|
| Magnesite and magnesia       |           |             |             |            |            |            |
| Magnesia                     | tonnes    | 16 476      | 9 540       | 15 989     | 8 692      | 6 439      |
| Manganese                    |           |             |             |            |            |            |
| Ores and concentrates        | tonnes    | 28 335      | 10 433      | 27 251     | 24 926     | 12 224     |
| Metal                        | tonnes    | 753         | 2 182       | 2 379      | 2 649      | 912        |
| Mercury                      | kilograms | 28          | 38          | 200        | 209        | 2 136      |
| Mica                         | tonnes    | 2 998       | 2 874       | 4 098      | 4 383      | 1 988      |
| Molybdenum                   |           |             |             |            |            |            |
| Ores and concentrates        | tonnes    | 28 469      | 9 270       | 5 789      | 3 498      | 40         |
| Nickel                       |           |             |             |            |            |            |
| Mattes, sinters etc          | tonnes    | 50 194      | 45 851      | 50 856     | 33 247     | 22 715     |
| Ores and concentrates        | tonnes    | 104 983     | 190 233     | 256 932    | 290 914    | 185 202    |
| Unwrought (b)                | tonnes    | 23 801      | 27 939      | 15 457     | 18 201     | 9 984      |
| Scrap                        | tonnes    | 860         | 757         | 299        | 481        | 149        |
| Crude petroleum              | tonnes    | 10 603 534  | 12 176 669  | 12 221 330 | 11 908 304 | 11 516 562 |
| Natural gas                  | tonnes    | 3 068 411   | 3 312 381   | 3 172 117  | 3 269 068  | —          |
| Phosphate rock               | tonnes    | 56 117      | 86 734      | 113 286    | 118 749    | —          |
| Platinum metals              |           |             |             |            |            |            |
| Platinum and platinum metals | kilograms | 495         | 309         | 198        | 365        | 284        |
| Potash                       |           |             |             |            |            |            |
| Chloride                     | tonnes    | (c) 163 600 | (c) 161 400 | 148 400    | 120 158    | —          |
| Rare earths                  |           |             |             |            |            |            |
| Cerium compounds             | tonnes    | 83          | 117         | 92         | 101        | 57         |
| Other rare earth compounds   | tonnes    | 13          | 21          | 5          | 7          | 9          |
| Salt                         | tonnes    | 438 346     | 401 961     | 409 761    | 397 033    | 417 495    |
| Silver                       |           |             |             |            |            |            |
| Metal                        | kilograms | 70 623      | 64 504      | 55 400     | 44 800     | 498 859    |
| Sulphur and pyrites          |           |             |             |            |            |            |
| Sulphur                      | tonnes    | 310         | 11 925      | 415        | 9 073      | 1 673      |
| Talc                         | tonnes    | 866         | 757         | 663        | 503        | 525        |
| Tin                          |           |             |             |            |            |            |
| Unwrought (b)                | tonnes    | 178         | 173         | 166        | 184        | 94         |
| Titanium                     |           |             |             |            |            |            |
| Titanium minerals            | tonnes    | 5 080       | 34 403      | 20 578     | 26 200     | 8 794      |
| Oxides                       | tonnes    | 14 380      | 14 788      | 15 838     | 14 256     | 12 524     |
| Tungsten                     |           |             |             |            |            |            |
| Metal                        | tonnes    | 121         | 21          | 130        | 296        | 205        |
| Zinc                         |           |             |             |            |            |            |
| Ores and concentrates        | tonnes    | 499 024     | 520 081     | 555 569    | 582 049    | 532 036    |
| Unwrought (b)                | tonnes    | 1 314       | 1 443       | 4 513      | 4 242      | 3 705      |

## Note(s)

- (a) Including anthracite
- (b) Including alloys
- (c) K<sub>2</sub>O content

# France

## Production

| Commodity                        | Units                                     | 2005        | 2006          | 2007          | 2008           | 2009           |
|----------------------------------|---|-------------|---------------|---------------|----------------|----------------|
| Primary aggregates               |   |             |               |               |                |                |
| Sand and gravel                  | tonnes                                    | 168 640 000 | 174 360 000   | 180 450 000   | 171 610 000    | 146 290 000    |
| Crushed rock                     | tonnes                                    | 222 780 000 | 233 090 000   | 242 950 000   | 236 770 000    | 209 440 000    |
| Bauxite                          | tonnes                                    | 175 000     | 160 000       | * 160 000     | * 160 000      | * 160 000      |
| Alumina                          | tonnes ( $\text{Al}_2\text{O}_3$ content) | * 600 000   | * 636 000     | * 600 000     | * 572 000      | * 317 000      |
| Primary aluminium                | tonnes                                    | 440 000     | 442 879       | 430 159       | 389 000        | 345 000        |
| Barytes                          | tonnes                                    | * 81 000    | * 40 000      | —             | —              | —              |
| Cadmium                          | tonnes                                    | * 100       | * 90          | * 50          | * 50           | * 50           |
| Cement                           |   |             |               |               |                |                |
| Cement clinker                   | tonnes                                    | 17 332 000  | 17 731 000    | 18 046 000    | 16 885 000     | 14 568 000     |
| Cement, finished                 | tonnes                                    | 21 277 000  | 22 268 000    | 22 268 000    | 21 443 000     | 18 300 000     |
| Diatomite                        | tonnes                                    | * 75 000    | * 75 000      | * 75 000      | * 75 000       | * 75 000       |
| Feldspar                         | tonnes                                    | 651 000     | * 650 000     | * 650 000     | * 650 000      | * 550 000      |
| Fluorspar                        | tonnes                                    | 53 000      | * 40 000      | —             | —              | —              |
| Gypsum (a)                       | tonnes                                    | 4 902 498   | * 4 800 000   | * 4 800 000   | 2 339 380      | 3 351 339      |
| Pig iron                         | tonnes                                    | 12 595 584  | 12 873 900    | 12 425 703    | 11 371 879     | 8 104 318      |
| Crude steel                      | tonnes                                    | 19 480 777  | 19 852 125    | 19 249 862    | 17 879 161     | 12 840 108     |
| Ferro-alloys                     |   |             |               |               |                |                |
| Spiegeleisen and ferro-manganese | tonnes                                    | 109 111     | 139 533       | 98 066        | * 100 000      | * 100 000      |
| Ferro-silico-manganese           | tonnes                                    | 52 300      | 63 300        | * 65 000      | * 55 000       | * 55 000       |
| Ferro-silicon                    | tonnes                                    | * 67 000    | * 67 000      | * 71 000      | * 22 000       | * 20 000       |
| Silicon metal                    | tonnes                                    | * 100 000   | * 100 000     | * 120 000     | * 100 000      | * 100 000      |
| Kaolin                           | tonnes                                    | 319 464     | * 300 000     | (b) 350 742   | (b) 335 520    | (b) 227 342    |
| Lead, refined                    | tonnes                                    | * 90 000    | * 88 000      | * 88 000      | 82 100         | 62 000         |
| Mica (c)                         | tonnes                                    | * 20 000    | * 20 000      | * 20 000      | * 20 000       | * 20 000       |
| Nickel, smelter/refinery         | tonnes                                    | 12 684      | 13 700        | 14 800        | 13 700         | 13 900         |
| Crude petroleum                  | tonnes                                    | 1 179 000   | 1 100 000     | 1 013 000     | 975 000        | 899 000        |
| Natural gas                      | million m <sup>3</sup>                    | 1 089       | 1 167         | 1 023         | 925            | 877            |
| Salt                             |   |             |               |               |                |                |
| Rock salt                        | tonnes                                    | 494 000     | ...           | ...           | ...            | ...            |
| Brine salt                       | tonnes                                    | 1 468 000   | ...           | ...           | ...            | ...            |
| Salt in brine                    | tonnes                                    | 4 750 780   | (d) 9 371 000 | (d) 6 139 840 | (d)* 6 000 000 | (d)* 6 000 000 |
| Sea salt                         | tonnes                                    | 1 026 000   | ...           | ...           | ...            | ...            |
| Sillimanite minerals             | tonnes                                    | * 65 000    | * 65 000      | * 65 000      | * 65 000       | * 65 000       |
| Andalusite                       |   |             |               |               |                |                |
| Sulphur and pyrites              |   |             |               |               |                |                |
| Recovered (e)                    | tonnes (sulphur content)                  | 622 345     | 616 234       | 605 820       | * 590 000      | * 590 000      |
| Recovered (f)                    | tonnes (sulphur content)                  | 127 000     | 75 000        | 62 000        | 64 000         | 65 000         |
| Talc                             | tonnes                                    | 416 000     | * 420 000     | * 420 000     | * 420 000      | * 420 000      |
| Slab Zinc                        | tonnes                                    | 209 000     | 120 000       | 129 000       | 118 000        | 161 000        |

### Note(s)

- (1) France may produce fuller's earth
- (2) In addition to the countries producing sillimanite minerals, synthetic mullite is known to be produced in France
- (3) Significant quantities of germanium are believed to be recovered from imported domestic material

- (a) Including anhydrite
- (b) Sales
- (c) Including mica recovered from mica schists and/or kaolin beneficiation
- (d) Salt; all forms
- (e) From petroleum refining and/or Natural gas
- (f) Other

## Exports

| Commodity                    | Units     | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Primary aggregates           | tonnes    | 8 492 936 | 8 928 358 | 8 383 027 | 8 565 175 | 7 586 323 |
| Aluminium and bauxite        |           |           |           |           |           |           |
| Bauxite                      | tonnes    | 5 195     | 46 042    | 26 661    | 12 295    | 9 296     |
| Unwrought                    | tonnes    | 77 097    | 65 943    | 45 503    | 46 364    | 91 682    |
| Unwrought alloys             | tonnes    | 95 700    | 148 253   | 136 803   | 139 176   | 125 580   |
| Alumina                      | tonnes    | 255 392   | 224 866   | 276 207   | 319 388   | 178 570   |
| Alumina hydrate              | tonnes    | 139 694   | 168 250   | 146 531   | 130 881   | 100 293   |
| Scrap                        | tonnes    | 314 243   | 345 107   | 380 708   | 344 436   | 345 372   |
| Antimony                     |           |           |           |           |           |           |
| Metal                        | tonnes    | 186       | 53        | 19        | 44        | 34        |
| Oxide                        | tonnes    | 5 177     | 4 964     | 6 109     | 6 261     | 6 788     |
| Arsenic                      |           |           |           |           |           |           |
| Metallic arsenic             | tonnes    | 8         | 15        | 3         | 5         | 9         |
| Barytes (a)                  | tonnes    | * 57 700  | * 36 300  | * 37 100  | * 10 000  | * 11 500  |
| Bentonite and fuller's earth |           |           |           |           |           |           |
| Bentonite                    | tonnes    | 9 243     | 9 788     | 13 454    | 12 231    | 9 211     |
| Bismuth                      |           |           |           |           |           |           |
| Metal                        | tonnes    | 39        | 24        | 52        | 74        | 6         |
| Cadmium                      |           |           |           |           |           |           |
| Metal                        | tonnes    | 533       | 798       | 815       | 890       | 1 022     |
| Cement                       |           |           |           |           |           |           |
| Cement clinkers              | tonnes    | 310 228   | 325 352   | 325 897   | 260 529   | 170 883   |
| Portland cement              | tonnes    | 792 192   | 683 110   | 590 684   | 578 230   | 621 568   |
| Other cement                 | tonnes    | 102 222   | 113 145   | 13 999    | 10 056    | —         |
| Chromium                     |           |           |           |           |           |           |
| Ores and concentrates        | tonnes    | 2 340     | 2 013     | 2 391     | 4 694     | 1 935     |
| Metal                        | tonnes    | 8 074     | 6 457     | 7 225     | 7 844     | 4 767     |
| Coal                         |           |           |           |           |           |           |
| Anthracite                   | tonnes    | 14 913    | 10 442    | 13 161    | 57 436    | 5 272     |
| Other coal                   | tonnes    | 68 197    | 128 523   | 200 682   | 128 614   | 91 266    |
| Cobalt                       |           |           |           |           |           |           |
| Metal                        | tonnes    | 699       | 709       | 1 006     | 859       | 706       |
| Oxides                       | tonnes    | 57        | 68        | 91        | 28        | 50        |
| Copper                       |           |           |           |           |           |           |
| Matte and cement             | tonnes    | 31        | 79        | 331       | ...       | 720       |
| Unwrought                    | tonnes    | 48 050    | 47 839    | 67 765    | 55 405    | 60 428    |
| Unwrought alloys             | tonnes    | 9 851     | 9 680     | 13 140    | 13 049    | 9 455     |
| Scrap                        | tonnes    | 262 874   | 290 528   | 284 890   | 266 930   | 235 277   |
| Diamond                      |           |           |           |           |           |           |
| Unsorted                     | carats    | 14 853    | 40 105    | 22 863    | 9 386     | 8 723     |
| Gem                          | carats    | 98 712    | 164 433   | 227 372   | 293 420   | 394 845   |
| Dust                         | carats    | 1 273 515 | 1 069 100 | 430 000   | 838 620   | 45 000    |
| Diatomite                    | tonnes    | 25 379    | 24 866    | 29 607    | 23 239    | 21 713    |
| Feldspar                     | tonnes    | 255 836   | 224 062   | 261 112   | 244 785   | 182 575   |
| Fluorspar                    | tonnes    | 6 821     | 28        | 3 770     | 58        | 41        |
| Gold                         |           |           |           |           |           |           |
| Metal                        | kilograms | 20 053    | 24 302    | 20 229    | 22 247    | 22 448    |
| Waste and scrap              | kilograms | 29 600    | 29 600    | 29 300    | 50 700    | 34 094    |
| Graphite                     | tonnes    | 225       | 85        | 163       | 269       | 226       |
| Gypsum                       |           |           |           |           |           |           |
| Crude                        | tonnes    | 250 845   | 321 789   | 414 428   | 381 841   | 267 315   |
| Calcined                     | tonnes    | 350 955   | 349 703   | 356 716   | 338 682   | 282 254   |
| Iodine                       | kilograms | 40 900    | 51 300    | 91 100    | 100 500   | 101 909   |
| Iron ore                     | tonnes    | 107 042   | 76 097    | 69 376    | 57 720    | 124 492   |

## Exports continued

| Commodity                                | Units     | 2005      | 2006       | 2007       | 2008       | 2009      |
|--|-----------|-----------|------------|------------|------------|-----------|
| Iron, steel and ferro-alloys             |           |           |            |            |            |           |
| Pig iron                                 | tonnes    | 350       | 113 729    | 89 768     | 88 462     | 151 699   |
| Sponge and powder                        | tonnes    | 6 465     | 13 059     | 17 948     | 14 698     | 5 261     |
| Ferro-chrome                             | tonnes    | 857       | 875        | 1 217      | 2 098      | 2 217     |
| Ferro-silico-magnesium                   | tonnes    | 6 829     | 2 165      | 16 377     | 28 255     | 10 787    |
| Ferro-manganese                          | tonnes    | 7 181     | 7 483      | 8 049      | 2 457      | 2 882     |
| Ferro-silico-manganese                   | tonnes    | 76 021    | 53 278     | 41 110     | 42 260     | 41 324    |
| Ferro-molybdenum                         | tonnes    | 547       | 673        | 481        | 374        | 379       |
| Ferro-niobium                            | tonnes    | 240       | 596        | 948        | 984        | 261       |
| Ferro-silicon                            | tonnes    | 69 551    | 63 432     | 50 334     | 73 824     | 51 676    |
| Ferro-titanium and ferro-silico-titanium | tonnes    | 1 542     | 1 992      | 2 292      | 1 493      | 844       |
| Other ferro-alloys                       | tonnes    | 27 432    | 22 699     | 357        | 150        | 10 612    |
| Ingots, blooms, billets                  | tonnes    | 3 914 427 | 3 071 836  | 2 650 976  | 2 830 986  | 1 814 051 |
| Scrap                                    | tonnes    | 4 955 474 | 6 019 890  | 6 210 854  | 6 028 712  | 5 402 426 |
| Kaolin                                   | tonnes    | 421 927   | 968 538    | 412 284    | 319 301    | 268 674   |
| Lead                                     |           |           |            |            |            |           |
| Unwrought                                | tonnes    | 6 920     | 25 933     | 14 936     | 17 630     | 14 554    |
| Scrap                                    | tonnes    | 24 683    | 21 854     | 29 544     | 15 888     | 20 815    |
| Lithium                                  |           |           |            |            |            |           |
| Carbonate                                | tonnes    | 462       | 12         | 2          | 3          | 1         |
| Magnesite and magnesia                   |           |           |            |            |            |           |
| Magnesite                                | tonnes    | 230       | 241        | 373        | 310        | 576       |
| Magnesia                                 | tonnes    | 45 661    | 47 832     | 48 852     | 57 342     | 35 523    |
| Manganese                                |           |           |            |            |            |           |
| Ores and concentrates (b)                | tonnes    | 139 723   | 303 881    | 333 747    | 321 638    | 138 787   |
| Metal                                    | tonnes    | 324       | 415        | 327        | 488        | 631       |
| Mercury                                  | kilograms | 15 400    | 27 300     | 9 100      | 1 700      | 718       |
| Mica                                     |           |           |            |            |            |           |
| Ground                                   | tonnes    | 13 406    | 12 794     | 13 490     | 13 881     | 10 758    |
| Waste                                    | tonnes    | 39        | 20         | 422        | ...        | ...       |
| Molybdenum                               |           |           |            |            |            |           |
| Ores and concentrates                    | tonnes    | 365       | 512        | 485        | 55         | 75        |
| Nickel                                   |           |           |            |            |            |           |
| Unwrought                                | tonnes    | 10 148    | 11 761     | 12 308     | 10 754     | 12 095    |
| Unwrought alloys                         | tonnes    | 1 762     | 999        | 1 475      | 2 475      | 1 377     |
| Scrap                                    | tonnes    | 6 373     | 7 826      | 7 578      | 7 558      | 11 435    |
| Crude petroleum                          | tonnes    | 20 374    | 2 675      | 190        | 65         | 1 689     |
| Phosphate rock                           | tonnes    | 4 463     | 10 147     | 15 919     | 96 127     | —         |
| Natural gas                              | tonnes    | 9 107 475 | 11 501 866 | 10 247 611 | 22 087 224 | 3 469 724 |
| Platinum metals                          |           |           |            |            |            |           |
| Platinum                                 | kilograms | 3 324     | 5 283      | 4 758      | 2 033      | 1 140     |
| Platinum metals                          | kilograms | 4 075     | 3 565      | 2 800      | 2 120      | 1 396     |
| Waste and scrap                          | kilograms | 184 400   | 383 300    | 190 100    | 282 400    | 609 699   |
| Potash                                   |           |           |            |            |            |           |
| Sulphate                                 | tonnes    | 54 235    | 32 887     | 33 446     | 34 777     | 18 248    |
| Chloride                                 | tonnes    | 6 376     | 3 185      | 8 166      | 11 416     | 9 858     |
| Other potassic fertilisers               | tonnes    | 841       | 221        | 278        | 327        | 414       |
| Rare earths                              |           |           |            |            |            |           |
| Rare earth compounds                     | tonnes    | 2 007     | 2 185      | 2 545      | 1 854      | 1 244     |
| Ferro-cerium and other pyrophoric alloys | tonnes    | 32        | 85         | 133        | —          | 0         |
| Metals                                   | tonnes    | 7         | 24         | 11         | 11         | 3         |
| Salt                                     | tonnes    | 407 255   | 254 487    | 363 438    | 231 953    | 277 617   |
| Sillimanite minerals                     | tonnes    | 55 052    | 59 002     | 66 776     | 66 242     | 38 494    |
| Silver                                   |           |           |            |            |            |           |
| Ores and concentrates                    | kilograms | ...       | ...        | 26 500     | 51 100     | 1 597 157 |
| Metal                                    | kilograms | 252 300   | 228 673    | 208 832    | 215 148    | 169 806   |
| Sulphur and pyrites                      |           |           |            |            |            |           |
| Sulphur                                  | tonnes    | 361 594   | 294 003    | 59 934     | 246 005    | 313 229   |
| Sulphur, sublimed and precipitated       | tonnes    | 642       | 619        | 680        | 2 843      | 445       |
| Talc                                     | tonnes    | 279 659   | 273 706    | 276 014    | 269 771    | 224 419   |
| Tantalum and niobium                     |           |           |            |            |            |           |
| Tantalum                                 | tonnes    | 101       | 9          | 21         | 18         | 37        |
| Tin                                      |           |           |            |            |            |           |
| Unwrought                                | tonnes    | 324       | 368        | 552        | 441        | 402       |
| Unwrought alloys                         | tonnes    | 1 020     | 1 010      | 884        | 236        | 140       |
| Scrap                                    | tonnes    | 478       | 893        | 590        | 654        | 282       |

France

Exports continued

| Commodity             | Units  | 2005    | 2006    | 2007    | 2008    | 2009    |
|-----------------------|--------|---------|---------|---------|---------|---------|
| Titanium              |        |         |         |         |         |         |
| Titanium minerals     | tonnes | 62      | 116     | 2 242   | 93      | 150     |
| Metal                 | tonnes | 5 891   | 5 722   | 5 112   | 5 391   | 4 523   |
| Oxides                | tonnes | 157 543 | 167 807 | 171 337 | 148 573 | 113 798 |
| Tungsten              |        |         |         |         |         |         |
| Metal                 | tonnes | 574     | 617     | 1 148   | 676     | 398     |
| Carbide               | tonnes | 265     | 343     | 431     | 354     | 261     |
| Vanadium              |        |         |         |         |         |         |
| Metal                 | tonnes | 25      | 63      | ...     | ...     | ...     |
| Zinc                  |        |         |         |         |         |         |
| Ores and concentrates | tonnes | 39 463  | 47 516  | 51 781  | 78 398  | 39 350  |
| Unwrought             | tonnes | 80 472  | 31 960  | 29 305  | 31 601  | 64 773  |
| Unwrought alloys      | tonnes | 33 940  | 12 205  | 7 238   | 5 073   | 9 362   |
| Scrap                 | tonnes | 63 571  | 71 224  | 56 200  | 43 770  | 45 986  |
| Zirconium             |        |         |         |         |         |         |
| Concentrates          | tonnes | 1 058   | 2 316   | 1 832   | 1 440   | 1 243   |

Note(s)

(a) BGS estimates, based on known imports into certain countries

(b) Including manganiferous iron ore

## Imports

| Commodity                    | Units     | 2005       | 2006       | 2007       | 2008       | 2009       |
|------------------------------|-----------|------------|------------|------------|------------|------------|
| Primary aggregates           | tonnes    | 10 264 292 | 12 064 403 | 11 381 954 | 11 214 300 | 10 907 837 |
| Aluminium and bauxite        |           |            |            |            |            |            |
| Bauxite                      | tonnes    | 1 799 671  | 1 664 642  | 2 001 899  | 1 788 358  | 1 024 569  |
| Alumina                      | tonnes    | 655 246    | 667 146    | 710 029    | 722 371    | 849 798    |
| Alumina hydrate              | tonnes    | 41 682     | 45 085     | 46 584     | 51 289     | 46 113     |
| Unwrought                    | tonnes    | 150 798    | 198 042    | 147 693    | 113 771    | 87 130     |
| Unwrought alloys             | tonnes    | 366 369    | 394 929    | 449 505    | 396 382    | 311 287    |
| Scrap                        | tonnes    | 135 611    | 208 142    | 191 897    | 197 876    | 216 872    |
| Antimony                     |           |            |            |            |            |            |
| Metal                        | tonnes    | 7 766      | 8 919      | 8 568      | 9 078      | 7 682      |
| Oxide                        | tonnes    | 2 243      | 2 092      | 3 315      | 1 923      | 1 277      |
| Arsenic                      |           |            |            |            |            |            |
| Metallic arsenic             | tonnes    | 21         | 20         | 19         | 8          | 4          |
| Asbestos                     |           |            |            |            |            |            |
| Unmanufactured               | tonnes    | 5          | 52         | 169        | 120        | 34         |
| Barytes                      | tonnes    | 31 965     | 24 471     | 40 760     | 34 166     | 26 227     |
| Bentonite and fuller's earth |           |            |            |            |            |            |
| Bentonite                    | tonnes    | 163 999    | 220 996    | 243 350    | 198 787    | 158 715    |
| Fuller's earth               | tonnes    | 18 445     | 23 522     | ...        | ...        | ...        |
| Bismuth                      |           |            |            |            |            |            |
| Metal                        | tonnes    | 1 029      | 547        | 382        | 219        | 102        |
| Bromine                      | kilograms | 13 989 000 | 13 971 600 | 12 146 400 | 12 428 800 | 11 720 470 |
| Cadmium                      |           |            |            |            |            |            |
| Metal                        | tonnes    | 2 114      | 527        | 771        | 645        | 455        |
| Oxide                        | tonnes    | 584        | ...        | 885        | 1 114      | 605        |
| Cement                       |           |            |            |            |            |            |
| Cement clinkers              | tonnes    | 946 642    | 1 010 056  | 1 739 962  | 1 338 362  | 784 892    |
| Portland cement              | tonnes    | 1 271 478  | 1 556 864  | 1 793 027  | 1 940 065  | 1 744 423  |
| Other cement                 | tonnes    | 984 597    | 1 120 524  | 1 223 442  | 1 185 083  | 980 685    |
| Chromium                     |           |            |            |            |            |            |
| Ores and concentrates        | tonnes    | 18 980     | 23 031     | 20 156     | 26 952     | 10 813     |
| Metal                        | tonnes    | 669        | 1 040      | 717        | 1 335      | 478        |
| Coal                         |           |            |            |            |            |            |
| Anthracite                   | tonnes    | 3 266 840  | 3 018 025  | 3 532 378  | 2 817 048  | 1 914 614  |
| Other coal                   | tonnes    | 16 234 759 | 16 372 754 | 15 425 960 | 18 470 782 | 13 893 343 |
| Lignite                      | tonnes    | 34 396     | 36 436     | 51 589     | 68 426     | 51 577     |
| Briquettes                   | tonnes    | 116 845    | 147 381    | 175 350    | 154 140    | 151 863    |

## Imports continued

| Commodity                                | Units     | 2005       | 2006       | 2007       | 2008       | 2009       |
|--|-----------|------------|------------|------------|------------|------------|
| Cobalt                                   |           |            |            |            |            |            |
| Metal                                    | tonnes    | 2 038      | 2 117      | 3 137      | 2 251      | 1 203      |
| Oxides                                   | tonnes    | 474        | 562        | 658        | 574        | 578        |
| Copper                                   |           |            |            |            |            |            |
| Unwrought, unrefined                     | tonnes    | 248        | 275        | 328        | 125        | 59         |
| Unwrought, refined                       | tonnes    | 516 881    | 506 721    | 431 897    | 435 330    | 265 707    |
| Unwrought alloys                         | tonnes    | 10 132     | 11 029     | 14 389     | 8 987      | 7 980      |
| Scrap                                    | tonnes    | 75 464     | 97 462     | 90 195     | 81 036     | 50 753     |
| Diamond                                  |           |            |            |            |            |            |
| Unsorted                                 | carats    | 263 542    | 45 393     | 32 997     | 18 648     | 15 326     |
| Gem, rough                               | carats    | 3 526      | 729        | 656        | 344        | 1 854      |
| Gem, cut                                 | carats    | 355 505    | 331 348    | 439 204    | 450 568    | 691 852    |
| Industrial                               | carats    | 33 869     | 44 334     | 81 570     | 73 641     | 40 221     |
| Dust                                     | carats    | 10 013 030 | 10 037 456 | 8 984 745  | 13 938 146 | 9 314 960  |
| Diatomite                                | tonnes    | 11 181     | 12 712     | 14 371     | 14 308     | 15 163     |
| Feldspar                                 | tonnes    | 85 460     | 54 106     | 20 974     | 59 857     | 43 981     |
| Fluorspar                                | tonnes    | 21 526     | 34 972     | 48 758     | 21 256     | 13 124     |
| Gold                                     |           |            |            |            |            |            |
| Metal                                    | kilograms | 28 834     | 23 605     | 23 567     | 20 071     | 16 877     |
| Waste and scrap                          | kilograms | 5 200      | 1 500      | 1 100      | 3 300      | 6 248      |
| Graphite                                 | tonnes    | 20 449     | 19 430     | 19 250     | 20 618     | 10 376     |
| Gypsum                                   |           |            |            |            |            |            |
| Crude                                    | tonnes    | 361 820    | 588 367    | 580 341    | 492 072    | 354 086    |
| Calcined                                 | tonnes    | 60 358     | 68 652     | 111 325    | 116 678    | 101 840    |
| Iodine                                   | kilograms | 1 685 200  | 1 929 100  | 1 687 900  | 1 875 400  | 1 189 569  |
| Iron ore                                 |           |            |            |            |            |            |
| Iron ore                                 | tonnes    | 19 506 894 | 19 463 057 | 20 065 037 | 18 220 893 | 10 014 901 |
| Burnt pyrites                            | tonnes    | 160        | 3 451      | 2 107      | 4 948      | 5 375      |
| Iron, steel and ferro-alloys             |           |            |            |            |            |            |
| Pig iron                                 | tonnes    | 249 585    | 183 755    | 195 466    | 202 077    | 115 722    |
| Sponge and powder                        | tonnes    | 184 661    | 219 813    | 147 662    | 89 809     | 26 695     |
| Ferro-chrome                             | tonnes    | 192 129    | 159 940    | 106 513    | 111 584    | 71 570     |
| Ferro-silico-chrome                      | tonnes    | 122        | 677        | 8          | 69         | 20         |
| Ferro-silico-magnesium                   | tonnes    | 25 046     | 18 536     | 26 899     | 26 786     | 12 067     |
| Ferro-manganese                          | tonnes    | 55 239     | 57 240     | 63 487     | 69 464     | 33 948     |
| Ferro-silico-manganese                   | tonnes    | 58 403     | 49 287     | 45 827     | 54 004     | 34 758     |
| Ferro-molybdenum                         | tonnes    | 5 235      | 5 223      | 5 650      | 5 637      | 3 263      |
| Ferro-nickel                             | tonnes    | 9 229      | 4 487      | 6 373      | 5 887      | 12 709     |
| Ferro-niobium                            | tonnes    | 2 722      | 2 597      | 2 785      | 3 266      | 1 183      |
| Ferro-phosphorus                         | tonnes    | 2 536      | 2 360      | 2 528      | 2 698      | 1 670      |
| Ferro-silicon                            | tonnes    | 71 269     | 64 727     | 52 945     | 61 740     | 30 913     |
| Ferro-titanium and ferro-silico-titanium | tonnes    | 6 448      | 9 037      | 10 009     | 8 293      | 2 647      |
| Ferro-tungsten and ferro-silico-tungsten | tonnes    | 523        | 839        | 597        | 666        | 247        |
| Ferro-vanadium                           | tonnes    | 1 351      | 1 396      | 1 432      | 1 575      | 819        |
| Silicon metal                            | tonnes    | 25 257     | 21 813     | 19 659     | 23 885     | 15 243     |
| Ingots, blooms, billets                  | tonnes    | 1 621 219  | 1 557 219  | 1 998 943  | 1 747 005  | 1 113 710  |
| Scrap                                    | tonnes    | 2 819 160  | 3 319 269  | 3 197 843  | 3 241 199  | 2 407 619  |
| Kaolin                                   | tonnes    | 338 848    | 320 425    | 311 060    | 263 449    | 200 203    |
| Lead                                     |           |            |            |            |            |            |
| Unwrought                                | tonnes    | 109 426    | 121 930    | 118 384    | 103 535    | 42 187     |
| Scrap                                    | tonnes    | 33 818     | 32 705     | 34 169     | 22 490     | 13 579     |
| Lithium                                  |           |            |            |            |            |            |
| Oxides                                   | tonnes    | 482        | 369        | 314        | 256        | 362        |
| Carbonate                                | tonnes    | 1 392      | 1 186      | 1 289      | 1 251      | 1 172      |
| Magnesite and magnesia                   |           |            |            |            |            |            |
| Magnesite                                | tonnes    | 3 427      | 2 509      | 2 355      | 2 378      | 1 209      |
| Magnesia                                 | tonnes    | 161 488    | 161 029    | 163 908    | 164 235    | 117 821    |
| Manganese                                |           |            |            |            |            |            |
| Ores and concentrates (a)                | tonnes    | 615 884    | 611 043    | 678 369    | 876 961    | 193 684    |
| Metal                                    | tonnes    | 11 039     | 11 131     | 15 198     | 19 115     | 8 905      |
| Mercury                                  | kilograms | 202 600    | 138 100    | 190 000    | 105 300    | 222 224    |
| Mica                                     |           |            |            |            |            |            |
| Ground (b)                               | tonnes    | 1 534      | 2 674      | 2 532      | 3 175      | 2 214      |
| Waste                                    | tonnes    | 1 423      | —          | —          | ...        | 13         |

## France

## Imports continued

| Commodity                                | Units     | 2005       | 2006       | 2007       | 2008       | 2009       |
|--|-----------|------------|------------|------------|------------|------------|
| Molybdenum                               |           |            |            |            |            |            |
| Ores and concentrates                    | tonnes    | 1 783      | 1 896      | 1 511      | 1 933      | 769        |
| Metal                                    | tonnes    | 993        | 1 075      | 830        | 1 094      | 541        |
| Oxides                                   | tonnes    | 678        | 579        | 670        | 1 191      | 1 018      |
| Nickel                                   |           |            |            |            |            |            |
| Mattes, sinters etc                      | tonnes    | 15 399     | 19 818     | 19 864     | 18 952     | 20 015     |
| Ores and concentrates                    | tonnes    | 76         | 149        | 1 131      | 413        | 1 783      |
| Unwrought                                | tonnes    | 22 656     | 26 631     | 25 752     | 23 368     | 10 909     |
| Unwrought alloys                         | tonnes    | 6 104      | 5 500      | 7 702      | 9 386      | 5 364      |
| Scrap                                    | tonnes    | 1 554      | 2 393      | 1 341      | 2 166      | 1 265      |
| Oxides                                   | tonnes    | 228        | 297        | 542        | 560        | 310        |
| Crude petroleum                          | tonnes    | 84 951 337 | 83 411 036 | 81 011 061 | 81 854 226 | 70 343 956 |
| Natural gas                              | tonnes    | 48 574 413 | 62 023 544 | 75 216 254 | 79 101 617 | 32 440 935 |
| Phosphate rock                           | tonnes    | 427 194    | 387 794    | 442 826    | 374 792    | 130 323    |
| Platinum metals                          |           |            |            |            |            |            |
| Platinum                                 | kilograms | 5 390      | 4 455      | 6 263      | 8 471      | 3 633      |
| Platinum metals                          | kilograms | 3 500      | 3 711      | 3 631      | 4 404      | 5 348      |
| Waste and scrap                          | kilograms | 55 600     | 370 600    | 114 300    | 241 200    | 359 138    |
| Potash                                   |           |            |            |            |            |            |
| Fertiliser salts                         | tonnes    | 1 400      | 712        | ...        | ...        | ...        |
| Sulphate                                 | tonnes    | 70 702     | 33 195     | 50 088     | 53 124     | 12 477     |
| Chloride                                 | tonnes    | 1 492 127  | 777 056    | 900 560    | 837 119    | 242 713    |
| Other potassic fertilisers               | tonnes    | 29 488     | 11 432     | 16 601     | 18 484     | 7 287      |
| Rare earths                              |           |            |            |            |            |            |
| Cerium compounds                         | tonnes    | 7 105      | 9 723      | 8 831      | 9 116      | 6 112      |
| Other rare earth compounds               | tonnes    | 585        | 1 329      | 1 232      | 768        | 874        |
| Ferro-cerium and other pyrophoric alloys | tonnes    | 5          | 3          | 2          | 3          | 26         |
| Metals                                   | tonnes    | 322        | 479        | 417        | 447        | 402        |
| Salt                                     | tonnes    | 1 110 898  | 1 024 789  | 592 976    | 578 882    | 918 448    |
| Sillimanite minerals                     | tonnes    | 3 080      | 4 813      | 6 026      | 6 255      | 4 536      |
| Silver                                   |           |            |            |            |            |            |
| Ores and concentrates                    | kilograms | 1 955      | 16 300     | 39 800     | 21 300     | 4 279      |
| Metal                                    | kilograms | 731 182    | 734 679    | 643 280    | 544 821    | 435 001    |
| Sulphur and pyrites                      |           |            |            |            |            |            |
| Pyrites                                  | tonnes    | 4 521      | 2 533      | 160        | 173        | 159        |
| Sulphur                                  | tonnes    | 82 326     | 72 785     | 56 072     | 50 092     | 55 212     |
| Sulphur, sublimed and precipitated       | tonnes    | 5 809      | 2 439      | 797        | 5 861      | 403        |
| Talc                                     | tonnes    | 76 021     | 59 853     | 77 772     | 76 147     | 72 274     |
| Tantalum and niobium                     |           |            |            |            |            |            |
| Tantalum                                 | tonnes    | 23         | 55         | 83         | 84         | 43         |
| Tin                                      |           |            |            |            |            |            |
| Concentrates                             | tonnes    | 194        | 22         | 73         | 81         | 78         |
| Unwrought                                | tonnes    | 7 307      | 8 159      | 7 689      | 6 506      | 5 869      |
| Unwrought alloys                         | tonnes    | 1 080      | 931        | 409        | 554        | 207        |
| Scrap                                    | tonnes    | 217        | 182        | 432        | 588        | 259        |
| Titanium                                 |           |            |            |            |            |            |
| Ilmenite                                 | tonnes    | 60 205     | 83 499     | 60 739     | 58 423     | 17 766     |
| Other titanium minerals                  | tonnes    | 86 552     | 78 849     | 71 292     | 12 531     | 11 964     |
| Titanium slag                            | tonnes    | 111 137    | 107 092    | 91 602     | 80 726     | 85 776     |
| Metal                                    | tonnes    | 9 403      | 9 431      | 10 521     | 10 036     | 7 282      |
| Oxides                                   | tonnes    | 119 699    | 135 309    | 126 786    | 128 226    | 136 389    |
| Tungsten                                 |           |            |            |            |            |            |
| Metal                                    | tonnes    | 784        | 925        | 823        | 898        | 547        |
| Carbide                                  | tonnes    | 592        | 898        | 866        | 859        | 311        |
| Vanadium                                 |           |            |            |            |            |            |
| Ores and concentrates                    | tonnes    | 21         | —          | ...        | —          | —          |
| Pentoxide                                | tonnes    | 556        | 533        | 656        | 674        | 371        |
| Metal                                    | tonnes    | 88         | 71         | ...        | ...        | ...        |
| Zinc                                     |           |            |            |            |            |            |
| Ores and concentrates                    | tonnes    | 423 664    | 250 791    | 259 750    | 238 502    | 241 976    |
| Unwrought                                | tonnes    | 143 476    | 170 263    | 166 110    | 164 172    | 128 674    |
| Unwrought alloys                         | tonnes    | 45 566     | 47 309     | 44 124     | 45 480     | 27 000     |
| Scrap                                    | tonnes    | 6 996      | 7 833      | 7 247      | 3 694      | 4 604      |

## Imports continued

| Commodity    | Units  | 2005   | 2006   | 2007   | 2008   | 2009   |
|--------------|--------|--------|--------|--------|--------|--------|
| Zirconium    |        |        |        |        |        |        |
| Concentrates | tonnes | 53 701 | 48 973 | 47 719 | 55 030 | 25 087 |
| Metal        | tonnes | 207    | 378    | 570    | 456    | 553    |

## Note(s)

- (a) Including manganeseiferous iron ore
- (b) Including unmanufactured

# Germany

## Production

| Commodity                    | Units                                     | 2005        | 2006        | 2007        | 2008        | 2009        |
|------------------------------|---|-------------|-------------|-------------|-------------|-------------|
| Primary aggregates           |   |             |             |             |             |             |
| Sand and gravel              | tonnes                                    | 252 000 000 | 266 000 000 | 263 300 000 | 260 000 000 | 245 000 000 |
| Crushed rock                 | tonnes                                    | 122 244 000 | 138 700 000 | 134 000 000 | 137 400 000 | 132 500 000 |
| Alumina                      | tonnes ( $\text{Al}_2\text{O}_3$ content) | * 830 000   | * 850 000   | * 900 000   | * 900 000   | * 900 000   |
| Primary aluminium            | tonnes                                    | 647 900     | 515 539     | 551 000     | 605 880     | 291 750     |
| Barytes                      | tonnes                                    | 88 591      | 85 524      | 88 265      | 78 941      | 45 606      |
| Bentonite and fuller's earth |   |             |             |             |             |             |
| Bentonite                    | tonnes                                    | 352 374     | 363 998     | 384 709     | 414 336     | 326 461     |
| Cadmium                      | tonnes                                    | * 490       | * 490       | * 475       | * 420       | * 250       |
| Cement                       |   |             |             |             |             |             |
| Cement clinker               | tonnes                                    | 24 315 000  | 24 921 000  | 26 992 000  | 25 366 000  | 23 232 000  |
| Cement, finished             | tonnes                                    | 30 600 000  | 33 630 000  | 33 382 000  | 33 581 000  | 30 441 000  |
| Coal                         |   |             |             |             |             |             |
| Anthracite and bituminous    | tonnes                                    | 28 018 000  | 23 762 000  | 24 185 000  | 19 143 000  | 14 971 000  |
| Brown coal                   | tonnes                                    | 177 907 945 | 176 324 117 | 180 409 054 | 175 313 020 | 169 857 142 |
| Copper, refined              | tonnes                                    | 638 800     | 662 338     | 665 517     | 689 763     | 668 945     |
| Copper, smelter              | tonnes                                    | 257 200     | 273 800     | 270 200     | 295 000     | 251 000     |
| Feldspar                     | tonnes                                    | 168 640     | 167 332     | 171 303     | 161 416     | * 150 000   |
| Fluorspar                    | tonnes                                    | 35 364      | 53 009      | 54 359      | 48 519      | 49 962      |
| Graphite                     | tonnes                                    | 2 638       | —           | —           | —           | —           |
| Gypsum (a)                   | tonnes                                    | 1 644 000   | 1 771 000   | 1 898 000   | 2 112 000   | 1 898 000   |
| Iron ore (b) (c)             | tonnes                                    | 362 106     | 416 000     | 421 711     | 455 100     | 363 699     |
| Pig iron                     | tonnes                                    | 29 294 000  | 30 940 000  | 31 700 000  | 29 105 000  | 20 104 000  |
| Crude steel                  | tonnes                                    | 44 524 000  | 47 223 000  | 48 550 000  | 45 832 000  | 32 670 000  |
| Ferro-alloys                 |   |             |             |             |             |             |
| Ferro-chrome                 | tonnes                                    | 22 672      | 26 710      | 22 030      | 26 960      | 13 667      |
| Other ferro-alloys           | tonnes                                    | * 25 400    | * 24 100    | * 5 000     | * 5 000     | * 5 000     |
| Silicon metal                | tonnes                                    | 29 349      | 29 865      | 29 379      | 29 092      | 27 620      |
| Kaolin (d)                   | tonnes                                    | 3 767 662   | 3 815 173   | 3 842 514   | 3 622 159   | 4 513 753   |
| Lead, refined                | tonnes                                    | 417 700     | 379 000     | 355 000     | 415 100     | 390 600     |
| Crude petroleum              | tonnes                                    | 3 815 173   | 3 515 401   | 3 415 374   | 3 053 998   | 2 800 063   |
| Natural gas                  | million m <sup>3</sup>                    | 19 143      | 19 798      | 18 075      | 16 547      | 15 554      |
| Potash                       |   |             |             |             |             |             |
| Potassic salts               | tonnes ( $\text{K}_2\text{O}$ content)    | 3 663 829   | 3 624 977   | 3 636 504   | 3 280 467   | 1 825 139   |
| Salt                         |   |             |             |             |             |             |
| Rock salt                    | tonnes                                    | 8 258 000   | 9 280 000   | 4 826 000   | 5 545 438   | 7 709 844   |
| Brine salt                   | tonnes                                    | 1 006 000   | 1 001 000   | 1 010 000   | 989 208     | 1 862 630   |
| Salt in brine                | tonnes                                    | 7 449 000   | 7 189 000   | 7 558 000   | 7 306 745   | * 7 300 000 |
| Selenium metal               | tonnes                                    | * 250       | * 250       | * 250       | * 250       | * 230       |
| Sulphur and pyrites          |   |             |             |             |             |             |
| Recovered (e)                | tonnes (sulphur content)                  | 1 627 900   | 1 706 200   | 1 650 100   | 1 578 000   | 1 624 000   |
| Recovered (f)                | tonnes (sulphur content)                  | 42 900      | 42 500      | 35 900      | 39 000      | ...         |
| Uranium, mine                | tonnes (metal content)                    | 80          | 65          | 41          | * 40        | * 60        |
| Slab Zinc                    | tonnes                                    | 334 900     | 342 566     | 294 735     | 292 284     | * 153 000   |

### Note(s)

- (1) Germany is believed to produce strontium minerals and tellurium metal  
 (2) Significant quantities of germanium are believed to be recovered from imported or domestic material

- (a) Including anhydrite
- (b) Including manganeseiferous iron ore
- (c) Used as aggregate in the construction industry
- (d) Washed and dried
- (e) From petroleum refining and/or Natural gas
- (f) Other

## Exports

| Commodity                    | Units     | 2005       | 2006       | 2007       | 2008       | 2009          |
|------------------------------|-----------|------------|------------|------------|------------|---------------|
| Primary aggregates           | tonnes    | 21 698 651 | 25 912 337 | 29 024 954 | 29 470 321 | 27 973 749    |
| Aluminium and bauxite        |           |            |            |            |            |               |
| Bauxite                      | tonnes    | 28 087     | 30 772     | 36 361     | 33 636     | 16 591        |
| Unwrought                    | tonnes    | 60 757     | 72 132     | 61 090     | 75 386     | 67 356        |
| Unwrought alloys             | tonnes    | 330 843    | 360 157    | 361 917    | 359 628    | 288 023       |
| Alumina                      | tonnes    | 204 075    | 313 586    | 282 245    | 305 514    | 382 750       |
| Alumina hydrate              | tonnes    | 527 900    | 717 433    | 672 561    | 634 635    | 461 601       |
| Scrap                        | tonnes    | 583 987    | 675 261    | 770 042    | 702 739    | 753 218       |
| Antimony                     |           |            |            |            |            |               |
| Metal                        | tonnes    | 15         | 30         | 141        | 33         | 101           |
| Oxide                        | tonnes    | 724        | 892        | 1 130      | 932        | 448           |
| Arsenic                      |           |            |            |            |            |               |
| Metallic arsenic             | tonnes    | 20         | 20         | 32         | 41         | 31            |
| Barytes                      | tonnes    | 32 375     | 33 947     | 43 104     | 38 111     | 45 360        |
| Bentonite and fuller's earth |           |            |            |            |            |               |
| Bentonite                    | tonnes    | 71 977     | 77 368     | 81 272     | 67 109     | 52 424        |
| Fuller's earth               | tonnes    | 1 540      | 1 378      | ...        | ...        | ...           |
| Bismuth                      |           |            |            |            |            |               |
| Metal                        | tonnes    | 371        | 534        | 901        | 276        | 143           |
| Bromine                      | kilograms | 3 000      | 4 600      | 3 400      | 14 400     | 6 031         |
| Cadmium                      |           |            |            |            |            |               |
| Metal                        | tonnes    | ...        | ...        | ...        | 287        | 276           |
| Sulphide                     | tonnes    | 14         | 4          | ...        | ...        | ...           |
| Cement                       |           |            |            |            |            |               |
| Cement clinkers              | tonnes    | 773 394    | 687 056    | 1 051 733  | 1 120 078  | 467 042       |
| Portland cement              | tonnes    | 3 587 966  | 4 251 126  | 4 874 062  | 5 115 858  | 4 445 980     |
| Other cement                 | tonnes    | 1 876 289  | 1 852 990  | 2 086 591  | 2 077 175  | 2 101 709     |
| Chromium                     |           |            |            |            |            |               |
| Ores and concentrates        | tonnes    | 14 188     | 24 185     | 20 629     | 23 563     | 15 922        |
| Metal                        | tonnes    | 1 478      | 2 877      | 3 114      | 5 379      | 4 685         |
| Coal                         |           |            |            |            |            |               |
| Anthracite                   | tonnes    | ...        | ...        | 7 444      | 16 575     | 179 880       |
| Other coal                   | tonnes    | 251 623    | 305 046    | 309 501    | 518 629    | 129 955       |
| Lignite                      | tonnes    | 73         | 27 801     | 140 400    | 425 680    | 523 720       |
| Briquettes                   | tonnes    | 74 952     | 83 990     | 72 008     | 370 211    | 493 552       |
| Cobalt                       |           |            |            |            |            |               |
| Ore                          | tonnes    | 171        | ...        | 457        | 145        | 103           |
| Metal                        | tonnes    | 1 395      | 1 602      | 2 067      | 1 588      | 1 067         |
| Oxides                       | tonnes    | 185        | 140        | 158        | 158        | 69            |
| Copper                       |           |            |            |            |            |               |
| Ores and concentrates        | tonnes    | 46 139     | 54 167     | 61 535     | 48 234     | 58 932        |
| Matte and cement             | tonnes    | 536        | 101        | 24         | 2          | 1             |
| Unwrought, unrefined         | tonnes    | 232        | 3 244      | 105        | 182        | 88            |
| Unwrought, refined           | tonnes    | 149 083    | 146 137    | 117 596    | 124 980    | 194 016       |
| Unwrought alloys             | tonnes    | 20 232     | 22 941     | 22 436     | 16 485     | 9 781         |
| Scrap                        | tonnes    | 439 134    | 465 264    | 480 700    | 478 643    | 449 990       |
| Diamond                      |           |            |            |            |            |               |
| Unsorted                     | carats    | £756 000   | £21 000    | £112 000   | £127 000   | (a)* £776 000 |
| Gem                          | carats    | 169 535    | 175 658    | 157 055    | 153 893    | 125 735       |
| Industrial                   | carats    | 5 255      | 7 510      | 8 952      | 11 966     | ...           |
| Dust                         | carats    | 42 628 300 | 27 074 465 | 3 366 830  | 3 410 935  | 2 560 000     |
| Diatomite                    | tonnes    | 7 000      | 11 500     | 7 949      | 7 189      | 5 035         |
| Feldspar                     | tonnes    | 113 329    | 121 046    | 125 258    | 121 777    | 70 130        |
| Fluorspar                    | tonnes    | 24 061     | 35 207     | 56 023     | 50 338     | 31 157        |
| Gold                         |           |            |            |            |            |               |
| Metal                        | kilograms | 47 600     | 65 200     | 71 250     | 5 400      | 113 039       |
| Waste and scrap              | kilograms | 30 600     | 7 500      | 14 800     | 4 800      | 62 603        |
| Graphite                     | tonnes    | 14 241     | 20 777     | 23 993     | 18 950     | 12 722        |
| Gypsum                       |           |            |            |            |            |               |
| Crude                        | tonnes    | 259 631    | 391 494    | 423 152    | 447 140    | 393 691       |
| Calcined                     | tonnes    | 991 946    | 1 471 660  | 1 703 212  | 1 775 467  | 1 290 391     |
| Iodine                       | kilograms | 465 800    | 340 600    | 183 200    | 97 400     | 112 690       |
| Iron ore                     |           |            |            |            |            |               |
| Iron ore                     | tonnes    | 7 023      | 18 294     | 17 770     | 34 495     | 4 497         |
| Burnt pyrites                | tonnes    | 7 257      | 6 623      | 7 491      | 12 700     | 10 865        |

## Germany

## Exports continued

| Commodity                                | Units     | 2005      | 2006      | 2007      | 2008      | 2009      |
|--|-----------|-----------|-----------|-----------|-----------|-----------|
| Iron, steel and ferro-alloys             |           |           |           |           |           |           |
| Pig iron                                 | tonnes    | 82 834    | 180 939   | 145 453   | 153 917   | 86 491    |
| Sponge and powder                        | tonnes    | 175 291   | 197 636   | 147 303   | 95 846    | 28 183    |
| Ferro-chrome                             | tonnes    | 26 472    | 36 289    | 39 892    | 36 856    | 27 831    |
| Ferro-silico-magnesium                   | tonnes    | 14 254    | 12 142    | 24 051    | 22 191    | 9 323     |
| Ferro-manganese                          | tonnes    | 12 660    | 24 659    | 14 733    | 11 802    | 9 043     |
| Ferro-silico-manganese                   | tonnes    | 2 928     | 9 748     | 8 684     | 10 354    | 4 436     |
| Ferro-molybdenum                         | tonnes    | 3 867     | 3 499     | 3 636     | 3 858     | 3 229     |
| Ferro-nickel                             | tonnes    | 31        | 115       | 2 116     | 1 036     | 1 725     |
| Ferro-niobium                            | tonnes    | 1 448     | 1 130     | 1 149     | 1 057     | 321       |
| Ferro-phosphorus                         | tonnes    | 936       | 977       | 839       | 477       | 475       |
| Ferro-silicon                            | tonnes    | 53 979    | 53 963    | 51 343    | 63 858    | 63 214    |
| Ferro-titanium and ferro-silico-titanium | tonnes    | 5 263     | 4 795     | 6 011     | 4 237     | 1 662     |
| Ferro-tungsten and ferro-silico-tungsten | tonnes    | 176       | 423       | 480       | 460       | 339       |
| Ferro-vanadium                           | tonnes    | 528       | 268       | 558       | 413       | 755       |
| Other ferro-alloys                       | tonnes    | 10 652    | 10 720    | ...       | ...       | ...       |
| Ingots, blooms, billets                  | tonnes    | 1 950 158 | 2 171 036 | 2 496 951 | 2 047 223 | 1 655 376 |
| Scrap                                    | tonnes    | 6 692 022 | 7 605 306 | 7 770 479 | 8 268 662 | 7 275 257 |
| Kaolin                                   | tonnes    | 301 870   | 463 804   | 507 867   | 498 165   | 374 313   |
| Lead                                     |           |           |           |           |           |           |
| Ores and concentrates                    | tonnes    | 102       | 475       | 467       | —         | 1 000     |
| Unwrought                                | tonnes    | 122 120   | 126 790   | 136 609   | 177 129   | 204 075   |
| Scrap                                    | tonnes    | 11 064    | 8 390     | 17 799    | 13 133    | 13 100    |
| Lithium                                  |           |           |           |           |           |           |
| Carbonate                                | tonnes    | 2 991     | 2 907     | 2 705     | 2 290     | 1 880     |
| Magnesite and magnesia                   |           |           |           |           |           |           |
| Magnesite                                | tonnes    | 61        | 132       | 463       | 22        | 140       |
| Magnesia                                 | tonnes    | 81 021    | 93 286    | 87 264    | 72 684    | 58 604    |
| Manganese                                |           |           |           |           |           |           |
| Ores and concentrates                    | tonnes    | 3 249     | 3 046     | 5 761     | 3 321     | 3 710     |
| Metal                                    | tonnes    | 17 824    | 19 757    | 15 414    | 12 921    | 6 727     |
| Mercury                                  | kilograms | 36 200    | 40 000    | 42 300    | 111 100   | 120 587   |
| Mica                                     | tonnes    | 3 656     | 4 039     | 4 957     | 4 713     | 2 888     |
| Molybdenum                               |           |           |           |           |           |           |
| Ores and concentrates                    | tonnes    | 2 770     | 3 812     | 2 723     | 3 575     | 2 502     |
| Metal                                    | tonnes    | 2 241     | 2 958     | 346       | 2 857     | 725       |
| Nickel                                   |           |           |           |           |           |           |
| Mattes, sinters etc                      | tonnes    | 5 604     | 9 285     | 18 473    | 20 202    | 8 687     |
| Ores and concentrates                    | tonnes    | 7 822     | 8 901     | 2 520     | 316       | 1 619     |
| Unwrought                                | tonnes    | 8 988     | 5 287     | 4 256     | 5 200     | 2 617     |
| Unwrought alloys                         | tonnes    | 9 376     | 9 970     | 9 664     | 8 988     | 3 083     |
| Scrap                                    | tonnes    | 9 342     | 6 224     | 7 383     | 5 646     | 8 227     |
| Crude petroleum                          | tonnes    | 1 257 658 | 344 965   | 196 926   | 40 011    | 265 799   |
| Natural gas                              | tonnes    | ...       | ...       | ...       | ...       | 8 592 523 |
| Phosphate rock                           | tonnes    | 5 048     | 700       | 168       | 314       | 137       |
| Platinum metals                          |           |           |           |           |           |           |
| Platinum                                 | kilograms | 43 300    | 40 600    | 28 100    | 27 700    | 36 204    |
| Palladium                                | kilograms | 20 800    | 24 400    | 27 800    | 28 600    | 43 329    |
| Other Platinum metals                    | kilograms | 11 100    | 16 000    | 22 300    | 24 700    | 65 029    |
| Waste and scrap                          | kilograms | 1 648 800 | 2 797 600 | 3 399 700 | 3 238 800 | 3 352 271 |
| Potash                                   |           |           |           |           |           |           |
| Potassic fertilisers (b) (c)             | tonnes    | 3 235 651 | 3 624 977 | 3 636 504 | 3 280 467 | 1 825 139 |
| Rare earths                              |           |           |           |           |           |           |
| Rare earth compounds                     | tonnes    | 123       | 145       | 217       | 188       | 652       |
| Metals                                   | tonnes    | 1         | 1         | 8         | 3         | 19        |
| Salt                                     | tonnes    | 3 372 522 | 3 943 083 | 2 787 088 | 2 782 861 | 2 744 985 |
| Sillimanite minerals                     | tonnes    | 12 191    | 13 257    | 16 143    | 18 231    | 7 965     |
| Silver                                   |           |           |           |           |           |           |
| Metal                                    | kilograms | 2 631 200 | 2 995 900 | 2 884 200 | 3 012 400 | 2 169 994 |
| Sulphur and pyrites                      |           |           |           |           |           |           |
| Pyrites                                  | tonnes    | 240       | 486       | 741       | 485       | 320       |
| Sulphur                                  | tonnes    | 898 820   | 796 341   | 828 544   | 654 808   | 681 563   |
| Talc                                     | tonnes    | 3 906     | 4 790     | 5 394     | 6 382     | 3 662     |
| Tantalum and niobium                     |           |           |           |           |           |           |
| Tantalum                                 | tonnes    | 190       | 294       | 199       | 299       | 8         |

## Exports continued

| Commodity             | Units  | 2005    | 2006    | 2007    | 2008    | 2009    |
|-----------------------|--------|---------|---------|---------|---------|---------|
| Tin                   |        |         |         |         |         |         |
| Concentrates          | tonnes | 163     | 331     | —       | —       | 163     |
| Unwrought             | tonnes | 1 343   | 1 015   | 1 246   | 1 612   | 1 000   |
| Unwrought alloys      | tonnes | 329     | 392     | 1 371   | 1 530   | 1 088   |
| Scrap                 | tonnes | 701     | 965     | 1 222   | 1 649   | 1 129   |
| Titanium              |        |         |         |         |         |         |
| Titanium minerals     | tonnes | 607     | 490     | 776     | 3 322   | 6 864   |
| Metal                 | tonnes | 8 911   | 8 893   | 8 713   | 8 278   | 5 367   |
| Oxides                | tonnes | 359 946 | 400 832 | 409 495 | 367 545 | 351 872 |
| Tungsten              |        |         |         |         |         |         |
| Metal                 | tonnes | 4 020   | 4 320   | 3 020   | 4 687   | 2 655   |
| Vanadium              |        |         |         |         |         |         |
| Ores and concentrates | tonnes | 4 680   | 2 372   | ...     | ...     | ...     |
| Pentoxide             | tonnes | 1 216   | 1 444   | 1 250   | 1 173   | ...     |
| Metal                 | tonnes | 1 469   | 573     | ...     | ...     | ...     |
| Zinc                  |        |         |         |         |         |         |
| Ores and concentrates | tonnes | 7 257   | 2 336   | 612     | 1 835   | 888     |
| Unwrought             | tonnes | 81 664  | 65 824  | 77 443  | 70 724  | 63 165  |
| Unwrought alloys      | tonnes | 30 115  | 29 999  | 30 439  | 28 835  | 24 163  |
| Scrap                 | tonnes | 55 913  | 54 939  | 59 297  | 51 801  | 68 648  |
| Zirconium             |        |         |         |         |         |         |
| Concentrates          | tonnes | 5 211   | 1 643   | 2 057   | 2 799   | 1 562   |
| Metal                 | tonnes | 286     | 434     | 514     | 625     | 386     |

## Note(s)

- (a) BGS estimates, based on known value of imports to certain countries  
 (b) K2O content  
 (c) Including sulphate, chloride and other potassic fertilisers

## Imports

| Commodity                    | Units     | 2005       | 2006       | 2007       | 2008       | 2009       |
|------------------------------|-----------|------------|------------|------------|------------|------------|
| Primary aggregates           | tonnes    | 11 563 984 | 11 147 034 | 11 913 688 | 13 369 162 | 12 866 444 |
| Aluminium and bauxite        |           |            |            |            |            |            |
| Bauxite                      | tonnes    | 2 435 244  | 2 143 631  | 3 141 693  | 2 995 241  | 2 069 109  |
| Alumina                      | tonnes    | 999 798    | 912 564    | 790 515    | 1 017 746  | 518 456    |
| Alumina hydrate              | tonnes    | 231 124    | 219 035    | 266 042    | 241 736    | 168 216    |
| Unwrought                    | tonnes    | 648 764    | 754 311    | 786 506    | 693 075    | 495 511    |
| Unwrought alloys             | tonnes    | 1 121 715  | 1 318 713  | 1 444 289  | 1 370 179  | 1 157 271  |
| Scrap                        | tonnes    | 438 066    | 539 367    | 613 084    | 543 839    | 362 582    |
| Antimony                     |           |            |            |            |            |            |
| Metal                        | tonnes    | 148        | 421        | 612        | 700        | 552        |
| Oxide                        | tonnes    | 6 560      | 8 305      | 8 527      | 8 672      | 5 072      |
| Asbestos                     |           |            |            |            |            |            |
| Unmanufactured               | tonnes    | 98         | 61         | 54         | 54         | 36         |
| Barytes                      | tonnes    | 231 471    | 272 526    | 320 702    | 278 335    | 129 220    |
| Bentonite and fuller's earth |           |            |            |            |            |            |
| Bentonite                    | tonnes    | 253 226    | 323 999    | 351 991    | 361 782    | 335 990    |
| Fuller's earth               | tonnes    | 9 571      | 9 371      | ...        | ...        | ...        |
| Bismuth                      |           |            |            |            |            |            |
| Metal                        | tonnes    | 1 508      | 1 337      | 1 130      | 1 262      | 881        |
| Bromine                      | kilograms | 1 304 000  | 801 100    | 607 500    | 646 400    | 456 893    |
| Cadmium                      |           |            |            |            |            |            |
| Metal                        | tonnes    | 16         | 7          | 22         | 53         | 11         |
| Oxide                        | tonnes    | 231        | ...        | 423        | 507        | 522        |
| Sulphide                     | tonnes    | 18         | ...        | ...        | ...        | ...        |
| Cement                       |           |            |            |            |            |            |
| Cement clinkers              | tonnes    | 289 600    | 235 023    | 92 757     | 14 184     | 9 200      |
| Portland cement              | tonnes    | 934 865    | 794 716    | 833 311    | 770 566    | 904 023    |
| Other cement                 | tonnes    | 380 858    | 345 286    | 311 152    | 293 583    | 272 741    |
| Chromium                     |           |            |            |            |            |            |
| Ores and concentrates        | tonnes    | 141 483    | 126 874    | 154 367    | 175 277    | 45 684     |
| Metal                        | tonnes    | 5 428      | 7 552      | 8 454      | 7 022      | 3 328      |

## Germany

## Imports continued

| Commodity                                | Units     | 2005       | 2006       | 2007       | 2008       | 2009       |
|--|-----------|------------|------------|------------|------------|------------|
| Coal                                     |           |            |            |            |            |            |
| Anthracite                               | tonnes    | 991 877    | 2 499 908  | 4 353 426  | 4 137 690  | 3 893 429  |
| Other coal                               | tonnes    | 29 452 512 | 35 218 836 | 37 993 445 | 37 215 220 | 30 926 568 |
| Lignite                                  | tonnes    | 9 890      | 10 070     | 15 411     | 39 248     | 37 839     |
| Briquettes                               | tonnes    | 110 971    | 128 877    | 96 169     | 70 400     | 132 895    |
| Cobalt                                   |           |            |            |            |            |            |
| Metal                                    | tonnes    | 2 990      | 3 532      | 3 150      | 2 921      | 2 017      |
| Oxides                                   | tonnes    | 542        | 759        | 898        | 1 057      | 902        |
| Copper                                   |           |            |            |            |            |            |
| Ores and concentrates                    | tonnes    | 1 149 088  | 1 148 316  | 1 300 491  | 1 088 291  | 1 252 430  |
| Matte and cement                         | tonnes    | 25 931     | 30 463     | 14 880     | 10 102     | 4 133      |
| Unwrought, unrefined                     | tonnes    | 36 671     | 41 589     | 31 830     | 24 706     | 46 840     |
| Unwrought, refined                       | tonnes    | 624 688    | 881 427    | 844 747    | 833 354    | 658 703    |
| Unwrought alloys                         | tonnes    | 26 657     | 36 770     | 48 261     | 40 073     | 38 538     |
| Scrap                                    | tonnes    | 432 147    | 552 413    | 595 751    | 563 560    | 454 753    |
| Diamond                                  |           |            |            |            |            |            |
| Gem                                      | carats    | 443 747    | 487 354    | 515 262    | 709 636    | 299 771    |
| Industrial                               | carats    | 1 572 864  | 1 554 184  | 1 090 991  | 505 400    | 209 539    |
| Dust                                     | carats    | 63 878 900 | 53 291 240 | 45 596 025 | 45 914 930 | 21 374 780 |
| Diatomite                                | tonnes    | 40 224     | 40 197     | 42 882     | 49 237     | 38 258     |
| Feldspar                                 | tonnes    | 101 931    | 126 834    | 143 596    | 143 758    | 130 081    |
| Fluorspar                                | tonnes    | 264 896    | 293 737    | 346 581    | 357 914    | 187 330    |
| Gold                                     |           |            |            |            |            |            |
| Metal                                    | kilograms | 52 827     | 56 743     | 68 549     | 118 516    | 164 511    |
| Waste and scrap                          | kilograms | 1 923 600  | 1 821 100  | 1 304 700  | 1 390 000  | 1 126 326  |
| Graphite                                 | tonnes    | 55 843     | 45 884     | 54 627     | 62 180     | 33 293     |
| Gypsum                                   |           |            |            |            |            |            |
| Crude                                    | tonnes    | 66 590     | 79 798     | 80 449     | 54 216     | 28 315     |
| Calcined                                 | tonnes    | 73 647     | 85 665     | 93 275     | 76 992     | 75 319     |
| Iodine                                   | kilograms | 1 302 300  | 1 205 800  | 1 102 600  | 1 150 600  | 1 168 886  |
| Iron ore                                 |           |            |            |            |            |            |
| Iron ore                                 | tonnes    | 39 061 160 | 44 850 286 | 46 194 376 | 44 339 072 | 28 812 155 |
| Burnt pyrites                            | tonnes    | 20 496     | 36 299     | 570        | —          | 7 087      |
| Iron, steel and ferro-alloys             |           |            |            |            |            |            |
| Pig iron                                 | tonnes    | 320 481    | 422 525    | 655 022    | 713 470    | 402 132    |
| Sponge and powder                        | tonnes    | 156 048    | 193 503    | 249 673    | 90 069     | 294 393    |
| Ferro-chrome                             | tonnes    | 454 703    | 458 070    | 484 276    | 544 619    | 305 008    |
| Ferro-silico-chrome                      | tonnes    | 1 429      | 12 867     | 14 426     | 12 886     | 8 648      |
| Ferro-silico-magnesium                   | tonnes    | 6 831      | 23 761     | 25 758     | 23 645     | 12 238     |
| Ferro-manganese                          | tonnes    | 170 967    | 195 387    | 217 428    | 209 083    | 122 063    |
| Ferro-silico-manganese                   | tonnes    | 172 967    | 181 726    | 210 703    | 156 484    | 111 008    |
| Ferro-molybdenum                         | tonnes    | 15 594     | 17 473     | 18 423     | 17 434     | 12 484     |
| Ferro-nickel                             | tonnes    | 157 091    | 150 789    | 169 677    | 177 851    | 127 087    |
| Ferro-niobium                            | tonnes    | 4 361      | 6 063      | 6 176      | 6 269      | 4 047      |
| Ferro-phosphorus                         | tonnes    | 4 985      | 5 575      | 6 519      | 4 801      | 1 332      |
| Ferro-silicon                            | tonnes    | 238 120    | 214 736    | 274 783    | 215 374    | 146 127    |
| Ferro-titanium and ferro-silico-titanium | tonnes    | 10 302     | 13 492     | 15 339     | 13 824     | 5 461      |
| Ferro-tungsten and ferro-silico-tungsten | tonnes    | 600        | 990        | 1 512      | 2 182      | 1 366      |
| Ferro-vanadium                           | tonnes    | 4 843      | 5 171      | 5 711      | 5 333      | 3 421      |
| Other ferro-alloys                       | tonnes    | 13 323     | 13 698     | —          | —          | 13 571     |
| Silicon metal                            | tonnes    | 156 690    | 184 499    | 190 933    | 225 185    | 183 516    |
| Ingots, blooms, billets                  | tonnes    | 2 331 264  | 2 578 298  | 3 095 162  | 2 970 042  | 1 171 865  |
| Scrap                                    | tonnes    | 5 026 286  | 5 592 745  | 5 920 061  | 5 675 167  | 3 865 110  |
| Kaolin                                   | tonnes    | 803 001    | 809 329    | 717 102    | 647 278    | 585 675    |
| Lead                                     |           |            |            |            |            |            |
| Ores and concentrates                    | tonnes    | 171 533    | 161 113    | 211 132    | 212 602    | 234 102    |
| Unwrought                                | tonnes    | 108 533    | 134 805    | 138 978    | 118 779    | 103 642    |
| Scrap                                    | tonnes    | 15 419     | 18 141     | 30 313     | 28 231     | 40 547     |
| Lithium                                  |           |            |            |            |            |            |
| Oxides                                   | tonnes    | 4 209      | 4 260      | 5 163      | 5 420      | ...        |
| Carbonate                                | tonnes    | 8 101      | 7 948      | 8 131      | 7 098      | 4 433      |
| Magnesite and magnesia                   |           |            |            |            |            |            |
| Magnesite                                | tonnes    | 6 353      | 13 794     | 17 029     | 8 420      | 6 731      |
| Magnesia                                 | tonnes    | 515 089    | 519 576    | 568 508    | 562 618    | 276 674    |
| Manganese                                |           |            |            |            |            |            |
| Ores and concentrates (a)                | tonnes    | 7 645      | 11 327     | 15 997     | 14 916     | 14 645     |
| Metal                                    | tonnes    | 29 449     | 45 937     | 42 368     | 47 581     | 33 989     |

## Imports continued

| Commodity                                | Units     | 2005        | 2006        | 2007        | 2008        | 2009       |
|--|-----------|-------------|-------------|-------------|-------------|------------|
| Mercury                                  | kilograms | 36 200      | 70 600      | 84 100      | 19 700      | 28 678     |
| Mica                                     |           |             |             |             |             |            |
| Unmanufactured                           | tonnes    | 89          | 12          | 16          | 386         | 221        |
| Ground                                   | tonnes    | 30 820      | 33 101      | 36 345      | 33 175      | 25 682     |
| Waste                                    | tonnes    | 1 101       | 980         | 782         | 966         | 316        |
| Molybdenum                               |           |             |             |             |             |            |
| Ores and concentrates                    | tonnes    | 11 537      | 14 059      | 10 721      | 9 645       | 6 953      |
| Metal                                    | tonnes    | 2 569       | 3 894       | 4 238       | 4 132       | 1 726      |
| Oxides                                   | tonnes    | 725         | 2 049       | 1 776       | 1 905       | 1 661      |
| Nickel                                   |           |             |             |             |             |            |
| Mattes, sinters etc                      | tonnes    | 6 902       | 6 459       | 1 911       | 797         | 561        |
| Ores and concentrates                    | tonnes    | 57          | 293         | 1 532       | 1 310       | 1 087      |
| Unwrought                                | tonnes    | 87 939      | 70 947      | 74 083      | 68 767      | 42 201     |
| Unwrought alloys                         | tonnes    | 2 182       | 2 908       | 2 531       | 6 102       | 3 839      |
| Scrap                                    | tonnes    | 11 672      | 15 116      | 19 799      | 18 316      | 8 259      |
| Oxides                                   | tonnes    | 502         | 445         | 593         | 617         | 463        |
| Crude petroleum                          | tonnes    | 113 067 864 | 113 960 654 | 105 162 534 | 105 835 665 | 97 648 203 |
| Natural gas                              | tonnes    | 78 310 541  | 83 475 456  | 75 980 087  | 78 201 702  | 78 990 573 |
| Phosphate rock                           | tonnes    | 104 335     | 117 711     | 115 109     | 145 905     | 28 863     |
| Platinum metals                          |           |             |             |             |             |            |
| Platinum                                 | kilograms | 58 400      | 46 900      | 51 500      | 47 100      | 42 452     |
| Palladium                                | kilograms | 56 000      | 42 000      | 54 700      | 55 100      | 47 092     |
| Other Platinum metals                    | kilograms | 9 100       | 8 700       | 9 700       | 6 400       | 12 120     |
| Waste and scrap                          | kilograms | 6 574 600   | 9 332 700   | 11 442 800  | 10 983 600  | 6 224 314  |
| Potash                                   |           |             |             |             |             |            |
| Sulphate                                 | tonnes    | 5 964       | 5 414       | 17 108      | 11 801      | 13 194     |
| Chloride                                 | tonnes    | 75 483      | 62 917      | 101 081     | 124 643     | 75 154     |
| Other potassic fertilisers               | tonnes    | 4 065       | 809         | 1 344       | 2 503       | 633        |
| Rare earths                              |           |             |             |             |             |            |
| Cerium compounds                         | tonnes    | 1 082       | 975         | 901         | 673         | 448        |
| Other rare earth compounds               | tonnes    | 6 961       | 7 024       | 9 748       | 10 192      | 7 755      |
| Ferro-cerium and other pyrophoric alloys | tonnes    | 6           | 3           | 7           | 6           | 2          |
| Metals                                   | tonnes    | 402         | 369         | 410         | 430         | 106        |
| Salt                                     | tonnes    | 2 558 898   | 2 591 036   | 2 476 738   | 2 319 273   | 1 867 023  |
| Sillimanite minerals                     | tonnes    | 58 047      | 80 183      | 109 961     | 79 668      | 39 511     |
| Silver                                   |           |             |             |             |             |            |
| Ores and concentrates                    | kilograms | ...         | 1 323 500   | 859 400     | 6 024 500   | 2 581 290  |
| Metal                                    | kilograms | 1 861 800   | 2 227 600   | 2 565 300   | 2 668 900   | 1 784 960  |
| Sulphur and pyrites                      |           |             |             |             |             |            |
| Pyrites                                  | tonnes    | 62 686      | 76 343      | 92 569      | 109 955     | 52 641     |
| Sulphur                                  | tonnes    | 46 127      | 31 267      | 51 785      | 53 602      | 38 246     |
| Sulphur, sublimed and precipitated       | tonnes    | 4 389       | 1 363       | 2 007       | 2 964       | 2 856      |
| Talc                                     | tonnes    | 376 618     | 345 863     | 347 230     | 338 606     | 293 417    |
| Tantalum and niobium                     |           |             |             |             |             |            |
| Tantalum                                 | tonnes    | 164         | 148         | 125         | 188         | 67         |
| Tin                                      |           |             |             |             |             |            |
| Unwrought                                | tonnes    | 20 438      | 21 584      | 23 917      | 22 160      | 14 193     |
| Unwrought alloys                         | tonnes    | 554         | 936         | 409         | 179         | 175        |
| Scrap                                    | tonnes    | 506         | 917         | 1 689       | 2 243       | 674        |
| Titanium                                 |           |             |             |             |             |            |
| Ilmenite                                 | tonnes    | 333 603     | 414 037     | 425 175     | 446 154     | 304 471    |
| Other titanium minerals                  | tonnes    | 224 675     | 253 392     | 200 512     | 279 407     | 212 735    |
| Titanium slag                            | tonnes    | —           | 17 403      | 112 474     | 76 107      | 42 042     |
| Metal                                    | tonnes    | 15 978      | 18 426      | 19 385      | 19 449      | 11 649     |
| Oxides                                   | tonnes    | 240 554     | 269 812     | 299 599     | 281 009     | 240 120    |
| Tungsten                                 |           |             |             |             |             |            |
| Ores and concentrates                    | tonnes    | 493         | 512         | 604         | 967         | 821        |
| Metal                                    | tonnes    | 5 515       | 4 450       | 4 791       | 5 184       | 3 313      |
| Carbide                                  | tonnes    | 1 802       | 1 366       | 2 678       | 2 526       | 1 333      |
| Vanadium                                 |           |             |             |             |             |            |
| Ores and concentrates                    | tonnes    | 104         | 53          | 79          | 60          | ...        |
| Pentoxide                                | tonnes    | 741         | 1 222       | 1 071       | 879         | ...        |
| Metal                                    | tonnes    | 193         | 173         | ...         | ...         | ...        |

Germany

Imports continued

| Commodity             | Units  | 2005    | 2006    | 2007    | 2008    | 2009    |
|-----------------------|--------|---------|---------|---------|---------|---------|
| Zinc                  |        |         |         |         |         |         |
| Ores and concentrates | tonnes | 401 829 | 314 268 | 357 692 | 383 789 | 271 554 |
| Unwrought             | tonnes | 245 794 | 313 034 | 316 603 | 305 075 | 285 965 |
| Unwrought alloys      | tonnes | 76 981  | 83 795  | 87 785  | 89 738  | 36 350  |
| Scrap                 | tonnes | 22 480  | 30 028  | 19 586  | 17 395  | 16 782  |
| Zirconium             |        |         |         |         |         |         |
| Concentrates          | tonnes | ...     | —       | —       | 76 070  | 51 179  |
| Metal                 | tonnes | 503     | 571     | 880     | 791     | 664     |

Note(s)

(a) Including manganiferous iron ore

## Greece

### Production

| Commodity                        | Units   | 2005         | 2006         | 2007          | 2008          | 2009         |
|----------------------------------|---|--------------|--------------|---------------|---------------|--------------|
| Primary aggregates               |   |              |              |               |               |              |
| Sand and gravel and crushed rock | tonnes  | * 90 000 000 | * 90 000 000 | * 90 000 000  | * 85 000 000  | * 65 000 000 |
| Bauxite                          | tonnes  | 2 441 443    | 2 162 900    | 2 125 900     | 2 174 000     | 1 935 000    |
| Alumina                          | tonnes (Al <sub>2</sub> O <sub>3</sub> content) | 782 000      | 780 000      | 761 746       | 771 769       | 718 797      |
| Primary aluminium                | tonnes  | 165 300      | 164 500      | 167 937       | 162 339       | 134 737      |
| Bentonite and fuller's earth     |   |              |              |               |               |              |
| Bentonite                        | tonnes  | 1 124 795    | * 1 200 000  | (a) 1 389 800 | (a) 1 528 584 | (a) 926 186  |
| Cement                           |   |              |              |               |               |              |
| Cement clinker                   | tonnes  | 12 442 361   | 10 852 453   | 12 035 077    | 11 361 397    | 8 649 322    |
| Cement, finished                 | tonnes  | 15 191 761   | 15 723 088   | 14 559 293    | 14 013 312    | 11 160 205   |
| Coal                             |   |              |              |               |               |              |
| Lignite                          | tonnes  | 70 600 000   | 64 800 000   | 66 100 000    | 64 521 000    | 61 800 000   |
| Feldspar                         | tonnes  | 100 586      | * 100 000    | 95 000        | 62 000        | 28 617       |
| Gypsum                           | tonnes  | 865 216      | * 850 000    | 836 967       | (b) 1 000 000 | (b) 730 000  |
| Crude steel                      | tonnes  | 2 266 000    | 2 416 000    | 2 554 000     | 2 477 000     | 2 000 000    |
| Ferro-alloys                     |   |              |              |               |               |              |
| Ferro-nickel                     | tonnes  | * 96 000     | * 89 000     | 93 300        | 83 200        | 41 300       |
| Kaolin                           | tonnes  | 49 912       | * 40 000     | 30 000        | 4 360         | —            |
| Lead, mine                       | tonnes (metal content)                          | 2 900        | 11 400       | 13 400        | 14 000        | 10 000       |
| Lead, refined                    | tonnes  | * —          | * 6 000      | * 11 000      | * 11 000      | * 11 000     |
| Magnesite                        | tonnes  | 471 000      | 463 277      | 351 414       | 361 165       | 380 834      |
| Nickel, mine                     | tonnes (metal content)                          | 20 400       | 21 700       | 21 200        | 18 600        | 9 600        |
| Nickel, smelter/refinery         | tonnes  | 19 235       | 17 700       | 18 668        | 16 640        | 8 269        |
| Perlite                          | tonnes  | 1 075 129    | * 1 100 000  | 1 100 000     | 1 000 000     | 862 935      |
| Crude petroleum                  | tonnes  | 135 000      | 93 000       | 80 000        | 66 000        | 87 000       |
| Natural gas                      | million m <sup>3</sup>                          | 16           | * 16         | 21            | 14            | 11           |
| Salt                             | tonnes  | 198 024      | * 200 000    | 212 000       | * 220 000     | * 189 000    |
| Silver, mine                     | kilograms (metal content)                       | 2 300        | 25 500       | 38 300        | 35 500        | 30 177       |
| Sulphur and pyrites              |   |              |              |               |               |              |
| Recovered (c)                    | tonnes (sulphur content)                        | 162 000      | 162 000      | 165 000       | 120 000       | 142 000      |
| Talc                             | tonnes  | 250          | * 250        | 200           | * 200         | * 200        |
| Zinc, mine                       | tonnes (metal content)                          | 4 000        | 16 000       | 20 700        | 24 200        | 17 800       |

#### Note(s)

(1) Greece is believed to produce gold

(a) Including attapulgite and sepiolite

(b) Including anhydrite

(c) From petroleum refining and/or Natural gas

### Exports

| Commodity                    | Units  | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------------------------|--------|-----------|-----------|-----------|-----------|-----------|
| Primary aggregates           | tonnes | 43 306    | 48 990    | 49 781    | 50 453    | 59 216    |
| Aluminium and bauxite        |        |           |           |           |           |           |
| Bauxite                      | tonnes | 1 136 505 | 912 093   | 1 086 405 | 787 160   | 409 508   |
| Alumina                      | tonnes | 439 374   | 457 726   | 715 003   | 412 385   | 412 888   |
| Alumina hydrate              | tonnes | 2 944     | 8 239     | 21 716    | 29 552    | 74 996    |
| Unwrought                    | tonnes | 60 964    | 64 487    | 27 195    | 26 083    | 17 533    |
| Unwrought alloys             | tonnes | 15 017    | 18 804    | 67 732    | 64 998    | 57 668    |
| Scrap                        | tonnes | 15 205    | 19 105    | 13 566    | 13 261    | 14 681    |
| Antimony                     |        |           |           |           |           |           |
| Metal                        | tonnes | 141       | 160       | 143       | 81        | —         |
| Bentonite and fuller's earth |        |           |           |           |           |           |
| Bentonite                    | tonnes | 1 283     | 12 620    | 168       | 8 885     | 5 116     |
| Fuller's earth               | tonnes | 90        | 122       | ...       | ...       | ...       |
| Cement                       |        |           |           |           |           |           |
| Cement clinkers              | tonnes | 304 750   | 356 077   | 848 925   | 722 151   | 851 946   |
| Portland cement              | tonnes | 3 502 085 | 2 816 832 | 2 685 623 | 2 842 584 | 3 051 954 |
| Other cement                 | tonnes | 242 957   | 181 529   | 207 665   | 205 640   | 297 036   |

Greece

Exports continued

| Commodity                    | Units     | 2005    | 2006    | 2007    | 2008    | 2009    |
|------------------------------|-----------|---------|---------|---------|---------|---------|
| Chromium                     |           |         |         |         |         |         |
| Ores and concentrates        | tonnes    | 249     | 726     | —       | 98      | 44      |
| Coal                         |           |         |         |         |         |         |
| Hard coal (a)                | tonnes    | 11 673  | 15 852  | 25 717  | 8 426   | 4 799   |
| Briquettes                   | tonnes    | 51 752  | 23 465  | 12      | 25      | —       |
| Copper                       |           |         |         |         |         |         |
| Unwrought, refined           | tonnes    | 1 242   | 2 541   | 1 944   | 356     | 2 748   |
| Unwrought alloys             | tonnes    | 365     | 1 142   | 995     | 1 198   | 1 071   |
| Scrap                        | tonnes    | 15 126  | 16 889  | 14 669  | 12 314  | 15 742  |
| Feldspar                     | tonnes    | 4 755   | 5 258   | 6 052   | 5 806   | 718     |
| Gold                         |           |         |         |         |         |         |
| Metal                        | kilograms | 3       | 311     | 900     | 400     | 500     |
| Gypsum                       |           |         |         |         |         |         |
| Crude                        | tonnes    | 88 187  | 116 442 | 47 694  | 21 258  | 49 037  |
| Calcined                     | tonnes    | 926     | 752     | 1 842   | 937     | 580     |
| Iron, steel and ferro-alloys |           |         |         |         |         |         |
| Ferro-alloys                 | tonnes    | 1 044   | 511     | 340     | 3 671   | 377     |
| Ingots, blooms, billets      | tonnes    | 48      | 13 899  | 121 989 | 162 819 | 102 721 |
| Scrap                        | tonnes    | 37 164  | 126 188 | 34 584  | 36 018  | 34 840  |
| Kaolin                       | tonnes    | 129     | 472     | 276     | 384     | 225     |
| Lead                         |           |         |         |         |         |         |
| Unwrought                    | tonnes    | 4 017   | 3 292   | 9 913   | 5 792   | 2 360   |
| Scrap                        | tonnes    | 848     | 1 256   | 769     | 1 390   | 913     |
| Magnesite and magnesia       |           |         |         |         |         |         |
| Magnesia                     | tonnes    | 140 083 | 125 783 | 132 083 | 126 496 | 84 399  |
| Mica                         | tonnes    | 5 653   | 9 613   | 3       | 59      | 59      |
| Nickel                       |           |         |         |         |         |         |
| Ores and concentrates        | tonnes    | ...     | 52 169  | 150     | 231     | 144 529 |
| Potash                       |           |         |         |         |         |         |
| Potassic fertilisers         | tonnes    | 2 894   | 3 977   | 1 217   | 1 648   | 1 369   |
| Salt                         | tonnes    | 50 390  | 62 896  | 37 232  | 48 908  | 47 406  |
| Silver                       |           |         |         |         |         |         |
| Metal                        | kilograms | 152     | 3 325   | 8 300   | 7 400   | 79 400  |
| Sulphur and pyrites          |           |         |         |         |         |         |
| Pyrites                      | tonnes    | 4 306   | 16 495  | 73 606  | 63 893  | 24 429  |
| Sulphur                      | tonnes    | 138     | 43 773  | 52 668  | 16 345  | 4 044   |
| Talc                         | tonnes    | 3 479   | 4 065   | 5 016   | 3 926   | 3 898   |
| Titanium                     |           |         |         |         |         |         |
| Oxides                       | tonnes    | 2 373   | 1 861   | 2 233   | 598     | 462     |
| Zinc                         |           |         |         |         |         |         |
| Ores and concentrates        | tonnes    | 3 276   | 12 615  | 14 890  | 43 003  | 21 311  |
| Unwrought (b)                | tonnes    | 334     | 1 802   | 29 861  | 448     | 665     |

Note(s)

- (a) Including anthracite
- (b) Including alloys

## Imports

| Commodity             | Units  | 2005    | 2006    | 2007    | 2008    | 2009    |
|-----------------------|--------|---------|---------|---------|---------|---------|
| Primary aggregates    | tonnes | 22 026  | 45 081  | 341 376 | 425 485 | 177 887 |
| Aluminium and bauxite |        |         |         |         |         |         |
| Bauxite               | tonnes | 206 870 | 268 899 | 376 304 | 226 374 | 351 677 |
| Alumina               | tonnes | 1 049   | 71 073  | 283 255 | 38 828  | 963     |
| Unwrought             | tonnes | 121 266 | 125 541 | 125 327 | 129 407 | 110 311 |
| Unwrought alloys      | tonnes | 68 958  | 62 828  | 73 561  | 63 670  | 32 252  |
| Scrap                 | tonnes | 18 083  | 20 030  | 50 470  | 28 960  | 17 339  |
| Antimony              |        |         |         |         |         |         |
| Ores and concentrates | tonnes | 95      | 131     | 83      | 27      | 6       |
| Metal                 | tonnes | 24      | 0       | 21      | 63      | 85      |
| Arsenic               |        |         |         |         |         |         |
| Metallic arsenic      | tonnes | 35      | 16      | 9       | 9       | 11      |
| Barytes               | tonnes | 996     | 1 065   | 1 255   | 1 348   | 2 133   |

## Imports continued

| Commodity                    | Units     | 2005       | 2006       | 2007       | 2008           | 2009          |
|------------------------------|-----------|------------|------------|------------|----------------|---------------|
| Bentonite and fuller's earth |           |            |            |            |                |               |
| Bentonite                    | tonnes    | 22 164     | 14 573     | 19 780     | 21 261         | 8 593         |
| Fuller's earth               | tonnes    | 844        | 811        | ...        | ...            | ...           |
| Bismuth                      |           |            |            |            |                |               |
| Metal                        | tonnes    | 6          | 6          | 11         | 3              | —             |
| Cadmium                      |           |            |            |            |                |               |
| Metal                        | tonnes    | 1          | 1          | 1          | 18             | 39            |
| Cement                       |           |            |            |            |                |               |
| Cement clinkers              | tonnes    | 1 494      | 50 907     | 45 388     | 23 558         | 4 249         |
| Portland cement              | tonnes    | 425        | 3 237      | 3 603      | 74 239         | 136 300       |
| Other cement                 | tonnes    | 4 548      | 3 228      | 3 010      | 2 618          | 2 359         |
| Chromium                     |           |            |            |            |                |               |
| Ores and concentrates        | tonnes    | 477        | 732        | 257        | 298            | 230           |
| Coal                         |           |            |            |            |                |               |
| Anthracite                   | tonnes    | 35 475     | 39 250     | 59 007     | 41 475         | 37 585        |
| Other coal                   | tonnes    | 724 600    | 461 181    | 382 933    | 288 441        | 138 831       |
| Lignite                      | tonnes    | 0          | 50         | 3 029      | 35 457         | 48 841        |
| Briquettes                   | tonnes    | 1 803      | 1 382      | 1 144      | 111            | 5 827         |
| Cobalt                       |           |            |            |            |                |               |
| Metal                        | tonnes    | 31         | 30         | 42         | 123            | 14            |
| Copper                       |           |            |            |            |                |               |
| Unwrought                    | tonnes    | 90 557     | 106 404    | 105 722    | 79 928         | 57 367        |
| Unwrought alloys             | tonnes    | 488        | 4 439      | 6 855      | 9 393          | 305           |
| Scrap                        | tonnes    | 930        | 2 141      | 10 148     | 18 628         | 11 245        |
| Diamond                      |           |            |            |            |                |               |
| Unsorted                     | carats    | 9 570 000  | 20 035 000 | 7 000 000  | 116 000 000    | 1 000 000     |
| Gem, rough                   | carats    | 85 000     | 55 000     | 205 000    | 425 000        | 3 365 000     |
| Gem, cut                     | carats    | 10 375 000 | 10 075 000 | 9 470 000  | 2 815 000      | 6 370 000     |
| Industrial                   | carats    | 6 770 000  | 9 720 000  | 11 355 000 | 22 810 000     | 43 195 000    |
| Dust                         | carats    | 19 475 000 | 10 550 000 | 17 573 974 | 17 713 060 000 | 2 803 695 000 |
| Diatomite                    | tonnes    | 645        | 757        | 958        | 790            | 482           |
| Feldspar                     | tonnes    | 3 032      | 439        | 478        | 2 830          | 5 851         |
| Fluorspar                    | tonnes    | 10 681     | 2 855      | 2 232      | 2 281          | 1 954         |
| Gold                         |           |            |            |            |                |               |
| Metal                        | kilograms | 56 572     | 60 999     | 48 500     | 114 500        | 26 600        |
| Graphite                     | tonnes    | 91         | 83         | 111        | 142            | 918           |
| Gypsum                       |           |            |            |            |                |               |
| Crude and calcined           | tonnes    | 6 071      | 14 321     | 4 747      | 3 093          | 2 097         |
| Iodine                       | kilograms | 2 247      | 2 153      | 500        | 600            | 800           |
| Iron ore                     | tonnes    | (a) 55 529 | (a) 9 755  | (a) 2 280  | 74             | (a) 172       |
| Iron, steel and ferro-alloys |           |            |            |            |                |               |
| Pig iron                     | tonnes    | 6 415      | 9 172      | 10 461     | 9 185          | 9 107         |
| Sponge and powder            | tonnes    | 3 374      | 492        | 6 741      | 7 709          | 9 685         |
| Ferro-chrome                 | tonnes    | 674        | 871        | 1 016      | 1 146          | 916           |
| Ferro-manganese              | tonnes    | 1 293      | 640        | 2 654      | 1 753          | 1 216         |
| Ferro-silico-manganese       | tonnes    | 31 657     | 31 524     | 38 321     | 24 943         | 8 023         |
| Ferro-silicon                | tonnes    | 6 339      | 4 694      | 18 783     | 8 170          | 4 569         |
| Other ferro-alloys           | tonnes    | 474        | 444        | 546        | 504            | 170           |
| Silicon metal                | tonnes    | 1 126      | 1 408      | 1 383      | 2 312          | 906           |
| Ingots, blooms, billets      | tonnes    | 90 412     | 120 241    | 250 572    | 171 231        | 159 350       |
| Scrap                        | tonnes    | 1 545 912  | 1 517 545  | 1 637 437  | 1 485 316      | 1 159 166     |
| Kaolin                       | tonnes    | 54 293     | 68 083     | 40 298     | 62 415         | 49 509        |
| Lead                         |           |            |            |            |                |               |
| Unwrought                    | tonnes    | 5 112      | 5 401      | 11 792     | 6 875          | 10 644        |
| Scrap                        | tonnes    | 85         | 138        | 2 071      | 2 800          | 1 753         |
| Magnesite and magnesia       |           |            |            |            |                |               |
| Magnesite                    | tonnes    | 14 250     | 15 645     | 12 611     | 44 397         | 19 803        |
| Magnesia                     | tonnes    | 17 232     | 22 763     | 20 682     | 7 328          | 1 729         |
| Manganese                    |           |            |            |            |                |               |
| Ores and concentrates        | tonnes    | 22 001     | 46 164     | —          | 51 425         | 31 776        |
| Metal                        | tonnes    | 905        | 730        | 291        | 271            | 162           |
| Mercury                      | kilograms | 954        | 933        | 100        | 2 500          | 600           |
| Mica                         | tonnes    | 131        | 111        | 123        | 218            | 317           |
| Molybdenum                   |           |            |            |            |                |               |
| Metal                        | tonnes    | 2          | 47         | 34         | 60             | 58            |

Greece

Imports continued

| Commodity                                | Units     | 2005       | 2006       | 2007       | 2008      | 2009      |
|--|-----------|------------|------------|------------|-----------|-----------|
| Nickel                                   |           |            |            |            |           |           |
| Ores and concentrates                    | tonnes    | 29 153     | 6 657      | 36         | —         | 15        |
| Unwrought (b)                            | tonnes    | 58         | 40         | 46         | 101       | 118       |
| Crude petroleum                          | tonnes    | 18 926 138 | 18 370 720 | 16 938 841 | 6 422 841 | 2 437 424 |
| Natural gas                              | tonnes    | 2 634 247  | 3 029 778  | 3 789 666  | 4 186 746 | 3 086 243 |
| Phosphate rock                           | tonnes    | 378 931    | 197 629    | 237 577    | 251 845   | 192 135   |
| Platinum metals                          |           |            |            |            |           |           |
| Platinum and platinum metals             | kilograms | 181        | 248        | 7 400      | 300       | 100       |
| Potash                                   |           |            |            |            |           |           |
| Sulphate                                 | tonnes    | 28 334     | 44 049     | 37 785     | 36 642    | 14 325    |
| Chloride                                 | tonnes    | 46 667     | 36 887     | 22 518     | 28 144    | 20 773    |
| Other potassic fertilisers               | tonnes    | 4 387      | 9 682      | 6 189      | 8 660     | 107       |
| Rare earths                              |           |            |            |            |           |           |
| Rare earth compounds                     | tonnes    | 6          | 4          | 3          | 1         | —         |
| Ferro-cerium and other pyrophoric alloys | tonnes    | 1          | 0          | 22         | 0         | —         |
| Metals                                   | tonnes    | ...        | ...        | 1          | 20        | 68        |
| Salt                                     | tonnes    | 162 669    | 277 940    | 177 719    | 134 557   | 149 094   |
| Sillimanite minerals                     | tonnes    | 25         | 62         | 734        | 2 662     | 505       |
| Silver                                   |           |            |            |            |           |           |
| Metal                                    | kilograms | 1 059 816  | 46 241     | 1 039 000  | 276 100   | 31 300    |
| Sulphur and pyrites                      |           |            |            |            |           |           |
| Pyrites                                  | tonnes    | ...        | 31 906     | 94 621     | 40 754    | 3         |
| Sulphur                                  | tonnes    | 68 765     | 3 933      | 35 625     | 42 733    | 26 673    |
| Talc                                     | tonnes    | 9 937      | 10 000     | 8 550      | 12 372    | 7 862     |
| Tin                                      |           |            |            |            |           |           |
| Unwrought (b)                            | tonnes    | 615        | 244        | 323        | 265       | 80        |
| Titanium                                 |           |            |            |            |           |           |
| Titanium minerals                        | tonnes    | 528        | 440        | 826        | 399       | 351       |
| Oxides                                   | tonnes    | 25 592     | 25 372     | 27 284     | 23 260    | 19 289    |
| Vanadium                                 |           |            |            |            |           |           |
| Ores and concentrates                    | tonnes    | ...        | ...        | ...        | ...       | 80        |
| Zinc                                     |           |            |            |            |           |           |
| Unwrought (b)                            | tonnes    | 20 110     | 19 320     | 58 708     | 28 996    | 25 422    |
| Zirconium                                |           |            |            |            |           |           |
| Concentrates                             | tonnes    | 629        | 466        | 547        | 429       | 122       |

Note(s)

- (a) Including burnt pyrites
- (b) Including alloys

# Hungary

## Production

| Commodity                    | Units                                     | 2005       | 2006       | 2007       | 2008        | 2009        |
|------------------------------|---|------------|------------|------------|-------------|-------------|
| Primary aggregates           |   |            |            |            |             |             |
| Sand and gravel              | tonnes                                    | 69 027 609 | 46 458 296 | 34 815 891 | 36 647 400  | 35 248 167  |
| Crushed rock                 | tonnes                                    | 15 078 440 | 17 944 036 | 13 046 962 | 17 030 760  | 16 462 070  |
| Bauxite                      | tonnes                                    | 535 337    | 538 258    | 546 310    | 511 337     | 267 000     |
| Alumina                      | tonnes ( $\text{Al}_2\text{O}_3$ content) | * 305 000  | * 301 000  | * 301 000  | * 299 000   | * 185 000   |
| Primary aluminium            | tonnes                                    | 31 000     | 300        | —          | —           | —           |
| Bentonite and fuller's earth |   |            |            |            |             |             |
| Bentonite                    | tonnes                                    | 4 900      | 6 635      | 54 231     | 7 464       | 2 839       |
| Cement                       |   |            |            |            |             |             |
| Cement clinker               | tonnes                                    | ...        | 2 533 076  | 2 500 698  | * 2 500 000 | * 2 400 000 |
| Cement, finished             | tonnes                                    | 3 371 000  | 3 724 153  | 3 551 746  | 3 544 000   | * 3 200 000 |
| Coal                         |   |            |            |            |             |             |
| Lignite                      | tonnes                                    | 8 153 968  | 8 467 220  | 8 351 563  | 8 041 168   | 8 026 587   |
| Brown coal                   | tonnes                                    | 1 426 000  | 1 431 700  | 1 450 400  | 1 386 140   | 952 000     |
| Diatomite                    | tonnes                                    | 2 190      | 495        | 1 424      | —           | 1 277       |
| Gypsum (a)                   | tonnes                                    | 19 000     | 30 000     | 26 000     | 15 940      | 19 766      |
| Pig iron                     | tonnes                                    | 1 329 000  | 1 340 000  | 1 393 655  | 1 288 758   | 1 050 000   |
| Crude steel                  | tonnes                                    | 2 004 250  | 2 084 000  | 2 227 000  | 2 097 000   | 1 401 000   |
| Kaolin                       | tonnes                                    | 1 300      | 1 350      | 2 136      | —           | —           |
| Manganese ore                | tonnes                                    | 50 000     | 50 000     | 51 000     | 49 579      | 43 000      |
| Perlite                      | tonnes                                    | 69 900     | 71 019     | 67 542     | 132 000     | 82 058      |
| Crude petroleum              | tonnes                                    | 947 542    | 886 000    | 838 672    | 774 590     | 842 191     |
| Natural gas                  | million m <sup>3</sup>                    | 3 041      | 3 254      | 2 653      | 2 703       | 2 748       |
| Sulphur and pyrites          |   |            |            |            |             |             |
| Recovered (b)                | tonnes (sulphur content)                  | 65 000     | 50 000     | 65 000     | 55 000      | 50 000      |

Note(s)

- (1) Hungary is believed to produce antimony and arsenic  
(2) In addition to the countries producing sillimanite minerals, synthetic mullite is known to be produced in Hungary

- (a) Including anhydrite  
(b) From petroleum refining and/or Natural gas

## Exports

| Commodity                    | Units     | 2005    | 2006    | 2007      | 2008      | 2009      |
|------------------------------|-----------|---------|---------|-----------|-----------|-----------|
| Primary aggregates           | tonnes    | 736 586 | 961 775 | 1 889 989 | 1 382 695 | 1 294 700 |
| Aluminium and bauxite        |           |         |         |           |           |           |
| Alumina                      | tonnes    | 142 470 | 170 030 | 178 984   | 168 347   | 89 857    |
| Alumina hydrate              | tonnes    | 75 811  | 90 705  | 98 187    | 102 652   | 88 515    |
| Unwrought (a)                | tonnes    | 22 635  | 28 884  | 27 580    | 10 981    | 26 176    |
| Scrap                        | tonnes    | 41 192  | 34 986  | 29 228    | 22 098    | 35 060    |
| Bentonite and fuller's earth |           |         |         |           |           |           |
| Bentonite                    | tonnes    | 442     | 860     | 849       | 1 191     | 555       |
| Cement                       |           |         |         |           |           |           |
| Cement clinkers              | tonnes    | 27 328  | —       | —         | —         | 1 701     |
| Portland cement              | tonnes    | 274 262 | 257 050 | 177 191   | 329 647   | 220 069   |
| Other cement                 | tonnes    | 123     | 32      | 4 448     | 25 169    | 2 987     |
| Coal                         |           |         |         |           |           |           |
| Lignite                      | tonnes    | 366 132 | —       | —         | 89 444    | 41 329    |
| Copper                       |           |         |         |           |           |           |
| Unwrought alloys             | tonnes    | ...     | ...     | ...       | 989       | 314       |
| Scrap                        | tonnes    | 34 861  | 27 051  | 23 394    | 20 958    | 19 120    |
| Gold                         |           |         |         |           |           |           |
| Metal                        | kilograms | 628     | 470     | 871       | 657       | 1 312     |
| Gypsum                       |           |         |         |           |           |           |
| Crude and calcined           | tonnes    | 2 648   | 6 408   | 8 626     | 19 259    | 22 019    |

Hungary

Exports continued

| Commodity                    | Units     | 2005    | 2006    | 2007       | 2008       | 2009       |
|------------------------------|-----------|---------|---------|------------|------------|------------|
| Iron, steel and ferro-alloys |           |         |         |            |            |            |
| Ferro-alloys                 | tonnes    | 234     | —       | 829        | 47         | ...        |
| Ingots, blooms, billets      | tonnes    | 24 923  | 14 731  | 36 548     | 90 282     | 4 315      |
| Scrap                        | tonnes    | 761 464 | 658 499 | 567 923    | 691 805    | 636 805    |
| Kaolin                       | tonnes    | 6 252   | 3 781   | 3 762      | 3 110      | 2 847      |
| Lead                         |           |         |         |            |            |            |
| Scrap                        | tonnes    | 2 987   | 3 286   | 2 369      | 4 052      | 4 001      |
| Natural gas                  | tonnes    | 11 560  | —       | 127 853    | —          | 323 537    |
| Nickel                       |           |         |         |            |            |            |
| Scrap                        | tonnes    | 60      | ...     | 40         | 81         | 203        |
| Platinum metals              |           |         |         |            |            |            |
| Waste and scrap              | kilograms | ...     | ...     | 89 200     | ...        | ...        |
| Potash                       |           |         |         |            |            |            |
| Potassic fertilisers         | tonnes    | 1 253   | 2 336   | 3 474      | 7 891      | 9 916      |
| Rare earths                  |           |         |         |            |            |            |
| Rare earth compounds         | tonnes    | 0       | ...     | ...        | 14         | —          |
| Salt                         | tonnes    | 49 578  | 45 215  | 1 459      | 1 388      | 3 434      |
| Sillimanite minerals         |           |         |         |            |            |            |
| Mullite                      | tonnes    | 6 920   | 6 870   | (b)* 7 500 | (b)* 7 100 | (b)* 3 300 |
| Silver                       |           |         |         |            |            |            |
| Metal                        | kilograms | 1 033   | 395     | 527        | 139        | 1 300      |
| Sulphur and pyrites          |           |         |         |            |            |            |
| Sulphur                      | tonnes    | 36 471  | 34 850  | 43 178     | 43 649     | 39 638     |
| Tin                          |           |         |         |            |            |            |
| Unwrought (a)                | tonnes    | 28      | 70      | 51         | 140        | 82         |
| Scrap                        | tonnes    | 67      | 123     | 141        | 246        | 222        |
| Titanium                     |           |         |         |            |            |            |
| Oxides                       | tonnes    | 126     | 324     | 991        | 1 402      | 1 120      |
| Zinc                         |           |         |         |            |            |            |
| Unwrought                    | tonnes    | 415     | 1 189   | —          | (a) 523    | —          |
| Scrap                        | tonnes    | 3 938   | 4 557   | 3 716      | 1 902      | 2 978      |

Note(s)

(a) Including alloys

(b) BGS estimates, based on known imports into certain countries

## Imports

| Commodity                    | Units     | 2005    | 2006    | 2007       | 2008    | 2009    |
|------------------------------|-----------|---------|---------|------------|---------|---------|
| Primary aggregates           | tonnes    | 446 504 | 211 927 | 455 416    | 806 281 | 446 187 |
| Aluminium and bauxite        |           |         |         |            |         |         |
| Bauxite                      | tonnes    | 279 660 | 243 873 | 319 681    | 297 832 | 178 031 |
| Alumina                      | tonnes    | 15 638  | 2 558   | 3 350      | 9 505   | 12 598  |
| Unwrought                    | tonnes    | 109 382 | 109 506 | 132 695    | 122 319 | 100 897 |
| Unwrought alloys             | tonnes    | 54 362  | 72 573  | 149 299    | 107 123 | 79 437  |
| Scrap                        | tonnes    | 17 164  | 49 076  | 37 204     | 56 347  | 30 212  |
| Antimony                     |           |         |         |            |         |         |
| Oxide                        | tonnes    | 180     | 139     | 192        | 144     | 173     |
| Barytes                      | tonnes    | ...     | ...     | 1 444      | 492     | 4 529   |
| Bentonite and fuller's earth |           |         |         |            |         |         |
| Bentonite                    | tonnes    | 2 794   | 4 850   | 2 933      | 3 095   | 3 608   |
| Fuller's earth               | tonnes    | 281     | ...     | ...        | ...     | ...     |
| Bismuth                      |           |         |         |            |         |         |
| Metal                        | tonnes    | 2       | 3       | 3          | 13      | 84      |
| Bromine                      | kilograms | 12 000  | 9 300   | (a) 29 143 | 9 900   | 10 500  |
| Cement                       |           |         |         |            |         |         |
| Cement clinkers              | tonnes    | 9 051   | 65 437  | 40 099     | ...     | 117 232 |
| Portland cement              | tonnes    | 565 366 | 455 108 | 560 863    | 643 776 | 565 552 |
| Other cement                 | tonnes    | 508 067 | 375 337 | 144 824    | 55 798  | 49 051  |
| Chromium                     |           |         |         |            |         |         |
| Ores and concentrates        | tonnes    | 388     | 306     | 492        | 479     | 251     |
| Metal                        | tonnes    | 182     | 289     | 28         | 86      | 23      |

## Imports continued

| Commodity                          | Units     | 2005       | 2006           | 2007      | 2008           | 2009           |
|------------------------------------|-----------|------------|----------------|-----------|----------------|----------------|
| Coal                               |           |            |                |           |                |                |
| Hard coal                          | tonnes    | 1 298 122  | (b) 1 765 117  | 1 950 139 | 1 893 076      | (b) 1 340 769  |
| Lignite                            | tonnes    | 710 417    | 686 862        | 572 742   | 767 480        | 413 094        |
| Briquettes                         | tonnes    | 14 310     | 15 416         | 13 589    | 16 093         | 17 519         |
| Copper                             |           |            |                |           |                |                |
| Unwrought                          | tonnes    | 3 269      | 2 175          | 2 492     | 3 016          | 2 168          |
| Scrap                              | tonnes    | 399        | 571            | 1 405     | 5 933          | 10 091         |
| Diamond                            |           |            |                |           |                |                |
| Gem, cut                           | carats    | £849 000   | £246 000       | £52 000   | £220 000       | £167 000       |
| Diatomite                          | tonnes    | 1 158      | 1 476          | 2 111     | 1 110          | 796            |
| Feldspar                           | tonnes    | 20 184     | 16 091         | 13 567    | 10 418         | 14 499         |
| Fluorspar                          | tonnes    | (c)* 2 900 | 2 801          | 7 460     | 4 512          | (c)* 1 500     |
| Gold                               |           |            |                |           |                |                |
| Metal                              | kilograms | 1 380      | 235            | 229       | (c) 400        | 1 076          |
| Graphite                           | tonnes    | 191        | 192            | 178       | 147            | 126            |
| Gypsum                             |           |            |                |           |                |                |
| Crude and calcined                 | tonnes    | 60 336     | 65 546         | 66 039    | 55 933         | 46 376         |
| Iodine                             | kilograms | 6 700      | 1 800          | 4 400     | 7 900          | 2 100          |
| Iron ore                           | tonnes    | 996 277    | 987 543        | 968 033   | 616 684        | 876 109        |
| Iron, steel and ferro-alloys       |           |            |                |           |                |                |
| Pig iron                           | tonnes    | 8 808      | 14 821         | 13 285    | 12 951         | 3 403          |
| Ferro-manganese                    | tonnes    | 2 898      | 15 611         | 4 311     | 4 318          | 2 037          |
| Ferro-silico-manganese             | tonnes    | 1 368      | 3 303          | 4 168     | 4 661          | 922            |
| Ferro-silicon                      | tonnes    | 5 013      | 4 821          | 5 907     | 5 232          | 3 100          |
| Other ferro-alloys                 | tonnes    | 4 049      | 1 677          | 1 535     | 13 393         | 15 780         |
| Silicon metal                      | tonnes    | 2 260      | 4 847          | 2 982     | 2 184          | 2 589          |
| Ingots, blooms, billets            | tonnes    | 102 861    | 38 956         | 29 820    | 273 585        | 104 855        |
| Scrap                              | tonnes    | 45 860     | 65 136         | 87 369    | 146 494        | 34 357         |
| Kaolin                             | tonnes    | 33 075     | 25 282         | 25 168    | 29 089         | 25 094         |
| Lead                               |           |            |                |           |                |                |
| Unwrought                          | tonnes    | 5 028      | 4 063          | 5 802     | 2 711          | 2 663          |
| Magnesite and magnesia             | tonnes    | 6 251      | 5 435          | 9 760     | 14 754         | 2 644          |
| Manganese                          |           |            |                |           |                |                |
| Ores and concentrates              | tonnes    | ...        | 20             | 254       | 293            | 220            |
| Metal                              | tonnes    | 889        | 1 180          | 332       | 1 185          | 280            |
| Mercury                            | kilograms | 4 607      | 3 529          | 3 300     | 4 293          | 4 800          |
| Molybdenum                         |           |            |                |           |                |                |
| Metal                              | tonnes    | 129        | 145            | 112       | 102            | 69             |
| Nickel                             |           |            |                |           |                |                |
| Unwrought (d)                      | tonnes    | 115        | 141            | 116       | 69             | 219            |
| Crude petroleum                    | tonnes    | 6 320 762  | (c)* 7 667 000 | 6 064 641 | (c)* 6 959 000 | (c)* 6 241 000 |
| Natural gas                        | tonnes    | 8 238 371  | 8 013 603      | 7 366 053 | 8 574 143      | 6 238 749      |
| Platinum metals                    |           |            |                |           |                |                |
| Platinum and platinum metals       | kilograms | 985        | 91             | 126       | 453            | 26             |
| Potash                             |           |            |                |           |                |                |
| Chloride                           | tonnes    | 137 278    | 133 764        | 168 692   | 181 373        | 38 441         |
| Other potassic fertilisers         | tonnes    | 3 735      | 3 180          | 5 863     | 4 552          | 4 372          |
| Rare earths                        |           |            |                |           |                |                |
| Rare earth compounds               | tonnes    | 131        | 146            | 242       | 116            | 60             |
| Salt                               | tonnes    | 592 522    | 662 455        | 514 119   | 510 287        | 535 928        |
| Sillimanite minerals               | tonnes    | 4 519      | 3 001          | 3 428     | 4 004          | 2 541          |
| Silver                             |           |            |                |           |                |                |
| Metal                              | kilograms | 15 711     | 206 137        | 14 581    | 8 354          | 128 985        |
| Sulphur and pyrites                |           |            |                |           |                |                |
| Sulphur (c)                        | tonnes    | * 1 400    | * 3 400        | * 1 200   | * 1 400        | * 1 200        |
| Sulphur, sublimed and precipitated | tonnes    | 362        | 326            | 174       | 586            | 186            |
| Talc                               | tonnes    | ...        | 8 175          | 9 224     | 8 875          | 7 566          |
| Tin                                |           |            |                |           |                |                |
| Unwrought (d)                      | tonnes    | 192        | 384            | 328       | 320            | 208            |
| Titanium                           |           |            |                |           |                |                |
| Titanium minerals                  | tonnes    | 2 260      | 1 623          | ...       | 2 659          | ...            |
| Oxides                             | tonnes    | 7 523      | 7 845          | 8 291     | 8 590          | 6 853          |
| Tungsten                           |           |            |                |           |                |                |
| Metal                              | tonnes    | 165        | 41             | 41        | 54             | 31             |
| Zinc                               |           |            |                |           |                |                |
| Unwrought (d)                      | tonnes    | 14 529     | 19 093         | 16 843    | 17 011         | 9 862          |

Hungary

Imports continued

| Commodity                 | Units  | 2005  | 2006 | 2007  | 2008  | 2009  |
|---------------------------|--------|-------|------|-------|-------|-------|
| Zirconium<br>Concentrates | tonnes | 3 266 | ...  | 2 427 | 2 439 | 1 265 |

Note(s)

- (a) May include some fluorine
- (b) Including anthracite
- (c) BGS estimates, based on known exports from certain countries
- (d) Including alloys

## Iceland

### Production

| Commodity         | Units  | 2005    | 2006    | 2007    | 2008    | 2009    |
|-------------------|--------|---------|---------|---------|---------|---------|
| Primary aluminium | tonnes | 273 318 | 328 424 | 446 297 | 761 204 | 813 880 |
| Ferro-alloys      |        |         |         |         |         |         |
| Ferro-silicon     | tonnes | 114 844 | 113 798 | 114 886 | 107 882 | 135 834 |

### Exports

| Commodity                    | Units  | 2005    | 2006    | 2007    | 2008    | 2009      |
|------------------------------|--------|---------|---------|---------|---------|-----------|
| Primary aggregates           | tonnes | 1 081   | 14 236  | 35 965  | 41 024  | 29 712    |
| Aluminium and bauxite        |        |         |         |         |         |           |
| Unwrought                    | tonnes | 283 608 | 303 288 | 446 297 | 760 764 | 805 450   |
| Scrap                        | tonnes | 1 312   | 4 603   | 3 872   | 12 483  | 4 467     |
| Copper                       |        |         |         |         |         |           |
| Scrap                        | tonnes | 795     | ...     | ...     | ...     | ...       |
| Iron, steel and ferro-alloys |        |         |         |         |         |           |
| Ferro-silicon                | tonnes | 125     | 103 572 | 117 230 | 105 868 | 1 129 930 |
| Silicon metal                | tonnes | 4       | —       | 15      | —       | 200       |
| Scrap                        | tonnes | 36 624  | 28 908  | 68 014  | 60 287  | 38 075    |
| Salt                         | tonnes | 2 106   | 2 647   | 5 934   | 3 718   | 2 115     |
| Zinc                         |        |         |         |         |         |           |
| Scrap                        | tonnes | 49      | ...     | ...     | ...     | ...       |

### Imports

| Commodity                                | Units     | 2005    | 2006    | 2007    | 2008       | 2009      |
|--|-----------|---------|---------|---------|------------|-----------|
| Aluminium and bauxite                    |           |         |         |         |            |           |
| Alumina                                  | tonnes    | 434 801 | 663 691 | 814 258 | 1 620 531  | 1 557 309 |
| Unwrought (a)                            | tonnes    | 1 095   | 291     | 293     | 439        | 1 461     |
| Bentonite and fuller's earth             |           |         |         |         |            |           |
| Bentonite                                | tonnes    | 726     | 2 468   | 5 022   | 2 392      | 1 259     |
| Cement                                   |           |         |         |         |            |           |
| Cement clinkers                          | tonnes    | 45 464  | 11 922  | 17 978  | 628        | 30        |
| Portland cement                          | tonnes    | 59 628  | 199 525 | 166 488 | 111 918    | 38 640    |
| Other cement                             | tonnes    | 27 165  | 847     | 868     | 505        | 241       |
| Coal                                     |           |         |         |         |            |           |
| Anthracite                               | tonnes    | 103 401 | 91 545  | 107 686 | 91 576     | 104 094   |
| Other coal                               | tonnes    | 13 556  | 6       | 31 882  | 6 609      | 9 903     |
| Copper                                   |           |         |         |         |            |           |
| Unwrought, refined                       | tonnes    | 1 637   | 4 509   | 199     | ...        | ...       |
| Graphite                                 | tonnes    | —       | 2       | —       | 11         | 2 132     |
| Gypsum                                   |           |         |         |         |            |           |
| Crude                                    | tonnes    | 7 353   | 10 061  | 13 279  | 10 533     | 4 724     |
| Calcined                                 | tonnes    | 928     | 713     | 1 409   | 1 606      | 642       |
| Iodine                                   | kilograms | 60 040  | 104     | 12 001  | 12 029     | 9         |
| Iron ore                                 | tonnes    | 38 058  | 38 509  | 43 452  | (b) 44 167 | 34 404    |
| Iron, steel and ferro-alloys             |           |         |         |         |            |           |
| Pig iron                                 | tonnes    | 1 195   | 956     | 502     | 1 128      | 1 333     |
| Ferro-alloys                             | tonnes    | 13      | 43      | 63      | 113        | 5 641     |
| Silicon metal                            | tonnes    | 220     | 364     | 466     | 1 614      | 237       |
| Ingots, blooms, billets                  | tonnes    | 2 569   | 1 647   | 4 352   | 1 361      | 1 528     |
| Platinum metals                          |           |         |         |         |            |           |
| Platinum and platinum metals             | kilograms | 371     | 70      | 960     | 162        | 158       |
| Rare earths                              |           |         |         |         |            |           |
| Ferro-cerium and other pyrophoric alloys | tonnes    | 156     | 98      | 112     | 86         | 88        |
| Metals                                   | tonnes    | ...     | ...     | —       | 85         | 87        |

## Imports

| Commodity | Units     | 2005    | 2006   | 2007    | 2008    | 2009   |
|-----------|-----------|---------|--------|---------|---------|--------|
| Salt      | tonnes    | 108 821 | 96 212 | 100 169 | 113 142 | 98 207 |
| Silver    |           |         |        |         |         |        |
| Metal     | kilograms | 544     | 763    | 1 388   | 858     | 1 096  |
| Titanium  |           |         |        |         |         |        |
| Oxides    | tonnes    | 388     | 312    | 396     | 322     | 233    |

## Note(s)

- (a) Including alloys
- (b) Including burnt pyrites

## Ireland, Republic of

### Production

| Commodity          | Units                                     | 2005         | 2006         | 2007         | 2008         | 2009         |
|--------------------|---|--------------|--------------|--------------|--------------|--------------|
| Primary aggregates |   |              |              |              |              |              |
| Sand and gravel    | tonnes                                    | * 40 000 000 | * 64 000 000 | * 40 000 000 | * 25 000 000 | * 20 000 000 |
| Crushed rock       | tonnes                                    | * 94 000 000 | * 96 000 000 | * 90 000 000 | * 60 000 000 | * 45 000 000 |
| Alumina            | tonnes ( $\text{Al}_2\text{O}_3$ content) | * 1 800 000  | 1 800 000    | 1 800 000    | 1 890 000    | 1 240 000    |
| Cement             |   |              |              |              |              |              |
| Cement, finished   | tonnes                                    | * 4 900 000  | * 4 700 000  | * 4 700 000  | * 3 910 000  | * 2 640 000  |
| Gypsum             | tonnes                                    | * 700 000    | * 700 000    | * 700 000    | * 600 000    | * 400 000    |
| Lead, mine         | tonnes (metal content)                    | 72 200       | 61 800       | 56 800       | 50 200       | 49 500       |
| Lead, refined      | tonnes                                    | 22 500       | 21 700       | 22 500       | 20 000       | 19 000       |
| Natural gas (a)    | million m <sup>3</sup>                    | 570          | 500          | 519          | 506          | 414          |
| Silver, mine       | kilograms (metal content)                 | 10 500       | 12 900       | 9 650        | 7 172        | 5 267        |
| Zinc, mine         | tonnes (metal content)                    | 445 400      | 425 800      | 400 900      | 398 200      | 385 700      |

Note(s)

(a) Sales

### Exports

| Commodity                    | Units     | 2005       | 2006       | 2007       | 2008       | 2009       |
|------------------------------|-----------|------------|------------|------------|------------|------------|
| Primary aggregates           | tonnes    | 62 729     | 230 125    | 85 146     | 255 295    | 40 626     |
| Aluminium and bauxite        |           |            |            |            |            |            |
| Bauxite                      | tonnes    | 472        | 9 210      | 11 167     | 1 438      | 2 619      |
| Alumina                      | tonnes    | 1 459 036  | 1 534 845  | 1 652 967  | 1 709 302  | 895 034    |
| Alumina hydrate              | tonnes    | 85 062     | 115 676    | 10 011     | 88 039     | 95 548     |
| Unwrought alloys             | tonnes    | 3 542      | 4 637      | 5 425      | 3 711      | 2 455      |
| Scrap                        | tonnes    | 16 475     | 18 784     | 22 397     | 21 041     | 18 257     |
| Cement                       |           |            |            |            |            |            |
| Cement clinkers              | tonnes    | 0          | —          | 16 033     | —          | 4 823      |
| Portland cement              | tonnes    | 942 655    | 972 585    | 1 120 808  | 1 144 186  | 1 054 533  |
| Other cement                 | tonnes    | 10         | 1 489      | 1 596      | 1 512      | 1 317      |
| Coal                         |           |            |            |            |            |            |
| Anthracite                   | tonnes    | 501        | 3 791      | 30 451     | ...        | 2          |
| Other coal                   | tonnes    | 9 800      | 6 382      | 4 395      | 6 158      | 3 861      |
| Briquettes                   | tonnes    | 13 103     | 4 823      | ...        | 6 508      | 9 858      |
| Cobalt                       |           |            |            |            |            |            |
| Metal                        | tonnes    | 42         | 43         | 45         | 47         | 145        |
| Oxides                       | tonnes    | —          | 38         | 152        | 0          | —          |
| Copper                       |           |            |            |            |            |            |
| Ores and concentrates        | tonnes    | 3          | 922        | 1 024      | 49         | —          |
| Scrap                        | tonnes    | 13 152     | 15 784     | 9 836      | 21 421     | 23 305     |
| Gold                         |           |            |            |            |            |            |
| Metal                        | kilograms | £942 000   | £1 400 000 | £1 678 000 | £1 180 000 | £37 000    |
| Waste and scrap              | kilograms | £1 429 000 | £1 313 000 | £902 000   | £577 000   | £2 056 000 |
| Gypsum                       |           |            |            |            |            |            |
| Crude                        | tonnes    | 1 022      | 1 054      | 1 058      | 1 094      | 10 425     |
| Calcined                     | tonnes    | 42 212     | 40 027     | 37 914     | 32 821     | 28 491     |
| Iodine                       | kilograms | 1 462      | —          | 1 944      | 1 536      | 1 982      |
| Iron, steel and ferro-alloys |           |            |            |            |            |            |
| Scrap                        | tonnes    | 352 028    | 398 587    | 478 562    | 485 387    | 428 416    |
| Lead                         |           |            |            |            |            |            |
| Ores and concentrates        | tonnes    | 92 813     | 129 748    | 108 645    | 91 728     | 109 877    |
| Magnesite and magnesia       |           |            |            |            |            |            |
| Magnesite                    | tonnes    | —          | 5 991      | 5 487      | 5 006      | 9 133      |
| Magnesia                     | tonnes    | 82 417     | 46 656     | 3 981      | 9 912      | 8 595      |
| Nickel                       |           |            |            |            |            |            |
| Scrap                        | tonnes    | 641        | 1 015      | 556        | 236        | 220        |
| Crude petroleum              | tonnes    | 7          | 11         | 55 635     | —          | 11         |
| Natural gas                  | tonnes    | —          | 642 980    | 5 447      | —          | 383        |
| Platinum metals              |           |            |            |            |            |            |
| Waste and scrap              | kilograms | 7 900      | 6 523      | 7 179      | 16 854     | 8 544      |

Ireland, Republic of

Exports continued

| Commodity             | Units     | 2005    | 2006    | 2007    | 2008    | 2009    |
|-----------------------|-----------|---------|---------|---------|---------|---------|
| Rare earths           |           |         |         |         |         |         |
| Rare earth compounds  | tonnes    | 14      | 73      | 8       | 9       | 7       |
| Salt                  | tonnes    | 1 521   | 2 492   | 3 867   | 8 783   | 735     |
| Silver                |           |         |         |         |         |         |
| Ores and concentrates | kilograms | 19      | ...     | 2 560   | —       | —       |
| Tin                   |           |         |         |         |         |         |
| Concentrates          | tonnes    | 151     | 110     | 75      | 83      | 81      |
| Unwrought (a)         | tonnes    | 67      | 71      | 1 094   | 34      | 23      |
| Scrap                 | tonnes    | 58      | 54      | 77      | 86      | 90      |
| Tungsten              |           |         |         |         |         |         |
| Metal                 | tonnes    | 963     | 183     | 180     | 10      | —       |
| Zinc                  |           |         |         |         |         |         |
| Ores and concentrates | tonnes    | 522 312 | 483 949 | 412 703 | 404 303 | 594 268 |
| Scrap                 | tonnes    | 684     | 569     | 3 044   | 649     | 312     |

Note(s)

(a) Including alloys

## Imports

| Commodity                    | Units     | 2005       | 2006        | 2007        | 2008        | 2009       |
|------------------------------|-----------|------------|-------------|-------------|-------------|------------|
| Primary aggregates           | tonnes    | 1 444 893  | 1 687 279   | 1 729 337   | 1 368 008   | 781 470    |
| Aluminium and bauxite        |           |            |             |             |             |            |
| Bauxite                      | tonnes    | 3 606 983  | 3 368 967   | 4 144 231   | 3 009 615   | 2 786 723  |
| Alumina                      | tonnes    | 4 252      | 7 470       | 9 268       | 9 579       | 4 711      |
| Unwrought (a)                | tonnes    | 4 092      | 2 756       | 1 261       | 309         | 287        |
| Arsenic                      |           |            |             |             |             |            |
| Metallic arsenic             | tonnes    | 158        | 125         | 137         | 95          | ...        |
| Asbestos                     |           |            |             |             |             |            |
| Unmanufactured               | tonnes    | 2 794      | 2 700       | 23          | 3           | —          |
| Barytes                      | tonnes    | 894        | 293         | 586         | 229         | 169        |
| Bentonite and fuller's earth |           |            |             |             |             |            |
| Bentonite                    | tonnes    | 2 658      | 1 725       | 2 916       | 2 643       | 2 741      |
| Bismuth                      |           |            |             |             |             |            |
| Metal                        | tonnes    | 6          | 8           | 12          | 38          | 14         |
| Cement                       |           |            |             |             |             |            |
| Cement clinkers              | tonnes    | 245 955    | 395 053     | 330 948     | 36 153      | 31 983     |
| Portland cement              | tonnes    | 335 055    | 559 645     | 664 977     | 780 528     | 192 556    |
| Other cement                 | tonnes    | 8 958      | 9 079       | 16 409      | 14 649      | 10 698     |
| Chromium                     |           |            |             |             |             |            |
| Metal                        | tonnes    | 40         | 44          | 101         | 120         | 138        |
| Coal                         |           |            |             |             |             |            |
| Anthracite                   | tonnes    | 60 325     | 68 190      | 33 175      | 47 392      | 53 413     |
| Other coal                   | tonnes    | 2 641 074  | 1 908 618   | 1 830 979   | 2 169 185   | 1 721 651  |
| Briquettes                   | tonnes    | 35 959     | 96 279      | 14 271      | 19 049      | 40 482     |
| Cobalt                       |           |            |             |             |             |            |
| Ore                          | tonnes    | 28         | 35          | 571         | 36          | 28         |
| Metal                        | tonnes    | 390        | 464         | 298         | 622         | 777        |
| Oxides                       | tonnes    | 13         | 43          | 7           | 4           | 30         |
| Copper                       |           |            |             |             |             |            |
| Ores and concentrates        | tonnes    | 72         | ...         | 21          | 30 176      | 42 945     |
| Diamond                      |           |            |             |             |             |            |
| Unsorted                     | carats    | 39 900 000 | 67 655 000  | 42 460 000  | 17 535 000  | 4 935 000  |
| Gem, rough                   | carats    | 3 815 000  | 4 140 000   | 4 365 000   | 3 240 000   | 1 885 000  |
| Gem, cut                     | carats    | 36 975 000 | 44 635 000  | 46 100 000  | 28 020 000  | 18 170 000 |
| Industrial                   | carats    | 30 680 000 | 70 840 000  | 35 720 000  | 10 560 000  | 2 100 000  |
| Dust                         | carats    | 30 924 437 | 200 868 966 | 233 626 080 | 232 059 616 | 86 782 073 |
| Diatomite                    | tonnes    | 641        | 943         | 859         | 1 458       | 1 243      |
| Gold                         |           |            |             |             |             |            |
| Metal                        | kilograms | £7 227 000 | £7 213 000  | £6 260 000  | £5 271 000  | £4 365 000 |
| Waste and scrap              | kilograms | 2 567      | 904         | 47          | 987         | 790        |
| Graphite                     | tonnes    | 177        | 23          | 73          | 12          | 8          |

## Imports continued

| Commodity                          | Units     | 2005      | 2006      | 2007      | 2008       | 2009       |
|------------------------------------|-----------|-----------|-----------|-----------|------------|------------|
| Gypsum                             |           |           |           |           |            |            |
| Crude                              | tonnes    | 1 056     | 2 064     | 7 487     | 1 412      | 15 931     |
| Calcined                           | tonnes    | 20 024    | 22 500    | 22 676    | 24 877     | 13 930     |
| Iodine                             | kilograms | 11 921    | 9 705     | 10 318    | 21 515     | 24 358     |
| Iron ore                           | tonnes    | (b) 580   | 1 161     | (b) 4 594 | (b) 13 478 | (b) 18 151 |
| Iron, steel and ferro-alloys       |           |           |           |           |            |            |
| Pig iron                           | tonnes    | 3 215     | 2 710     | 939       | 2 359      | 1 202      |
| Ferro-alloys                       | tonnes    | 475       | 401       | 464       | 370        | 737        |
| Ingots, blooms, billets            | tonnes    | 1 637     | 7 928     | 8 319     | 5 459      | 5 373      |
| Scrap                              | tonnes    | 1 137     | 3 650     | 4 179     | 4 206      | 4 388      |
| Kaolin                             | tonnes    | 22 764    | 19 647    | 19 322    | 18 766     | 3 155      |
| Lead                               |           |           |           |           |            |            |
| Unwrought                          | tonnes    | 30 999    | 28 386    | 35 675    | 23 480     | 15 784     |
| Scrap                              | tonnes    | 28 530    | 31 794    | 25 828    | 17 702     | 16 689     |
| Magnesite and magnesia             |           |           |           |           |            |            |
| Magnesite                          | tonnes    | 12 653    | 1 967     | 5 971     | 4 385      | 4 191      |
| Magnesia                           | tonnes    | 49 466    | 35 800    | 48 088    | 42 999     | 22 523     |
| Manganese                          |           |           |           |           |            |            |
| Ores and concentrates (c)          | tonnes    | 285       | 368       | 286       | 75         | 65         |
| Metal                              | tonnes    | 5         | 15        | 118       | 7          | 6          |
| Mercury                            | kilograms | 72        | 11 804    | 1 019     | 979        | 1 182      |
| Mica                               | tonnes    | 889       | 650       | 508       | 291        | 43         |
| Nickel                             |           |           |           |           |            |            |
| Unwrought (a)                      | tonnes    | 1 775     | 1 256     | 97        | 1 118      | 626        |
| Crude petroleum                    | tonnes    | 3 226 383 | 3 082 372 | 3 595 537 | 2 878 397  | 2 792 968  |
| Natural gas                        | tonnes    | 2 383 218 | 1 946 640 | 3 838 104 | 4 364 595  | 4 192 236  |
| Phosphate rock                     | tonnes    | 219       | 154       | 6 028     | 3 425      | 85         |
| Platinum metals                    |           |           |           |           |            |            |
| Platinum and platinum metals       | kilograms | 4 934     | 3 999     | 10 425    | 2 185      | 121 428    |
| Potash                             |           |           |           |           |            |            |
| Chloride                           | tonnes    | 113 476   | 125 803   | 122 191   | 97 056     | 29 932     |
| Other potassic fertilisers         | tonnes    | 5 747     | 4 566     | 1 785     | 4 347      | 3 390      |
| Rare earths                        |           |           |           |           |            |            |
| Rare earth compounds               | tonnes    | 32        | 7         | 23        | 21         | 67         |
| Salt                               | tonnes    | 83 746    | 96 164    | 89 236    | 105 636    | 114 659    |
| Silver                             |           |           |           |           |            |            |
| Ores and concentrates              | kilograms | ...       | 18 974    | 1 270     | 385        | 41         |
| Metal                              | kilograms | 2 611     | 5 147     | 1 045     | 29 530     | 5 320      |
| Sulphur and pyrites                |           |           |           |           |            |            |
| Sulphur, sublimed and precipitated | tonnes    | 2 327     | 2 486     | 887       | 305        | 74         |
| Talc                               | tonnes    | 2 632     | 1 278     | 375       | 473        | 1 722      |
| Tin                                |           |           |           |           |            |            |
| Unwrought (a)                      | tonnes    | 307       | 211       | 249       | 389        | 100        |
| Titanium                           |           |           |           |           |            |            |
| Metal                              | tonnes    | 290       | 350       | 362       | 1 154      | 507        |
| Oxides                             | tonnes    | 5 059     | 4 703     | 4 822     | 3 961      | 4 308      |
| Tungsten                           |           |           |           |           |            |            |
| Metal                              | tonnes    | 292       | 173       | 277       | 215        | 68         |
| Carbide                            | tonnes    | ...       | 53        | 184       | 158        | 108        |
| Zinc                               |           |           |           |           |            |            |
| Unwrought (a)                      | tonnes    | 3 629     | 7 010     | 7 687     | 5 185      | 2 210      |
| Zirconium                          |           |           |           |           |            |            |
| Concentrates                       | tonnes    | 248       | 258       | 425       | 3 976      | 1 323      |

Note(s)

(a) Including alloys

(b) Including burnt pyrites

(c) Including manganiferous iron ore

## Italy

### Production

| Commodity                    | Units                                     | 2005        | 2006        | 2007        | 2008        | 2009           |
|------------------------------|---|-------------|-------------|-------------|-------------|----------------|
| Primary aggregates           |   |             |             |             |             |                |
| Sand and gravel (a)          | tonnes                                    | 183 908 475 | 185 382 004 | 170 071 749 | 174 779 712 | 164 218 753    |
| Crushed rock (a)             | tonnes                                    | 69 164 106  | 91 397 876  | 97 463 072  | 91 373 378  | 84 717 579     |
| Alumina                      | tonnes ( $\text{Al}_2\text{O}_3$ content) | 1 070 000   | 1 090 000   | 1 327 000   | 1 045 000   | 92 000         |
| Primary aluminium            | tonnes                                    | 192 900     | 194 200     | 179 500     | 186 400     | 165 800        |
| Barytes                      | tonnes                                    | 7 312       | * 7 000     | * 7 000     | * 7 000     | * 7 000        |
| Bentonite and fuller's earth |   |             |             |             |             |                |
| Bentonite                    | tonnes                                    | 445 573     | 469 654     | 599 735     | 281 119     | 146 318        |
| Cement                       |   |             |             |             |             |                |
| Cement clinker               | tonnes                                    | ...         | ...         | ...         | ...         | (a) 25 028 774 |
| Cement, finished             | tonnes                                    | 46 400 000  | 47 400 000  | 46 700 000  | 43 000 000  | 43 000 000     |
| Copper, refined              | tonnes                                    | 32 200      | 36 400      | 28 600      | 24 200      | 6 500          |
| Feldspar                     | tonnes                                    | 3 995 233   | 4 600 903   | 3 524 389   | * 5 000 000 | * 5 000 000    |
| Fluorspar                    | tonnes                                    | 70 326      | * 15 000    | —           | —           | —              |
| Gypsum                       | tonnes                                    | * 1 600 000 | 1 600 000   | * 1 600 000 | * 1 600 000 | * 1 600 000    |
| Pig iron                     | tonnes                                    | 11 392 000  | 11 500 000  | 11 100 000  | 10 400 000  | 5 670 000      |
| Crude steel                  | tonnes                                    | 29 349 000  | 31 624 000  | 31 506 000  | 30 589 000  | 19 847 000     |
| Ferro-alloys                 |   |             |             |             |             |                |
| Ferro-manganese              | tonnes                                    | 32 000      | * 30 000    | * 30 000    | * 30 000    | * 20 000       |
| Ferro-silico-manganese       | tonnes                                    | 99 000      | 96 600      | 87 000      | 87 000      | 56 000         |
| Kaolin                       | tonnes                                    | 183 804     | * 180 000   | * 180 000   | * 180 000   | * 180 000      |
| Lead, mine                   | tonnes (metal content)                    | * 6 000     | * 6 000     | * 3 000     | * 3 000     | * 3 000        |
| Lead, refined                | tonnes                                    | 211 000     | 190 500     | 211 800     | 199 900     | 149 000        |
| Manganese ore                | tonnes                                    | 632         | ...         | ...         | ...         | ...            |
| Perlite                      | tonnes                                    | * 60 000    | * 60 000    | * 60 000    | * 60 000    | * 60 000       |
| Crude petroleum              | tonnes                                    | 6 100 000   | 5 800 000   | 5 800 000   | 5 200 000   | 4 600 000      |
| Natural gas                  | million m <sup>3</sup>                    | 11 977      | 11 000      | 9 700       | 9 300       | 7 900          |
| Salt                         |   |             |             |             |             |                |
| Rock salt and brine          | tonnes                                    | 3 475 734   | 2 823 960   | 2 214 133   | 2 334 315   | 3 471 206      |
| Silver, mine                 | kilograms (metal content)                 | 100         | —           | —           | —           | —              |
| Sulphur and pyrites          |   |             |             |             |             |                |
| Recovered (b)                | tonnes (sulphur content)                  | 92 000      | 87 000      | 84 000      | 82 000      | 79 000         |
| Recovered (c)                | tonnes (sulphur content)                  | 650 000     | 680 000     | 650 000     | 645 000     | 625 000        |
| Talc                         | tonnes                                    | 140 581     | 130 714     | 117 643     | * 110 000   | * 110 000      |
| Slab Zinc                    | tonnes                                    | 121 200     | 109 200     | 102 100     | 107 100     | 103 400        |

#### Note(s)

(1) Germanium is believed to be recovered from imported or domestic material

(a) Sales

(b) From metal sulphide processing

(c) From petroleum refining and/or Natural gas

### Exports

| Commodity             | Units  | 2005      | 2006      | 2007      | 2008      | 2009      |
|-----------------------|--------|-----------|-----------|-----------|-----------|-----------|
| Primary aggregates    | tonnes | 1 734 620 | 1 720 142 | 1 482 346 | 1 522 229 | 1 308 016 |
| Aluminium and bauxite |        |           |           |           |           |           |
| Bauxite               | tonnes | 121 029   | 12 082    | 49 989    | 26 718    | 4 585     |
| Alumina               | tonnes | 651 704   | 748 594   | 696 603   | 571 090   | 61 223    |
| Alumina hydrate       | tonnes | 26 652    | 26 668    | 34 521    | 35 538    | 1 243     |
| Unwrought             | tonnes | 8 742     | 20 315    | 18 971    | 18 249    | 30 019    |
| Unwrought alloys      | tonnes | 57 573    | 73 137    | 104 361   | 96 798    | 122 294   |
| Scrap                 | tonnes | 35 904    | 50 024    | 42 052    | 56 214    | 82 055    |
| Antimony              |        |           |           |           |           |           |
| Ores and concentrates | tonnes | 274       | 250       | 355       | 386       | 566       |
| Oxide                 | tonnes | 94        | 254       | 237       | 569       | 391       |
| Arsenic               |        |           |           |           |           |           |
| Metallic arsenic      | tonnes | 16        | 2         | —         | —         | —         |

## Exports continued

| Commodity                    | Units     | 2005       | 2006       | 2007       | 2008       | 2009      |
|------------------------------|-----------|------------|------------|------------|------------|-----------|
| Asbestos                     |           |            |            |            |            |           |
| Unmanufactured               | tonnes    | 20         | 5          | 29         | —          | ...       |
| Barytes                      | tonnes    | 505        | 1 000      | 2 239      | 1 238      | 2 890     |
| Bentonite and fuller's earth |           |            |            |            |            |           |
| Bentonite                    | tonnes    | 245 515    | 272 438    | 296 809    | 293 417    | 186 219   |
| Bismuth                      |           |            |            |            |            |           |
| Metal                        | tonnes    | 2          | 1          | 1          | 38         | 5         |
| Bromine                      | kilograms | 1 000      | 228 287    | 55 156     | 1 000      | 43        |
| Cadmium                      |           |            |            |            |            |           |
| Metal                        | tonnes    | 18         | 1          | 796        | 1 633      | 2 030     |
| Cement                       |           |            |            |            |            |           |
| Cement clinkers              | tonnes    | 19 427     | 61 437     | 143 235    | 38 106     | 5 280     |
| Portland cement              | tonnes    | 2 379 941  | 2 091 427  | 2 143 940  | 2 094 130  | 1 637 605 |
| Other cement                 | tonnes    | 130 120    | 660 595    | 536 324    | 491 150    | 469 636   |
| Chromium                     |           |            |            |            |            |           |
| Ores and concentrates        | tonnes    | 4 673      | 5 446      | 3 980      | 2 567      | 1 762     |
| Metal                        | tonnes    | 1 070      | 111        | 1 666      | 166        | 29        |
| Coal                         |           |            |            |            |            |           |
| Hard coal (a)                | tonnes    | 66 115     | 38 239     | 41 075     | 31 201     | 29 473    |
| Cobalt                       |           |            |            |            |            |           |
| Metal                        | tonnes    | 97         | 224        | 168        | 220        | 205       |
| Oxides                       | tonnes    | 63         | 77         | 223        | 235        | 141       |
| Copper                       |           |            |            |            |            |           |
| Matte and cement             | tonnes    | 107        | 1 511      | 2 244      | 911        | 90        |
| Unwrought                    | tonnes    | 6 387      | 13 567     | 22 424     | 13 381     | 30 548    |
| Scrap                        | tonnes    | 110 711    | 102 463    | 120 231    | 148 923    | 158 062   |
| Unwrought alloys             | tonnes    | 14 128     | 14 620     | 20 830     | 15 268     | 12 787    |
| Diamond                      |           |            |            |            |            |           |
| Gem, cut                     | carats    | 119 462    | 105 514    | 131 174    | 1 830 000  | 1 480 000 |
| Dust                         | carats    | 49 139 151 | 18 028 081 | 65 975 744 | 10 865 000 | 1 370 000 |
| Diatomite                    | tonnes    | 1 138      | 1 110      | 3 884      | 9 991      | 10 392    |
| Feldspar                     | tonnes    | 302 715    | 238 555    | 226 963    | 324 977    | 126 289   |
| Fluorspar                    | tonnes    | 28 699     | 16 710     | 19 281     | 31 271     | 9 518     |
| Gold                         |           |            |            |            |            |           |
| Metal                        | kilograms | 60 480     | 55 847     | 56 360     | 51 260     | 106 646   |
| Waste and scrap              | kilograms | —          | 16         | 160        | 1 376      | 173       |
| Graphite                     | tonnes    | 274        | 442        | 401        | 308        | 820       |
| Gypsum                       |           |            |            |            |            |           |
| Crude                        | tonnes    | 12 641     | 141        | 17 748     | 24 525     | 17 907    |
| Calcined                     | tonnes    | 41 404     | 69 272     | 27 123     | 24 496     | 21 848    |
| Iodine                       | kilograms | 14 499     | 7 067      | 2 613      | 2 119      | 86 917    |
| Iron ore                     |           |            |            |            |            |           |
| Iron ore                     | tonnes    | 365        | 18 929     | 7 026      | 1 598      | 313       |
| Burnt pyrites                | tonnes    | 9 410      | 4 407      | 1 544      | 101        | 41        |
| Iron, steel and ferro-alloys |           |            |            |            |            |           |
| Pig iron                     | tonnes    | 15 740     | 22 114     | 50 789     | 36 137     | 61 761    |
| Sponge and powder            | tonnes    | 163        | 194        | 1 097      | 615        | 452       |
| Ferro-chrome                 | tonnes    | 3 753      | 8 276      | 5 411      | 4 593      | 2 066     |
| Ferro-silico-magnesium       | tonnes    | 30         | 93         | 2 061      | 1 681      | 673       |
| Ferro-manganese              | tonnes    | 10 380     | 8 670      | 14 562     | 12 890     | 7 457     |
| Ferro-silico-manganese       | tonnes    | 3 511      | 4 086      | 7 048      | 6 882      | 4 322     |
| Ferro-molybdenum             | tonnes    | 90         | 174        | 68         | 277        | 1 266     |
| Ferro-nickel                 | tonnes    | 3 967      | 173        | 239        | 123        | 418       |
| Ferro-silicon                | tonnes    | 5 035      | 4 457      | 7 113      | 7 094      | 6 395     |
| Other ferro-alloys           | tonnes    | 996        | 1 986      | 84         | 95         | 68        |
| Silicon metal                | tonnes    | 3 931      | 3 304      | 4 576      | 6 007      | 3 200     |
| Ingots, blooms, billets      | tonnes    | 698 402    | 958 626    | 983 369    | 964 245    | 570 380   |
| Scrap                        | tonnes    | 185 688    | 190 139    | 240 735    | 387 528    | 325 026   |
| Kaolin                       | tonnes    | 40 800     | 17 287     | 16 265     | 13 627     | 21 392    |
| Lead                         |           |            |            |            |            |           |
| Unwrought                    | tonnes    | 18 244     | 8 143      | 8 008      | 34 904     | 23 006    |
| Scrap                        | tonnes    | 2 477      | 3 806      | 7 661      | 6 897      | 7 594     |
| Lithium                      |           |            |            |            |            |           |
| Carbonate                    | tonnes    | 269        | 347        | 225        | 193        | 145       |
| Magnesite and magnesia       |           |            |            |            |            |           |
| Magnesite                    | tonnes    | 3 489      | 3 003      | 3 878      | 2 337      | 1 945     |
| Magnesia                     | tonnes    | 12 130     | 12 174     | 9 036      | 8 172      | 5 873     |

## Italy

## Exports continued

| Commodity                          | Units     | 2005    | 2006    | 2007      | 2008      | 2009      |
|------------------------------------|-----------|---------|---------|-----------|-----------|-----------|
| Manganese                          |           |         |         |           |           |           |
| Metal                              | tonnes    | 241     | 298     | 309       | 494       | 326       |
| Mercury                            | kilograms | 18 244  | 14 820  | 125 946   | 84 247    | 89 228    |
| Mica                               | tonnes    | 738     | 1 159   | 1 429     | 3 211     | 857       |
| Molybdenum                         |           |         |         |           |           |           |
| Ores and concentrates              | tonnes    | 246     | 29      | 311       | 159       | 205       |
| Metal                              | tonnes    | 132     | 639     | 221       | 873       | 488       |
| Oxides                             | tonnes    | 47      | 107     | 185       | 604       | 982       |
| Nickel                             |           |         |         |           |           |           |
| Unwrought (b)                      | tonnes    | 1 720   | 799     | 1 272     | 972       | 1 293     |
| Scrap                              | tonnes    | 1 923   | 448     | 724       | 658       | 541       |
| Crude petroleum                    | tonnes    | 986 121 | 937 813 | 1 442 498 | 1 195 500 | 619 630   |
| Natural gas                        | tonnes    | 649 706 | 331 234 | 585 818   | 1 749 247 | 1 620 776 |
| Phosphate rock                     | tonnes    | 4 883   | 6 789   | 7 800     | 7 661     | 6 416     |
| Platinum metals                    |           |         |         |           |           |           |
| Platinum                           | kilograms | 6 555   | 9 542   | 11 783    | 13 350    | 10 043    |
| Platinum metals                    | kilograms | 6 039   | 6 951   | 5 828     | 8 295     | 8 898     |
| Waste and scrap                    | kilograms | 206     | 1 065   | 94 988    | 257       | 311       |
| Potash                             |           |         |         |           |           |           |
| Potassic fertilisers               | tonnes    | 1 270   | 2 194   | 5 572     | 6 345     | 12 725    |
| Rare earths                        |           |         |         |           |           |           |
| Rare earth compounds               | tonnes    | 13      | 43      | 38        | 153       | 167       |
| Metals                             | tonnes    | 168     | 56      | 177       | 112       | 78        |
| Salt                               | tonnes    | 317 124 | 361 602 | 212 223   | 322 221   | 558 441   |
| Silver                             |           |         |         |           |           |           |
| Metal                              | kilograms | 564 308 | 516 281 | 547 042   | 519 148   | 383 782   |
| Sulphur and pyrites                |           |         |         |           |           |           |
| Pyrites                            | tonnes    | 4 763   | 8 646   | 8 024     | 10 071    | 6 005     |
| Sulphur                            | tonnes    | 225 403 | 290 353 | 263 362   | 219 095   | 256 614   |
| Sulphur, sublimed and precipitated | tonnes    | 2 159   | 36 881  | 39 061    | 4 693     | 21 430    |
| Talc                               | tonnes    | 120 920 | 122 148 | 131 071   | 114 017   | 124 212   |
| Tin                                |           |         |         |           |           |           |
| Unwrought (b)                      | tonnes    | 503     | 437     | 567       | 392       | 411       |
| Scrap                              | tonnes    | 17      | 269     | 204       | 249       | 154       |
| Titanium                           |           |         |         |           |           |           |
| Titanium slag                      | tonnes    | 1 499   | ...     | ...       | ...       | ...       |
| Metal                              | tonnes    | 4 130   | 4 101   | 4 884     | 5 478     | 3 607     |
| Oxides                             | tonnes    | 25 433  | 22 473  | 26 242    | 25 982    | 23 508    |
| Tungsten                           |           |         |         |           |           |           |
| Metal                              | tonnes    | 233     | 197     | 455       | 973       | 670       |
| Vanadium                           |           |         |         |           |           |           |
| Ores and concentrates              | tonnes    | 1 092   | 1 291   | 527       | 217       | 385       |
| Zinc                               |           |         |         |           |           |           |
| Ores and concentrates              | tonnes    | 96 439  | 114 339 | 105 437   | 99 121    | 48 051    |
| Unwrought                          | tonnes    | 9 230   | 37 659  | 21 048    | 7 967     | 5 258     |
| Unwrought alloys                   | tonnes    | 2 854   | 7 792   | 6 689     | 2 857     | 3 491     |
| Scrap                              | tonnes    | 13 652  | 12 934  | 13 574    | 8 603     | 12 334    |
| Zirconium                          |           |         |         |           |           |           |
| Concentrates                       | tonnes    | 21 760  | 23 472  | 25 596    | 41 296    | 33 219    |
| Metal                              | tonnes    | 455     | 260     | 630       | 233       | 274       |

## Note(s)

- (a) Including anthracite  
 (b) Including alloys

## Imports

| Commodity                    | Units     | 2005        | 2006           | 2007        | 2008        | 2009        |
|------------------------------|-----------|-------------|----------------|-------------|-------------|-------------|
| Primary aggregates           | tonnes    | 4 331 596   | 4 655 740      | 4 967 745   | 4 139 144   | 3 654 570   |
| Aluminium and bauxite        |           |             |                |             |             |             |
| Bauxite                      | tonnes    | 2 602 224   | 2 618 296      | 2 374 609   | 2 417 499   | 36 975      |
| Alumina                      | tonnes    | 147 537     | 137 469        | 148 384     | 144 473     | 88 864      |
| Alumina hydrate              | tonnes    | 155 718     | 156 231        | 166 453     | 143 217     | 142 005     |
| Unwrought                    | tonnes    | 426 721     | 481 919        | 534 385     | 445 882     | 284 779     |
| Unwrought alloys             | tonnes    | 463 411     | 504 142        | 545 052     | 436 207     | 310 560     |
| Scrap                        | tonnes    | 326 901     | 366 623        | 432 780     | 377 441     | 268 836     |
| Antimony                     |           |             |                |             |             |             |
| Ores and concentrates        | tonnes    | 1 005       | 829            | 851         | 1 171       | 935         |
| Metal                        | tonnes    | 164         | 279            | 399         | 300         | 198         |
| Oxide                        | tonnes    | 5 543       | 6 061          | 5 950       | 6 168       | 4 602       |
| Arsenic                      |           |             |                |             |             |             |
| Metallic arsenic             | tonnes    | 54          | 52             | 64          | 43          | 45          |
| Barytes                      | tonnes    | 84 178      | 84 398         | 89 745      | 102 684     | 51 615      |
| Bentonite and fuller's earth |           |             |                |             |             |             |
| Bentonite                    | tonnes    | 138 973     | 121 697        | 155 568     | 136 417     | 96 698      |
| Fuller's earth               | tonnes    | 7 893       | 8 208          | ...         | ...         | ...         |
| Bismuth                      |           |             |                |             |             |             |
| Metal                        | tonnes    | 203         | 251            | 316         | 269         | 152         |
| Bromine                      | kilograms | 281 000     | 522 069        | 374 426     | 598 800     | 958 588     |
| Cadmium                      |           |             |                |             |             |             |
| Metal                        | tonnes    | 72          | 30             | 40          | 49          | 43          |
| Oxide                        | tonnes    | 55          | ...            | 1           | 3           | 3           |
| Cement                       |           |             |                |             |             |             |
| Cement clinkers              | tonnes    | 2 828 906   | 2 872 114      | 2 827 333   | 2 095 716   | 1 495 609   |
| Portland cement              | tonnes    | 2 014 905   | 1 564 049      | 1 162 254   | 962 746     | 1 433 820   |
| Other cement                 | tonnes    | 152 325     | 184 862        | 287 190     | 295 988     | 308 222     |
| Chromium                     |           |             |                |             |             |             |
| Ores and concentrates        | tonnes    | 39 999      | 41 992         | 46 433      | 36 552      | 23 842      |
| Metal                        | tonnes    | 958         | 830            | 891         | 742         | 850         |
| Coal                         |           |             |                |             |             |             |
| Anthracite                   | tonnes    | 369 840     | 282 831        | 406 331     | 490 757     | 210 384     |
| Other coal                   | tonnes    | 24 714 768  | 24 860 362     | 25 111 043  | 25 745 375  | 20 165 036  |
| Briquettes                   | tonnes    | 9 136       | 10 207         | 6 921       | 5 392       | 7 786       |
| Cobalt                       |           |             |                |             |             |             |
| Metal                        | tonnes    | 468         | 587            | 626         | 703         | 632         |
| Oxides                       | tonnes    | 1 128       | 1 161          | 1 682       | 561         | 473         |
| Copper                       |           |             |                |             |             |             |
| Unwrought, unrefined         | tonnes    | 955         | 323            | 796         | 370         | 438         |
| Unwrought, refined           | tonnes    | 652 089     | 774 140        | 746 482     | 617 420     | 544 197     |
| Unwrought alloys             | tonnes    | 8 053       | 15 174         | 24 996      | 18 531      | 8 166       |
| Scrap                        | tonnes    | 124 737     | 214 289        | 177 546     | 167 212     | 91 519      |
| Diamond                      |           |             |                |             |             |             |
| Unsorted                     | carats    | 350 000     | 150 000        | 915 000     | 1 905 000   | 355 000     |
| Gem, rough                   | carats    | 115 000     | 75 000         | 80 000      | 10 000      | 25 000      |
| Gem, cut                     | carats    | 11 760 000  | 4 855 000      | 14 560 000  | 12 135 000  | 9 875 000   |
| Industrial                   | carats    | 1 110 000   | 650 000        | 880 000     | 1 145 000   | 675 000     |
| Dust                         | carats    | 141 970 000 | 152 680 000    | 161 010 000 | 252 290 000 | 121 055 000 |
| Diatomite                    | tonnes    | 9 141       | 5 179          | 4 487       | 3 939       | 2 497       |
| Feldspar                     | tonnes    | 2 623 428   | 2 603 981      | 2 573 637   | 2 511 704   | 1 570 345   |
| Fluorspar                    | tonnes    | 249 756     | 237 597        | 236 797     | 238 008     | 212 415     |
| Gold                         |           |             |                |             |             |             |
| Metal                        | kilograms | 250 938     | 204 012        | 206 914     | 166 506     | 146 721     |
| Waste and scrap              | kilograms | 904         | 810            | 17 885      | 851         | 864         |
| Graphite                     | tonnes    | 11 102      | 11 548         | 11 362      | 11 832      | 5 995       |
| Gypsum                       |           |             |                |             |             |             |
| Crude                        | tonnes    | 6 134       | 5 285          | 6 814       | 21 411      | 5 754       |
| Calcined                     | tonnes    | 22 076      | 20 028         | 21 088      | 19 621      | 16 645      |
| Iodine                       | kilograms | 854 831     | 1 033 737      | 1 231 082   | 1 343 977   | 1 256 232   |
| Iron ore                     | tonnes    | 17 551 785  | (a) 17 776 812 | 17 013 076  | 16 313 184  | 8 159 741   |

## Italy

## Imports continued

| Commodity                                | Units     | 2005       | 2006       | 2007       | 2008       | 2009       |
|--|-----------|------------|------------|------------|------------|------------|
| Iron, steel and ferro-alloys             |           |            |            |            |            |            |
| Pig iron                                 | tonnes    | 1 729 086  | 1 791 165  | 2 235 376  | 2 238 037  | 895 818    |
| Sponge and powder                        | tonnes    | 424 810    | 468 825    | 465 834    | 396 660    | 174 364    |
| Ferro-chrome                             | tonnes    | 428 716    | 464 364    | 419 392    | 389 002    | 296 813    |
| Ferro-silico-magnesium                   | tonnes    | 5 409      | 6 809      | 16 751     | 15 716     | 6 026      |
| Ferro-manganese                          | tonnes    | 84 920     | 95 010     | 108 976    | 96 771     | 46 537     |
| Ferro-silico-manganese                   | tonnes    | 174 391    | 216 632    | 229 755    | 186 135    | 119 670    |
| Ferro-molybdenum                         | tonnes    | 7 294      | 7 469      | 7 433      | 8 318      | 3 998      |
| Ferro-nickel                             | tonnes    | 141 603    | 129 870    | 91 651     | 104 198    | 78 383     |
| Ferro-niobium                            | tonnes    | 2 457      | 2 194      | 2 783      | 2 733      | 1 395      |
| Ferro-phosphorus                         | tonnes    | 987        | 547        | 721        | 488        | 550        |
| Ferro-silicon                            | tonnes    | 141 789    | 147 121    | 154 797    | 122 236    | 89 909     |
| Ferro-titanium and ferro-silico-titanium | tonnes    | 3 978      | 3 922      | 4 230      | 3 861      | 4 462      |
| Ferro-tungsten and ferro-silico-tungsten | tonnes    | 208        | 307        | 385        | 578        | 300        |
| Ferro-vanadium                           | tonnes    | 1 945      | 1 839      | 2 521      | 2 445      | 1 158      |
| Other ferro-alloys                       | tonnes    | 11 799     | 9 727      | 1          | 243        | —          |
| Silicon metal                            | tonnes    | 49 129     | 51 696     | 57 854     | 57 493     | 27 402     |
| Ingots, blooms, billets                  | tonnes    | 4 310 404  | 5 792 203  | 5 991 974  | 5 311 325  | 2 655 726  |
| Scrap                                    | tonnes    | 5 367 259  | 5 668 405  | 5 242 020  | 5 705 462  | 3 321 387  |
| Kaolin                                   | tonnes    | 956 948    | 978 378    | 881 968    | 810 560    | 505 593    |
| Lead                                     |           |            |            |            |            |            |
| Ores and concentrates                    | tonnes    | 107 685    | 65 610     | 111 999    | 85 760     | 29 210     |
| Unwrought                                | tonnes    | 72 181     | 112 069    | 114 471    | 99 015     | 86 054     |
| Scrap                                    | tonnes    | 3 333      | 4 097      | 7 107      | 2 972      | 2 031      |
| Lithium                                  |           |            |            |            |            |            |
| Oxides                                   | tonnes    | 223        | 159        | 160        | 246        | 96         |
| Carbonate                                | tonnes    | 2 263      | 1 646      | 1 303      | 1 519      | 1 185      |
| Magnesite and magnesia                   |           |            |            |            |            |            |
| Magnesite                                | tonnes    | 23 536     | 10 862     | 10 240     | 18 347     | 9 375      |
| Magnesia                                 | tonnes    | 161 432    | 174 000    | 131 140    | 150 098    | 93 262     |
| Manganese                                |           |            |            |            |            |            |
| Ores and concentrates (b)                | tonnes    | 76 278     | 72 465     | 113 300    | 114 289    | 77 075     |
| Metal                                    | tonnes    | 8 494      | 35 391     | 7 100      | 5 839      | 3 709      |
| Mercury                                  | kilograms | 32 471     | 49 335     | 9 491      | 21 754     | 19 992     |
| Mica                                     |           |            |            |            |            |            |
| Unmanufactured                           | tonnes    | 118        | 158        | 189        | 106        | 417        |
| Ground                                   | tonnes    | 3 405      | 3 657      | 4 803      | 3 980      | 2 597      |
| Molybdenum                               |           |            |            |            |            |            |
| Ores and concentrates                    | tonnes    | 5 109      | 5 552      | 5 901      | 6 220      | 6 703      |
| Metal                                    | tonnes    | 203        | 189        | 215        | 254        | 171        |
| Oxides                                   | tonnes    | 117        | 229        | 183        | 125        | 176        |
| Nickel                                   |           |            |            |            |            |            |
| Mattes, sinters etc                      | tonnes    | 32         | 1 550      | 1          | 1          | 93         |
| Scrap                                    | tonnes    | 5 119      | 1 606      | 1 372      | 892        | 763        |
| Unwrought                                | tonnes    | 37 708     | 48 178     | 41 802     | 42 339     | 25 833     |
| Unwrought alloys                         | tonnes    | 1 455      | 3 918      | 1 613      | 2 164      | 2 841      |
| Crude petroleum                          | tonnes    | 89 007 151 | 86 807 240 | 89 130 022 | 82 998 642 | 76 301 866 |
| Natural gas                              | tonnes    | 39 034 000 | 42 870 000 | 71 491 000 | 36 489 000 | 52 879 546 |
| Phosphate rock                           | tonnes    | 279 693    | 242 633    | 249 847    | 248 005    | 89 245     |
| Platinum metals                          |           |            |            |            |            |            |
| Platinum                                 | kilograms | 15 586     | 17 279     | 20 491     | 16 570     | 13 627     |
| Palladium                                | kilograms | 16 178     | 15 943     | 18 880     | 20 593     | 13 047     |
| Other Platinum metals                    | kilograms | 3 005      | 3 077      | 1 811      | 2 426      | 1 909      |
| Waste and scrap                          | kilograms | 2 085      | 431        | 447        | 7 646      | 8 178      |
| Potash                                   |           |            |            |            |            |            |
| Sulphate                                 | tonnes    | 96 415     | 91 061     | 90 992     | 78 513     | 31 910     |
| Chloride                                 | tonnes    | 334 324    | 302 115    | 396 162    | 346 465    | 144 086    |
| Other potassic fertilisers               | tonnes    | 13 203     | 17 583     | 15 929     | 9 882      | 3 413      |
| Rare earths                              |           |            |            |            |            |            |
| Cerium compounds                         | tonnes    | 651        | 540        | 694        | 710        | 414        |
| Other rare earth compounds               | tonnes    | 336        | 313        | 452        | 431        | 258        |
| Ferro-cerium and other pyrophoric alloys | tonnes    | 17         | 1          | 2          | 2          | 5          |
| Metals                                   | tonnes    | 38         | 58         | 149        | 144        | 87         |
| Salt                                     | tonnes    | 773 507    | 863 836    | 611 435    | 572 965    | 902 241    |
| Sillimanite minerals                     | tonnes    | 27 476     | 26 304     | 24 807     | 30 616     | 45 172     |

## Imports continued

| Commodity                          | Units     | 2005      | 2006      | 2007      | 2008      | 2009    |
|------------------------------------|-----------|-----------|-----------|-----------|-----------|---------|
| Silver                             |           |           |           |           |           |         |
| Ores and concentrates              | kilograms | 2 378     | 67 952    | 1 002     | —         | 15      |
| Metal                              | kilograms | 1 635 765 | 1 583 508 | 1 445 303 | 1 167 457 | 881 205 |
| Sulphur and pyrites                |           |           |           |           |           |         |
| Pyrites                            | tonnes    | 15 548    | 17 741    | 14 879    | 20 984    | 228     |
| Sulphur                            | tonnes    | 13 647    | 11 691    | 16 271    | 48 618    | 13 305  |
| Sulphur, sublimed and precipitated | tonnes    | 328       | 375       | 414       | 2 711     | 3 617   |
| Talc                               | tonnes    | 125 913   | 129 218   | 140 461   | 147 549   | 78 506  |
| Tin                                |           |           |           |           |           |         |
| Concentrates                       | tonnes    | 24        | 572       | 65        | —         | 3       |
| Unwrought                          | tonnes    | 5 899     | 5 526     | 4 113     | 4 124     | 2 652   |
| Unwrought alloys                   | tonnes    | 135       | 392       | 504       | 777       | 360     |
| Titanium                           |           |           |           |           |           |         |
| Titanium minerals                  | tonnes    | 85 607    | 185 121   | 136 274   | 102 909   | 74 338  |
| Metal                              | tonnes    | 5 186     | 6 248     | 8 609     | 7 155     | 3 352   |
| Oxides                             | tonnes    | 154 950   | 161 253   | 166 223   | 141 959   | 139 071 |
| Tungsten                           |           |           |           |           |           |         |
| Metal                              | tonnes    | 257       | 236       | 280       | 255       | 147     |
| Carbide                            | tonnes    | 337       | 365       | 361       | 350       | 103     |
| Vanadium                           |           |           |           |           |           |         |
| Ores and concentrates              | tonnes    | ...       | 75        | ...       | 255       | 18      |
| Pentoxide                          | tonnes    | 156       | 209       | 150       | 173       | 45      |
| Zinc                               |           |           |           |           |           |         |
| Ores and concentrates              | tonnes    | 219 491   | 175 253   | 195 798   | 161 838   | 155 028 |
| Unwrought                          | tonnes    | 261 192   | 229 040   | 314 714   | 179 691   | 118 424 |
| Unwrought alloys                   | tonnes    | 34 929    | 42 768    | 51 514    | 81 350    | 22 194  |
| Scrap                              | tonnes    | 14 172    | 18 541    | 21 599    | 15 369    | 15 315  |
| Zirconium                          |           |           |           |           |           |         |
| Concentrates                       | tonnes    | 147 435   | 143 672   | 114 838   | 129 999   | 53 845  |
| Metal                              | tonnes    | 120       | 128       | 315       | 130       | 226     |

## Note(s)

- (a) Including burnt pyrites
- (b) Including manganiferous iron ore

## Latvia

### Production

| Commodity          | Units  | 2005      | 2006      | 2007      | 2008      | 2009      |
|--------------------|--------|-----------|-----------|-----------|-----------|-----------|
| Primary aggregates |        |           |           |           |           |           |
| Sand and gravel    | tonnes | 6 059 487 | 5 957 744 | 9 998 863 | 8 905 937 | 6 507 487 |
| Crushed rock       | tonnes | 586 607   | 582 081   | 937 030   | 1 413 395 | 815 712   |
| Cement             |        |           |           |           |           |           |
| Cement, finished   | tonnes | * 280 000 | * 280 000 | * 300 000 | * 310 000 | * 300 000 |
| Gypsum (a)         | tonnes | 273 000   | 330 000   | 346 000   | 349 000   | 175 000   |
| Crude steel        | tonnes | 550 000   | * 690 000 | * 696 000 | * 635 000 | * 692 000 |

Note(s)

(a) Including anhydrite

### Exports

| Commodity                    | Units     | 2005    | 2006    | 2007    | 2008    | 2009    |
|------------------------------|-----------|---------|---------|---------|---------|---------|
| Primary aggregates           | tonnes    | 13 178  | 11 618  | 32 783  | 54 321  | 121 260 |
| Aluminium and bauxite        |           |         |         |         |         |         |
| Unwrought alloys             | tonnes    | 34 697  | 18 180  | 19 281  | 17 012  | 11 772  |
| Scrap                        | tonnes    | 910     | 1 767   | 2 416   | 4 203   | 4 419   |
| Cement                       |           |         |         |         |         |         |
| Cement clinkers              | tonnes    | 184     | 326     | 35 307  | —       | 2 382   |
| Portland cement              | tonnes    | 10 762  | 5 528   | 43 951  | 240 311 | 147 960 |
| Other cement                 | tonnes    | 1       | 141     | 10 178  | 20      | 126     |
| Copper                       |           |         |         |         |         |         |
| Unwrought                    | tonnes    | 503     | 2 734   | 3 272   | 4 117   | 2 518   |
| Scrap                        | tonnes    | 9 207   | 7 116   | 7 309   | 6 900   | 6 138   |
| Gypsum                       |           |         |         |         |         |         |
| Crude and calcined           | tonnes    | 48 896  | 109 404 | 74 627  | 63 732  | 37 352  |
| Iron, steel and ferro-alloys |           |         |         |         |         |         |
| Ingots, blooms, billets      | tonnes    | 667     | 2 626   | 4 371   | 4 010   | 2 323   |
| Scrap                        | tonnes    | 217 361 | 313 455 | 245 958 | 388 456 | 213 766 |
| Nickel                       |           |         |         |         |         |         |
| Unwrought alloys             | tonnes    | ...     | ...     | ...     | 2       | 165     |
| Scrap                        | tonnes    | 538     | 116     | 49      | 199     | 3 301   |
| Crude petroleum              | tonnes    | 6 085   | 12 099  | —       | ...     | 93      |
| Platinum metals              |           |         |         |         |         |         |
| Waste and scrap              | kilograms | 1 002   | 468     | 219     | 181     | —       |
| Potash                       |           |         |         |         |         |         |
| Chloride                     | tonnes    | 2 321   | 117     | 250     | 970     | 0       |
| Salt                         | tonnes    | 10 205  | 14 485  | 14 282  | 13 741  | 15 919  |
| Tin                          |           |         |         |         |         |         |
| Scrap                        | tonnes    | 20      | 307     | —       | —       | ...     |
| Zinc                         |           |         |         |         |         |         |
| Scrap                        | tonnes    | 629     | 750     | 757     | 443     | 975     |

## Imports

| Commodity                    | Units     | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Primary aggregates           | tonnes    | 1 320 287 | 1 412 127 | 1 663 783 | 2 033 701 | 565 877   |
| Aluminium and bauxite        |           |           |           |           |           |           |
| Unwrought (a)                | tonnes    | 1 810     | 577       | 154       | 21        | 592       |
| Scrap                        | tonnes    | 16 970    | 6 505     | 6 837     | 7 677     | 5 974     |
| Bentonite and fuller's earth |           |           |           |           |           |           |
| Bentonite                    | tonnes    | 1 629     | 1 544     | 1 850     | 2 628     | 2 148     |
| Cement                       |           |           |           |           |           |           |
| Cement clinkers              | tonnes    | 38 589    | 43 774    | 29 438    | 30 233    | 34 375    |
| Portland cement              | tonnes    | 234 862   | 322 187   | 431 482   | 353 174   | 87 660    |
| Coal                         |           |           |           |           |           |           |
| Hard coal (b)                | tonnes    | 115 720   | 159 787   | 153 806   | 169 211   | 136 277   |
| Copper                       |           |           |           |           |           |           |
| Unwrought                    | tonnes    | 606       | 1 199     | 1 396     | 3 609     | 3 049     |
| Diatomite                    | tonnes    | 389       | 467       | 545       | 681       | 534       |
| Fluorspar                    | tonnes    | 216       | 204       | 220       | 240       | 468       |
| Gypsum                       |           |           |           |           |           |           |
| Crude and calcined           | tonnes    | 3 563     | 9 960     | 13 670    | 5 818     | 1 920     |
| Iron ore                     | tonnes    | ...       | 3 919     | 46 109    | 44 607    | 2 393     |
| Iron, steel and ferro-alloys |           |           |           |           |           |           |
| Pig iron                     | tonnes    | 54 639    | 57 696    | 65 437    | 56 964    | 38 140    |
| Sponge and powder            | tonnes    | 350       | 112       | 131       | 19        | 14 931    |
| Ferro-chrome (c)             | tonnes    | * 3       | * 3       | * 20      | * 130     | * 9 050   |
| Ferro-manganese              | tonnes    | 3 119     | 3 281     | 3 021     | 10 334    | 2 345     |
| Ferro-silico-manganese       | tonnes    | 5 024     | 5 628     | 14 947    | 23 477    | 14 722    |
| Ferro-silicon                | tonnes    | 3 876     | 2 550     | 3 086     | 18 466    | 15 085    |
| Other ferro-alloys           | tonnes    | 201       | 416       | 372       | 132       | 415       |
| Silicon metal                | tonnes    | 1 711     | 1 409     | 656       | 467       | 783       |
| Ingots, blooms, billets      | tonnes    | 206 550   | 145 037   | 158 649   | 146 505   | 226 967   |
| Scrap                        | tonnes    | 161 538   | 266 616   | 294 904   | 412 240   | 214 564   |
| Kaolin                       | tonnes    | 5 016     | 5 422     | 11 071    | 11 173    | 7 476     |
| Magnesite and magnesia       |           |           |           |           |           |           |
| Magnesia                     | tonnes    | 3 343     | 4 092     | 4 678     | 5 355     | 2 827     |
| Natural gas                  | tonnes    | 1 153 086 | 1 201 960 | 1 158 965 | 1 138 776 | 1 047 240 |
| Platinum metals              |           |           |           |           |           |           |
| Waste and scrap              | kilograms | ...       | ...       | 1 900     | 2 900     | 12 000    |
| Potash                       |           |           |           |           |           |           |
| Chloride                     | tonnes    | 19 361    | 9 489     | 8 875     | 10 845    | —         |
| Other potassic fertilisers   | tonnes    | 1 982     | 132       | 312       | 111       | 102       |
| Salt                         | tonnes    | 139 662   | 149 696   | 123 316   | 144 424   | 151 529   |
| Silver                       |           |           |           |           |           |           |
| Metal                        | kilograms | 189 912   | 16        | 1 450     | 1 174     | 556       |
| Sulphur and pyrites          |           |           |           |           |           |           |
| Sulphur                      | tonnes    | 6         | 7         | 8         | 9         | 12 488    |
| Talc                         | tonnes    | 105       | 217       | 396       | 417       | 314       |
| Titanium                     |           |           |           |           |           |           |
| Oxides                       | tonnes    | 726       | 833       | 781       | 3 112     | 562       |
| Zinc                         |           |           |           |           |           |           |
| Unwrought (a)                | tonnes    | 654       | 953       | 664       | 1 256     | 830       |

### Note(s)

- (a) Including alloys
- (b) Including anthracite
- (c) BGS estimates, based on known exports from certain countries

## Lithuania

### Production

| Commodity           | Units                    | 2005      | 2006      | 2007      | 2008      | 2009      |
|---------------------|--------------------------|-----------|-----------|-----------|-----------|-----------|
| Primary aggregates  |                          |           |           |           |           |           |
| Sand and gravel     | tonnes                   | 7 034 402 | 7 633 311 | 9 181 552 | 9 469 411 | 5 029 476 |
| Crushed rock        | tonnes                   | 4 757 023 | 5 259 535 | 6 424 791 | 6 913 160 | 2 849 122 |
| Cement              |                          |           |           |           |           |           |
| Cement clinker      | tonnes                   | ...       | ...       | ...       | —         | 233 292   |
| Cement, finished    | tonnes                   | 832 076   | 1 065 367 | 1 105 365 | 1 075 581 | 583 067   |
| Crude petroleum     | tonnes                   | 216 634   | 180 894   | 154 449   | 127 658   | 114 956   |
| Sulphur and pyrites |                          |           |           |           |           |           |
| Recovered (a)       | tonnes (sulphur content) | 74 276    | 61 135    | 42 618    | 73 870    | 69 722    |

## Note(s)

(1) Small amounts of steel are believed to be produced in Lithuania

(a) From petroleum refining and/or Natural gas

### Exports

| Commodity                    | Units     | 2005    | 2006    | 2007      | 2008    | 2009    |
|------------------------------|-----------|---------|---------|-----------|---------|---------|
| Primary aggregates           | tonnes    | 957 488 | 871 522 | 1 053 802 | 943 673 | 163 850 |
| Aluminium and bauxite        |           |         |         |           |         |         |
| Unwrought alloys             | tonnes    | 3 922   | 3 410   | 3 453     | 3 994   | 2 614   |
| Scrap                        | tonnes    | 7 210   | 5 640   | 5 701     | 5 280   | 4 796   |
| Bentonite and fuller's earth |           |         |         |           |         |         |
| Bentonite                    | tonnes    | 26      | 2 491   | 5 457     | 1 929   | 266     |
| Cement                       |           |         |         |           |         |         |
| Portland cement              | tonnes    | 299 782 | 246 350 | 154 649   | 204 951 | 170 273 |
| Other cement                 | tonnes    | 10      | 16      | 893       | 1 531   | 491     |
| Chromium                     |           |         |         |           |         |         |
| Ores and concentrates        | tonnes    | 948     | 2 213   | 1 156     | 240     | 78      |
| Coal                         |           |         |         |           |         |         |
| Hard coal                    | tonnes    | ...     | 499     | 4 599     | 7 685   | 10 915  |
| Copper                       |           |         |         |           |         |         |
| Scrap                        | tonnes    | 5 821   | 5 020   | 4 814     | 4 675   | 3 375   |
| Iodine                       | kilograms | 33      | 4 800   | 20        | 3       | —       |
| Iron, steel and ferro-alloys |           |         |         |           |         |         |
| Ferro-alloys                 | tonnes    | 13 293  | 17 952  | 15 437    | 11 188  | 3 093   |
| Scrap                        | tonnes    | 599 084 | 681 692 | 661 349   | 659 646 | 422 436 |
| Lead                         |           |         |         |           |         |         |
| Scrap                        | tonnes    | 7 848   | 6 118   | 11 776    | 9 730   | 4 210   |
| Magnesite and magnesia       |           |         |         |           |         |         |
| Magnesia                     | tonnes    | ...     | 8       | 26        | ...     | 537     |
| Molybdenum                   |           |         |         |           |         |         |
| Ores and concentrates        | tonnes    | 310     | ...     | 173       | 186     | ...     |
| Nickel                       |           |         |         |           |         |         |
| Scrap                        | tonnes    | 411     | 674     | 232       | 131     | 85      |
| Crude petroleum              | tonnes    | 148 031 | 115 075 | 155 416   | 128 838 | 113 172 |
| Phosphate rock               | tonnes    | 150     | 1 406   | 2 011     | 140     | —       |
| Platinum metals              |           |         |         |           |         |         |
| Waste and scrap              | kilograms | ...     | 16      | 404       | 62 710  | 101 900 |
| Potash                       |           |         |         |           |         |         |
| Potassic fertilisers         | tonnes    | 10 463  | 8 939   | 5 752     | 2 846   | 18 714  |
| Rare earths                  |           |         |         |           |         |         |
| Cerium compounds             | tonnes    | 1       | 3       | 4         | 3       | 8       |
| Salt                         |           |         |         |           |         |         |
| Silver                       | tonnes    | 5 895   | 7 150   | 6 761     | 6 063   | 5 437   |
| Metal                        | kilograms | 245     | 300     | ...       | 600     | 200     |
| Sulphur and pyrites          |           |         |         |           |         |         |
| Sulphur                      | tonnes    | 3 851   | 1       | 7         | 1 517   | 14 038  |
| Tantalum and niobium         |           |         |         |           |         |         |
| Tantalum                     | tonnes    | 5       | 5       | 48        | 31      | 11      |

## Exports continued

| Commodity             | Units  | 2005 | 2006 | 2007 | 2008  | 2009 |
|-----------------------|--------|------|------|------|-------|------|
| Titanium              |        |      |      |      |       |      |
| Oxides                | tonnes | 141  | 208  | 268  | 1 230 | 502  |
| Vanadium              |        |      |      |      |       |      |
| Ores and concentrates | tonnes | ...  | ...  | 346  | 358   | ...  |
| Zinc                  |        |      |      |      |       |      |
| Scrap                 | tonnes | 685  | 976  | 517  | 232   | 553  |

## Imports

| Commodity                          | Units     | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Primary aggregates                 | tonnes    | 1 289 117 | 1 214 058 | 1 333 772 | 1 301 091 | 695 973   |
| Aluminium and bauxite              |           |           |           |           |           |           |
| Bauxite                            | tonnes    | ...       | ...       | 1         | ...       | 6 922     |
| Alumina                            | tonnes    | 13 079    | 11 176    | 13 304    | 10 282    | 1 815     |
| Scrap                              | tonnes    | 1 841     | 1 964     | 3 380     | 1 887     | 888       |
| Antimony                           |           |           |           |           |           |           |
| Oxide                              | tonnes    | 6         | 36        | 61        | 110       | 117       |
| Bentonite and fuller's earth       |           |           |           |           |           |           |
| Bentonite                          | tonnes    | 2 675     | 2 838     | 3 105     | 3 068     | 3 368     |
| Cement                             |           |           |           |           |           |           |
| Cement clinkers                    | tonnes    | 766       | 416       | 104 219   | 79 102    | 996       |
| Portland cement                    | tonnes    | 265 103   | 209 400   | 170 955   | 111 578   | 133 039   |
| Coal                               |           |           |           |           |           |           |
| Hard coal (a)                      | tonnes    | 290 058   | 391 032   | 356 342   | 382 695   | 215 439   |
| Diatomite                          | tonnes    | 520       | 504       | 1 178     | 763       | 836       |
| Feldspar                           | tonnes    | 4 166     | 1 933     | 1 693     | 1 516     | 2 958     |
| Gold                               |           |           |           |           |           |           |
| Waste and scrap                    | kilograms | 114 600   | 12 470    | 2         | —         | 103       |
| Gypsum                             |           |           |           |           |           |           |
| Crude                              | tonnes    | 58 859    | 71 649    | 78 185    | 90 320    | 28 754    |
| Calcined                           | tonnes    | 20 990    | 36 588    | 47 112    | 43 127    | 19 974    |
| Iodine                             | kilograms | 6 929     | 5 023     | 470       | 383       | 4 510     |
| Iron, steel and ferro-alloys       |           |           |           |           |           |           |
| Ferro-chrome                       | tonnes    | 5 210     | 6 140     | 9 705     | 9 634     | 2 842     |
| Ferro-silico-manganese             | tonnes    | 3 153     | 6 864     | 5 983     | ...       | ...       |
| Other ferro-alloys                 | tonnes    | 3 047     | 1 413     | 437       | 457       | 114       |
| Ingots, blooms, billets            | tonnes    | 4 279     | 5 260     | 6 011     | 9 661     | 1 229     |
| Scrap                              | tonnes    | 74 816    | 103 878   | 64 661    | 64 462    | 29 805    |
| Kaolin                             | tonnes    | 802       | 1 399     | 568       | 607       | 159       |
| Lead                               |           |           |           |           |           |           |
| Scrap                              | tonnes    | ...       | 119       | 368       | 162       | 3 301     |
| Magnesite and magnesia             |           |           |           |           |           |           |
| Magnesia                           | tonnes    | 5 398     | 5 513     | 6 501     | 5 196     | 855       |
| Mica                               | tonnes    | 124       | 122       | 53        | 92        | 43        |
| Crude petroleum                    | tonnes    | 9 746 806 | 7 994 367 | 4 869 858 | 9 325 904 | 8 413 067 |
| Natural gas                        | tonnes    | 2 071 091 | 2 129 513 | 2 414 798 | 2 246 642 | 1 761 529 |
| Phosphate rock                     | tonnes    | 1 178 816 | 1 193 093 | 1 202 196 | 1 209 385 | 1 162 070 |
| Platinum metals                    |           |           |           |           |           |           |
| Waste and scrap                    | kilograms | 5 403     | 26 700    | 65 900    | 40 800    | 22 700    |
| Potash                             |           |           |           |           |           |           |
| Sulphate                           | tonnes    | 12 086    | 10 439    | 15 637    | 10 971    | 2 617     |
| Chloride                           | tonnes    | 123 782   | 143 499   | 138 895   | 107 749   | 6 631     |
| Other potassic fertilisers         | tonnes    | 236       | 6 200     | 190       | 487       | 87        |
| Rare earths                        |           |           |           |           |           |           |
| Rare earth compounds               | tonnes    | 34        | 52        | 3         | 8         | 3         |
| Salt                               | tonnes    | 198 994   | 197 262   | 171 915   | 166 505   | 159 534   |
| Silver                             |           |           |           |           |           |           |
| Metal                              | kilograms | 3 943     | 4 500     | 5 200     | 6 900     | 5 800     |
| Sulphur and pyrites                |           |           |           |           |           |           |
| Sulphur                            | tonnes    | 306 635   | 320 658   | 317 678   | 293 365   | 319 353   |
| Sulphur, sublimed and precipitated | tonnes    | 560       | 607       | 0         | 404       | 18        |
| Talc                               | tonnes    | 402       | 463       | 511       | 388       | 225       |

## Lithuania

## Imports continued

| Commodity            | Units  | 2005 | 2006  | 2007  | 2008 | 2009  |
|----------------------|--------|------|-------|-------|------|-------|
| Tantalum and niobium |        |      |       |       |      |       |
| Tantalum             | tonnes | 10   | 11    | 47    | 38   | 24    |
| Titanium             |        |      |       |       |      |       |
| Oxides               | tonnes | 926  | 975   | 1 328 | 980  | 1 259 |
| Zinc                 |        |      |       |       |      |       |
| Unwrought (b)        | tonnes | 547  | 1 554 | 627   | 563  | 190   |

## Note(s)

- (a) Including anthracite
- (b) Including alloys

## Macedonia

### Production

| Commodity                    | Units                     | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------------------------|---------------------------|-----------|-----------|-----------|-----------|-----------|
| Bentonite and fuller's earth |                           |           |           |           |           |           |
| Bentonite                    | tonnes                    | 14 958    | 20 353    | 22 509    | 13 689    | 9 033     |
| Coal                         |                           |           |           |           |           |           |
| Lignite                      | tonnes                    | 6 879 726 | 6 650 182 | 6 569 220 | 7 669 103 | 7 395 915 |
| Copper, mine                 | tonnes (metal content)    | 4 799     | 7 054     | 7 029     | 8 051     | 7 440     |
| Feldspar                     | tonnes                    | 27 076    | 38 124    | 32 814    | 28 920    | 19 377    |
| Gypsum                       | tonnes                    | 190 232   | 267 760   | 255 500   | 242 400   | 154 550   |
| Crude steel                  | tonnes                    | 321 170   | 326 484   | 370 317   | 344 866   | 299 332   |
| Ferro-alloys                 |                           |           |           |           |           |           |
| Ferro-nickel                 | tonnes                    | 8 141     | 10 942    | 15 321    | 15 026    | 12 000    |
| Ferro-silicon                | tonnes                    | 71 249    | 59 023    | 78 892    | 97 605    | 7 657     |
| Lead, mine                   | tonnes (metal content)    | —         | 11 531    | 36 039    | 49 877    | 46 788    |
| Nickel, mine                 | tonnes (metal content)    | 7 800     | 10 900    | 15 000    | 15 000    | 12 000    |
| Nickel, smelter/refinery     | tonnes                    | 8 141     | 10 942    | 15 000    | 15 000    | 12 000    |
| Silver, mine                 | kilograms (metal content) | —         | * 10 000  | * 30 000  | * 40 000  | * 35 000  |
| Talc                         | tonnes                    | 1 955     | 1 025     | 1 775     | 977       | —         |
| Zinc, mine                   | tonnes (metal content)    | —         | 10 836    | 30 957    | 38 737    | 38 648    |

### Exports

| Commodity                    | Units     | 2005    | 2006    | 2007    | 2008    | 2009   |
|------------------------------|-----------|---------|---------|---------|---------|--------|
| Aluminium and bauxite        |           |         |         |         |         |        |
| Scrap                        | tonnes    | 2 105   | 2 788   | 1 795   | 2 043   | 1 514  |
| Bentonite and fuller's earth |           |         |         |         |         |        |
| Bentonite                    | tonnes    | 4 346   | 4 747   | 4 181   | 5 201   | 3 716  |
| Cement                       |           |         |         |         |         |        |
| Cement clinkers              | tonnes    | 129 570 | 151 663 | 90 869  | 173 089 | 5 638  |
| Portland cement              | tonnes    | 207 457 | 220 588 | 308 468 | 281 782 | 2 305  |
| Chromium                     |           |         |         |         |         |        |
| Ores and concentrates        | tonnes    | 46      | ...     | 1 835   | 160     | ...    |
| Copper                       |           |         |         |         |         |        |
| Ores and concentrates        | tonnes    | 21 441  | 31 547  | 32 224  | ...     | ...    |
| Scrap                        | tonnes    | 1 926   | 3 190   | 2 277   | 2 302   | 2 029  |
| Feldspar                     | tonnes    | 22 369  | 36 539  | 28 766  | 23 762  | 18 457 |
| Gypsum                       |           |         |         |         |         |        |
| Crude and calcined           | tonnes    | 9 779   | 9 488   | 10 167  | 12 496  | 12 604 |
| Iron, steel and ferro-alloys |           |         |         |         |         |        |
| Ferro-silico-manganese       | tonnes    | 1 673   | 6 682   | 48 258  | ...     | 10 938 |
| Ferro-nickel                 | tonnes    | 34 419  | 45 058  | 71 189  | ...     | ...    |
| Ferro-silicon                | tonnes    | 74 450  | 62 794  | 30 139  | ...     | 16 621 |
| Scrap                        | tonnes    | 85 745  | 98 763  | 124 200 | 104 326 | 59 407 |
| Lead                         |           |         |         |         |         |        |
| Ores and concentrates        | tonnes    | 233     | 16 371  | 47 209  | ...     | ...    |
| Unwrought                    | tonnes    | 54      | —       | 70      | 184     | 1 271  |
| Scrap                        | tonnes    | 935     | 2 511   | 2 622   | 2 209   | 226    |
| Manganese                    |           |         |         |         |         |        |
| Ores and concentrates        | tonnes    | ...     | 5 117   | ...     | 6 314   | ...    |
| Phosphate rock               | tonnes    | 3 388   | 1 944   | 2 050   | 1 685   | 1 233  |
| Potash                       |           |         |         |         |         |        |
| Potassic fertilisers         | tonnes    | 1 102   | 3       | —       | 2       | —      |
| Salt                         | tonnes    | 2 677   | 4 508   | 5 091   | 3 255   | 3 616  |
| Silver                       |           |         |         |         |         |        |
| Metal                        | kilograms | 500     | ...     | 71      | 26      | 10     |
| Talc                         | tonnes    | 789     | 735     | 1 124   | 509     | 528    |
| Zinc                         |           |         |         |         |         |        |
| Ores and concentrates        | tonnes    | 3 306   | 23 106  | 58 973  | ...     | 69 509 |
| Scrap                        | tonnes    | 720     | 719     | 874     | 576     | 479    |

## Imports

| Commodity                    | Units     | 2005    | 2006    | 2007    | 2008    | 2009    |
|------------------------------|-----------|---------|---------|---------|---------|---------|
| Aluminium and bauxite        |           |         |         |         |         |         |
| Alumina                      | tonnes    | 82      | 412     | 1 476   | 1 225   | 425     |
| Unwrought (a)                | tonnes    | 1 610   | 2 941   | 3 930   | 3 446   | 2 164   |
| Scrap                        | tonnes    | 492     | 496     | 663     | 485     | 1 341   |
| Cement                       |           |         |         |         |         |         |
| Portland cement              | tonnes    | 59 679  | 44 542  | 69 220  | 136 030 | 193 076 |
| Chromium                     |           |         |         |         |         |         |
| Ores and concentrates        | tonnes    | 3       | 709     | 1 432   | 306     | 495     |
| Coal                         |           |         |         |         |         |         |
| Hard coal (b)                | tonnes    | 98 024  | 179 193 | 199 946 | 214 078 | 85 660  |
| Briquettes                   | tonnes    | 188 634 | 103 508 | 63 805  | 56 640  | 9 207   |
| Fluorspar                    |           |         |         |         |         |         |
| Graphite                     |           |         |         |         |         |         |
| Gypsum                       |           |         |         |         |         |         |
| Crude and calcined           | tonnes    | 1 165   | 1 106   | 1 080   | 976     | 948     |
| Iron, steel and ferro-alloys |           |         |         |         |         |         |
| Pig iron                     | tonnes    | 1 970   | 3 781   | 2 467   | 2 609   | 1 732   |
| Ferro-alloys                 | tonnes    | 2 786   | 2 860   | 3 737   | 3 402   | 1 618   |
| Ingots, blooms, billets      | tonnes    | 226 286 | 359 029 | 501 134 | 482 294 | 157 566 |
| Scrap                        | tonnes    | 264 067 | 277 360 | 310 410 | 255 543 | 7 375   |
| Kaolin                       |           |         |         |         |         |         |
| Lead                         |           |         |         |         |         |         |
| Unwrought                    | tonnes    | 1 146   | 857     | 331     | 19      | 38      |
| Magnesite and magnesia       |           |         |         |         |         |         |
| Manganese                    |           |         |         |         |         |         |
| Ores and concentrates        | tonnes    | 28 977  | 44 040  | 143 556 | 170 455 | ...     |
| Nickel                       |           |         |         |         |         |         |
| Ores and concentrates        | tonnes    | 236 025 | 466 623 | 863 999 | 789 929 | ...     |
| Crude petroleum              |           |         |         |         |         |         |
| Natural gas                  |           |         |         |         |         |         |
| Salt                         |           |         |         |         |         |         |
| Silver                       |           |         |         |         |         |         |
| Metal                        | kilograms | 3 813   | 3 901   | 3 612   | 3 807   | 2 229   |
| Titanium                     |           |         |         |         |         |         |
| Oxides                       |           |         |         |         |         |         |
| Zinc                         |           |         |         |         |         |         |
| Unwrought (a)                | tonnes    | 3 750   | 15 658  | 6 721   | 4 954   | 4 147   |

Note(s)

- (a) Including alloys
- (b) Including anthracite

## Malta

### Exports

| Commodity                    | Units  | 2005  | 2006   | 2007   | 2008   | 2009   |
|------------------------------|--------|-------|--------|--------|--------|--------|
| Aluminium and bauxite        |        |       |        |        |        |        |
| Scrap                        | tonnes | 1 142 | 1 221  | 1 136  | 1 441  | 1 361  |
| Asbestos                     |        |       |        |        |        |        |
| Unmanufactured               | tonnes | 65    | 16     | ...    | ...    | ...    |
| Copper                       |        |       |        |        |        |        |
| Scrap                        | tonnes | 1 242 | 1 036  | 1 790  | 1 890  | 1 828  |
| Iron and Steel               |        |       |        |        |        |        |
| Scrap                        | tonnes | 5 252 | 19 012 | 28 083 | 25 379 | 27 775 |
| Iron, steel and ferro-alloys |        |       |        |        |        |        |
| Scrap                        | tonnes | 5 252 | 19 012 | 28 083 | 25 379 | 27 775 |
| Tin                          |        |       |        |        |        |        |
| Scrap                        | tonnes | 9     | 373    | 340    | 250    | ...    |

### Imports

| Commodity          | Units     | 2005    | 2006    | 2007    | 2008    | 2009    |
|--------------------|-----------|---------|---------|---------|---------|---------|
| Primary aggregates | tonnes    | 4 529   | 11 666  | 29 929  | 25 817  | 47 363  |
| Cement             |           |         |         |         |         |         |
| Portland cement    | tonnes    | 316 012 | 389 690 | 356 365 | 374 392 | 328 411 |
| Other cement       | tonnes    | 181     | 1 518   | 2 949   | 1 498   | 1 552   |
| Gold               |           |         |         |         |         |         |
| Metal              | kilograms | 7 258   | 7 900   | 9 034   | 6 820   | 5 500   |
| Gypsum             |           |         |         |         |         |         |
| Crude and calcined | tonnes    | 5 981   | 7 549   | 6 309   | 5 505   | 2 305   |
| Mica               | tonnes    | 33      | 61      | 39      | 48      | 196     |
| Rare earths        |           |         |         |         |         |         |
| Metals             | tonnes    | ...     | ...     | ...     | ...     | 12      |
| Salt               | tonnes    | 5 453   | 1 629   | 3 590   | 3 794   | 1 364   |
| Silver             |           |         |         |         |         |         |
| Metal              | kilograms | 188     | 1 800   | 600     | 5 300   | 30 400  |
| Talc               | tonnes    | 302     | 271     | 179     | 295     | 263     |
| Titanium           |           |         |         |         |         |         |
| Oxides             | tonnes    | 471     | 512     | 531     | 463     | 470     |

## Netherlands

### Production

| Commodity           | Units                    | 2005       | 2006       | 2007       | 2008        | 2009         |
|---------------------|--------------------------|------------|------------|------------|-------------|--------------|
| Primary aggregates  |                          |            |            |            |             |              |
| Sand and gravel     | tonnes                   | 63 579 000 | 72 147 000 | 69 437 000 | 67 622 000  | * 47 000 000 |
| Primary aluminium   | tonnes                   | 333 820    | 285 317    | 296 900    | 317 000     | 306 000      |
| Cadmium             | tonnes                   | 494        | 524        | 495        | 530         | 490          |
| Cement              |                          |            |            |            |             |              |
| Cement clinker      | tonnes                   | ...        | ...        | ...        | ...         | ...          |
| Cement, finished    | tonnes                   | 2 496 000  | 2 790 000  | 2 700 000  | * 2 700 000 | * 2 700 000  |
| Pig iron            | tonnes                   | 6 031 000  | 5 417 000  | 6 412 000  | 6 130 000   | 4 655 000    |
| Crude steel         | tonnes                   | 6 919 000  | 6 372 000  | 7 368 000  | 6 853 000   | 5 193 000    |
| Lead, refined       | tonnes                   | * 17 000   | * 16 000   | * 16 000   | * 16 000    | * 17 000     |
| Magnesite (a)       | tonnes                   | 285 336    | 293 006    | * 245 000  | 316 264     | 183 256      |
| Crude petroleum     | tonnes                   | 2 268 746  | 2 022 475  | 2 576 222  | 2 163 000   | 1 704 000    |
| Natural gas         | million m <sup>3</sup>   | 74 460     | 73 300     | 72 431     | 79 325      | 74 659       |
| Salt                | tonnes                   | 6 155 000  | 6 056 000  | 6 177 000  | 6 200 000   | 5 967 000    |
| Sulphur and pyrites |                          |            |            |            |             |              |
| Recovered (b)       | tonnes (sulphur content) | 141 000    | 141 000    | 116 000    | 108 000     | 98 000       |
| Recovered (c)       | tonnes (sulphur content) | 440 000    | 495 000    | 505 000    | 515 000     | 510 000      |
| Slab Zinc           | tonnes                   | 227 500    | 238 274    | 234 000    | 250 000     | 224 000      |

#### Note(s)

- (a) Chloride produced from solution mining
- (b) From metal sulphide processing
- (c) From petroleum refining and/or Natural gas

### Exports

| Commodity                    | Units     | 2005      | 2006       | 2007       | 2008       | 2009         |
|------------------------------|-----------|-----------|------------|------------|------------|--------------|
| Primary aggregates           | tonnes    | 6 900 000 | 9 100 000  | 9 300 000  | 10 400 000 | * 10 000 000 |
| Aluminium and bauxite        |           |           |            |            |            |              |
| Bauxite                      | tonnes    | 93 993    | 107 660    | 41 170     | 129 186    | * 59 000     |
| Alumina                      | tonnes    | 264 116   | 301 767    | 542 794    | 257 169    | 62 131       |
| Alumina hydrate              | tonnes    | 48 643    | 45 480     | 151 641    | 85 713     | 65 279       |
| Unwrought                    | tonnes    | 304 993   | 370 471    | 490 373    | 332 871    | 218 141      |
| Unwrought alloys             | tonnes    | 304 675   | 341 439    | 341 670    | 361 012    | 191 239      |
| Scrap                        | tonnes    | 265 755   | 334 426    | 317 877    | 264 142    | 200 650      |
| Antimony                     |           |           |            |            |            |              |
| Metal                        | tonnes    | 570       | 886        | 308        | 185        | 171          |
| Oxide                        | tonnes    | 664       | 780        | 496        | 346        | 285          |
| Arsenic                      |           |           |            |            |            |              |
| Metallic arsenic             | tonnes    | 50        | 33         | 59         | 67         | * 30         |
| Barytes                      | tonnes    | 52 444    | 37 392     | 68 798     | 58 740     | 121 567      |
| Bentonite and fuller's earth |           |           |            |            |            |              |
| Bentonite                    | tonnes    | 186 286   | 132 076    | 129 692    | 120 946    | 135 722      |
| Fuller's earth               | tonnes    | 2 931     | 2 141      | ...        | ...        | ...          |
| Bismuth                      |           |           |            |            |            |              |
| Metal                        | tonnes    | 97        | 48         | 238        | 196        | 28           |
| Bromine                      | kilograms | 1 593 400 | 1 334 000  | 1 475 500  | 1 821 400  | 1 960 700    |
| Cadmium                      |           |           |            |            |            |              |
| Metal                        | tonnes    | 553       | 1 064      | 544        | 816        | 305          |
| Cement                       |           |           |            |            |            |              |
| Cement clinkers              | tonnes    | 2 513     | 3 119      | 10 725     | 0          | 352          |
| Portland cement              | tonnes    | 295 457   | 410 232    | 278 904    | 298 133    | 194 392      |
| Other cement                 | tonnes    | 18 513    | 134 225    | 12 931     | 6 217      | 11 447       |
| Chromium                     |           |           |            |            |            |              |
| Ores and concentrates        | tonnes    | 72 062    | 74 909     | 78 433     | 117 639    | 32 485       |
| Metal                        | tonnes    | 3 543     | 4 430      | 2 125      | 4 282      | 885          |
| Coal                         |           |           |            |            |            |              |
| Anthracite                   | tonnes    | 165 918   | 196 407    | 158 572    | 109 516    | 78 064       |
| Other coal                   | tonnes    | 8 445 919 | 11 940 024 | 14 089 233 | 6 399 941  | 5 154 853    |
| Briquettes                   | tonnes    | ...       | ...        | 10 188     | 15         | 16 347       |

## Exports continued

| Commodity                                | Units     | 2005       | 2006       | 2007       | 2008       | 2009        |
|--|-----------|------------|------------|------------|------------|-------------|
| Cobalt                                   |           |            |            |            |            |             |
| Metal                                    | tonnes    | 1 326      | 587        | 1 579      | 1 090      | 353         |
| Oxides                                   | tonnes    | 1 323      | 112        | 127        | 959        | 65          |
| Copper                                   |           |            |            |            |            |             |
| Unwrought                                | tonnes    | 39 638     | 31 204     | 49 300     | 65 343     | 29 260      |
| Scrap                                    | tonnes    | 207 551    | 306 132    | 229 090    | 241 332    | 143 329     |
| Diamond                                  |           |            |            |            |            |             |
| Unsorted                                 | carats    | £928 000   | £849 000   | £1 000 000 | £442 000   | £494 000    |
| Gem, cut                                 | carats    | £8 690 779 | £8 997 000 | £6 214 000 | £7 567 000 | £3 780 000  |
| Industrial                               | carats    | £842 000   | £2 250 000 | £1 891 000 | £2 156 000 | £1 415 000  |
| Dust                                     | carats    | £44 000    | £61 000    | £82 000    | £45 000    | £196 000    |
| Diatomite                                | tonnes    | 804        | 1 395      | 348        | 301        | 1 365       |
| Feldspar                                 | tonnes    | 17         | 552        | 456        | 555        | 1 355       |
| Fluorspar                                | tonnes    | 37 113     | 1 587      | 27 213     | 12 665     | 11 333      |
| Gold                                     |           |            |            |            |            |             |
| Metal                                    | kilograms | 11 603     | 19 634     | 22 468     | 37 439     | 15 515      |
| Waste and scrap                          | kilograms | 72 427     | 98 813     | 4 433      | 45 456     | 1 222       |
| Graphite                                 | tonnes    | 3 240      | 2 991      | 4 308      | 1 378      | 1 974       |
| Gypsum                                   |           |            |            |            |            |             |
| Crude                                    | tonnes    | 53 351     | 32 425     | 49 394     | 37 991     | * 39 600    |
| Calcined                                 | tonnes    | 61 508     | 70 005     | 17 744     | 15 228     | 5 550       |
| Iodine                                   | kilograms | 59 228     | 76 080     | 517 872    | 773 705    | 386 170     |
| Iron ore                                 | tonnes    | 1 977 965  | 2 491 191  | 2 710 120  | 85 698     | 239 932     |
| Iron, steel and ferro-alloys             |           |            |            |            |            |             |
| Pig iron                                 | tonnes    | 40 552     | 28 806     | 134 324    | 170 468    | 89 714      |
| Sponge and powder                        | tonnes    | 46 464     | 22 899     | 543        | 382        | * 140       |
| Ferro-chrome                             | tonnes    | 81 105     | 92 920     | 94 048     | 103 036    | 62 439      |
| Ferro-silico-chrome                      | tonnes    | 508        | 299        | 25         | 15         | ...         |
| Ferro-manganese                          | tonnes    | 49 203     | 28 423     | 42 958     | 65 203     | 33 193      |
| Ferro-silico-manganese                   | tonnes    | 13 994     | 14 118     | 21 432     | 17 571     | 37 593      |
| Ferro-molybdenum                         | tonnes    | 4 304      | 5 652      | 5 579      | 3 150      | 1 894       |
| Ferro-nickel                             | tonnes    | 23 252     | 42 421     | 42 331     | 5 086      | 3 564       |
| Ferro-niobium                            | tonnes    | 126        | 217        | 1 439      | 1 736      | 925         |
| Ferro-silicon                            | tonnes    | 95 845     | 97 120     | 106 764    | 71 762     | 87 348      |
| Ferro-titanium and ferro-silico-titanium | tonnes    | 6 235      | 4 281      | 3 706      | 3 046      | 2 730       |
| Ferro-tungsten and ferro-silico-tungsten | tonnes    | 624        | 477        | 2 010      | 1 168      | 476         |
| Ferro-vanadium                           | tonnes    | 22 495     | 5 855      | 7 263      | 2 274      | 926         |
| Other ferro-alloys                       | tonnes    | 9 700      | 5 683      | 7 719      | 22 603     | 5 582       |
| Silicon metal                            | tonnes    | 40 393     | 56 525     | 15 237     | 15 547     | 46 466      |
| Ingots, blooms, billets                  | tonnes    | 152 593    | 378 061    | 1 111 462  | 806 999    | 157 861     |
| Scrap                                    | tonnes    | 4 140 362  | 4 786 987  | 4 500 919  | 4 523 660  | * 2 835 000 |
| Kaolin                                   | tonnes    | 441 248    | 431 027    | 416 108    | 72 264     | 33 563      |
| Lead                                     |           |            |            |            |            |             |
| Ores and concentrates                    | tonnes    | 17 161     | 27 068     | 2 897      | 55 980     | 74 725      |
| Unwrought                                | tonnes    | 24 382     | 11 133     | 14 824     | 7 725      | 11 061      |
| Scrap                                    | tonnes    | 11 950     | 16 067     | 21 822     | 12 278     | 13 807      |
| Lithium                                  |           |            |            |            |            |             |
| Oxides                                   | tonnes    | 115        | 154        | 331        | 511        | 205         |
| Carbonate                                | tonnes    | 224        | 405        | 318        | 299        | 227         |
| Magnesite and magnesia                   |           |            |            |            |            |             |
| Magnesite                                | tonnes    | 1 452      | 4 750      | 582        | 494        | 180         |
| Magnesia                                 | tonnes    | 492 077    | 465 555    | 128 060    | 344 675    | 160 337     |
| Manganese                                |           |            |            |            |            |             |
| Ores and concentrates                    | tonnes    | 14 903     | 33 386     | 8 223      | 19 103     | 28 701      |
| Metal                                    | tonnes    | 13 585     | 16 739     | 19 767     | 19 144     | 15 642      |
| Mercury                                  | kilograms | 188 220    | 176 670    | 196 039    | 192 605    | 419 480     |
| Mica                                     | tonnes    | 2 912      | 2 735      | 6 842      | 1 341      | 3 214       |
| Molybdenum                               |           |            |            |            |            |             |
| Ores and concentrates                    | tonnes    | 47 395     | 27 264     | 26 613     | 16 284     | 4 408       |
| Metal                                    | tonnes    | 59         | 190        | 409        | 282        | 46          |
| Oxides                                   | tonnes    | 2 708      | 2 110      | 3 059      | 4 253      | 1 805       |
| Nickel                                   |           |            |            |            |            |             |
| Mattes, sinters etc (a)                  | tonnes    | * 11 800   | * 11 700   | * 6 500    | * 2 400    | * 2 900     |
| Unwrought (b)                            | tonnes    | 21 895     | 77 742     | 80         | 117        | 105         |
| Scrap                                    | tonnes    | 2 009      | 1 740      | 4 456      | 4 614      | 1 711       |
| Oxides                                   | tonnes    | 6 017      | 1 757      | ...        | ...        | ...         |
| Crude petroleum                          | tonnes    | 145 541    | 309 456    | 207 858    | 328 795    | 184 860     |

Netherlands

Exports continued

| Commodity                                | Units     | 2005       | 2006       | 2007       | 2008        | 2009        |
|--|-----------|------------|------------|------------|-------------|-------------|
| Phosphate rock                           | tonnes    | 91 592     | 98 687     | 106 235    | 120 214     | 11 807      |
| Platinum metals                          |           |            |            |            |             |             |
| Platinum                                 | kilograms | £9 061 000 | £8 718 000 | £8 190 000 | £18 207 000 | £59 804 000 |
| Platinum metals                          | kilograms | £8 211 000 | £3 971 000 | £3 766 000 | £10 385 000 | £10 383 000 |
| Waste and scrap                          | kilograms | 876        | 16 569     | 25 850     | 352 175     | * 163 160   |
| Potash                                   |           |            |            |            |             |             |
| Sulphate                                 | tonnes    | 382        | 842        | 7 918      | 1 424       | 4 431       |
| Chloride                                 | tonnes    | 163 072    | 152 423    | 170 921    | 147 436     | 133 012     |
| Other potassic fertilisers               | tonnes    | 759        | 1 557      | 1 162      | 1 341       | 2 680       |
| Rare earths                              |           |            |            |            |             |             |
| Rare earth compounds                     | tonnes    | 171        | 157        | 77         | 131         | * 150       |
| Ferro-cerium and other pyrophoric alloys | tonnes    | ...        | ...        | ...        | ...         | ...         |
| Metals                                   | tonnes    | 13         | 16         | 64         | 202         | * 135       |
| Salt                                     | tonnes    | 3 749 442  | 4 126 810  | 4 055 898  | 3 878 601   | * 3 412 200 |
| Sillimanite minerals                     | tonnes    | 11 444     | 7 679      | 9 689      | 10 848      | 5 602       |
| Silver                                   |           |            |            |            |             |             |
| Ores and concentrates                    | kilograms | ...        | 26 860     | ...        | 18 000      | ...         |
| Metal                                    | kilograms | 93 668     | 151 077    | 144 024    | 208 300     | 196 180     |
| Sulphur and pyrites                      |           |            |            |            |             |             |
| Pyrites                                  | tonnes    | 82 502     | 82 883     | 102 300    | 132 802     | 10 039      |
| Sulphur                                  | tonnes    | 248 680    | 436 669    | 460 352    | 850 183     | 36 898      |
| Talc                                     | tonnes    | 183 270    | 190 668    | 199 896    | 186 688     | 147 544     |
| Tantalum and niobium                     |           |            |            |            |             |             |
| Tantalum                                 | tonnes    | 3          | 76         | 2          | 2           | 4           |
| Tin                                      |           |            |            |            |             |             |
| Unwrought                                | tonnes    | 5 330      | 6 971      | 8 061      | 2 566       | 1 536       |
| Unwrought alloys                         | tonnes    | 1 790      | 1 051      | 293        | 948         | 558         |
| Scrap                                    | tonnes    | 297        | 761        | 545        | 157         | 547         |
| Titanium                                 |           |            |            |            |             |             |
| Titanium minerals                        | tonnes    | 1 390      | 1 660      | 449        | 1 341       | 13 664      |
| Metal                                    | tonnes    | 2 181      | 1 902      | 2 182      | 1 551       | 895         |
| Oxides                                   | tonnes    | 84 310     | 95 512     | 64 544     | 15 544      | 36 179      |
| Tungsten                                 |           |            |            |            |             |             |
| Ores and concentrates                    | tonnes    | —          | 276        | 181        | 29          | ...         |
| Metal                                    | tonnes    | 502        | 434        | 391        | 582         | 133         |
| Vanadium                                 |           |            |            |            |             |             |
| Pentoxide                                | tonnes    | 381        | 411        | 157        | 45          | 102         |
| Metal                                    | tonnes    | 11         | 20         | ...        | ...         | ...         |
| Zinc                                     |           |            |            |            |             |             |
| Ores and concentrates                    | tonnes    | 5 836      | 3 730      | 13 939     | 0           | 425         |
| Unwrought                                | tonnes    | 273 832    | 615 269    | 243 354    | 244 789     | 133 994     |
| Unwrought alloys                         | tonnes    | 9 364      | 38 116     | 31 276     | 23 932      | 22 041      |
| Scrap                                    | tonnes    | 41 593     | 39 073     | 67 010     | 19 815      | * 11 900    |
| Zirconium                                |           |            |            |            |             |             |
| Concentrates                             | tonnes    | 8 178      | 7 391      | 14 539     | 8 223       | 4 639       |

Note(s)

(a) BGS estimates, based on known imports into certain countries

(b) Including alloys

## Imports

| Commodity                    | Units     | 2005        | 2006        | 2007        | 2008        | 2009          |
|------------------------------|-----------|-------------|-------------|-------------|-------------|---------------|
| Primary aggregates           | tonnes    | 40 800 000  | 43 000 000  | 33 400 000  | 38 100 000  | * 38 000 000  |
| Aluminium and bauxite        |           |             |             |             |             |               |
| Bauxite                      | tonnes    | 169 012     | 118 203     | 108 088     | 182 711     | 68 038        |
| Alumina                      | tonnes    | 654 487     | 440 195     | 706 255     | 689 724     | 153 891       |
| Alumina hydrate              | tonnes    | 223 823     | 205 902     | 190 351     | 178 940     | 52 798        |
| Unwrought                    | tonnes    | 370 979     | 650 035     | 713 441     | 248 386     | 134 950       |
| Unwrought alloys             | tonnes    | 287 504     | 321 582     | 358 930     | 479 786     | 284 410       |
| Scrap                        | tonnes    | 189 722     | 197 160     | 204 117     | 210 203     | 88 053        |
| Antimony                     |           |             |             |             |             |               |
| Metal                        | tonnes    | 705         | 651         | 699         | 234         | 150           |
| Oxide                        | tonnes    | 41 562      | 35 127      | 3 783       | 51 439      | 2 257         |
| Arsenic                      |           |             |             |             |             |               |
| Metallic arsenic             | tonnes    | 85          | 20          | 19          | 8           | * 45          |
| Barytes                      | tonnes    | 116 512     | 88 489      | 148 808     | 122 039     | 43 928        |
| Bentonite and fuller's earth |           |             |             |             |             |               |
| Bentonite                    | tonnes    | 199 692     | 281 144     | 305 364     | 314 298     | * 190 000     |
| Fuller's earth               | tonnes    | 70 482      | 80 511      | ...         | ...         | ...           |
| Bismuth                      |           |             |             |             |             |               |
| Metal                        | tonnes    | 85          | 168         | 127         | 120         | 42            |
| Bromine (a)                  | kilograms | 5 019 289   | 3 037       | 4 403       | 7 661       | 63 310        |
| Cadmium                      |           |             |             |             |             |               |
| Metal                        | tonnes    | 233         | 113         | 437         | 186         | 50            |
| Cement                       |           |             |             |             |             |               |
| Cement clinkers              | tonnes    | 388 146     | 494 944     | 228 817     | 380 281     | 511 560       |
| Portland cement              | tonnes    | 1 632 872   | 1 925 756   | 2 072 034   | 1 705 144   | 904 788       |
| Other cement                 | tonnes    | 846 622     | 1 452 353   | 722 635     | 993 318     | 842 190       |
| Chromium                     |           |             |             |             |             |               |
| Ores and concentrates        | tonnes    | 80 622      | 99 305      | 125 778     | 145 698     | 18 702        |
| Metal                        | tonnes    | 1 838       | 3 632       | 2 222       | 3 897       | 2 157         |
| Coal                         |           |             |             |             |             |               |
| Anthracite                   | tonnes    | 186 936     | 218 516     | 62 577      | 79 784      | 8 005         |
| Other coal                   | tonnes    | 21 958 859  | 21 368 119  | 24 622 621  | 17 843 689  | 14 084 993    |
| Lignite                      | tonnes    | 30 769      | 22 548      | 29 517      | 5 265       | 29 239        |
| Briquettes                   | tonnes    | 51 100      | 83 734      | 68 765      | 53 432      | 53 030        |
| Cobalt                       |           |             |             |             |             |               |
| Metal                        | tonnes    | 1 532       | 1 511       | 1 270       | 1 124       | * 491         |
| Oxides                       | tonnes    | 351         | 269         | 489         | 244         | 54            |
| Copper                       |           |             |             |             |             |               |
| Unwrought, unrefined         | tonnes    | 10 485      | 18 333      | 18 130      | 26          | 2 678         |
| Unwrought, refined           | tonnes    | 135 004     | 147 428     | 151 515     | 35 077      | 33 771        |
| Unwrought alloys             | tonnes    | 1 904       | 2 214       | 3 379       | 2 440       | 1 329         |
| Scrap                        | tonnes    | 92 927      | 110 753     | 117 259     | 116 503     | —             |
| Diamond                      |           |             |             |             |             |               |
| Unsorted                     | carats    | £344 000    | £225 000    | £299 000    | £803 000    | £551 000      |
| Gem, rough                   | carats    | £79 000     | £369 000    | £320 000    | £1 071 000  | £95 000       |
| Gem, cut                     | carats    | £16 550 000 | £22 397 000 | £13 943 000 | £17 750 000 | £10 757 000   |
| Industrial                   | carats    | £2 027 000  | £1 850 000  | £859 000    | £1 088 000  | £613 000      |
| Dust                         | carats    | 2 919 740   | 3 998 115   | 1 089 105   | 791 805     | 426 830       |
| Diatomite                    | tonnes    | 7 967       | 6 799       | 7 214       | 6 275       | 3 794         |
| Feldspar                     | tonnes    | 7 721       | 7 505       | 8 529       | 12 633      | 8 849         |
| Fluorspar                    | tonnes    | 45 073      | 7 836       | 48 089      | 13 860      | 13 014        |
| Gold                         |           |             |             |             |             |               |
| Metal                        | kilograms | 22 754      | 22 122      | 21 706      | 41 012      | 42 806        |
| Waste and scrap              | kilograms | 1           | 92 890      | 19 174      | 2 422       | 111           |
| Graphite                     | tonnes    | 15 205      | 5 362       | 13 463      | 42 612      | 2 487         |
| Gypsum                       |           |             |             |             |             |               |
| Crude                        | tonnes    | 155 519     | 227 950     | 402 915     | 285 990     | 249 206       |
| Calcined                     | tonnes    | 686 085     | 483 249     | 430 550     | 415 623     | 418 481       |
| Iodine                       | kilograms | 21 015      | 158 145     | 1 870       | 800 817     | 23 376        |
| Iron ore                     | tonnes    | 12 285 177  | 10 833 565  | 12 693 210  | 10 831 769  | (b) 4 585 303 |

Netherlands

Imports continued

| Commodity                                | Units     | 2005        | 2006        | 2007        | 2008        | 2009        |
|--|-----------|-------------|-------------|-------------|-------------|-------------|
| Iron, steel and ferro-alloys             |           |             |             |             |             |             |
| Pig iron                                 | tonnes    | 107 828     | 122 097     | 158 199     | 292 867     | 122 185     |
| Sponge and powder                        | tonnes    | 131 170     | 251 304     | 244 874     | 253 882     | 109 768     |
| Ferro-chrome                             | tonnes    | 170 806     | 204 637     | 325 741     | 275 995     | 40 931      |
| Ferro-silico-chrome                      | tonnes    | 621         | 1 125       | 674         | 1           | 1 394       |
| Ferro-manganese                          | tonnes    | 115 972     | 102 493     | 105 789     | 96 135      | 39 045      |
| Ferro-silico-manganese                   | tonnes    | 30 114      | 47 986      | 81 034      | 70 108      | 29 335      |
| Ferro-molybdenum                         | tonnes    | 5 100       | 7 554       | 11 826      | 8 566       | 2 868       |
| Ferro-nickel                             | tonnes    | 39 305      | 17 866      | 16 878      | 17 602      | 4 274       |
| Ferro-niobium                            | tonnes    | 51          | 159         | 465         | 2 074       | 949         |
| Ferro-silicon                            | tonnes    | 145 459     | 122 016     | 160 792     | 114 290     | 79 461      |
| Ferro-titanium and ferro-silico-titanium | tonnes    | 11 496      | 11 005      | 10 730      | 6 781       | 1 860       |
| Ferro-tungsten and ferro-silico-tungsten | tonnes    | 1 148       | 965         | 1 186       | 1 572       | 554         |
| Ferro-vanadium                           | tonnes    | 5 100       | 4 409       | 4 132       | 2 042       | 519         |
| Other ferro-alloys                       | tonnes    | 7 412       | 25 282      | 12 829      | 30 407      | 6 951       |
| Silicon metal                            | tonnes    | 52 931      | 69 104      | 68 719      | 57 446      | 41 740      |
| Ingots, blooms, billets                  | tonnes    | 322 908     | 390 652     | 269 481     | 283 834     | 110 561     |
| Scrap                                    | tonnes    | 2 030 115   | 2 321 144   | 1 669 159   | 1 842 597   | * 1 135 000 |
| Kaolin                                   | tonnes    | 564 518     | 627 768     | 612 720     | 352 122     | 68 072      |
| Lead                                     |           |             |             |             |             |             |
| Ores and concentrates                    | tonnes    | 9 268       | 13 186      | 22 303      | 5 307       | 1 935       |
| Unwrought                                | tonnes    | 36 051      | 24 272      | 22 419      | 9 373       | 7 195       |
| Scrap                                    | tonnes    | 9 700       | 17 508      | 22 006      | 11 325      | 13 593      |
| Lithium                                  |           |             |             |             |             |             |
| Oxides                                   | tonnes    | 178         | 359         | 428         | 537         | 228         |
| Carbonate                                | tonnes    | 1 171       | 1 356       | 1 459       | 729         | 316         |
| Magnesite and magnesia                   |           |             |             |             |             |             |
| Magnesite                                | tonnes    | 3 057       | 3 007       | 1 390       | 3 609       | 3 259       |
| Magnesia                                 | tonnes    | 558 764     | 454 271     | 437 684     | 314 860     | 80 478      |
| Manganese                                |           |             |             |             |             |             |
| Ores and concentrates                    | tonnes    | 35 936      | 22 495      | 11 749      | 10 664      | 9 398       |
| Metal                                    | tonnes    | 61 240      | 22 162      | 31 236      | 35 573      | 19 083      |
| Mercury                                  | kilograms | 665 865     | 888 164     | 674 888     | 293 481     | * 186 300   |
| Mica                                     |           |             |             |             |             |             |
| Unmanufactured                           | tonnes    | 143         | 176         | 400         | 751         | 523         |
| Ground                                   | tonnes    | 7 381       | 7 251       | 9 933       | 2 618       | 3 490       |
| Molybdenum                               |           |             |             |             |             |             |
| Ores and concentrates                    | tonnes    | 31 781      | 34 891      | 30 403      | 36 305      | 9 555       |
| Metal                                    | tonnes    | 287         | 801         | 1 060       | 572         | 84          |
| Oxides                                   | tonnes    | 1 509       | 1 441       | 1 341       | 859         | 230         |
| Nickel                                   |           |             |             |             |             |             |
| Unwrought alloys                         | tonnes    | 343         | 139         | 204         | 1 227       | 227         |
| Scrap                                    | tonnes    | 6 738       | 9 870       | 14 008      | 12 647      | 4 666       |
| Oxides (c)                               | tonnes    | * 40        | * 130       | * 20        | * 30        | * 70        |
| Crude petroleum                          | tonnes    | 62 152 486  | 61 548 064  | 57 027 374  | 58 484 561  | 35 086 584  |
| Natural gas                              | tonnes    | 14 229 445  | 29 784 906  | 10 072 000  | 16 136 000  | 7 506 000   |
| Phosphate rock                           | tonnes    | 776 661     | 815 692     | 847 776     | 1 108 711   | 192 355     |
| Platinum metals                          |           |             |             |             |             |             |
| Platinum                                 | kilograms | £12 517 000 | £21 771 000 | £22 785 000 | £89 137 000 | £78 613 000 |
| Platinum metals                          | kilograms | £3 682 000  | £7 066 000  | £7 722 000  | £8 219 000  | £11 659 000 |
| Potash                                   |           |             |             |             |             |             |
| Sulphate                                 | tonnes    | 26 208      | 24 658      | 21 211      | 17 393      | 28 984      |
| Chloride                                 | tonnes    | 445 767     | 265 838     | 314 011     | 307 612     | 204 377     |
| Other potassic fertilisers               | tonnes    | 2 486       | 5 283       | 6 691       | 3 899       | 3 466       |
| Rare earths                              |           |             |             |             |             |             |
| Cerium compounds                         | tonnes    | 164         | 290         | 473         | 278         | 71          |
| Other rare earth compounds               | tonnes    | 2 140       | 2 781       | 3 868       | 2 766       | * 1 100     |
| Ferro-cerium and other pyrophoric alloys | tonnes    | 3           | 3           | 3           | 4           | 6           |
| Metals                                   | tonnes    | 8           | 135         | 100         | 261         | * 200       |
| Salt                                     | tonnes    | 630 738     | 1 150 949   | 193 457     | 167 508     | * 253 000   |
| Sillimanite minerals                     | tonnes    | 20 001      | 24 195      | 17 488      | 24 457      | 4 189       |
| Silver                                   |           |             |             |             |             |             |
| Metal                                    | kilograms | 139 625     | 263 049     | 229 637     | 265 925     | 218 279     |
| Sulphur and pyrites                      |           |             |             |             |             |             |
| Pyrites                                  | tonnes    | 8 896       | 95          | 80          | 145 627     | 2 119       |
| Sulphur                                  | tonnes    | 37 083      | 23 928      | 38 189      | 55 173      | 11 430      |
| Sulphur, sublimed and precipitated       | tonnes    | 37 484      | —           | ...         | 0           | 2           |

## Imports continued

| Commodity             | Units  | 2005    | 2006    | 2007    | 2008    | 2009      |
|-----------------------|--------|---------|---------|---------|---------|-----------|
| Talc                  | tonnes | 206 485 | 243 071 | 225 720 | 207 922 | 94 407    |
| Tantalum and niobium  |        |         |         |         |         |           |
| Tantalum              | tonnes | 12      | 6       | 8       | 10      | 4         |
| Tin                   |        |         |         |         |         |           |
| Unwrought             | tonnes | 8 730   | 13 696  | 7 858   | 11 003  | 7 071     |
| Unwrought alloys      | tonnes | 1 983   | 1 283   | 1 972   | 2 540   | 504       |
| Scrap                 | tonnes | 201     | 466     | 607     | 503     | 380       |
| Titanium              |        |         |         |         |         |           |
| Titanium minerals     | tonnes | 127 941 | 79 377  | 103 580 | 87 769  | * 100 000 |
| Metal                 | tonnes | 1 857   | 2 234   | 4 295   | 1 073   | 1 224     |
| Oxides                | tonnes | 46 008  | 8 387   | 41 221  | 37 101  | 40 914    |
| Tungsten              |        |         |         |         |         |           |
| Ores and concentrates | tonnes | 110     | 1 532   | 875     | 457     | 5         |
| Metal                 | tonnes | 204     | 330     | 284     | 329     | 71        |
| Carbide               | tonnes | 99      | 49      | 36      | 94      | 42        |
| Vanadium              |        |         |         |         |         |           |
| Pentoxide             | tonnes | 714     | 362     | 316     | 227     | 27        |
| Zinc                  |        |         |         |         |         |           |
| Ores and concentrates | tonnes | 484 472 | 532 861 | 359 520 | 430 617 | 320 568   |
| Unwrought             | tonnes | 144 592 | 200 472 | 182 072 | 155 003 | 104 253   |
| Unwrought alloys      | tonnes | 2 387   | 40 482  | 38 602  | 24 062  | 15 791    |
| Scrap                 | tonnes | 15 257  | 14 619  | 13 633  | 6 270   | 8 274     |
| Zirconium             |        |         |         |         |         |           |
| Concentrates          | tonnes | 10 975  | 15 948  | 20 462  | 24 694  | 11 027    |
| Metal                 | tonnes | 88      | 123     | 199     | 240     | * 70      |

## Note(s)

- (a) May include some fluorine
- (b) Including burnt pyrites
- (c) BGS estimates, based on known exports from certain countries

Norway

## Norway

### Production

| Commodity                | Units                    | 2005        | 2006        | 2007        | 2008        | 2009        |
|--------------------------|--------------------------|-------------|-------------|-------------|-------------|-------------|
| Primary aggregates       |                          |             |             |             |             |             |
| Sand and gravel          | tonnes                   | 15 000 000  | 13 418 000  | 14 855 000  | 14 817 000  | 13 047 000  |
| Crushed rock             | tonnes                   | 38 000 000  | 45 947 000  | 51 533 000  | 52 338 000  | 51 378 000  |
| Primary aluminium        | tonnes                   | 1 391 000   | 1 383 000   | 1 362 000   | 1 368 000   | 1 090 000   |
| Cadmium                  | tonnes                   | 153         | 125         | 269         | 178         | 249         |
| Cement                   |                          |             |             |             |             |             |
| Cement, finished         | tonnes                   | 1 613 000   | 1 695 000   | 1 700 000   | * 1 700 000 | * 1 700 000 |
| Coal                     |                          |             |             |             |             |             |
| Bituminous (a)           | tonnes                   | 1 667 000   | 2 359 000   | 3 223 000   | 3 429 000   | 2 437 000   |
| Cobalt metal             | tonnes                   | 5 021       | 4 927       | 3 939       | 3 719       | 3 510       |
| Copper, smelter          | tonnes                   | 38 681      | 39 700      | 34 200      | 37 000      | 33 900      |
| Copper, refined          | tonnes                   | 38 681      | 39 700      | 34 200      | 37 000      | 33 900      |
| Feldspar                 | tonnes                   | * 67 000    | 65 000      | 65 000      | 62 000      | 48 000      |
| Graphite                 | tonnes                   | 9 000       | 9 000       | 3 000       | 4 100       | 4 562       |
| Iron ore                 | tonnes                   | 713 000     | 620 000     | 630 000     | 746 000     | 896 000     |
| Pig iron                 | tonnes                   | * 100 000   | * 100 000   | * 100 000   | * 100 000   | * 100 000   |
| Crude steel              | tonnes                   | 705 000     | 684 000     | 708 000     | 560 000     | 591 000     |
| Ferro-alloys             |                          |             |             |             |             |             |
| Ferro-manganese          | tonnes                   | * 130 000   | * 130 000   | * 130 000   | * 130 000   | * 130 000   |
| Ferro-silico-manganese   | tonnes                   | 288 137     | 325 708     | 293 699     | 273 485     | * 250 000   |
| Ferro-silicon            | tonnes                   | 329 316     | 123 819     | 170 024     | 185 344     | 233 974     |
| Other ferro-alloys       | tonnes                   | * 60 000    | * 60 000    | * 62 000    | * 60 000    | * 60 000    |
| Silicon metal            | tonnes                   | 178 572     | * 150 000   | * 140 000   | * 155 000   | * 150 000   |
| Nickel, mine             | tonnes (metal content)   | 342         | 320         | 378         | 377         | 336         |
| Nickel, smelter/refinery | tonnes                   | 85 374      | 82 257      | 87 600      | 88 700      | 88 577      |
| Nepheline Syenite        | tonnes                   | 320 000     | 312 000     | 312 000     | 346 000     | 270 000     |
| Crude petroleum          | tonnes                   | 139 802 000 | 136 695 000 | 125 763 000 | 121 101 700 | 115 000 000 |
| Natural gas              | million m <sup>3</sup>   | 84 702      | 87 600      | 89 700      | 99 200      | 103 500     |
| Sulphur and pyrites      |                          |             |             |             |             |             |
| Recovered (b)            | tonnes (sulphur content) | * 110 000   | * 110 000   | * 95 000    | * 95 000    | * 90 000    |
| Recovered (c)            | tonnes (sulphur content) | 19 000      | 20 000      | 18 000      | 28 000      | 25 000      |
| Talc                     | tonnes                   | 34 000      | * 34 000    | * 34 000    | * 30 000    | 23 350      |
| Titanium                 |                          |             |             |             |             |             |
| Ilmenite                 | tonnes                   | 806 800     | 850 000     | 882 000     | 915 000     | 671 000     |
| Slab Zinc                | tonnes                   | 151 285     | 160 670     | 157 027     | 145 469     | 138 973     |

#### Note(s)

(1) Norway is believed to produce gold

(a) Spitzbergen: not including production from mines controlled by Russia

(b) From metal sulphide processing

(c) From petroleum refining and/or Natural gas

### Exports

| Commodity             | Units  | 2005       | 2006       | 2007       | 2008       | 2009       |
|-----------------------|--------|------------|------------|------------|------------|------------|
| Primary aggregates    | tonnes | 13 334 212 | 14 357 509 | 16 183 927 | 16 683 638 | 13 843 722 |
| Aluminium and bauxite |        |            |            |            |            |            |
| Unwrought             | tonnes | 147 295    | 126 841    | 113 285    | 105 729    | 106 593    |
| Unwrought alloys      | tonnes | 1 365 929  | 1 412 569  | 1 496 556  | 1 484 854  | 1 249 830  |
| Scrap                 | tonnes | 38 218     | 42 804     | 41 296     | 41 476     | 80 729     |
| Barytes               | tonnes | 1 482      | 14 199     | 13 425     | 5 608      | 4 069      |
| Cadmium               |        |            |            |            |            |            |
| Metal                 | tonnes | 132        | 90         | 205        | 259        | 211        |
| Cement                |        |            |            |            |            |            |
| Cement clinkers (a)   | tonnes | * 50 000   | * 65 000   | * 117 000  | * 118 000  | * 104 000  |
| Portland cement (a)   | tonnes | * 569 000  | * 369 000  | * 236 000  | * 152 000  | —          |
| Cobalt                |        |            |            |            |            |            |
| Metal                 | tonnes | 4 997      | 4 990      | 4 030      | 3 731      | 3 550      |

## Exports continued

| Commodity                    | Units     | 2005        | 2006        | 2007       | 2008       | 2009       |
|------------------------------|-----------|-------------|-------------|------------|------------|------------|
| Copper                       |           |             |             |            |            |            |
| Unwrought                    | tonnes    | 37 430      | 38 232      | 34 007     | 36 734     | 32 927     |
| Unwrought alloys             | tonnes    | 1 707       | 1 141       | 1 161      | 756        | 570        |
| Scrap                        | tonnes    | 22 667      | 24 205      | 24 066     | 22 561     | 25 339     |
| Diatomite                    | tonnes    | 1 362       | 281         | 566        | 770        | 6          |
| Feldspar                     | tonnes    | 58 821      | 66 838      | 66 484     | 58 211     | 47 711     |
| Gold                         |           |             |             |            |            |            |
| Metal                        | kilograms | 2 415       | 2 337       | 2 601      | 3 847      | 3 865      |
| Waste and scrap              | kilograms | 137         | 182         | 426        | 600        | 1 197      |
| Gypsum                       |           |             |             |            |            |            |
| Crude and calcined           | tonnes    | 49 511      | 40 811      | 51 212     | 69 976     | 68 140     |
| Iodine                       | kilograms | —           | 17          | 7 200      | —          | 250        |
| Iron ore                     |           |             |             |            |            |            |
| Iron ore                     | tonnes    | 721 975     | 720 582     | 739 731    | 615 296    | 775 828    |
| Burnt pyrites                | tonnes    | 14 730      | 2 658       | ...        | ...        | ...        |
| Iron, steel and ferro-alloys |           |             |             |            |            |            |
| Pig iron (a)                 | tonnes    | * 66 800    | * 149 400   | * 119 800  | * 110 100  | * 75 000   |
| Ferro-chrome (a)             | tonnes    | * 200       | * 200       | * 100      | * 75       | —          |
| Ferro-manganese (a)          | tonnes    | * 274 200   | * 287 500   | * 329 400  | * 354 000  | * 203 000  |
| Ferro-silico-manganese       | tonnes    | 289 497     | 306 932     | 280 028    | 257 804    | 200 279    |
| Ferro-silicon                | tonnes    | 179 503     | 90 556      | 155 198    | 209 669    | 115 682    |
| Other ferro-alloys           | tonnes    | 55 564      | 58 033      | ...        | 57 954     | 16 207     |
| Silicon metal                | tonnes    | 168 790     | 152 514     | 144 607    | 155 385    | 109 254    |
| Ingots, blooms, billets      | tonnes    | 151 882     | 180 500     | 176 755    | 62 625     | 106 505    |
| Scrap                        | tonnes    | 267 051     | 337 088     | 290 644    | 269 370    | 228 138    |
| Kaolin                       | tonnes    | 768         | 132         | 47         | 47         | 271        |
| Lead                         |           |             |             |            |            |            |
| Scrap                        | tonnes    | 1 013       | 892         | 974        | 695        | 504        |
| Manganese                    |           |             |             |            |            |            |
| Ores and concentrates        | tonnes    | 1 410       | 7 880       | 56 939     | 10 266     | 9 214      |
| Metal                        | tonnes    | 131         | 203         | 2 373      | 1 363      | 59         |
| Mica                         | tonnes    | 2 003       | 2 157       | 2 168      | 2 640      | 1 835      |
| Nickel                       |           |             |             |            |            |            |
| Ores and concentrates        | tonnes    | 7 581       | 7 860       | 5 379      | 8 093      | ...        |
| Unwrought                    | tonnes    | 84 012      | 81 440      | 88 628     | 88 940     | 88 080     |
| Scrap                        | tonnes    | 897         | 641         | 1 185      | 394        | 274        |
| Crude petroleum              | tonnes    | 119 119 538 | 105 110 521 | 99 245 180 | 90 343 623 | 87 847 502 |
| Natural gas                  | tonnes    | 61 351 894  | 63 323 422  | 63 999 250 | 71 394 708 | 74 357 298 |
| Platinum metals              |           |             |             |            |            |            |
| Platinum and platinum metals | kilograms | 11 871      | 11 885      | 14 611     | 15 393     | 12 341     |
| Waste and scrap              | kilograms | 342         | 29 817      | 66 193     | 5 119      | 35 829     |
| Potash                       |           |             |             |            |            |            |
| Chloride                     | tonnes    | 7 611       | 2 243       | 1 285      | —          | —          |
| Rare earths                  |           |             |             |            |            |            |
| Rare earth compounds         | tonnes    | ...         | ...         | 1          | 21         | 21         |
| Metals                       | tonnes    | 11          | 59          | 0          | 1          | 105        |
| Salt                         | tonnes    | 6 679       | 9 040       | 4 178      | 4 833      | 14 998     |
| Silver                       |           |             |             |            |            |            |
| Metal                        | kilograms | 66 139      | 52 952      | 45 461     | 59 381     | 58 979     |
| Sulphur and pyrites          |           |             |             |            |            |            |
| Sulphur                      | tonnes    | 1           | 20          | 3 325      | —          | —          |
| Talc                         | tonnes    | 28 448      | 31 834      | 33 032     | 27 371     | 23 461     |
| Tin                          |           |             |             |            |            |            |
| Scrap                        | tonnes    | 323         | 236         | 189        | 119        | 12         |
| Titanium                     |           |             |             |            |            |            |
| Titanium minerals (a)        | tonnes    | * 382 000   | * 477 000   | * 435 000  | * 435 000  | * 350 000  |
| Metal                        | tonnes    | 159         | 176         | 117        | 339        | 227        |
| Oxides (a)                   | tonnes    | * 177 000   | * 221 000   | * 199 000  | * 217 000  | * 207 000  |
| Zinc                         |           |             |             |            |            |            |
| Unwrought                    | tonnes    | 134 690     | 138 491     | 130 570    | 130 397    | 128 416    |
| Unwrought alloys             | tonnes    | 5 600       | 12 275      | 13 899     | 9 227      | 6 107      |

Note(s)

(a) BGS estimates, based on known imports into certain countries

## Imports

| Commodity                    | Units     | 2005        | 2006      | 2007         | 2008         | 2009         |
|------------------------------|-----------|-------------|-----------|--------------|--------------|--------------|
| Primary aggregates           | tonnes    | 67 562      | 66 708    | 72 906       | 80 161       | 66 884       |
| Aluminium and bauxite        |           |             |           |              |              |              |
| Bauxite                      | tonnes    | 16 601      | 11 384    | 3 446        | 10 232       | 15 444       |
| Alumina                      | tonnes    | 2 723 588   | 2 730 064 | 2 535 547    | 2 753 105    | 2 069 424    |
| Alumina hydrate              | tonnes    | 45 957      | 43 721    | 48 560       | 50 401       | 45 252       |
| Unwrought                    | tonnes    | 328 722     | 352 293   | 435 126      | 381 638      | 240 409      |
| Unwrought alloys             | tonnes    | 42 056      | 34 783    | 73 058       | 58 995       | 95 120       |
| Scrap                        | tonnes    | 20 806      | 26 326    | 32 024       | 37 386       | 26 598       |
| Antimony                     |           |             |           |              |              |              |
| Metal                        | tonnes    | 71          | 11        | 70           | 44           | 1            |
| Oxide                        | tonnes    | 305         | 507       | 337          | 371          | 200          |
| Barytes                      | tonnes    | 109 802     | 125 134   | 127 181      | 121 259      | 146 535      |
| Bentonite and fuller's earth |           |             |           |              |              |              |
| Bentonite                    | tonnes    | 10 000      | 15 246    | 14 399       | 14 783       | 12 612       |
| Fuller's earth               | tonnes    | 260         | 209       | ...          | ...          | ...          |
| Cement                       |           |             |           |              |              |              |
| Cement clinkers              | tonnes    | 6 615       | 8 782     | 14 895       | 36 704       | 6 904        |
| Portland cement              | tonnes    | 373 788     | 443 104   | 441 619      | 361 216      | 237 896      |
| Other cement                 | tonnes    | 12 319      | 14 147    | 19 062       | 22 317       | 20 474       |
| Chromium                     |           |             |           |              |              |              |
| Ores and concentrates (a)    | tonnes    | * 500       | * 500     | * 20         | * 600        | * 400        |
| Metal                        | tonnes    | 92          | 73        | 253          | 128          | 74           |
| Coal                         |           |             |           |              |              |              |
| Anthracite (b)               | tonnes    | 92 673      | 55 914    | 76 744       | 81 955       | 54 199       |
| Other coal (b)               | tonnes    | 575 921     | 472 129   | (a)* 527 000 | (a)* 538 000 | (a)* 367 000 |
| Briquettes                   | tonnes    | 282         | 349       | 706          | 24 406       | 1 074        |
| Cobalt                       |           |             |           |              |              |              |
| Metal                        | tonnes    | 5 775       | 6 362     | 3 871        | 3 131        | 3 012        |
| Oxides                       | tonnes    | 9           | 2         | ...          | ...          | 155          |
| Copper                       |           |             |           |              |              |              |
| Unwrought                    | tonnes    | 3 190       | 3 133     | 3 650        | 3 133        | 1 627        |
| Scrap                        | tonnes    | 12 420      | 12 759    | 13 486       | 11 189       | 9 727        |
| Diatomite                    | tonnes    | 2 044       | 1 228     | 1 645        | 1 891        | 931          |
| Feldspar                     | tonnes    | 17 103      | 17 199    | 12 930       | 17 367       | 13 781       |
| Gold                         |           |             |           |              |              |              |
| Metal                        | kilograms | 2 099       | 1 739     | 1 448        | 1 146        | 670          |
| Waste and scrap              | kilograms | 1 049       | 1 304     | 1 455        | 3 940        | 3 568        |
| Graphite                     | tonnes    | 423         | 296       | 980          | 561          | 508          |
| Gypsum                       |           |             |           |              |              |              |
| Crude                        | tonnes    | 119 962     | 117 892   | 128 045      | 121 440      | 76 435       |
| Calcined                     | tonnes    | 274 006     | 287 568   | 328 003      | 298 394      | 234 564      |
| Iodine                       | kilograms | 1 748 110   | 1 919 848 | 1 785 526    | 1 668 339    | 1 270 662    |
| Iron ore                     | tonnes    | (c) 526 738 | 216 372   | 179 727      | 151 503      | 134 167      |
| Iron, steel and ferro-alloys |           |             |           |              |              |              |
| Pig iron                     | tonnes    | 10 841      | 12 813    | 11 335       | 11 198       | 10 639       |
| Sponge and powder            | tonnes    | 13 729      | 320       | 2 355        | 1 589        | 292          |
| Ferro-chrome                 | tonnes    | 1 251       | 1 440     | 1 303        | 929          | 1 162        |
| Ferro-manganese              | tonnes    | 6 154       | 5 328     | 10 639       | 7 448        | 6 608        |
| Ferro-silico-manganese       | tonnes    | 1 071       | 2 729     | 1 034        | 1 960        | 1 186        |
| Ferro-silicon                | tonnes    | 25 663      | 26 931    | 43 350       | 13 502       | 9 097        |
| Other ferro-alloys           | tonnes    | 1 877       | 3 392     | 3 681        | 2 471        | 926          |
| Silicon metal                | tonnes    | 26 714      | 37 439    | 39 961       | 40 878       | 29 810       |
| Ingots, blooms, billets      | tonnes    | 142 986     | 161 778   | 195 928      | 167 309      | 59 344       |
| Scrap                        | tonnes    | 345 634     | 313 184   | 267 085      | 96 427       | 91 114       |
| Kaolin                       | tonnes    | 250 879     | 241 976   | 208 709      | 253 361      | 190 562      |
| Lead                         |           |             |           |              |              |              |
| Unwrought                    | tonnes    | 4 882       | 4 749     | 7 055        | 6 473        | 5 026        |
| Magnesite and magnesia       |           |             |           |              |              |              |
| Magnesite                    | tonnes    | 2 125       | 4 265     | 126          | 69           | 17           |
| Magnesia                     | tonnes    | 500         | 1 784     | 4 298        | 5 989        | 4 904        |
| Manganese                    |           |             |           |              |              |              |
| Ores and concentrates        | tonnes    | 1 172 711   | 849 729   | 1 083 361    | 1 232 799    | 525 674      |
| Metal                        | tonnes    | 2 976       | 3 531     | 2 953        | 2 595        | 1 297        |
| Mica                         |           |             |           |              |              |              |
| Unmanufactured               | tonnes    | 80          | 648       | 912          | 1 174        | 1 021        |
| Ground                       | tonnes    | 893         | 373       | 337          | 1 243        | 1 140        |
| Waste                        | tonnes    | 28          | 120       | 18           | 9            | ...          |

## Imports continued

| Commodity                          | Units     | 2005    | 2006      | 2007      | 2008      | 2009      |
|------------------------------------|-----------|---------|-----------|-----------|-----------|-----------|
| Nickel                             |           |         |           |           |           |           |
| Mattes, sinters etc                | tonnes    | 176 657 | 158 274   | 165 628   | 178 502   | 153 437   |
| Unwrought (d)                      | tonnes    | 80      | 60        | 215       | 201       | 199       |
| Crude petroleum                    | tonnes    | 983 848 | 440 374   | 1 446 918 | 752 400   | 1 192 549 |
| Natural gas                        | tonnes    | —       | —         | 118 063   | 442       | 231       |
| Phosphate rock                     | tonnes    | 710 528 | 672 546   | 673 331   | 682 369   | 403 098   |
| Platinum metals                    |           |         |           |           |           |           |
| Platinum and platinum metals       | kilograms | 1 076   | 922       | 1 057     | 1 072     | 1 005     |
| Waste and scrap                    | kilograms | 998     | 1 102     | 846       | 1 093     | 930       |
| Potash                             |           |         |           |           |           |           |
| Sulphate                           | tonnes    | 247 379 | 266 149   | 241 918   | 190 757   | 123 549   |
| Chloride                           | tonnes    | 306 369 | 307 422   | 349 459   | 353 452   | 199 385   |
| Other potassic fertilisers         | tonnes    | 555     | 710       | 659       | 674       | 509       |
| Rare earths                        |           |         |           |           |           |           |
| Metals                             | tonnes    | 544     | 686       | 738       | 341       | 24        |
| Salt                               | tonnes    | 910 846 | 1 026 541 | 988 001   | 1 075 905 | 959 630   |
| Sillimanite minerals               | tonnes    | 2 400   | 2 288     | 3 404     | 2 702     | 4 359     |
| Silver                             |           |         |           |           |           |           |
| Ores and concentrates              | kilograms | ...     | 7 923 075 | —         | ...       | ...       |
| Metal                              | kilograms | 90 331  | 64 511    | 62 077    | 67 398    | 47 040    |
| Sulphur and pyrites                |           |         |           |           |           |           |
| Pyrites                            | tonnes    | 26 940  | ...       | ...       | 77        | ...       |
| Sulphur                            | tonnes    | 16 413  | 11 983    | 5 224     | 4 690     | 3 102     |
| Sulphur, sublimed and precipitated | tonnes    | 240     | 5 571     | 10 790    | 12 932    | 12 127    |
| Talc                               | tonnes    | 16 488  | 10 991    | 13 374    | 8 020     | 6 517     |
| Tin                                |           |         |           |           |           |           |
| Unwrought (d)                      | tonnes    | 78      | 126       | 74        | 80        | 71        |
| Titanium                           |           |         |           |           |           |           |
| Titanium minerals                  | tonnes    | 33 000  | 73 690    | 17 600    | 73 307    | 29 809    |
| Metal                              | tonnes    | 636     | 661       | 637       | 937       | 389       |
| Oxides                             | tonnes    | 11 924  | 16 013    | 12 121    | 12 241    | 8 209     |
| Vanadium                           |           |         |           |           |           |           |
| Metal                              | tonnes    | 10      | 63        | ...       | ...       | ...       |
| Zinc                               |           |         |           |           |           |           |
| Ores and concentrates              | tonnes    | 255 158 | 248 486   | 284 791   | 243 213   | 209 649   |
| Unwrought (d)                      | tonnes    | 247     | 2 828     | 2 167     | 3 286     | 1 612     |

## Note(s)

- (a) BGS estimates, based on known exports from certain countries
- (b) Excludes coal imported from Spitzbergen
- (c) Including burnt pyrites
- (d) Including alloys

# Poland

## Production

| Commodity                    | Units                     | 2005         | 2006          | 2007          | 2008          | 2009          |
|------------------------------|---------------------------|--------------|---------------|---------------|---------------|---------------|
| Primary aggregates           |                           |              |               |               |               |               |
| Sand and gravel (a)          | tonnes                    | * 99 648 000 | * 116 561 000 | * 139 388 000 | * 149 312 000 | * 150 000 000 |
| Crushed rock                 | tonnes                    | 33 098 360   | 38 835 618    | 46 854 829    | 39 465 558    | 52 217 696    |
| Primary aluminium            | tonnes                    | 53 582       | 55 939        | 53 379        | 46 730        | 16 851        |
| Barytes                      | tonnes                    | 2 357        | 2 034         | 2 000         | 308           | 300           |
| Bentonite and fuller's earth | tonnes                    | 86 331       | 97 900        | 105 943       | 121 031       | 81 354        |
| Cadmium                      | tonnes                    | 408          | 373           | 421           | 603           | 534           |
| Cement                       |                           |              |               |               |               |               |
| Cement clinker               | tonnes                    | 9 468 410    | 11 219 940    | 13 167 950    | 12 443 103    | 10 659 214    |
| Cement, finished             | tonnes                    | 12 646 223   | 14 688 353    | 16 963 752    | 17 206 735    | 15 536 984    |
| Coal                         |                           |              |               |               |               |               |
| Bituminous                   | tonnes                    | 97 903 730   | 95 222 512    | 88 313 369    | 84 345 443    | 78 064 462    |
| Lignite                      | tonnes                    | 61 636 445   | 60 844 278    | 57 537 727    | 59 668 166    | 57 108 304    |
| Copper, mine                 | tonnes (metal content)    | 511 799      | 497 200       | 451 900       | 429 687       | 439 000       |
| Copper, smelter              | tonnes                    | 555 681      | 555 907       | 518 303       | 492 942       | 457 510       |
| Copper, refined              | tonnes                    | 560 256      | 556 625       | 532 975       | 526 808       | 502 491       |
| Diatomite                    | tonnes                    | 500          | 600           | * 600         | 600           | 670           |
| Feldspar                     | tonnes                    | 490 200      | 457 400       | 501 800       | 599 100       | 445 500       |
| Gold, mine (b)               | kilograms (metal content) | 713          | 1 700         | 883           | 902           | 823           |
| Gypsum                       |                           |              |               |               |               |               |
| Gypsum                       | tonnes                    | 1 048 000    | 1 172 000     | 1 298 000     | 1 283 000     | (c) 1 326 928 |
| Anhydrite                    | tonnes                    | 195 000      | 181 000       | 194 000       | 198 000       | ...           |
| Pig iron                     | tonnes                    | 4 476 831    | 5 332 632     | 5 804 418     | 4 933 781     | 3 095 053     |
| Crude steel                  | tonnes                    | 8 335 898    | 9 991 638     | 10 630 716    | 9 727 325     | 7 239 339     |
| Ferro-alloys                 |                           |              |               |               |               |               |
| Ferro-manganese              | tonnes                    | 7 782        | 4 089         | 2 093         | 8 475         | 1 736         |
| Ferro-silico-manganese       | tonnes                    | 10 242       | 3 310         | 15 590        | 25 061        | 72            |
| Ferro-silicon                | tonnes                    | 65 118       | 13 034        | 58 538        | 56 031        | 9 685         |
| Other ferro-alloys           | tonnes                    | 3 663        | 4 488         | 6 255         | 2 948         | 4 190         |
| Kaolin (d)                   | tonnes                    | 159 207      | 148 579       | 153 670       | 165 615       | 136 561       |
| Lead, mine                   | tonnes (metal content)    | 78 980       | 77 450        | 61 330        | 67 070        | 54 900        |
| Lead, refined                | tonnes                    | 81 000       | 82 200        | 104 200       | 108 300       | 100 400       |
| Magnesite                    | tonnes                    | 55 300       | 63 000        | 65 000        | 60 000        | 47 000        |
| Crude petroleum              | tonnes                    | 847 844      | 795 742       | 720 603       | 754 907       | 686 992       |
| Natural gas                  | million m <sup>3</sup>    | 5 742        | 5 651         | 5 653         | 5 382         | 5 537         |
| Salt                         |                           |              |               |               |               |               |
| Rock salt                    | tonnes                    | 1 123 219    | 1 129 875     | 591 240       | 618 111       | 988 545       |
| Brine salt                   | tonnes                    | 2 889 941    | 2 899 076     | 2 930 726     | 2 783 198     | 2 533 413     |
| Other salt                   | tonnes                    | 118 703      | 808 247       | 785 694       | 706 618       | 484 486       |
| Selenium metal               | tonnes                    | 82           | 87            | 85            | 82            | 80            |
| Silver, mine                 | kilograms (metal content) | 1 262 400    | 1 265 100     | 1 199 500     | 1 161 000     | 1 150 000     |
| Sulphur and pyrites          |                           |              |               |               |               |               |
| Frasch                       | tonnes (sulphur content)  | 801 799      | 800 200       | 833 583       | 762 119       | 262 769       |
| Recovered (e)                | tonnes (sulphur content)  | 289 000      | 308 000       | * 304 000     | * 305 000     | * 300 000     |
| Recovered (f)                | tonnes (sulphur content)  | 186 600      | 203 100       | 211 900       | 215 000       | 79 004        |
| Zinc, mine                   | tonnes (metal content)    | 135 600      | 126 600       | 129 600       | 132 400       | 115 500       |
| Slab Zinc                    | tonnes                    | 137 300      | 133 900       | 141 900       | 142 500       | 139 100       |

### Note(s)

(1) Poland is believed to produce strontium minerals

(a) Includes an estimate for small producers

(b) Metal production

(c) Including anhydrite

(d) Washed

(e) From metal sulphide processing

(f) From petroleum refining and/or Natural gas

## Exports

| Commodity                                  | Units     | 2005       | 2006       | 2007       | 2008      | 2009      |
|--|-----------|------------|------------|------------|-----------|-----------|
| Primary aggregates                         | tonnes    | 1 237 482  | 1 671 890  | 1 378 634  | 1 237 976 | 902 193   |
| Aluminium and bauxite                      |           |            |            |            |           |           |
| Bauxite                                    | tonnes    | 1 300      | 1 693      | 596        | 536       | 833       |
| Unwrought (a)                              | tonnes    | 81 962     | 80 266     | 78 187     | 82 242    | 66 065    |
| Scrap                                      | tonnes    | 82 875     | 107 939    | 113 649    | 123 468   | 102 757   |
| Antimony                                   |           |            |            |            |           |           |
| Metal                                      | tonnes    | 18         | 36         | 22         | 25        | 65        |
| Bentonite and fuller's earth               |           |            |            |            |           |           |
| Bentonite                                  | tonnes    | 12 061     | 15 851     | 19 107     | 20 384    | 23 918    |
| Fuller's earth                             | tonnes    | 404        | 580        | ...        | ...       | ...       |
| Bromine                                    | kilograms | 3 000      | 5 500      | 9 400      | 5 000     | 5 500     |
| Cadmium                                    |           |            |            |            |           |           |
| Metal                                      | tonnes    | 610        | 364        | 368        | 558       | 590       |
| Cement                                     |           |            |            |            |           |           |
| Cement clinkers                            | tonnes    | 256 621    | 856 035    | 181 690    | 163 902   | 127 806   |
| Portland cement                            | tonnes    | 460 479    | 402 741    | 313 361    | 314 733   | 405 940   |
| Other cement                               | tonnes    | 49 970     | 67 457     | 65 822     | 78 349    | 35 305    |
| Chromium                                   |           |            |            |            |           |           |
| Metal                                      | tonnes    | 1          | 13         | 1 556      | 1 465     | 568       |
| Coal                                       |           |            |            |            |           |           |
| Anthracite                                 | tonnes    | 23 331     | 31 200     | 30 256     | 16 173    | 5 282     |
| Other coal                                 | tonnes    | 20 816 121 | 16 586 467 | 11 761 743 | 7 775 799 | 8 368 190 |
| Lignite                                    | tonnes    | 8 211      | 317        | —          | 1 009     | 68 273    |
| Cobalt                                     |           |            |            |            |           |           |
| Oxides                                     | tonnes    | 3          | 3          | 5          | 24        | 64        |
| Copper                                     |           |            |            |            |           |           |
| Matte and cement                           | tonnes    | 3 673      | 6 774      | 2 187      | 2 989     | 1 515     |
| Unwrought                                  | tonnes    | 290 462    | 287 666    | 239 508    | 296 738   | 325 395   |
| Unwrought alloys                           | tonnes    | 6 183      | 6 205      | 6 397      | 5 469     | 2 358     |
| Scrap                                      | tonnes    | 47 463     | 55 285     | 64 377     | 63 779    | 64 606    |
| Diatomite                                  | tonnes    | 455        | 527        | 774        | 277       | 85        |
| Feldspar                                   | tonnes    | 1 509      | 2 749      | 1 849      | 2 049     | 1 829     |
| Gold                                       |           |            |            |            |           |           |
| Metal                                      | kilograms | 100        | 1 100      | 300        | 105 000   | 121 100   |
| Waste and scrap                            | kilograms | 1 100      | 1 600      | 700        | 4 800     | 18 000    |
| Gypsum                                     |           |            |            |            |           |           |
| Crude and calcined                         | tonnes    | 33 277     | 40 832     | 56 003     | 58 644    | 40 512    |
| Iodine                                     | kilograms | 100        | 200        | 1 300      | 5 100     | 5 100     |
| Iron ore                                   | tonnes    | 50         | —          | 27         | 10 198    | 14 893    |
| Iron, steel and ferro-alloys               |           |            |            |            |           |           |
| Pig iron                                   | tonnes    | 4 917      | 19 286     | 7 481      | 5 189     | 10 543    |
| Ferro-manganese and ferro-silico-manganese | tonnes    | 22 713     | 11 954     | 20 412     | 37 978    | 21 640    |
| Ferro-silicon                              | tonnes    | 64 974     | 16 023     | 46 923     | 52 976    | 16 401    |
| Other ferro-alloys                         | tonnes    | 915        | 1 630      | 2 364      | 2 752     | 2 440     |
| Ingots, blooms, billets                    | tonnes    | 1 249 618  | 964 361    | 1 575 099  | 1 580 450 | 664 035   |
| Scrap                                      | tonnes    | 1 426 831  | 1 197 827  | 1 199 620  | 1 368 952 | 978 862   |
| Kaolin                                     | tonnes    | 6 194      | 7 177      | 10 401     | 8 936     | 11 515    |
| Lead                                       |           |            |            |            |           |           |
| Ores and concentrates                      | tonnes    | 92 226     | 73 902     | 70 970     | 69 852    | 59 790    |
| Unwrought                                  | tonnes    | 44 008     | 68 635     | 34 455     | 40 017    | 48 599    |
| Scrap                                      | tonnes    | 1 652      | 2 168      | 3 120      | 1 110     | 1 525     |
| Magnesite and magnesia                     | tonnes    | 1 208      | 654        | 2 632      | 1 921     | 734       |
| Manganese                                  |           |            |            |            |           |           |
| Ores and concentrates                      | tonnes    | 43 186     | 1 309      | 151        | 18        | 20        |
| Metal                                      | tonnes    | 67         | 52         | 460        | 35        | 603       |
| Mercury                                    | kilograms | 3 000      | 33 900     | 61 600     | 17 700    | 46 200    |
| Nickel                                     |           |            |            |            |           |           |
| Mattes, sinters etc                        | tonnes    | ...        | ...        | ...        | ...       | 1 443     |
| Unwrought                                  | tonnes    | (a) 480    | 312        | (a) 466    | (a) 334   | (a) 172   |
| Oxides                                     | tonnes    | 529        | 577        | 558        | 759       | 260       |
| Scrap                                      | tonnes    | 642        | 290        | 268        | 647       | 260       |
| Crude petroleum                            | tonnes    | 216 256    | 243 699    | 287 684    | 34 871    | 17 227    |
| Natural gas                                | tonnes    | 26 501     | —          | —          | —         | —         |
| Platinum metals                            |           |            |            |            |           |           |
| Platinum and platinum metals               | kilograms | 903        | 350        | 156        | 7 275     | 47 400    |
| Waste and scrap                            | kilograms | 60         | 4 312      | 139        | 7 399     | 1 600     |

Poland

Exports continued

| Commodity                          | Units     | 2005    | 2006    | 2007      | 2008      | 2009      |
|------------------------------------|-----------|---------|---------|-----------|-----------|-----------|
| Potash                             |           |         |         |           |           |           |
| Potassic fertilisers               | tonnes    | 932     | 3 130   | 2 202     | 9 222     | 13 279    |
| Rare earths                        |           |         |         |           |           |           |
| Cerium compounds                   | tonnes    | 0       | 0       | 15        | 8         | 4         |
| Other rare earth compounds         | tonnes    | 0       | 0       | 33        | 22        | —         |
| Metals                             | tonnes    | ...     | ...     | —         | 5         | —         |
| Salt                               | tonnes    | 495 481 | 498 345 | 345 335   | 361 691   | 503 899   |
| Silver                             |           |         |         |           |           |           |
| Metal                              | kilograms | 318 800 | 519 800 | 1 148 300 | 1 121 900 | 1 265 200 |
| Sulphur and pyrites                |           |         |         |           |           |           |
| Sulphur                            | tonnes    | 575 796 | 478 736 | 555 603   | 446 202   | 152 484   |
| Sulphur, sublimed and precipitated | tonnes    | 17 364  | 18 426  | 26 376    | 27 041    | 29 540    |
| Tin                                |           |         |         |           |           |           |
| Unwrought (a)                      | tonnes    | 116     | 182     | 1 520     | 355       | 279       |
| Scrap                              | tonnes    | 158     | 37      | 34        | 20        | 14        |
| Titanium                           |           |         |         |           |           |           |
| Metal                              | tonnes    | 740     | 917     | 52        | 117       | 105       |
| Oxides                             | tonnes    | 24 394  | 25 598  | 21 776    | 21 509    | 20 937    |
| Tungsten                           |           |         |         |           |           |           |
| Metal                              | tonnes    | 84      | 89      | 76        | 143       | 136       |
| Zinc                               |           |         |         |           |           |           |
| Ores and concentrates              | tonnes    | 63 913  | 61 094  | 61 595    | 58 035    | 45 877    |
| Unwrought                          | tonnes    | 74 938  | 62 332  | 73 096    | 83 571    | 84 833    |
| Unwrought alloys                   | tonnes    | 857     | 2 513   | 1 829     | 3 606     | 4 699     |
| Scrap                              | tonnes    | 797     | 233     | 422       | 430       | 1 617     |

Note(s)

(a) Including alloys

## Imports

| Commodity                    | Units     | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Primary aggregates           | tonnes    | 1 775 291 | 2 976 252 | 5 566 874 | 5 868 908 | 5 349 230 |
| Aluminium and bauxite        |           |           |           |           |           |           |
| Bauxite                      | tonnes    | 59 758    | 61 638    | 71 598    | 59 907    | 49 033    |
| Alumina                      | tonnes    | 102 845   | 114 800   | 120 768   | 126 143   | 27 626    |
| Alumina hydrate              | tonnes    | 29 538    | 27 358    | 27 634    | 25 334    | 23 083    |
| Unwrought                    | tonnes    | 62 403    | 76 996    | 105 281   | 71 563    | 67 561    |
| Unwrought alloys             | tonnes    | 140 792   | 167 914   | 192 930   | 195 072   | 144 983   |
| Scrap                        | tonnes    | 39 907    | 52 498    | 59 623    | 67 176    | 67 408    |
| Antimony                     |           |           |           |           |           |           |
| Metal                        | tonnes    | 28        | 158       | 142       | 52        | 71        |
| Oxide                        | tonnes    | 1 231     | 1 338     | 1 315     | 1 086     | 1 034     |
| Arsenic                      |           |           |           |           |           |           |
| Metallic arsenic             | tonnes    | 39        | 21        | 24        | 42        | 20        |
| Asbestos                     |           |           |           |           |           |           |
| Unmanufactured               | tonnes    | 6         | 52        | ...       | ...       | 35        |
| Barytes                      | tonnes    | 7 744     | 9 138     | 10 895    | 14 334    | 8 349     |
| Bentonite and fuller's earth |           |           |           |           |           |           |
| Bentonite                    | tonnes    | 115 208   | 153 266   | 162 424   | 171 633   | 122 165   |
| Fuller's earth               | tonnes    | 2 566     | 2 564     | ...       | ...       | ...       |
| Bismuth                      |           |           |           |           |           |           |
| Metal                        | tonnes    | 14        | 14        | 15        | 25        | 20        |
| Bromine                      | kilograms | 6 000     | 16 000    | 14 300    | 10 600    | 6 100     |
| Cement                       |           |           |           |           |           |           |
| Cement clinkers              | tonnes    | 33 673    | 45 560    | 65 632    | 127 428   | 35 106    |
| Portland cement              | tonnes    | 444 855   | 285 135   | 520 330   | 680 447   | 421 822   |
| Other cement                 | tonnes    | 5 537     | 5 700     | 22 982    | 29 529    | 21 466    |
| Chromium                     |           |           |           |           |           |           |
| Ores and concentrates        | tonnes    | 9 391     | 16 161    | 38 543    | 36 646    | 12 728    |
| Metal                        | tonnes    | 54        | 45        | 1 717     | 2 137     | 679       |

## Imports continued

| Commodity                    | Units     | 2005       | 2006        | 2007       | 2008          | 2009          |
|------------------------------|-----------|------------|-------------|------------|---------------|---------------|
| Coal                         |           |            |             |            |               |               |
| Anthracite                   | tonnes    | 263 929    | 295 026     | 449 362    | 553 152       | 310 290       |
| Other coal                   | tonnes    | 3 112 462  | 4 866 783   | 5 442 327  | 9 531 959     | 10 362 090    |
| Lignite                      | tonnes    | 0          | 4 406       | 8 946      | 18 057        | 30 307        |
| Briquettes                   | tonnes    | 2 118      | 3 932       | ...        | 10 960        | 25 788        |
| Cobalt                       |           |            |             |            |               |               |
| Metal                        | tonnes    | 35         | 52          | 69         | 51            | 53            |
| Oxides                       | tonnes    | 121        | 63          | 18         | 30            | 15            |
| Copper                       |           |            |             |            |               |               |
| Ores and concentrates        | tonnes    | 43 504     | 112 708     | 61 319     | 62 443        | 78 027        |
| Matte and cement             | tonnes    | 312        | 5 310       | 10 062     | —             | —             |
| Unwrought, unrefined         | tonnes    | 3 363      | 31 609      | 23 880     | 33 376        | 40 030        |
| Unwrought, refined           | tonnes    | 658        | 5 493       | 7 024      | 6 629         | 13 838        |
| Unwrought alloys             | tonnes    | 3 097      | 3 797       | 4 516      | 3 012         | 2 408         |
| Scrap                        | tonnes    | 5 855      | 4 885       | 18 596     | 19 269        | 22 153        |
| Diamond                      |           |            |             |            |               |               |
| Industrial                   | carats    | 43 583     | 31 323      | 150 918    | 237 903       | 169 851       |
| Dust                         | carats    | 4 042 100  | * 3 200 000 | 3 149 550  | 27 584 081    | 263 119 707   |
| Diatomite                    | tonnes    | 6 465      | 5 997       | 8 235      | 9 504         | 9 790         |
| Feldspar                     | tonnes    | 215 185    | 219 719     | 237 963    | 243 798       | 176 717       |
| Fluorspar                    | tonnes    | 6 290      | 7 834       | 8 682      | 8 691         | 8 562         |
| Gold                         |           |            |             |            |               |               |
| Metal                        | kilograms | 100        | 400         | 6 100      | 3 800         | 100           |
| Graphite                     | tonnes    | 3 028      | 3 658       | 5 701      | 4 474         | 3 078         |
| Gypsum                       |           |            |             |            |               |               |
| Crude                        | tonnes    | 150 622    | 175 567     | 283 724    | 154 273       | 118 834       |
| Calcined                     | tonnes    | 91 356     | 150 619     | 216 536    | 182 150       | 78 939        |
| Iodine                       | kilograms | 10 200     | 18 700      | 18 800     | 24 100        | 10 600        |
| Iron ore                     | tonnes    | 6 788 655  | 9 607 629   | 8 746 836  | (a) 7 784 529 | (a) 3 752 010 |
| Iron, steel and ferro-alloys |           |            |             |            |               |               |
| Pig iron                     | tonnes    | 239 240    | 220 163     | 228 445    | 236 682       | 156 970       |
| Sponge and powder            | tonnes    | 24 490     | 12 448      | 10 282     | 8 390         | 4 677         |
| Ferro-chrome                 | tonnes    | 10 863     | 12 318      | 14 113     | 13 713        | 6 064         |
| Ferro-silico-magnesium       | tonnes    | 3 410      | 4 035       | 9 102      | 8 194         | 5 379         |
| Ferro-manganese              | tonnes    | 29 230     | 35 508      | 42 352     | 31 876        | 32 935        |
| Ferro-silico-manganese       | tonnes    | 51 197     | 63 332      | 79 942     | 47 964        | 71 585        |
| Ferro-molybdenum             | tonnes    | 1 178      | 1 168       | 1 527      | 1 554         | 711           |
| Ferro-phosphorus             | tonnes    | 1 056      | 1 195       | 1 492      | 1 386         | 675           |
| Ferro-silicon                | tonnes    | 22 769     | 24 986      | 24 846     | 20 424        | 16 132        |
| Ferro-vanadium               | tonnes    | 313        | 480         | 445        | 418           | 313           |
| Other ferro-alloys           | tonnes    | 7 405      | 10 291      | 639        | 599           | 444           |
| Silicon metal                | tonnes    | 9 243      | 11 935      | 13 946     | 11 652        | 11 839        |
| Ingots, blooms, billets      | tonnes    | 298 314    | 569 057     | 679 404    | 584 305       | 157 799       |
| Scrap                        | tonnes    | 238 113    | 289 956     | 313 907    | 465 978       | 596 733       |
| Kaolin                       | tonnes    | 90 931     | 94 257      | 122 245    | 126 426       | 90 183        |
| Lead                         |           |            |             |            |               |               |
| Unwrought                    | tonnes    | 53 095     | 56 504      | 44 235     | 35 465        | 29 861        |
| Scrap                        | tonnes    | 794        | 1 633       | 1 256      | 2 467         | 2 293         |
| Lithium                      |           |            |             |            |               |               |
| Oxides                       | tonnes    | 136        | 266         | 245        | 61            | 86            |
| Carbonate                    | tonnes    | 128        | 252         | 184        | 162           | 137           |
| Magnesite and magnesia       |           |            |             |            |               |               |
| Magnesite                    | tonnes    | 244        | 288         | 1 536      | 216           | 2 658         |
| Magnesia                     | tonnes    | 71 550     | 103 092     | 109 810    | 109 646       | 81 304        |
| Manganese                    |           |            |             |            |               |               |
| Ores and concentrates        | tonnes    | 38 845     | 6 017       | 32 984     | 54 087        | 1 930         |
| Metal                        | tonnes    | 499        | 1 155       | 1 167      | 716           | 507           |
| Mercury                      | kilograms | 15 700     | 9 200       | 15 700     | 13 300        | 10 900        |
| Mica                         | tonnes    | 547        | 918         | 1 118      | 880           | 1 134         |
| Molybdenum                   |           |            |             |            |               |               |
| Metal                        | tonnes    | 102        | 208         | 616        | 843           | 281           |
| Nickel                       |           |            |             |            |               |               |
| Mattes, sinters etc          | tonnes    | ...        | 4           | 38         | ...           | 1 468         |
| Scrap                        | tonnes    | 3          | 116         | 4 897      | 3 683         | 2 122         |
| Unwrought (b)                | tonnes    | 1 683      | 2 573       | 2 344      | 3 398         | 1 353         |
| Crude petroleum              | tonnes    | 17 639 489 | 19 479 284  | 20 778 118 | 20 949 949    | 19 959 321    |
| Natural gas                  | tonnes    | 7 118 539  | —           | —          | ...           | ...           |

Poland

Imports continued

| Commodity                          | Units     | 2005      | 2006      | 2007      | 2008      | 2009    |
|------------------------------------|-----------|-----------|-----------|-----------|-----------|---------|
| Phosphate rock                     | tonnes    | 1 558 007 | 1 658 266 | 1 689 120 | 1 448 780 | 458 923 |
| Platinum metals                    |           |           |           |           |           |         |
| Platinum and platinum metals       | kilograms | 3 560     | 15 500    | 16 400    | 16 900    | 31 300  |
| Potash                             |           |           |           |           |           |         |
| Fertiliser salts                   | tonnes    | 621       | 1 066     | ...       | ...       | ...     |
| Sulphate                           | tonnes    | 21 770    | 14 517    | 20 242    | 19 161    | 10 919  |
| Chloride                           | tonnes    | 1 041 798 | 770 674   | 992 979   | 815 282   | 194 900 |
| Other potassic fertilisers         | tonnes    | 4 726     | 4 110     | 4 659     | 7 143     | 3 470   |
| Rare earths                        |           |           |           |           |           |         |
| Cerium compounds                   | tonnes    | 79        | 109       | 85        | 148       | 43      |
| Other rare earth compounds         | tonnes    | 39        | 74        | 63        | 58        | 16      |
| Metals                             | tonnes    | 6         | 7         | 1         | —         | 2       |
| Salt                               | tonnes    | 376 829   | 582 080   | 313 297   | 356 929   | 483 243 |
| Sillimanite minerals               |           |           |           |           |           |         |
| Sillimanite minerals               | tonnes    | 9 975     | 21 196    | 23 321    | 16 975    | 7 852   |
| Mullite                            | tonnes    | 2 207     | 2 012     | 4 956     | 3 728     | 1 040   |
| Silver                             |           |           |           |           |           |         |
| Metal                              | kilograms | 40 100    | 28 800    | 77 000    | 95 200    | 122 900 |
| Sulphur and pyrites                |           |           |           |           |           |         |
| Pyrites                            | tonnes    | 1 013     | 5 065     | 1 582     | 5 768     | 813     |
| Sulphur                            | tonnes    | 78 274    | 83 432    | 74 805    | 104 300   | 35 350  |
| Sulphur, sublimed and precipitated | tonnes    | 3         | 52        | 10        | 105       | 978     |
| Talc                               | tonnes    | 20 536    | 22 348    | 23 122    | 28 186    | 18 325  |
| Tantalum and niobium               |           |           |           |           |           |         |
| Tantalum                           | tonnes    | 1         | 0         | 3         | 52        | 1       |
| Tin                                |           |           |           |           |           |         |
| Concentrates                       | tonnes    | ...       | 3         | 77        | ...       | 220     |
| Unwrought (b)                      | tonnes    | 1 437     | 1 583     | 1 838     | 1 857     | 1 102   |
| Scrap                              | tonnes    | 705       | 1 653     | 1 931     | 1 038     | 1 664   |
| Titanium                           |           |           |           |           |           |         |
| Titanium minerals                  | tonnes    | 100 539   | 95 057    | 100 002   | 91 208    | 84 396  |
| Metal                              | tonnes    | 328       | 2 550     | 2 122     | 451       | 264     |
| Oxides                             | tonnes    | 33 417    | 36 943    | 45 984    | 41 019    | 42 031  |
| Tungsten                           |           |           |           |           |           |         |
| Metal                              | tonnes    | 108       | 111       | 108       | 103       | 87      |
| Vanadium                           |           |           |           |           |           |         |
| Metal                              | tonnes    | 32        | 41        | ...       | ...       | ...     |
| Zinc                               |           |           |           |           |           |         |
| Ores and concentrates              | tonnes    | 78 746    | 129 551   | 127 720   | 150 283   | 130 258 |
| Unwrought                          | tonnes    | 13 333    | 28 714    | 31 838    | 26 811    | 18 498  |
| Unwrought alloys                   | tonnes    | 13 337    | 11 421    | 13 660    | 11 906    | 8 922   |
| Scrap                              | tonnes    | 3 899     | 2 681     | 4 445     | 6 378     | 3 907   |
| Zirconium                          |           |           |           |           |           |         |
| Concentrates                       | tonnes    | 870       | 863       | 542       | 833       | 340     |

Note(s)

- (a) Including burnt pyrites
- (b) Including alloys

## Portugal

### Production

| Commodity            | Units                     | 2005       | 2006       | 2007       | 2008         | 2009         |
|----------------------|---------------------------|------------|------------|------------|--------------|--------------|
| Primary aggregates   |                           |            |            |            |              |              |
| Sand and gravel      | tonnes                    | 8 284 238  | 9 764 029  | 10 664 828 | * 10 100 000 | * 9 900 000  |
| Crushed rock         | tonnes                    | 73 343 159 | 65 428 239 | 60 822 000 | * 57 000 000 | * 51 500 000 |
| White arsenic        | tonnes                    | * 15       | * 15       | * 15       | * 15         | * 15         |
| Barytes              | tonnes                    | 21         | 24         | 25         | 171          | 1 078        |
| Cement               |                           |            |            |            |              |              |
| Cement clinker (a)   | tonnes                    | 1 450 646  | 1 484 856  | 1 513 487  | 1 760 510    | 1 749 406    |
| Cement, finished (a) | tonnes                    | 8 426 830  | 8 326 687  | 9 178 735  | 8 365 242    | 7 031 438    |
| Copper, mine         | tonnes (metal content)    | 89 541     | 78 576     | 90 182     | 89 026       | 86 462       |
| Feldspar             | tonnes                    | 238 843    | 257 570    | 371 952    | * 370 000    | * 370 000    |
| Gypsum               | tonnes                    | 389 180    | 366 599    | 418 035    | 372 731      | * 400 000    |
| Crude steel          | tonnes                    | 1 338 000  | 1 338 000  | 1 847 000  | 1 630 000    | 1 587 000    |
| Kaolin               | tonnes                    | 164 072    | 167 792    | 183 598    | 231 346      | 270 450      |
| Lead, refined        | tonnes                    | 3 000      | 3 000      | 5 000      | 5 000        | 4 000        |
| Lithium Minerals     |                           |            |            |            |              |              |
| Lepidolite           | tonnes                    | 26 185     | 28 497     | 34 755     | 34 888       | 38 500       |
| Salt                 |                           |            |            |            |              |              |
| Rock salt            | tonnes                    | 597 945    | 586 190    | 590 588    | 606 545      | 576 723      |
| Sea salt             | tonnes                    | 92 495     | 76 858     | 64 048     | 69 249       | 72 325       |
| Silver, mine         | kilograms (metal content) | 23 786     | 20 078     | 26 514     | 28 825       | 22 472       |
| Sulphur and pyrites  |                           |            |            |            |              |              |
| Recovered            | tonnes (sulphur content)  | 30 000     | 38 000     | 27 000     | 22 000       | 23 000       |
| Talc                 | tonnes                    | 5 362      | 5 517      | 12 367     | 11 220       | 11 567       |
| Tin, mine            | tonnes (metal content)    | 243        | 25         | 41         | 29           | 34           |
| Tungsten, mine (b)   | tonnes (metal content)    | 816        | 780        | 846        | 892          | 823          |
| Zinc, mine           | tonnes (metal content)    | —          | 7 505      | 24 380     | 37 900       | 501          |

Note(s)

(1) Portugal is a small producer of tantalum bearing tin slags but no detailed information is available

(a) Sales

(b) Wolframite and scheelite

### Exports

| Commodity                    | Units     | 2005        | 2006      | 2007      | 2008      | 2009      |
|------------------------------|-----------|-------------|-----------|-----------|-----------|-----------|
| Primary aggregates           | tonnes    | 138 939     | 101 721   | 120 914   | 44 174    | 101 421   |
| Aluminium and bauxite        |           |             |           |           |           |           |
| Unwrought alloys             | tonnes    | 140 505     | 152 591   | 130 636   | 127 150   | 90 869    |
| Scrap                        | tonnes    | 41 797      | 38 026    | 41 603    | 40 020    | 32 481    |
| Antimony                     |           |             |           |           |           |           |
| Metal                        | tonnes    | 1           | 646       | 267       | 60        | 119       |
| Bentonite and fuller's earth |           |             |           |           |           |           |
| Bentonite                    | tonnes    | 444         | 518       | 1 718     | 1 608     | 691       |
| Cement                       |           |             |           |           |           |           |
| Cement clinkers              | tonnes    | 1 271 578   | 1 138 307 | 1 263 190 | 1 448 397 | 1 553 992 |
| Portland cement              | tonnes    | 1 110 739   | 1 204 981 | 1 481 219 | 1 102 589 | 758 854   |
| Other cement                 | tonnes    | 17 301      | 11 364    | 58 931    | 11 139    | 15 231    |
| Chromium                     |           |             |           |           |           |           |
| Ores and concentrates        | tonnes    | 1 111       | 591       | 295       | 70        | —         |
| Copper                       |           |             |           |           |           |           |
| Ores and concentrates        | tonnes    | 375 312     | 328 296   | 399 589   | 375 755   | 371 881   |
| Unwrought                    | tonnes    | 9 356       | 918       | 227       | 600       | 2 098     |
| Scrap                        | tonnes    | 33 583      | 29 736    | 24 566    | 22 184    | 20 213    |
| Diamond                      |           |             |           |           |           |           |
| Gem, cut                     | carats    | £17 981 000 | £8 000    | £105 000  | £55 000   | £52 000   |
| Diatomite                    | tonnes    | 11          | 286       | 943       | 554       | 473       |
| Feldspar                     | tonnes    | 1 546       | 862       | 4 048     | 873       | 1 290     |
| Gold                         |           |             |           |           |           |           |
| Waste and scrap              | kilograms | 4 800       | 400       | 1 100     | 36 100    | 800       |

Portugal

Exports continued

| Commodity                          | Units     | 2005    | 2006    | 2007    | 2008    | 2009    |
|------------------------------------|-----------|---------|---------|---------|---------|---------|
| Gypsum                             |           |         |         |         |         |         |
| Crude and calcined                 | tonnes    | 1 332   | 4 349   | 8 362   | 22 707  | 12 394  |
| Iron, steel and ferro-alloys       |           |         |         |         |         |         |
| Ingots, blooms, billets            | tonnes    | 159 868 | 79 697  | 138 692 | 164 425 | 136 284 |
| Scrap                              | tonnes    | 330 536 | 479 017 | 378 043 | 172 133 | 216 037 |
| Kaolin                             | tonnes    | 31 484  | 46 494  | 70 580  | 47 562  | 51 014  |
| Lead                               |           |         |         |         |         |         |
| Unwrought                          | tonnes    | 1 269   | 2 018   | 3 092   | 4 950   | 6 647   |
| Scrap                              | tonnes    | 4 127   | 9 471   | 9 961   | 3 105   | 2 222   |
| Natural gas                        | tonnes    | —       | —       | —       | 890 688 | 254 997 |
| Platinum metals                    |           |         |         |         |         |         |
| Waste and scrap                    | kilograms | ...     | ...     | 33 500  | ...     | —       |
| Potash                             |           |         |         |         |         |         |
| Potassic fertilisers               | tonnes    | 1 056   | 42      | 80      | 240     | 402     |
| Salt                               | tonnes    | 6 130   | 11 872  | 25 341  | 13 412  | 15 662  |
| Silver                             |           |         |         |         |         |         |
| Ores and concentrates              | kilograms | ...     | ...     | 4 000   | 13 500  | 11 500  |
| Metal                              | kilograms | 1 673   | 411     | 218     | 7 876   | 580     |
| Sulphur and pyrites                |           |         |         |         |         |         |
| Sulphur                            | tonnes    | 28 122  | 9 747   | 15 410  | 7 539   | 5 737   |
| Sulphur, sublimed and precipitated | tonnes    | 80      | 500     | 1       | 136     | 15      |
| Talc                               | tonnes    | 1 614   | 6 013   | 4 243   | 3 841   | 2 699   |
| Tantalum and niobium               |           |         |         |         |         |         |
| Tantalum                           | tonnes    | 15      | 4       | 63      | 48      | 49      |
| Tin                                |           |         |         |         |         |         |
| Unwrought alloys                   | tonnes    | —       | 146     | 172     | —       | —       |
| Scrap                              | tonnes    | 7       | 124     | 25      | 147     | 9       |
| Titanium                           |           |         |         |         |         |         |
| Oxides                             | tonnes    | 512     | 840     | 1 064   | 1 189   | 1 166   |
| Tungsten                           |           |         |         |         |         |         |
| Ores and concentrates              | tonnes    | 1 425   | 1 305   | 1 466   | 1 705   | 1 407   |
| Zinc                               |           |         |         |         |         |         |
| Ores and concentrates              | tonnes    | ...     | 13 035  | 40 950  | 75 414  | 371     |
| Unwrought (a)                      | tonnes    | 127     | 706     | 242     | 1 307   | 849     |
| Scrap                              | tonnes    | 2 050   | 2 023   | 3 345   | 2 910   | 1 646   |

Note(s)

(a) Including alloys

## Imports

| Commodity                    | Units  | 2005    | 2006    | 2007    | 2008    | 2009    |
|------------------------------|--------|---------|---------|---------|---------|---------|
| Primary aggregates           | tonnes | 698 717 | 488 917 | 731 709 | 194 088 | 175 576 |
| Aluminium and bauxite        |        |         |         |         |         |         |
| Alumina                      | tonnes | 6 250   | 7 760   | 9 325   | 9 750   | 13 742  |
| Unwrought                    | tonnes | 13 941  | 16 292  | 16 859  | 17 732  | 15 200  |
| Unwrought alloys             | tonnes | 224 631 | 237 617 | 214 990 | 214 614 | 149 759 |
| Scrap                        | tonnes | 2 651   | 1 487   | 3 994   | 2 409   | 15 819  |
| Antimony                     |        |         |         |         |         |         |
| Oxide                        | tonnes | 137     | 166     | 172     | 161     | 146     |
| Asbestos                     |        |         |         |         |         |         |
| Unmanufactured               | tonnes | 356     | ...     | ...     | 0       | ...     |
| Barytes                      | tonnes | 5 382   | 3 099   | 1 934   | 3 806   | 3 744   |
| Bentonite and fuller's earth |        |         |         |         |         |         |
| Bentonite                    | tonnes | 16 881  | 17 640  | 18 480  | 20 304  | 12 788  |
| Fuller's earth               | tonnes | 483     | 379     | ...     | ...     | ...     |
| Cement                       |        |         |         |         |         |         |
| Cement clinkers              | tonnes | 17 084  | 140 673 | 331 025 | 196 929 | 24 156  |
| Portland cement              | tonnes | 669 272 | 356 040 | 45 012  | 22 862  | 150 065 |
| Other cement                 | tonnes | 10 479  | 14 286  | 11 966  | 8 842   | 11 072  |
| Chromium                     |        |         |         |         |         |         |
| Ores and concentrates        | tonnes | 2 599   | 2 845   | 3 339   | 5 369   | 2 361   |
| Metal                        | tonnes | 18      | 336     | 55      | 53      | 28      |

## Imports continued

| Commodity                    | Units     | 2005       | 2006       | 2007       | 2008       | 2009       |
|------------------------------|-----------|------------|------------|------------|------------|------------|
| Coal                         |           |            |            |            |            |            |
| Anthracite                   | tonnes    | 48 785     | 30 688     | 44 447     | 48 793     | 28 472     |
| Other coal                   | tonnes    | 5 386 968  | 5 630 721  | 4 733 158  | 3 721 513  | 4 922 698  |
| Copper                       |           |            |            |            |            |            |
| Unwrought                    | tonnes    | 4 572      | 5 752      | 5 309      | 5 534      | 8 480      |
| Scrap                        | tonnes    | 3 329      | 5 946      | 8 503      | 10 229     | 7 550      |
| Diamond                      |           |            |            |            |            |            |
| Gem, cut                     | carats    | £7 015 000 | £2 940 000 | £3 435 000 | £3 949 000 | £1 756 000 |
| Industrial                   | carats    | £565 000   | £381 000   | £427 000   | £296 000   | £246 000   |
| Dust                         | carats    | 3 816 540  | 4 641 090  | 8 473 445  | 5 891 661  | 5 514 973  |
| Diatomite                    | tonnes    | 3 946      | 3 432      | 1 731      | 1 372      | 1 127      |
| Feldspar                     | tonnes    | 115 286    | 98 106     | 108 150    | 85 400     | 72 275     |
| Fluorspar                    | tonnes    | 1 633      | 2 530      | 2 423      | 1 828      | 2 243      |
| Gold                         |           |            |            |            |            |            |
| Metal                        | kilograms | 5 488      | 3 224      | 2 003      | 1 535      | 1 077      |
| Graphite                     | tonnes    | 1 722      | 1 954      | 2 210      | 1 493      | 73         |
| Gypsum                       |           |            |            |            |            |            |
| Crude                        | tonnes    | 79 370     | 96 070     | 75 794     | 89 627     | 81 971     |
| Calcined                     | tonnes    | 361 284    | 307 953    | 320 174    | 298 708    | 244 809    |
| Iodine                       | kilograms | 12 000     | 1 400      | 900        | 100        | 8 000      |
| Iron, steel and ferro-alloys |           |            |            |            |            |            |
| Pig iron                     | tonnes    | 19 713     | 15 149     | 17 468     | 13 824     | 7 507      |
| Sponge and powder            | tonnes    | 844        | 866        | 1 498      | 740        | 38 849     |
| Ferro-chrome                 | tonnes    | 884        | 1 160      | 1 050      | 1 093      | 245        |
| Ferro-silico-magnesium       | tonnes    | 1 028      | 1 005      | 6 070      | 6 228      | 4 551      |
| Ferro-manganese              | tonnes    | 885        | 816        | 1 281      | 908        | 762        |
| Ferro-silico-manganese       | tonnes    | 10 021     | 12 779     | 9 835      | 10 063     | 9 921      |
| Ferro-silicon                | tonnes    | 3 028      | 3 341      | 3 355      | 3 479      | 3 707      |
| Other ferro-alloys           | tonnes    | 5 389      | 7 270      | 187        | 393        | 69         |
| Silicon metal                | tonnes    | 128        | 548        | 425        | 187        | 410        |
| Ingots, blooms, billets      | tonnes    | 10 538     | 14 494     | 84 769     | 26 532     | 53 089     |
| Scrap                        | tonnes    | 653 988    | 1 056 949  | 1 075 517  | 1 128 391  | 887 110    |
| Kaolin                       | tonnes    | 143 943    | 137 656    | 154 891    | 114 041    | 73 081     |
| Lead                         |           |            |            |            |            |            |
| Unwrought                    | tonnes    | 21 198     | 17 523     | 14 704     | 12 014     | 6 642      |
| Magnesite and magnesia       |           |            |            |            |            |            |
| Magnesite                    | tonnes    | 1 012      | 1 269      | 924        | 1 521      | 697        |
| Magnesia                     | tonnes    | 5 998      | 6 544      | 7 119      | 5 863      | 8 538      |
| Manganese                    |           |            |            |            |            |            |
| Ores and concentrates        | tonnes    | 28         | 63         | 51         | 765        | 13         |
| Mercury                      | kilograms | —          | —          | —          | 7 500      | 25 100     |
| Mica                         | tonnes    | 193        | 630        | 284        | 125        | 139        |
| Nickel                       |           |            |            |            |            |            |
| Unwrought                    | tonnes    | (a) 602    | (a) 739    | (a) 450    | 524        | 316        |
| Crude petroleum              | tonnes    | 12 941 851 | 13 479 579 | 12 386 104 | 12 050 226 | 10 193 366 |
| Natural gas                  | tonnes    | 3 588 097  | 3 356 949  | 3 758 075  | 4 188 706  | 3 770 943  |
| Phosphate rock               | tonnes    | 137 423    | 91 912     | 114 826    | 90 667     | 44 189     |
| Potash                       |           |            |            |            |            |            |
| Sulphate                     | tonnes    | 3 631      | 3 227      | 4 223      | 1 869      | 1 574      |
| Chloride                     | tonnes    | 65 682     | 58 237     | 51 600     | 38 200     | 25 525     |
| Other potassic fertilisers   | tonnes    | 2 780      | 2 141      | 1 629      | 1 708      | 5 389      |
| Rare earths                  |           |            |            |            |            |            |
| Rare earth compounds         | tonnes    | 46         | 46         | 115        | 20         | 12         |
| Metals                       | tonnes    | 4          | 5          | 0          | 0          | ...        |
| Salt                         | tonnes    | 70 266     | 110 581    | 169 480    | 94 501     | 108 161    |
| Sillimanite minerals         | tonnes    | 160        | 192        | 293        | 646        | 573        |
| Silver                       |           |            |            |            |            |            |
| Metal                        | kilograms | 54 309     | 36 450     | 30 616     | 22 678     | 18 602     |
| Sulphur and pyrites          |           |            |            |            |            |            |
| Sulphur                      | tonnes    | 5 878      | 4 485      | 3 233      | 2 852      | 3 366      |
| Talc                         | tonnes    | 23 583     | 30 955     | 36 089     | 26 774     | 18 537     |
| Tantalum and niobium         |           |            |            |            |            |            |
| Tantalum                     | tonnes    | 115        | 103        | 69         | 83         | 22         |
| Tin                          |           |            |            |            |            |            |
| Unwrought                    | tonnes    | 971        | 763        | 577        | 487        | 308        |
| Unwrought alloys             | tonnes    | 100        | 274        | 419        | 130        | 103        |

Portugal

Imports continued

| Commodity        | Units  | 2005   | 2006   | 2007   | 2008   | 2009   |
|------------------|--------|--------|--------|--------|--------|--------|
| Titanium         |        |        |        |        |        |        |
| Oxides           | tonnes | 17 458 | 18 565 | 19 545 | 18 800 | 18 456 |
| Tungsten         |        |        |        |        |        |        |
| Metal            | tonnes | 179    | 106    | 122    | 251    | 193    |
| Carbide          | tonnes | 105    | 97     | 119    | 169    | 46     |
| Zinc             |        |        |        |        |        |        |
| Unwrought        | tonnes | 11 862 | 19 015 | 16 367 | 19 551 | 12 830 |
| Unwrought alloys | tonnes | 11 573 | 5 778  | 5 054  | 4 617  | 4 018  |
| Zirconium        |        |        |        |        |        |        |
| Concentrates     | tonnes | 5 918  | 6 426  | 7 205  | 8 162  | 5 620  |

Note(s)

(a) Including alloys

# Romania

## Production

| Commodity                    | Units                                     | 2005       | 2006       | 2007       | 2008       | 2009            |
|------------------------------|---|------------|------------|------------|------------|-----------------|
| Primary aggregates           |   |            |            |            |            |                 |
| Sand and gravel              | tonnes                                    | 17 030 886 | 21 817 372 | 26 276 857 | 31 377 110 | 17 424 115      |
| Crushed rock                 | tonnes                                    | 2 328 165  | 3 373 384  | 5 905 842  | 4 635 010  | 4 214 806       |
| Alumina                      | tonnes ( $\text{Al}_2\text{O}_3$ content) | 689 329    | 622 083    | 22 830     | 344        | 44 000          |
| Primary aluminium            | tonnes                                    | 243 607    | 262 056    | 283 449    | 288 156    | 228 630         |
| Bentonite and fuller's earth |   |            |            |            |            |                 |
| Bentonite                    | tonnes                                    | 18 190     | 21 165     | 16 911     | 16 638     | 13 694          |
| Bismuth, mine                | tonnes (metal content)                    | * 40       | * 40       | * 40       | * 40       | * 40            |
| Cement                       |   |            |            |            |            |                 |
| Cement clinker               | tonnes                                    | 464 613    | 606 088    | 222 699    | 111 719    | —               |
| Cement, finished             | tonnes                                    | 7 032 100  | 8 198 090  | 9 844 706  | 10 461 456 | 2 871 757       |
| Coal                         |   |            |            |            |            |                 |
| Anthracite and bituminous    | tonnes                                    | 3 079 000  | —          | —          | —          | —               |
| Lignite                      | tonnes                                    | 28 491 480 | 32 753 526 | 35 671 000 | 34 529 000 | (a)* 30 000 000 |
| Brown coal                   | tonnes                                    | 62 609     | * 58 000   | 97 000     | 205 000    | ...             |
| Copper, mine                 | tonnes (metal content)                    | 16 286     | 12 535     | 2 213      | 308        | 1 200           |
| Copper, refined              | tonnes                                    | 20 739     | 21 583     | 18 589     | 15 300     | 14 500          |
| Diatomite                    | tonnes                                    | 1 402      | 1 719      | 2 057      | —          | —               |
| Feldspar                     | tonnes                                    | 74 927     | 33 100     | 41 477     | 22 995     | * 20 000        |
| Gold, mine                   | kilograms (metal content)                 | * 500      | * 500      | * 500      | * 500      | * 500           |
| Graphite                     | tonnes                                    | 486        | —          | —          | —          | —               |
| Gypsum                       | tonnes                                    | 532 867    | 615 072    | 1 004 150  | 832 248    | * 800 000       |
| Iron ore                     | tonnes                                    | 220 788    | 122 684    | 8 157      | —          | —               |
| Pig iron                     | tonnes                                    | 4 097 998  | 3 945 975  | 3 923 244  | 2 957 715  | 1 575 000       |
| Crude steel                  | tonnes                                    | 6 280 000  | 6 266 036  | 6 269 486  | 5 035 164  | 2 761 000       |
| Ferro-alloys                 |   |            |            |            |            |                 |
| Ferro-chrome                 | tonnes                                    | —          | —          | —          | 6 179      | ...             |
| Ferro-manganese              | tonnes                                    | 18 625     | 3 777      | —          | —          | —               |
| Ferro-silico-manganese       | tonnes                                    | 100 957    | 66 476     | 26 868     | 9 979      | ...             |
| Kaolin                       | tonnes                                    | 26 772     | 11 063     | 7 576      | 3 060      | ...             |
| Lead, mine                   | tonnes (metal content)                    | 11 610     | 6 269      | 784        | —          | —               |
| Lead, refined                | tonnes                                    | 37 900     | 34 133     | 39 369     | 39 596     | 6 000           |
| Manganese ore                | tonnes                                    | 72 000     | 60 107     | 49 350     | 43 590     | * 40 000        |
| Crude petroleum              | tonnes                                    | 5 215 000  | 4 777 000  | 4 837 000  | 4 528 000  | 4 494 000       |
| Natural gas                  | million m <sup>3</sup>                    | 12 637     | 12 422     | 11 981     | 11 520     | 10 900          |
| Salt                         | tonnes                                    | 2 442 640  | 2 621 129  | 2 475 349  | 2 526 774  | * 2 500 000     |
| Silver, mine                 | kilograms (metal content)                 | * 18 000   | * 18 000   | * 18 000   | * 18 000   | * 18 000        |
| Sulphur and pyrites          |   |            |            |            |            |                 |
| Recovered                    | tonnes (sulphur content)                  | 79 000     | 60 000     | 64 000     | 61 000     | 74 000          |
| Talc                         | tonnes                                    | 6 760      | 2 967      | 1 513      | 1 843      | * 2 000         |
| Uranium, mine                | tonnes (metal content)                    | * 90       | * 90       | * 77       | * 77       | * 75            |
| Zinc, mine                   | tonnes (metal content)                    | 13 784     | 8 052      | 849        | 14         | —               |
| Slab Zinc                    | tonnes                                    | 56 795     | 43 705     | 58 342     | 61 978     | 1 000           |

Note(s)

(1) Romania is believed to produce asbestos, mica and molybdenum

(a) Including brown coal

## Exports

| Commodity                    | Units  | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------------------------|--------|-----------|-----------|-----------|-----------|-----------|
| Primary aggregates           | tonnes | 63 110    | 51 793    | 111 803   | 60 190    | 160 241   |
| Aluminium and bauxite        |        |           |           |           |           |           |
| Bauxite                      | tonnes | 8 967     | 129       | 47        | 526       | 161       |
| Alumina                      | tonnes | 261 862   | 137 753   | 5 191     | 0         | 99        |
| Unwrought                    | tonnes | 31 543    | 12 672    | 23 193    | 61 638    | 50 496    |
| Unwrought alloys             | tonnes | 7 711     | 10 110    | 9 080     | 6 690     | 5 898     |
| Scrap                        | tonnes | 4 829     | 11 132    | 14 332    | 16 021    | 20 775    |
| Bentonite and fuller's earth |        |           |           |           |           |           |
| Bentonite                    | tonnes | 7 154     | 521       | 68        | 10        | 31        |
| Cement                       |        |           |           |           |           |           |
| Cement clinkers              | tonnes | 465 660   | 608 616   | 243 116   | 111 719   | 182       |
| Portland cement              | tonnes | 739 215   | 447 713   | 134 044   | 7 449     | 17 869    |
| Coal                         |        |           |           |           |           |           |
| Hard coal (a)                | tonnes | 661       | 7 997     | 67 304    | 5 331     | 19 771    |
| Copper                       |        |           |           |           |           |           |
| Ores and concentrates        | tonnes | 84 084    | 72 900    | 23 689    | 33 391    | 6 711     |
| Matte and cement             | tonnes | ...       | 2 818     | 11 569    | 8 494     | 4 502     |
| Scrap                        | tonnes | 22 665    | 41 911    | 35 856    | 39 733    | 42 148    |
| Feldspar                     | tonnes | 28 859    | 20 563    | 25 102    | 16 438    | 8 375     |
| Gypsum                       |        |           |           |           |           |           |
| Crude and calcined           | tonnes | 15 089    | 14 283    | 13 507    | 13 069    | 17 966    |
| Iron ore                     |        |           |           |           |           |           |
| Iron ore                     | tonnes | ...       | ...       | ...       | ...       | 172 372   |
| Burnt pyrites                | tonnes | ...       | 1         | 24 068    | 15 567    | 12 694    |
| Iron, steel and ferro-alloys |        |           |           |           |           |           |
| Pig iron                     | tonnes | ...       | ...       | ...       | ...       | —         |
| Sponge and powder            | tonnes | 12 522    | 12 851    | 17 832    | 18 697    | 18 807    |
| Ferro-silico-manganese       | tonnes | 142 617   | 41 000    | 33 529    | 5 793     | 8 120     |
| Other ferro-alloys           | tonnes | 8 657     | 3 561     | 872       | 1 493     | 6 273     |
| Ingots, blooms, billets      | tonnes | 100 515   | 87 685    | 183 551   | 220 136   | 51 644    |
| Scrap                        | tonnes | 1 661 747 | 1 862 498 | 1 963 213 | 1 985 977 | 2 565 443 |
| Lead                         |        |           |           |           |           |           |
| Ores and concentrates        | tonnes | 25 012    | 18 104    | 10 501    | 17 396    | 15 759    |
| Unwrought                    | tonnes | 22 120    | 18 786    | 23 289    | 22 752    | 9 049     |
| Scrap                        | tonnes | 3 295     | 4 389     | 4 659     | 2 997     | 2 526     |
| Magnesite and magnesia       |        |           |           |           |           |           |
| Magnesia                     | tonnes | 231       | 277       | 351       | 440       | 381       |
| Manganese                    |        |           |           |           |           |           |
| Metal                        | tonnes | ...       | 1         | 3 024     | 6 666     | —         |
| Nickel                       |        |           |           |           |           |           |
| Scrap                        | tonnes | 61        | 72        | 90        | 1 397     | 1 089     |
| Salt                         | tonnes | 598 154   | 503 629   | 506 641   | 486 040   | 372 501   |
| Sulphur and pyrites          |        |           |           |           |           |           |
| Pyrites                      | tonnes | 42        | 73        | 0         | 994       | 6 315     |
| Sulphur                      | tonnes | 54 917    | 43 255    | 45 579    | 59 030    | 49 052    |
| Titanium                     |        |           |           |           |           |           |
| Metal                        | tonnes | 255       | 579       | 650       | 2 469     | 541       |
| Zinc                         |        |           |           |           |           |           |
| Ores and concentrates        | tonnes | 26 611    | 16 796    | 4 043     | 503       | 24 528    |
| Unwrought (b)                | tonnes | 42 012    | 32 008    | 48 339    | 59 395    | 8 004     |
| Scrap                        | tonnes | 1 073     | 228       | 1 348     | 442       | 1 615     |

Note(s)

- (a) Including anthracite
- (b) Including alloys

## Imports

| Commodity                    | Units     | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Primary aggregates           | tonnes    | 197 911   | 332 190   | 352 576   | 351 123   | 205 133   |
| Aluminium and bauxite        |           |           |           |           |           |           |
| Bauxite                      | tonnes    | 1 655 045 | 1 597 023 | 75 934    | 45 527    | 104 404   |
| Alumina                      | tonnes    | 27 498    | 28 342    | 482 375   | 487 304   | 353 846   |
| Alumina hydrate              | tonnes    | 1 852     | 15 253    | 16 927    | 17 822    | 7 996     |
| Unwrought (a)                | tonnes    | 2 849     | 4 151     | 10 191    | 16 416    | 17 383    |
| Scrap                        | tonnes    | 565       | 436       | 3 833     | 598       | 3 838     |
| Antimony                     |           |           |           |           |           |           |
| Metal                        | tonnes    | 55        | 43        | 68        | 30        | 36        |
| Oxide                        | tonnes    | 73        | 97        | 190       | 153       | 87        |
| Asbestos                     |           |           |           |           |           |           |
| Unmanufactured               | tonnes    | 9 077     | 3 272     | 0         | 1         | ...       |
| Barytes                      | tonnes    | 5 747     | 7 604     | 14 040    | 25 475    | 8 351     |
| Bentonite and fuller's earth |           |           |           |           |           |           |
| Bentonite                    | tonnes    | 3 805     | 4 685     | 5 253     | 6 014     | 3 859     |
| Fuller's earth               | tonnes    | 321       | 358       | ...       | ...       | ...       |
| Bromine (b)                  | kilograms | 9 827     | 9 104     | 152 319   | 267 073   | 285 593   |
| Cement                       |           |           |           |           |           |           |
| Cement clinkers              | tonnes    | 50        | 280       | 500 794   | 486 462   | 23 613    |
| Portland cement              | tonnes    | 167 686   | 102 759   | 142 476   | 538 259   | 296 687   |
| Other cement                 | tonnes    | 1 653     | 3 085     | 12 072    | 32 765    | 15 779    |
| Chromium                     |           |           |           |           |           |           |
| Ores and concentrates        | tonnes    | 2 828     | 1 675     | 1 856     | 77 546    | 705       |
| Metal                        | tonnes    | 245       | 958       | 78        | 64        | 39        |
| Coal                         |           |           |           |           |           |           |
| Anthracite                   | tonnes    | 82 683    | 60 272    | 68 924    | 110 484   | 56 296    |
| Other coal                   | tonnes    | 3 681 406 | 3 398 344 | 4 421 709 | 3 008 391 | 937 077   |
| Lignite                      | tonnes    | 367 781   | 620 251   | 575 514   | 121 227   | 62 469    |
| Briquettes                   | tonnes    | 282       | 95        | 237 051   | 148 890   | 102 372   |
| Copper                       |           |           |           |           |           |           |
| Unwrought                    | tonnes    | 9 723     | 12 794    | 25 093    | 22 116    | 10 926    |
| Scrap                        | tonnes    | 1 528     | 2 946     | 1 710     | 4 197     | 437       |
| Diatomite                    | tonnes    | 3 183     | 3 707     | 3 254     | 3 798     | 2 477     |
| Feldspar                     | tonnes    | 39 448    | 31 433    | 48 999    | 49 160    | 37 639    |
| Fluorspar                    | tonnes    | 6 285     | 3 915     | 4 738     | 2 526     | 1 481     |
| Graphite                     | tonnes    | 548       | 488       | 542       | 304       | 144       |
| Gypsum                       |           |           |           |           |           |           |
| Crude                        | tonnes    | 28 044    | 53 211    | 66 231    | 90 194    | 45 891    |
| Calcined                     | tonnes    | 40 983    | 65 441    | 77 900    | 100 471   | 62 134    |
| Iodine                       | kilograms | 1 054     | 1 107     | 2 636     | 1 395     | 330       |
| Iron ore                     |           |           |           |           |           |           |
| Iron ore                     | tonnes    | 6 601 393 | 6 054 765 | 6 259 705 | 5 003 811 | 1 597 033 |
| Burnt pyrites                | tonnes    | ...       | 62 505    | 2 824     | 17 770    | 11 572    |
| Iron, steel and ferro-alloys |           |           |           |           |           |           |
| Pig iron                     | tonnes    | 19 339    | 9 872     | 53 779    | 37 889    | 61 027    |
| Sponge and powder            | tonnes    | 1 231     | 1 415     | 2 446     | 3 203     | 1 518     |
| Ferro-chrome                 | tonnes    | 5 286     | 3 022     | 2 838     | 3 423     | 984       |
| Ferro-manganese              | tonnes    | 38 323    | 36 872    | 34 126    | 28 773    | 9 063     |
| Ferro-silico-manganese       | tonnes    | 18 752    | 18 432    | 37 558    | 17 919    | 11 461    |
| Ferro-silicon                | tonnes    | 17 170    | 17 152    | 21 156    | 13 190    | 4 998     |
| Other ferro-alloys           | tonnes    | 3 048     | 3 167     | 3 191     | 2 412     | 1 508     |
| Silicon metal                | tonnes    | 2 813     | 8 947     | 1 192     | 3 155     | 1 104     |
| Ingots, blooms, billets      | tonnes    | 448 454   | 633 196   | 922 499   | 757 551   | 109 046   |
| Scrap                        | tonnes    | 545       | 9 867     | 15 771    | 17 886    | 4 204     |
| Kaolin                       | tonnes    | 55 653    | 54 862    | 51 347    | 48 422    | 40 326    |
| Lead                         |           |           |           |           |           |           |
| Ores and concentrates        | tonnes    | 31 085    | 13 288    | 17 064    | 27 055    | 5 889     |
| Unwrought                    | tonnes    | 1 620     | 1 400     | 835       | 872       | 9 245     |
| Magnesite and magnesia       |           |           |           |           |           |           |
| Magnesite                    | tonnes    | 155       | 516       | 187       | 139       | 1         |
| Magnesia                     | tonnes    | 27 088    | 27 447    | 19 666    | 13 003    | 7 427     |
| Manganese                    |           |           |           |           |           |           |
| Ores and concentrates        | tonnes    | 357 327   | 3 134     | 79        | 16 432    | 16        |
| Metal                        | tonnes    | 427       | 1 000     | 3 030     | 646       | 527       |
| Mercury                      | kilograms | 20 288    | 49 623    | 80 000    | 2 300     | 400       |
| Mica                         | tonnes    | 886       | 912       | 478       | 488       | 441       |

Romania

Imports continued

| Commodity                          | Units     | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Nickel                             |           |           |           |           |           |           |
| Unwrought (a)                      | tonnes    | 745       | 747       | 528       | 338       | 288       |
| Crude petroleum                    | tonnes    | 8 688 818 | 8 678 466 | 8 533 821 | 8 419 364 | 6 893 956 |
| Natural gas                        | tonnes    | 4 140 078 | 4 048 749 | 8 877 219 | 7 757 273 | 1 451 767 |
| Phosphate rock                     | tonnes    | 283 192   | 148 110   | 193 276   | 225 581   | 103 500   |
| Potash                             |           |           |           |           |           |           |
| Sulphate                           | tonnes    | 757       | 6 361     | 4 086     | 5 133     | 19 592    |
| Chloride                           | tonnes    | 41 974    | 35 384    | 50 558    | 68 877    | 5 119     |
| Other potassic fertilisers         | tonnes    | 563       | 491       | 1 058     | 338       | 374       |
| Rare earths                        |           |           |           |           |           |           |
| Rare earth compounds               | tonnes    | 22        | 8         | 9         | 6         | 5         |
| Salt                               | tonnes    | 131 683   | 113 585   | 111 681   | 92 815    | 82 569    |
| Silver                             |           |           |           |           |           |           |
| Metal (c)                          | kilograms | * 17 700  | * 18 600  | * 7 700   | * 9 400   | * 8 800   |
| Sulphur and pyrites                |           |           |           |           |           |           |
| Pyrites                            | tonnes    | ...       | ...       | 3         | 1 072     | 1         |
| Sulphur                            | tonnes    | 964       | 1 413     | 1 959     | 2 390     | 1 884     |
| Sulphur, sublimed and precipitated | tonnes    | 113       | 112       | 2         | 180       | 1 254     |
| Talc                               | tonnes    | 1 962     | 2 101     | 2 006     | 1 971     | 1 105     |
| Tin                                |           |           |           |           |           |           |
| Unwrought (a)                      | tonnes    | 216       | 421       | 137       | 127       | 114       |
| Titanium                           |           |           |           |           |           |           |
| Titanium minerals                  | tonnes    | 2 111     | 1 809     | 2 093     | 2 171     | 1 513     |
| Metal                              | tonnes    | 328       | 486       | 612       | 453       | 707       |
| Oxides                             | tonnes    | 7 600     | 9 794     | 11 132    | 9 127     | 7 151     |
| Tungsten                           |           |           |           |           |           |           |
| Metal                              | tonnes    | 7         | 7         | 59        | 1 122     | 22        |
| Zinc                               |           |           |           |           |           |           |
| Ores and concentrates              | tonnes    | 150 282   | 137 878   | 173 536   | 161 527   | 12        |
| Unwrought (a)                      | tonnes    | 14 640    | 23 732    | 13 135    | 7 394     | 10 523    |
| Zirconium                          |           |           |           |           |           |           |
| Concentrates                       | tonnes    | 552       | 766       | 303       | 437       | 190       |
| Metal                              | tonnes    | 22        | 32        | 16        | 136       | 301       |

Note(s)

- (a) Including alloys
- (b) May include some fluorine
- (c) BGS estimates, based on known exports from certain countries

## Slovakia

### Production

| Commodity                    | Units                     | 2005       | 2006       | 2007       | 2008       | 2009        |
|------------------------------|---------------------------|------------|------------|------------|------------|-------------|
| Primary aggregates           |                           |            |            |            |            |             |
| Sand and gravel              | tonnes                    | 6 807 116  | 7 522 034  | 6 470 725  | 7 517 655  | * 6 919 826 |
| Crushed rock                 | tonnes                    | 13 834 800 | 14 088 600 | 13 338 000 | 16 345 800 | 15 233 400  |
| Primary aluminium            | tonnes                    | 159 203    | 158 289    | 160 461    | 162 995    | 149 604     |
| Asbestos                     | tonnes                    | 1 000      | 1 000      | 400        | 200        | —           |
| Barytes                      | tonnes                    | 26 589     | 57 000     | 58 000     | 20 000     | 30 000      |
| Bentonite and fuller's earth |                           |            |            |            |            |             |
| Bentonite                    | tonnes                    | 97 000     | 136 000    | 149 000    | 145 000    | 109 000     |
| Cement                       |                           |            |            |            |            |             |
| Cement, finished             | tonnes                    | 3 498 685  | 3 592 509  | 3 718 410  | 4 157 356  | 3 011 460   |
| Coal                         |                           |            |            |            |            |             |
| Lignite                      | tonnes                    | 35 000     | 6 000      | 20 000     | 87 000     | 115 000     |
| Brown coal                   | tonnes                    | 2 268 000  | 2 016 000  | 1 839 000  | 2 075 000  | 2 106 000   |
| Feldspar                     | tonnes                    | 3 000      | 3 000      | —          | 10 000     | 13 000      |
| Gold, mine                   | kilograms (metal content) | 109        | 84         | 92         | 198        | 346         |
| Gypsum (a)                   | tonnes                    | 107 500    | 126 200    | 151 000    | 152 000    | 131 000     |
| Iron ore                     | tonnes                    | 534 000    | 583 000    | 570 000    | 392 000    | ...         |
| Pig iron                     | tonnes                    | 3 681 000  | 4 145 000  | 4 012 000  | 3 529 000  | 3 019 000   |
| Crude steel                  | tonnes                    | 4 485 000  | 5 093 000  | 5 082 000  | 4 489 000  | 3 747 000   |
| Ferro-alloys                 |                           |            |            |            |            |             |
| Ferro-chrome                 | tonnes                    | 867        | 19         | —          | —          | —           |
| Ferro-silico-manganese       | tonnes                    | 47 843     | 59 128     | 71 587     | 59 940     | ...         |
| Ferro-silicon                | tonnes                    | 16 512     | 16 155     | 8 583      | 10 844     | ...         |
| Other ferro-alloys           | tonnes                    | 48 161     | 65 498     | 74 065     | 61 194     | ...         |
| Kaolin                       | tonnes                    | 31 000     | 58 000     | 46 000     | 44 000     | 10 000      |
| Magnesite                    | tonnes                    | 920 100    | 941 100    | 957 000    | 806 500    | 477 600     |
| Perlite                      | tonnes                    | 8 630      | 10 560     | 20 000     | 25 000     | 25 000      |
| Crude petroleum              | tonnes                    | 35 000     | 30 520     | 23 000     | 21 000     | 19 000      |
| Natural gas                  | million m <sup>3</sup>    | 211        | 135        | 195        | 111        | 114         |
| Salt                         | tonnes                    | 105 100    | 122 500    | 117 000    | 109 510    | 41 000      |
| Silver, mine                 | kilograms (metal content) | 65         | 74         | 50         | 198        | 201         |
| Sulphur and pyrites          |                           |            |            |            |            |             |
| Recovered (b)                | tonnes (sulphur content)  | 5 000      | 5 000      | 5 000      | 5 000      | 5 000       |
| Recovered (c)                | tonnes (sulphur content)  | 65 000     | 65 000     | 78 000     | 75 000     | 71 000      |
| Talc                         | tonnes                    | 200        | —          | —          | ...        | ...         |

Note(s)

(1) Slovakia is believed to produce feldspar

(a) Including anhydrite

(b) From metal sulphide processing

(c) From petroleum refining and/or natural gas

### Exports

| Commodity                    | Units  | 2005      | 2006      | 2007      | 2008        | 2009      |
|------------------------------|--------|-----------|-----------|-----------|-------------|-----------|
| Primary aggregates (a)       | tonnes | * 796 000 | * 644 000 | * 744 000 | * 1 388 000 | * 758 000 |
| Aluminium and bauxite        |        |           |           |           |             |           |
| Unwrought                    | tonnes | 15 302    | 66 893    | 61 319    | 44 845      | 77 013    |
| Unwrought alloys             | tonnes | 159 134   | 93 141    | 118 286   | 129 771     | 110 484   |
| Scrap                        | tonnes | 8 042     | 9 876     | 10 421    | 10 109      | 9 441     |
| Barytes                      | tonnes | 7 876     | 13 843    | 9 174     | 685         | 6 309     |
| Bentonite and fuller's earth |        |           |           |           |             |           |
| Bentonite                    | tonnes | 76 014    | 105 273   | 89 517    | 79 936      | 65 429    |
| Fuller's earth               | tonnes | 1 757     | ...       | ...       | ...         | ...       |
| Cement                       |        |           |           |           |             |           |
| Cement clinkers              | tonnes | 26 549    | 27 092    | 30 800    | 53 871      | 127 016   |
| Portland cement              | tonnes | 1 433 926 | 1 372 554 | 1 346 692 | 1 622 292   | 1 344 258 |
| Other cement                 | tonnes | 44 670    | 35 596    | 85 987    | 144 311     | 217 328   |

Slovakia

Exports continued

| Commodity                          | Units     | 2005    | 2006    | 2007    | 2008    | 2009    |
|------------------------------------|-----------|---------|---------|---------|---------|---------|
| Chromium                           |           |         |         |         |         |         |
| Metal                              | tonnes    | 1 876   | 1 735   | 1 116   | 1 299   | 424     |
| Coal                               |           |         |         |         |         |         |
| Hard coal (b)                      | tonnes    | 33 608  | 33 665  | 26 600  | 30 131  | 122 287 |
| Copper                             |           |         |         |         |         |         |
| Unwrought                          | tonnes    | 19 130  | 27 178  | 34 232  | 35 141  | 29 972  |
| Scrap                              | tonnes    | 14 752  | 18 821  | 23 502  | 21 144  | 15 114  |
| Gold                               |           |         |         |         |         |         |
| Metal                              | kilograms | 268     | 569     | 300     | 800     | 100     |
| Waste and scrap                    | kilograms | 986     | 1 000   | 1 600   | 800     | 1 200   |
| Iron ore                           | tonnes    | 8 581   | 141 448 | 4 353   | 53 434  | 5 923   |
| Iron, steel and ferro-alloys       |           |         |         |         |         |         |
| Pig iron                           | tonnes    | 31 261  | 50 497  | 10 588  | 20 676  | 29 779  |
| Ferro-manganese                    | tonnes    | 41 918  | 59 475  | 49 723  | 48 747  | 19 204  |
| Ferro-silico-manganese             | tonnes    | 51 623  | 73 050  | 62 898  | 55 873  | 37 792  |
| Ferro-silicon                      | tonnes    | 29 130  | 25 240  | 16 437  | 21 352  | 15 823  |
| Other ferro-alloys                 | tonnes    | 10 741  | 8 033   | 13 604  | 15 436  | 5 277   |
| Ingots, blooms, billets            | tonnes    | 289 090 | 654 743 | 508 620 | 241 811 | 255 917 |
| Scrap                              | tonnes    | 390 620 | 524 597 | 404 401 | 525 777 | 318 290 |
| Kaolin                             | tonnes    | 2 332   | 10 946  | 12 546  | 593     | 1 425   |
| Lead                               |           |         |         |         |         |         |
| Unwrought                          | tonnes    | 1 662   | 98      | 221     | 94      | 247     |
| Magnesite and magnesia             |           |         |         |         |         |         |
| Magnesite (a)                      | tonnes    | * 8 000 | * 3 000 | * 6 000 | * 9 300 | * 7 400 |
| Magnesia                           | tonnes    | 385 312 | 394 826 | 444 539 | 409 295 | 261 876 |
| Nickel                             |           |         |         |         |         |         |
| Unwrought                          | tonnes    | ...     | 128     | 72      | 259     | 201     |
| Scrap                              | tonnes    | ...     | 134     | 116     | 1 061   | 140     |
| Crude petroleum                    | tonnes    | 30 887  | 27 686  | 22 172  | 18 159  | 14 932  |
| Natural gas                        | tonnes    | 257 026 | 221 885 | 124 820 | 112 328 | 334 205 |
| Phosphate rock                     | tonnes    | 438     | 2 603   | —       | ...     | 48      |
| Potash                             |           |         |         |         |         |         |
| Potassic fertilisers               | tonnes    | 26      | ...     | 1 407   | 434     | 74      |
| Salt                               | tonnes    | 53 451  | 51 566  | 51 517  | 62 133  | 4 606   |
| Silver                             |           |         |         |         |         |         |
| Metal                              | kilograms | 1 872   | 3 430   | 35 036  | 6 061   | 2 700   |
| Sulphur and pyrites                |           |         |         |         |         |         |
| Sulphur, sublimed and precipitated | tonnes    | 60 776  | 63 019  | 75 817  | 71 373  | 72 613  |
| Talc                               | tonnes    | 1 051   | 1 011   | 1 494   | 1 994   | 45      |
| Tin                                |           |         |         |         |         |         |
| Unwrought                          | tonnes    | 59      | (c) 251 | 20      | 107     | (c) 9   |
| Titanium                           |           |         |         |         |         |         |
| Metal                              | tonnes    | 13      | 28      | 5       | 76      | 3       |
| Tungsten                           |           |         |         |         |         |         |
| Metal                              | tonnes    | 16      | 66      | 2       | 9       | 4       |
| Zinc                               |           |         |         |         |         |         |
| Unwrought                          | tonnes    | 3 522   | 5 232   | 16 356  | 14 600  | 12 871  |
| Unwrought alloys                   | tonnes    | 3 618   | 14 053  | 7 147   | 10 412  | 11 365  |

Note(s)

(a) BGS estimates, based on known imports into certain countries

(b) Including anthracite

(c) Including alloys

## Imports

| Commodity                    | Units     | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Primary aggregates           | tonnes    | 828 096   | 665 844   | 633 400   | 755 496   | 692 609   |
| Aluminium and bauxite        |           |           |           |           |           |           |
| Bauxite                      | tonnes    | 3 669     | 5 886     | 7 524     | 5 778     | 5 443     |
| Alumina                      | tonnes    | 307 756   | 314 576   | 311 914   | 311 891   | 288 753   |
| Unwrought (a)                | tonnes    | 31 683    | 31 521    | 52 718    | 41 681    | 27 853    |
| Scrap                        | tonnes    | 12 567    | 8 550     | 8 748     | 4 638     | 1 760     |
| Antimony                     |           |           |           |           |           |           |
| Oxide                        | tonnes    | 118       | 82        | 104       | 48        | 35        |
| Barytes                      | tonnes    | 814       | 872       | 147       | 142       | 99        |
| Bentonite and fuller's earth |           |           |           |           |           |           |
| Bentonite                    | tonnes    | 6 863     | 6 916     | 7 145     | 8 987     | 5 890     |
| Fuller's earth               | tonnes    | 1 082     | 886       | ...       | ...       | ...       |
| Bromine                      | kilograms | 400       | 9 700     | 2 600     | (b) 582   | (b) 2 470 |
| Cement                       |           |           |           |           |           |           |
| Cement clinkers              | tonnes    | 68 894    | 42 666    | 52 608    | 94 510    | 13 076    |
| Portland cement              | tonnes    | 88 403    | 98 625    | 123 589   | 172 555   | 284 457   |
| Other cement                 | tonnes    | 49 619    | 56 418    | 58 035    | 93 031    | 56 060    |
| Chromium                     |           |           |           |           |           |           |
| Ores and concentrates        | tonnes    | 12 475    | 11 252    | 16 819    | 11 969    | 2 533     |
| Metal                        | tonnes    | 55        | 11        | 20        | 104       | 52        |
| Coal                         |           |           |           |           |           |           |
| Anthracite                   | tonnes    | 112 482   | 38 147    | 176 682   | 258 597   | 264 286   |
| Other coal                   | tonnes    | 5 249 848 | 4 411 685 | 4 802 258 | 4 253 530 | 3 828 520 |
| Lignite                      | tonnes    | 704 690   | 889 241   | 725 586   | 983 151   | 693 786   |
| Briquettes                   | tonnes    | 33 067    | 12 150    | 5 813     | 6 733     | 7 877     |
| Cobalt                       |           |           |           |           |           |           |
| Metal                        | tonnes    | 5         | 13        | 37        | 1 020     | 19        |
| Oxides                       | tonnes    | 4         | ...       | 0         | 0         | 5 327     |
| Copper                       |           |           |           |           |           |           |
| Matte and cement             | tonnes    | 4 342     | 1 071     | ...       | ...       | 3 300     |
| Unwrought                    | tonnes    | 1 718     | 2 084     | 1 557     | 4 120     | 4 685     |
| Scrap                        | tonnes    | 19 977    | 17 973    | 17 476    | 17 350    | 29 141    |
| Diatomite                    | tonnes    | 675       | 698       | 549       | 577       | 901       |
| Feldspar                     | tonnes    | 36 989    | 30 726    | 27 548    | 24 788    | 16 352    |
| Fluorspar                    | tonnes    | 1 615     | 1 543     | 908       | 1 143     | 644       |
| Gold                         |           |           |           |           |           |           |
| Metal                        | kilograms | 42 001    | 13 901    | 92 400    | 74 800    | 208 400   |
| Graphite                     | tonnes    | 1 031     | 1 382     | 2 246     | 2 981     | 962       |
| Gypsum                       |           |           |           |           |           |           |
| Crude                        | tonnes    | 76 298    | 85 408    | 88 083    | 111 188   | 53 104    |
| Calcined                     | tonnes    | 39 836    | 26 794    | 29 894    | 47 044    | 52 703    |
| Iron ore                     | tonnes    | 5 513 902 | 6 406 019 | 5 853 880 | 4 802 516 | 4 499 385 |
| Iron, steel and ferro-alloys |           |           |           |           |           |           |
| Pig iron                     | tonnes    | 39 400    | 59 145    | 59 778    | 70 034    | 19 468    |
| Sponge and powder            | tonnes    | 13 852    | 25 064    | 52 697    | * 144 000 | 4 090     |
| Ferro-chrome                 | tonnes    | 2 630     | 2 597     | 9 818     | 7 539     | 2 635     |
| Ferro-manganese              | tonnes    | 14 245    | 23 409    | 20 410    | 19 503    | 16 912    |
| Ferro-silico-manganese       | tonnes    | 1 480     | 3 016     | 977       | 2 776     | 2 720     |
| Ferro-niobium                | tonnes    | 393       | 849       | 906       | 897       | 154       |
| Ferro-silicon                | tonnes    | 21 742    | 19 395    | 26 142    | 23 747    | 14 970    |
| Other ferro-alloys           | tonnes    | 4 044     | 5 216     | 3 874     | 5 408     | 1 747     |
| Silicon metal                | tonnes    | 6 279     | 5 416     | 6 004     | 6 391     | 4 460     |
| Ingots, blooms, billets      | tonnes    | 10 753    | 17 086    | 20 708    | 18 953    | 54 781    |
| Scrap                        | tonnes    | 197 550   | 243 822   | 257 815   | 217 558   | 164 985   |
| Kaolin                       | tonnes    | 94 705    | 100 551   | 87 956    | 95 911    | 58 509    |
| Magnesite and magnesia       |           |           |           |           |           |           |
| Magnesite                    | tonnes    | 1 440     | 3 947     | 3 520     | 3 401     | 2 906     |
| Magnesia                     | tonnes    | 21 927    | 27 280    | 36 768    | 40 675    | 12 731    |
| Manganese                    |           |           |           |           |           |           |
| Ores and concentrates        | tonnes    | 273 270   | 308 417   | 253 048   | 211 653   | 74 712    |
| Metal                        | tonnes    | 146       | 445       | 313       | 350       | 395       |
| Mercury                      | kilograms | 3 457     | 3 100     | 3 400     | 5 200     | 4 500     |
| Molybdenum                   |           |           |           |           |           |           |
| Metal                        | tonnes    | 37        | 3         | 5         | 24        | 106       |
| Nickel                       |           |           |           |           |           |           |
| Unwrought (a)                | tonnes    | 274       | 221       | 139       | 190       | 120       |

## Slovakia

## Imports continued

| Commodity                          | Units     | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Crude petroleum                    | tonnes    | 5 421 866 | 5 878 819 | 6 141 203 | 5 778 688 | 5 787 725 |
| Natural gas                        | tonnes    | 5 177 312 | 5 157 793 | 4 249 360 | 4 640 012 | 4 820 301 |
| Phosphate rock                     | tonnes    | 5 415     | 494       | 267       | 251       | 258       |
| Platinum metals                    |           |           |           |           |           |           |
| Platinum                           | kilograms | 60        | 23 016    | 348 975   | 1 573 410 | 1 075 100 |
| Potash                             |           |           |           |           |           |           |
| Chloride                           | tonnes    | 28 400    | 31 791    | 29 514    | 28 757    | 3 931     |
| Other potassic fertilisers         | tonnes    | 576       | 1 752     | 2 375     | 1 832     | 294       |
| Rare earths                        |           |           |           |           |           |           |
| Rare earth compounds               | tonnes    | 10        | 8         | 8         | 5         | 8         |
| Salt                               | tonnes    | 320 413   | 299 087   | 182 234   | 189 268   | 168 211   |
| Sillimanite minerals               | tonnes    | 4 312     | 2 069     | 3 299     | 1 919     | 1 812     |
| Silver                             |           |           |           |           |           |           |
| Metal                              | kilograms | 57 439    | 6 400     | 12 200    | 8 200     | 9 000     |
| Sulphur and pyrites                |           |           |           |           |           |           |
| Sulphur                            | tonnes    | 3 669     | 3 454     | 4 339     | 4 553     | 2 462     |
| Sulphur, sublimed and precipitated | tonnes    | 689       | 266       | 753       | 1 518     | 1 046     |
| Talc                               | tonnes    | 1 552     | 4 174     | 1 344     | 2 448     | 1 030     |
| Tin                                |           |           |           |           |           |           |
| Unwrought (a)                      | tonnes    | 2 610     | 2 246     | 2 260     | 2 276     | 2 059     |
| Titanium                           |           |           |           |           |           |           |
| Titanium minerals                  | tonnes    | 17 627    | 12 648    | 17 242    | ...       | ...       |
| Metal                              | tonnes    | 980       | 179       | 250       | 329       | 130       |
| Oxides                             | tonnes    | 2 804     | 2 742     | 2 193     | 2 389     | 2 949     |
| Zinc                               |           |           |           |           |           |           |
| Unwrought (a)                      | tonnes    | 43 437    | 45 143    | 44 959    | 41 003    | 28 863    |

## Note(s)

- (a) Including alloys  
 (b) May include some fluorine

## Slovenia

### Production

| Commodity          | Units                  | 2005       | 2006       | 2007        | 2008        | 2009        |
|--------------------|------------------------|------------|------------|-------------|-------------|-------------|
| Primary aggregates |                        |            |            |             |             |             |
| Sand and gravel    | tonnes                 | 12 432 000 | 17 873 000 | 21 548 000  | 19 171 000  | 15 720 000  |
| Crushed rock       | tonnes                 | 12 223 182 | 14 213 319 | 14 279 253  | 14 982 560  | 13 609 727  |
| Primary aluminium  | tonnes                 | 138 500    | 118 100    | 111 016     | 83 300      | 35 148      |
| Cement             |                        |            |            |             |             |             |
| Cement, finished   | tonnes                 | 1 114 000  | 1 269 000  | * 1 300 000 | * 1 300 000 | * 1 000 000 |
| Coal               |                        |            |            |             |             |             |
| Lignite            | tonnes                 | 3 945 100  | 3 932 842  | 4 037 766   | 4 008 440   | 3 921 750   |
| Brown coal         | tonnes                 | 594 456    | 587 912    | 483 417     | 488 828     | 510 769     |
| Crude steel        | tonnes                 | 583 000    | 628 000    | 638 000     | 642 000     | 428 000     |
| Ferro-alloys       |                        |            |            |             |             |             |
| Ferro-silicon      | tonnes                 | 15 529     | 12 550     | * 6 000     | * —         | * —         |
| Lead, refined      | tonnes                 | 15 000     | 15 000     | 15 000      | 15 000      | 14 000      |
| Natural gas        | million m <sup>3</sup> | 6          | 4          | 3           | 3           | 3           |
| Salt               | tonnes                 | 803        | 1 624      | 3 029       | 535         | 2 924       |

### Exports

| Commodity                    | Units     | 2005    | 2006    | 2007    | 2008    | 2009    |
|------------------------------|-----------|---------|---------|---------|---------|---------|
| Primary aggregates           | tonnes    | 221 830 | 324 830 | 437 208 | 402 033 | 451 012 |
| Aluminium and bauxite        |           |         |         |         |         |         |
| Bauxite                      | tonnes    | ...     | 2 650   | 8 013   | 450     | 2 537   |
| Alumina                      | tonnes    | 205 584 | 241 631 | 243 062 | 258 238 | 242 215 |
| Unwrought alloys             | tonnes    | 123 555 | 133 005 | 123 041 | 88 038  | 61 800  |
| Scrap                        | tonnes    | 21 103  | 27 584  | 30 132  | 26 863  | 23 382  |
| Bentonite and fuller's earth |           |         |         |         |         |         |
| Bentonite                    | tonnes    | ...     | 107     | 196     | 142     | 284     |
| Cement                       |           |         |         |         |         |         |
| Cement clinkers              | tonnes    | 58 765  | 21 440  | 2       | 1       | —       |
| Portland cement              | tonnes    | 56 776  | 73 187  | 55 803  | 77 656  | 96 736  |
| Other cement                 | tonnes    | 63 732  | 115 104 | 156 183 | 227 400 | 97 258  |
| Coal                         |           |         |         |         |         |         |
| Lignite                      | tonnes    | 6 881   | 29 794  | 2 150   | 377     | 4 615   |
| Cobalt                       |           |         |         |         |         |         |
| Metal                        | tonnes    | 42      | 16      | 31      | 24      | 50      |
| Copper                       |           |         |         |         |         |         |
| Unwrought                    | tonnes    | 72      | 244     | 163     | 244     | 1 376   |
| Scrap                        | tonnes    | 13 054  | 15 922  | 17 810  | 15 606  | 17 991  |
| Gold                         |           |         |         |         |         |         |
| Metal                        | kilograms | 101     | 100     | 1 300   | 3 000   | 129     |
| Waste and scrap              | kilograms | —       | 3 700   | —       | —       | 200     |
| Gypsum                       |           |         |         |         |         |         |
| Crude and calcined           | tonnes    | 993     | 9 502   | 36 039  | 8 575   | 6 575   |
| Iron, steel and ferro-alloys |           |         |         |         |         |         |
| Pig iron                     | tonnes    | 752     | 3 511   | 14 942  | 24 639  | 4 412   |
| Ferro-silicon                | tonnes    | 24 290  | 26 859  | 15 277  | 20 826  | 6 628   |
| Other ferro-alloys           | tonnes    | 27 120  | 22 497  | 24 205  | 12 516  | 9 989   |
| Silicon metal                | tonnes    | 252     | 3 006   | 1 875   | 1 149   | 3 049   |
| Ingots, blooms, billets      | tonnes    | 12 647  | 12 273  | 31 849  | 21 006  | 12 296  |
| Scrap                        | tonnes    | 225 627 | 222 403 | 245 869 | 199 016 | 284 958 |
| Lead                         |           |         |         |         |         |         |
| Unwrought                    | tonnes    | 5 818   | 6 524   | 8 860   | 6 960   | 6 891   |
| Scrap                        | tonnes    | 572     | 843     | 1 415   | 391     | 325     |
| Lithium                      |           |         |         |         |         |         |
| Carbonate                    | tonnes    | 96      | 96      | 110     | 122     | 128     |
| Magnesite and magnesia       |           |         |         |         |         |         |
| Magnesia                     | tonnes    | ...     | 206     | 257     | ...     | 344     |
| Manganese                    |           |         |         |         |         |         |
| Metal                        | tonnes    | 2 584   | 228     | 236     | 58      | 21      |
| Natural gas                  | tonnes    | 72 043  | 54 579  | 34 212  | 24 368  | 3       |

Slovenia

Exports continued

| Commodity                    | Units     | 2005    | 2006      | 2007      | 2008      | 2009      |
|------------------------------|-----------|---------|-----------|-----------|-----------|-----------|
| Nickel                       |           |         |           |           |           |           |
| Unwrought (a)                | tonnes    | 117     | 118       | 232       | 268       | 117       |
| Phosphate rock               | tonnes    | 189 207 | 140 281   | 109 350   | 164 848   | 56 973    |
| Platinum metals              |           |         |           |           |           |           |
| Platinum and platinum metals | kilograms | 47      | 248       | 84        | 110       | 400       |
| Rare earths                  |           |         |           |           |           |           |
| Cerium compounds             | tonnes    | ...     | ...       | 2         | 1         | 1         |
| Salt                         | tonnes    | 8 034   | 20 702    | 18 280    | 20 590    | 15 671    |
| Silver                       |           |         |           |           |           |           |
| Metal                        | kilograms | 6 382   | 3 100     | 5 200     | 8 800     | 1 600     |
| Titanium                     |           |         |           |           |           |           |
| Metal                        | tonnes    | 21      | 36        | 37        | 40        | 23        |
| Oxides                       | tonnes    | 44 123  | 50 755    | 55 867    | 55 110    | 57 866    |
| Zinc                         |           |         |           |           |           |           |
| Unwrought                    | tonnes    | 180     | (a) 1 553 | (a) 1 557 | (a) 1 937 | (a) 1 469 |
| Scrap                        | tonnes    | 803     | 846       | 873       | 975       | 517       |
| Zirconium                    |           |         |           |           |           |           |
| Concentrates                 | tonnes    | 1 009   | 1 186     | 509       | 202       | 22        |

Note(s)

(a) Including alloys

## Imports

| Commodity                    | Units  | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------------------------|--------|-----------|-----------|-----------|-----------|-----------|
| Primary aggregates           | tonnes | 364 091   | 863 881   | 3 113 823 | 1 424 240 | 1 165 083 |
| Aluminium and bauxite        |        |           |           |           |           |           |
| Bauxite                      | tonnes | 47 935    | 51 064    | 63 229    | 40 006    | 13 966    |
| Alumina                      | tonnes | 450 273   | 480 454   | 466 163   | 438 579   | 302 520   |
| Alumina hydrate              | tonnes | 23 581    | 24 102    | 28 628    | 27 121    | 20 629    |
| Unwrought                    | tonnes | 73 137    | 48 337    | 65 589    | 67 405    | 62 162    |
| Unwrought alloys             | tonnes | 46 782    | 60 484    | 58 215    | 50 389    | 34 530    |
| Scrap                        | tonnes | 47 381    | 50 865    | 52 338    | 51 319    | 37 677    |
| Antimony                     |        |           |           |           |           |           |
| Metal                        | tonnes | 137       | 98        | 110       | 71        | 50        |
| Arsenic                      |        |           |           |           |           |           |
| Metallic arsenic             | tonnes | 5         | 12        | 11        | —         | 3         |
| Barytes                      | tonnes | 845       | 1 044     | 585       | 596       | 530       |
| Bentonite and fuller's earth |        |           |           |           |           |           |
| Bentonite                    | tonnes | 3 612     | 4 981     | 4 048     | 3 976     | 4 421     |
| Bismuth                      |        |           |           |           |           |           |
| Metal                        | tonnes | 69        | 66        | 90        | 60        | 24        |
| Cement                       |        |           |           |           |           |           |
| Cement clinkers              | tonnes | 1 343     | 11 970    | 145 638   | 5 783     | 60        |
| Portland cement              | tonnes | 215 473   | 249 749   | 328 312   | 326 096   | 297 617   |
| Other cement                 | tonnes | 2 906     | 6 917     | 17 037    | 4 618     | 17 414    |
| Chromium                     |        |           |           |           |           |           |
| Ores and concentrates        | tonnes | 446       | 1 414     | 986       | 999       | 1 005     |
| Metal                        | tonnes | 122       | 97        | 85        | 313       | 143       |
| Coal                         |        |           |           |           |           |           |
| Hard coal (a)                | tonnes | 51 173    | 47 221    | 83 100    | 74 508    | 33 143    |
| Lignite                      | tonnes | 543 465   | 614 851   | 567 139   | 833 308   | 507 013   |
| Cobalt                       |        |           |           |           |           |           |
| Metal                        | tonnes | 209       | 209       | 96        | 93        | 149       |
| Copper                       |        |           |           |           |           |           |
| Unwrought                    | tonnes | 2 764     | 3 150     | 2 809     | 2 649     | 2 826     |
| Scrap                        | tonnes | 5 762     | 9 000     | 10 431    | 9 687     | 11 452    |
| Diamond                      |        |           |           |           |           |           |
| Dust                         | carats | 1 136 505 | 1 287 165 | 1 670 815 | 1 395 416 | 722 777   |
| Diatomite                    |        |           |           |           |           |           |
| Feldspar                     | tonnes | 846       | 738       | 686       | 644       | 550       |
| Fluorspar                    |        |           |           |           |           |           |
| Feldspar                     | tonnes | 5 852     | 5 813     | 6 877     | 6 576     | 8 899     |
| Fluorspar                    | tonnes | 1 031     | 1 184     | 1 017     | 1 326     | 1 064     |

## Imports continued

| Commodity                          | Units     | 2005    | 2006    | 2007    | 2008    | 2009    |
|------------------------------------|-----------|---------|---------|---------|---------|---------|
| Gold                               |           |         |         |         |         |         |
| Metal                              | kilograms | 239     | 445     | 600     | 1 700   | 400     |
| Waste and scrap                    | kilograms | 214     | 1 533   | 100     | 9       | 1 210   |
| Graphite                           | tonnes    | 112     | 161     | 108     | 141     | 89      |
| Gypsum                             |           |         |         |         |         |         |
| Crude                              | tonnes    | 29 388  | 31 312  | 38 588  | 24 660  | 5 565   |
| Calcined                           | tonnes    | 7 429   | 8 167   | 7 936   | 8 622   | 9 432   |
| Iron, steel and ferro-alloys       |           |         |         |         |         |         |
| Pig iron                           | tonnes    | 32 217  | 70 254  | 102 973 | 68 153  | 24 031  |
| Ferro-chrome                       | tonnes    | 23 308  | 26 992  | 23 645  | 25 665  | 15 951  |
| Ferro-manganese                    | tonnes    | 4 410   | 4 467   | 6 061   | 5 663   | 4 157   |
| Ferro-silico-manganese             | tonnes    | 2 443   | 3 691   | 4 789   | 3 373   | 3 467   |
| Ferro-molybdenum                   | tonnes    | 550     | 539     | 569     | 540     | 410     |
| Ferro-nickel                       | tonnes    | 2 321   | 2 457   | 2 364   | 538     | ...     |
| Ferro-silicon                      | tonnes    | 13 486  | 17 937  | 14 017  | 24 651  | 11 335  |
| Other ferro-alloys                 | tonnes    | 8 111   | 10 027  | 4 914   | 5 402   | 2 581   |
| Silicon metal                      | tonnes    | 6 393   | 9 945   | 7 654   | 6 536   | 4 929   |
| Ingots, blooms, billets            | tonnes    | 3 505   | 3 444   | 11 479  | 12 930  | 1 568   |
| Scrap                              | tonnes    | 434 585 | 434 330 | 363 362 | 367 968 | 281 950 |
| Kaolin                             | tonnes    | 25 928  | 24 389  | 28 363  | 25 682  | 20 776  |
| Lead                               |           |         |         |         |         |         |
| Unwrought                          | tonnes    | 10 262  | 8 897   | 12 761  | 14 103  | 13 036  |
| Scrap                              | tonnes    | 1 382   | 2 946   | 5 191   | 1 556   | 1 985   |
| Lithium                            |           |         |         |         |         |         |
| Oxides                             | tonnes    | 116     | 115     | 144     | 186     | 139     |
| Magnesite and magnesia             |           |         |         |         |         |         |
| Magnesite                          | tonnes    | 391     | 166     | 123     | 113     | 79      |
| Magnesia                           | tonnes    | 9 500   | 8 312   | 7 994   | 8 159   | 4 267   |
| Manganese                          |           |         |         |         |         |         |
| Ores and concentrates              | tonnes    | 6       | 4       | 187     | 10      | 9       |
| Metal                              | tonnes    | 294     | 435     | 388     | 438     | 264     |
| Molybdenum                         |           |         |         |         |         |         |
| Ores and concentrates              | tonnes    | 5 674   | 700     | 876     | 690     | 292     |
| Natural gas                        | tonnes    | 851 258 | 811 065 | 807 877 | 750 581 | 748 930 |
| Nickel                             |           |         |         |         |         |         |
| Unwrought (b)                      | tonnes    | 929     | 874     | 967     | 2 686   | 2 020   |
| Phosphate rock                     | tonnes    | ...     | 140 455 | 109 768 | 164 872 | 56 969  |
| Platinum metals                    |           |         |         |         |         |         |
| Platinum and platinum metals       | kilograms | 120     | 449     | 177     | 177     | 132     |
| Potash                             |           |         |         |         |         |         |
| Potassic fertilisers               | tonnes    | 1 704   | 2 465   | 1 973   | 2 166   | 766     |
| Rare earths                        |           |         |         |         |         |         |
| Rare earth compounds               | tonnes    | 4       | 27      | 4       | 3       | 2       |
| Metals                             | tonnes    | 139     | 96      | 139     | 88      | 55      |
| Salt                               | tonnes    | 207 314 | 232 017 | 148 352 | 190 017 | 239 191 |
| Silver                             |           |         |         |         |         |         |
| Metal                              | kilograms | 42 380  | 19 700  | 27 800  | 45 000  | 17 800  |
| Sulphur and pyrites                |           |         |         |         |         |         |
| Pyrites                            | tonnes    | 400     | 463     | 612     | 683     | 353     |
| Sulphur                            | tonnes    | 58 287  | 58 159  | 53 434  | 56 381  | 53 615  |
| Sulphur, sublimed and precipitated | tonnes    | 88      | 135     | 1       | 7       | 1       |
| Talc                               | tonnes    | 5 357   | 5 297   | 5 301   | 12 860  | 13 756  |
| Tin                                |           |         |         |         |         |         |
| Unwrought (b)                      | tonnes    | 151     | 73      | 101     | 87      | 69      |
| Titanium                           |           |         |         |         |         |         |
| Titanium minerals                  | tonnes    | 21 054  | 22 825  | 14 903  | 34 930  | 32 789  |
| Titanium slag                      | tonnes    | ...     | 64 246  | 53 245  | 65 180  | 66 818  |
| Metal                              | tonnes    | 614     | 392     | 348     | 257     | 233     |
| Oxides                             | tonnes    | 3 157   | 3 153   | 3 500   | 3 296   | 2 889   |
| Vanadium                           |           |         |         |         |         |         |
| Metal                              | tonnes    | 14      | 26      | ...     | ...     | ...     |
| Zinc                               |           |         |         |         |         |         |
| Unwrought                          | tonnes    | 15 015  | 17 571  | 16 696  | 14 881  | 16 766  |
| Unwrought alloys                   | tonnes    | 6 701   | 11 864  | 11 711  | 8 938   | 6 180   |

Slovenia

Imports continued

| Commodity                 | Units  | 2005 | 2006 | 2007 | 2008 | 2009 |
|---------------------------|--------|------|------|------|------|------|
| Zirconium<br>Concentrates | tonnes | 625  | 443  | 550  | 548  | 227  |

Note(s)

- (a) Including anthracite
- (b) Including alloys

# Spain

## Production

| Commodity                    | Units                                     | 2005        | 2006        | 2007        | 2008        | 2009        |
|------------------------------|---|-------------|-------------|-------------|-------------|-------------|
| Primary aggregates           |   |             |             |             |             |             |
| Sand and gravel              | tonnes                                    | 125 299 480 | 130 000 000 | 143 000 000 | 118 000 000 | 105 000 000 |
| Crushed rock                 | tonnes                                    | 340 000 000 | 355 000 000 | 280 000 000 | 214 000 000 | 130 000 000 |
| Alumina                      | tonnes ( $\text{Al}_2\text{O}_3$ content) | * 1 400 000 | * 1 400 000 | * 1 300 000 | * 1 300 000 | * 1 300 000 |
| Primary aluminium            | tonnes                                    | 394 200     | 367 400     | 405 100     | 405 800     | 334 600     |
| Barytes                      | tonnes                                    | 42 792      | 45 001      | 26 770      | 11 100      | 2 814       |
| Bentonite and fuller's earth |   |             |             |             |             |             |
| Bentonite                    | tonnes                                    | 163 290     | 154 746     | 147 253     | 154 534     | * 140 000   |
| Attapulgite                  | tonnes                                    | 20 565      | 20 933      | 24 615      | 27 348      | 21 110      |
| Sepiolite                    | tonnes                                    | 807 820     | 806 345     | 717 728     | 737 659     | 573 937     |
| Bromine                      | kilograms                                 | * 100 000   | * 100 000   | * 100 000   | * 100 000   | * 100 000   |
| Cement                       |   |             |             |             |             |             |
| Cement clinker (a)           | tonnes                                    | 482 536     | 540 482     | 579 236     | 2 011 830   | 2 961 500   |
| Cement, finished             | tonnes                                    | 50 300 000  | 54 032 770  | 54 720 445  | 42 088 110  | 42 000 000  |
| Coal                         |   |             |             |             |             |             |
| Anthracite                   | tonnes                                    | 3 888 838   | 3 775 504   | 3 485 083   | 3 152 550   | 4 060 194   |
| Bituminous                   | tonnes                                    | 4 664 589   | 4 572 350   | 4 387 416   | 4 085 652   | 2 891 839   |
| Sub-bituminous               | tonnes                                    | 3 354 014   | 3 221 083   | 3 128 081   | 2 890 230   | 2 453 963   |
| Lignite                      | tonnes                                    | 7 587 113   | 6 859 641   | 6 112 946   | —           | —           |
| Copper, mine                 | tonnes (metal content)                    | 7 358       | 8 700       | 6 281       | 7 071       | 17 663      |
| Copper, smelter              | tonnes                                    | 284 215     | 263 662     | 257 348     | 259 897     | 264 971     |
| Copper, refined              | tonnes                                    | 313 105     | 299 146     | 308 372     | 319 050     | 329 356     |
| Diatomite (b)                | tonnes                                    | 39 101      | 52 123      | 45 480      | 46 192      | * 45 000    |
| Feldspar                     | tonnes                                    | 650 061     | 696 912     | 683 134     | 690 256     | * 550 000   |
| Fluorspar                    | tonnes                                    | 144 126     | 144 845     | 155 197     | 148 736     | 122 408     |
| Gold, mine                   | kilograms (metal content)                 | 2 145       | 1 565       | —           | —           | —           |
| Gypsum                       | tonnes                                    | 14 453 053  | 14 596 559  | 14 535 422  | 11 955 753  | * 9 000 000 |
| Iron ore                     | tonnes                                    | —           | —           | —           | —           | —           |
| Pig iron                     | tonnes                                    | 4 160 000   | 3 432 000   | 3 976 000   | 3 995 000   | 2 920 000   |
| Crude steel                  | tonnes                                    | 17 825 000  | 18 391 000  | 18 998 000  | 18 640 000  | 14 357 000  |
| Ferro-alloys                 |   |             |             |             |             |             |
| Ferro-manganese              | tonnes                                    | * 35 000    | * 35 000    | * 35 000    | * 35 000    | * 35 000    |
| Ferro-silico-manganese       | tonnes                                    | * 100 000   | * 100 000   | * 100 000   | * 100 000   | * 100 000   |
| Ferro-silicon                | tonnes                                    | * 60 000    | * 60 000    | * 60 000    | * 60 000    | * 60 000    |
| Silicon metal                | tonnes                                    | * 25 000    | * 25 000    | * 25 000    | * 25 000    | * 25 000    |
| Kaolin (c)                   | tonnes                                    | 463 398     | 476 327     | 489 428     | 355 739     | 337 900     |
| Lead, refined                | tonnes                                    | 110 000     | 129 000     | 128 000     | 125 000     | 130 000     |
| Lithium minerals             |   |             |             |             |             |             |
| Lepidolite                   | tonnes                                    | 6 751       | 8 339       | 10 326      | 9 342       | * 7 000     |
| Magnesite                    | tonnes                                    | 556 129     | 520 646     | 463 850     | * 440 700   | * 434 000   |
| Mica (d)                     | tonnes                                    | 4 043       | 4 496       | 5 569       | 4 254       | * 4 000     |
| Nickel, mine                 | tonnes (metal content)                    | 5 380       | 6 398       | 6 630       | 8 136       | 8 029       |
| Crude petroleum              | tonnes                                    | 166 014     | 143 432     | 142 879     | 127 542     | 106 817     |
| Natural gas                  | million m <sup>3</sup>                    | 174         | 118         | 42          | 46          | 20          |
| Potash                       |   |             |             |             |             |             |
| Chloride                     | tonnes ( $\text{K}_2\text{O}$ content)    | 494 594     | 493 189     | 531 739     | 472 952     | 481 455     |
| Salt                         |   |             |             |             |             |             |
| Rock salt                    | tonnes                                    | 2 909 526   | 2 809 046   | 2 709 545   | 2 909 907   | 2 254 543   |
| Sea salt                     | tonnes                                    | 1 368 960   | 1 506 343   | 1 332 360   | 1 290 672   | 1 207 544   |
| Other salt                   | tonnes                                    | 121 461     | 115 826     | 102 524     | 102 149     | 91 793      |
| Silver, mine                 | kilograms (metal content)                 | 5 227       | 2 369       | —           | —           | —           |
| Strontium minerals           | tonnes                                    | 336 630     | 280 195     | 142 512     | 138 590     | 57 466      |
| Sulphur and pyrites          |   |             |             |             |             |             |
| Recovered (e)                | tonnes (sulphur content)                  | 541 000     | 547 000     | 543 000     | 551 000     | 533 000     |
| Recovered (f)                | tonnes (sulphur content)                  | * 115 000   | * 100 000   | * 100 000   | * 100 000   | * 100 000   |
| Talc                         | tonnes                                    | 90 589      | 83 502      | 78 042      | 59 299      | 47 218      |
| Pyrophyllite                 | tonnes                                    | 700         | —           | —           | —           | —           |
| Tungsten, mine               | tonnes (metal content)                    | —           | —           | —           | 194         | 284         |

## Spain

### Production continued

| Commodity    | Units                  | 2005     | 2006     | 2007    | 2008    | 2009    |
|--------------|------------------------|----------|----------|---------|---------|---------|
| Wollastonite | tonnes                 | * 30 000 | * 30 000 | 10 918  | 10 100  | 7 000   |
| Zinc, mine   | tonnes (metal content) | —        | —        | —       | —       | 1 200   |
| Slab Zinc    | tonnes                 | 501 400  | 507 300  | 509 000 | 466 000 | 515 000 |

### Note(s)

(1) Spain is believed to produce arsenic

- (a) Sales
- (b) Including Tripoli
- (c) Washed
- (d) Including mica recovered from mica schists and/or kaolin beneficiation
- (e) From metal sulphide processing
- (f) From petroleum refining and/or Natural gas

## Exports

| Commodity                    | Units     | 2005       | 2006        | 2007       | 2008       | 2009       |
|------------------------------|-----------|------------|-------------|------------|------------|------------|
| Primary aggregates           | tonnes    | 1 546 315  | 2 489 305   | 2 042 075  | 1 478 362  | 1 060 445  |
| Aluminium and bauxite        |           |            |             |            |            |            |
| Bauxite                      | tonnes    | 3 821      | 3 647       | 6 057      | 5 623      | 4 951      |
| Alumina                      | tonnes    | 561 125    | 511 992     | 539 739    | 671 009    | 612 933    |
| Alumina hydrate              | tonnes    | 264 829    | 258 854     | 199 679    | 236 855    | 163 303    |
| Unwrought                    | tonnes    | 3 002      | 8 245       | 15 999     | 39 359     | 19 816     |
| Unwrought alloys             | tonnes    | 111 992    | 128 262     | 125 008    | 123 577    | 230 539    |
| Scrap                        | tonnes    | 36 688     | 41 923      | 34 520     | 109 493    | 46 307     |
| Antimony                     |           |            |             |            |            |            |
| Metal                        | tonnes    | 13         | 21          | 17         | 143        | 62         |
| Oxide                        | tonnes    | 859        | 2 031       | 246        | 1 023      | 894        |
| Barytes                      | tonnes    | 27 389     | 27 743      | 31 693     | 33 676     | 29 776     |
| Bentonite and fuller's earth |           |            |             |            |            |            |
| Bentonite                    | tonnes    | 75 450     | 73 767      | 72 278     | 75 287     | 1 021 034  |
| Sepiolite                    | tonnes    | 507 103    | 465 599     | 474 788    | 460 485    | 418 644    |
| Fuller's earth               | tonnes    | 9 828      | 7 896       | ...        | ...        | ...        |
| Bismuth                      |           |            |             |            |            |            |
| Metal                        | tonnes    | 9          | 118         | 32         | 19         | 14         |
| Bromine                      | kilograms | 1 000      | 192 339     | 418 531    | 2 000      | 2 578      |
| Cement                       |           |            |             |            |            |            |
| Cement clinkers              | tonnes    | 13 259     | 28 809      | 37 343     | 907 694    | 1 181 783  |
| Portland cement              | tonnes    | 1 713 572  | 1 386 652   | 1 358 857  | 1 474 428  | 1 411 588  |
| Other cement                 | tonnes    | 51 340     | 43 262      | 46 348     | 63 825     | 74 007     |
| Chromium                     |           |            |             |            |            |            |
| Ores and concentrates        | tonnes    | 1 314      | 1 908       | 1 529      | 1 073      | 1 022      |
| Metal                        | tonnes    | 709        | 990         | 779        | 1 165      | 516        |
| Coal                         |           |            |             |            |            |            |
| Anthracite                   | tonnes    | 49 563     | 74 826      | 101 968    | 186 293    | 123 114    |
| Other coal                   | tonnes    | 8 208      | 135 401     | 872 269    | 1 636 071  | 1 252 923  |
| Briquettes                   | tonnes    | 1          | 53          | ...        | 21 735     | 193        |
| Cobalt                       |           |            |             |            |            |            |
| Oxides                       | tonnes    | 59         | 30          | 56         | 7          | 33         |
| Copper                       |           |            |             |            |            |            |
| Ores and concentrates        | tonnes    | 14 434     | 5 835       | 905        | 463        | 110 724    |
| Unwrought, unrefined         | tonnes    | 62 269     | 45 906      | 37 210     | 41 676     | 38 761     |
| Unwrought, refined           | tonnes    | 44 365     | 38 205      | 48 288     | 85 899     | 108 716    |
| Unwrought alloys             | tonnes    | 9 810      | 10 590      | 12 679     | 12 139     | 12 150     |
| Scrap                        | tonnes    | 99 600     | 84 570      | 88 429     | 83 820     | 100 498    |
| Diamond                      |           |            |             |            |            |            |
| Unsorted                     | carats    | £673 000   | £531 000    | £346 000   | £503 000   | £266 000   |
| Gem, cut                     | carats    | £5 275 000 | £61 119 000 | £8 478 000 | £6 631 000 | £5 328 000 |
| Industrial                   | carats    | £325 000   | £331 000    | £208 000   | £498 000   | £171 000   |
| Dust                         | carats    | 1 607 384  | 210 000     | 254 600    | 630 000    | 180 000    |
| Diatomite                    | tonnes    | 6 694      | 6 118       | 6 399      | 5 306      | 4 678      |
| Feldspar                     | tonnes    | 66 427     | 77 348      | 74 461     | 79 120     | 56 161     |
| Fluorspar                    | tonnes    | 4 434      | 10 518      | 29 117     | 13 109     | 35 366     |

## Exports continued

| Commodity                                | Units     | 2005      | 2006      | 2007      | 2008      | 2009      |
|--|-----------|-----------|-----------|-----------|-----------|-----------|
| Gold                                     |           |           |           |           |           |           |
| Metal                                    | kilograms | 3 520     | 3 679     | 23 667    | 6 966     | 31 466    |
| Waste and scrap                          | kilograms | 38        | 2 636     | 92        | 1 147     | 131 376   |
| Graphite                                 | tonnes    | 11 972    | 6 356     | 8 728     | 10 499    | 8 160     |
| Gypsum                                   |           |           |           |           |           |           |
| Crude                                    | tonnes    | 3 228 806 | 3 568 327 | 3 335 273 | 3 458 773 | 2 187 816 |
| Calcined                                 | tonnes    | 391 274   | 306 791   | 274 781   | 228 060   | 182 982   |
| Iodine                                   | kilograms | 21 089    | 7 356     | 7 689     | 46 873    | 15 376    |
| Iron ore (a)                             | tonnes    | 231 059   | 120 787   | 75 567    | 62 147    | 17 348    |
| Iron, steel and ferro-alloys             |           |           |           |           |           |           |
| Pig iron                                 | tonnes    | 12 709    | 4 202     | 12 491    | 9 747     | 4 772     |
| Sponge and powder                        | tonnes    | 4 397     | 4 030     | 6 404     | 4 763     | 2 566     |
| Ferro-chrome                             | tonnes    | 775       | 1 024     | 2 461     | 4 768     | 367       |
| Ferro-manganese                          | tonnes    | 101 850   | 91 018    | 71 345    | 65 330    | 29 403    |
| Ferro-silico-manganese                   | tonnes    | 42 916    | 32 806    | 33 636    | 34 307    | 25 859    |
| Ferro-molybdenum                         | tonnes    | 331       | 317       | 70        | 45        | 242       |
| Ferro-silicon                            | tonnes    | 11 843    | 7 759     | 18 323    | 9 562     | 5 939     |
| Other ferro-alloys                       | tonnes    | 992       | 493       | 1 170     | 1 285     | 1 178     |
| Silicon metal                            | tonnes    | 16 742    | 16 566    | 16 175    | 16 008    | 5 571     |
| Ingots, blooms, billets                  | tonnes    | 118 414   | 114 897   | 91 085    | 310 671   | 261 758   |
| Scrap                                    | tonnes    | 140 200   | 137 273   | 162 371   | 214 913   | 302 465   |
| Kaolin                                   | tonnes    | 192 735   | 213 955   | 199 541   | 155 563   | 156 915   |
| Lead                                     |           |           |           |           |           |           |
| Ores and concentrates                    | tonnes    | 2         | 29        | 130       | 1 015     | 14 147    |
| Unwrought                                | tonnes    | 9 805     | 7 830     | 9 242     | 14 771    | 13 434    |
| Scrap                                    | tonnes    | 9 128     | 6 460     | 7 023     | 6 616     | 3 862     |
| Lithium                                  |           |           |           |           |           |           |
| Carbonate                                | tonnes    | 1 123     | 554       | 192       | 128       | 228       |
| Magnesite and magnesia                   |           |           |           |           |           |           |
| Magnesite                                | tonnes    | 901       | 19 635    | 607       | 725       | 2 167     |
| Magnesia                                 | tonnes    | 189 005   | 179 046   | 185 364   | 175 307   | 156 027   |
| Manganese                                |           |           |           |           |           |           |
| Ores and concentrates                    | tonnes    | 776       | 1 336     | 1 299     | 518       | 21 456    |
| Metal                                    | tonnes    | 6 651     | 5 827     | 5 783     | 4 562     | 3 386     |
| Mercury                                  | kilograms | 581 653   | 463 954   | 779 110   | 639 203   | 376 885   |
| Mica                                     |           |           |           |           |           |           |
| Unmanufactured                           | tonnes    | 2 771     | 3 994     | 2 473     | 1 259     | 563       |
| Ground                                   | tonnes    | 312       | 462       | 1 089     | 1 368     | 1 521     |
| Nickel                                   |           |           |           |           |           |           |
| Ores and concentrates                    | tonnes    | 85 203    | 95 377    | 65 853    | 127 812   | 102 105   |
| Unwrought (b)                            | tonnes    | 572       | 795       | 767       | 600       | 573       |
| Scrap                                    | tonnes    | 528       | 910       | 227       | 226       | 875       |
| Crude petroleum (c)                      | tonnes    | * 28 000  | * 53 000  | * 2 000   | * 24 000  | * 400     |
| Natural gas                              | tonnes    | 778 037   | 1 546     | 31 159    | —         | 61 433    |
| Phosphate rock                           | tonnes    | 42        | 7 259     | 7 840     | 4 754     | 1 565     |
| Platinum metals                          |           |           |           |           |           |           |
| Platinum and platinum metals             | kilograms | 152       | 363       | 434       | 3 104     | 1 672     |
| Waste and scrap                          | kilograms | 2 892     | 290       | 44        | 88 069    | 225 411   |
| Potash                                   |           |           |           |           |           |           |
| Sulphate                                 | tonnes    | 2 832     | 1 245     | 1 795     | 1 251     | 2 540     |
| Chloride                                 | tonnes    | 514 042   | 201 242   | 163 891   | 360 538   | 319 549   |
| Other potassic fertilisers               | tonnes    | 483       | 257       | 998       | 1 895     | 1 352     |
| Rare earths                              |           |           |           |           |           |           |
| Cerium compounds                         | tonnes    | 17        | 45        | 63        | 8         | 13        |
| Other rare earth compounds               | tonnes    | 20        | 18        | 2         | 17        | 5         |
| Ferro-cerium and other pyrophoric alloys | tonnes    | 3         | 1         | ...       | ...       | ...       |
| Salt                                     | tonnes    | 750 180   | 743 390   | 463 791   | 646 288   | 862 994   |
| Silver                                   |           |           |           |           |           |           |
| Ores and concentrates                    | kilograms | ...       | ...       | 1 608     | —         | 30        |
| Metal                                    | kilograms | 11 665    | 7 915     | 13 637    | 379 675   | 233 084   |
| Sulphur and pyrites                      |           |           |           |           |           |           |
| Sulphur                                  | tonnes    | 45 690    | 76 771    | 77 220    | 116 213   | 198 585   |
| Talc                                     | tonnes    | 56 493    | 47 142    | 39 689    | 51 180    | 29 580    |
| Tin                                      |           |           |           |           |           |           |
| Unwrought (b)                            | tonnes    | 139       | 120       | 98        | 433       | 427       |
| Scrap                                    | tonnes    | 435       | 408       | 460       | 447       | 2 038     |

Spain

Exports continued

| Commodity             | Units  | 2005    | 2006    | 2007    | 2008    | 2009    |
|-----------------------|--------|---------|---------|---------|---------|---------|
| Titanium              |        |         |         |         |         |         |
| Titanium minerals     | tonnes | 170     | 185     | 232     | 155     | 25 892  |
| Metal                 | tonnes | 903     | 2 005   | 1 431   | 947     | 1 018   |
| Oxides                | tonnes | 83 905  | 85 307  | 91 583  | 58 342  | 33 721  |
| Tungsten              |        |         |         |         |         |         |
| Ores and concentrates | tonnes | —       | —       | 0       | 286     | 457     |
| Metal                 | tonnes | 77      | 59      | 177     | 223     | 156     |
| Zinc                  |        |         |         |         |         |         |
| Ores and concentrates | tonnes | 67 420  | 31 416  | 98 359  | 121 688 | 40 118  |
| Unwrought             | tonnes | 333 966 | 270 233 | 220 002 | 191 897 | 216 633 |
| Unwrought alloys      | tonnes | 32 673  | 87 073  | 66 155  | 92 781  | 62 544  |
| Scrap                 | tonnes | 11 981  | 7 946   | 5 295   | 6 210   | 8 865   |
| Zirconium             |        |         |         |         |         |         |
| Concentrates          | tonnes | 9 805   | 9 811   | 11 803  | 14 151  | 13 581  |
| Metal                 | tonnes | 820     | 110     | 200     | 525     | 746     |

Note(s)

(a) Including burnt pyrites

(b) Including alloys

(c) BGS estimates, based on known imports into certain countries

## Imports

| Commodity                    | Units     | 2005       | 2006       | 2007       | 2008       | 2009       |
|------------------------------|-----------|------------|------------|------------|------------|------------|
| Primary aggregates           | tonnes    | 1 305 835  | 762 652    | 1 396 928  | 1 035 555  | 889 156    |
| Aluminium and bauxite        |           |            |            |            |            |            |
| Bauxite                      | tonnes    | 3 224 101  | 3 007 043  | 3 547 201  | 3 618 306  | 3 509 294  |
| Alumina                      | tonnes    | 58 627     | 56 961     | 53 579     | 50 417     | 22 239     |
| Alumina hydrate              | tonnes    | 43 246     | 49 725     | 49 451     | 41 614     | 30 522     |
| Unwrought                    | tonnes    | 110 257    | 95 436     | 122 303    | 82 512     | 95 461     |
| Unwrought alloys             | tonnes    | 223 627    | 303 607    | 328 314    | 281 270    | 162 026    |
| Scrap                        | tonnes    | 99 459     | 103 839    | 123 074    | 110 745    | 63 517     |
| Antimony                     |           |            |            |            |            |            |
| Ores and concentrates        | tonnes    | 108        | 175        | 164        | 154        | 55         |
| Metal                        | tonnes    | 1 881      | 1 596      | 1 676      | 1 987      | 1 478      |
| Oxide                        | tonnes    | 808        | 984        | 1 146      | 899        | 493        |
| Arsenic                      |           |            |            |            |            |            |
| Metallic arsenic             | tonnes    | 112        | 143        | 116        | 192        | 48         |
| Asbestos                     |           |            |            |            |            |            |
| Unmanufactured               | tonnes    | 23         | 20         | 50         | 21         | —          |
| Barytes                      | tonnes    | 47 923     | 50 743     | 65 569     | 71 025     | 30 503     |
| Bentonite and fuller's earth |           |            |            |            |            |            |
| Bentonite                    | tonnes    | 83 784     | 82 645     | 104 057    | 103 602    | 72 993     |
| Fuller's earth               | tonnes    | 238        | 159        | ...        | ...        | ...        |
| Bismuth                      |           |            |            |            |            |            |
| Metal                        | tonnes    | 179        | 297        | 190        | 212        | 52         |
| Bromine                      | kilograms | 53 000     | 82 351     | 77 578     | 169 159    | 75 099     |
| Cadmium                      |           |            |            |            |            |            |
| Metal                        | tonnes    | 2          | 19         | 0          | 21         | 118        |
| Oxide                        | tonnes    | 53         | 17         | 22         | 25         | 3          |
| Cement                       |           |            |            |            |            |            |
| Cement clinkers              | tonnes    | 7 852 531  | 9 108 499  | 10 894 888 | 5 496 563  | 2 079 944  |
| Portland cement              | tonnes    | 2 845 856  | 2 771 668  | 2 929 208  | 1 729 088  | 694 757    |
| Other cement                 | tonnes    | 20 031     | 40 164     | 74 401     | 58 007     | 73 362     |
| Chromium                     |           |            |            |            |            |            |
| Ores and concentrates        | tonnes    | 10 262     | 5 906      | 6 437      | 6 721      | 4 031      |
| Metal                        | tonnes    | 1 206      | 1 552      | 1 393      | 1 219      | 1 192      |
| Coal                         |           |            |            |            |            |            |
| Anthracite                   | tonnes    | 2 534 019  | 2 508 261  | 1 019 341  | 957 293    | 767 027    |
| Other coal                   | tonnes    | 22 222 316 | 21 196 872 | 23 420 766 | 20 010 533 | 15 967 793 |
| Cobalt                       |           |            |            |            |            |            |
| Metal                        | tonnes    | 158        | 180        | 121        | 131        | 135        |
| Oxides                       | tonnes    | 1 352      | 1 254      | 1 187      | 1 038      | 3 294      |

## Imports continued

| Commodity                                | Units     | 2005        | 2006        | 2007        | 2008        | 2009        |
|--|-----------|-------------|-------------|-------------|-------------|-------------|
| Copper                                   |           |             |             |             |             |             |
| Ores and concentrates                    | tonnes    | 1 040 099   | 1 100 338   | 1 001 284   | 1 122 093   | 1 184 321   |
| Unwrought, unrefined                     | tonnes    | 312         | 2 631       | 1 032       | 3 733       | 3 133       |
| Unwrought, refined                       | tonnes    | 69 039      | 62 982      | 56 237      | 79 125      | 80 898      |
| Unwrought alloys                         | tonnes    | 4 458       | 5 898       | 5 417       | 4 352       | 3 473       |
| Scrap                                    | tonnes    | 84 824      | 89 252      | 56 754      | 65 765      | 68 166      |
| Diamond                                  |           |             |             |             |             |             |
| Unsorted                                 | carats    | £6 908 000  | £4 616 000  | £3 667 000  | £1 959 000  | £1 591 000  |
| Gem, cut                                 | carats    | £37 408 000 | £47 084 000 | £57 921 000 | £40 012 000 | £30 290 000 |
| Industrial                               | carats    | £1 421 000  | £2 701 000  | £1 396 000  | £1 485 000  | £917 000    |
| Dust                                     | carats    | 8 490 229   | 7 000 000   | 67 062 395  | 42 938 192  | 30 861 760  |
| Diatomite                                | tonnes    | 5 186       | 7 281       | 9 447       | 8 861       | 9 600       |
| Feldspar                                 | tonnes    | 1 231 861   | 1 422 514   | 1 407 350   | 1 410 760   | 664 830     |
| Fluorspar                                | tonnes    | 10 859      | 28 908      | 29 560      | 32 016      | 17 148      |
| Gold                                     |           |             |             |             |             |             |
| Metal                                    | kilograms | 20 594      | 15 072      | 6 641       | * 72 000    | 68 562      |
| Waste and scrap                          | kilograms | 139         | 233         | 2 352       | 252         | 109         |
| Graphite                                 | tonnes    | 8 334       | 10 143      | 15 582      | 24 284      | 15 669      |
| Gypsum                                   |           |             |             |             |             |             |
| Crude                                    | tonnes    | 47 585      | 59 656      | 53 028      | 43 171      | 25 963      |
| Calcined                                 | tonnes    | 32 078      | 20 440      | 14 129      | 33 825      | 7 349       |
| Iodine                                   | kilograms | 781 787     | 790 641     | 582 029     | 541 706     | 512 821     |
| Iron ore (a)                             | tonnes    | 6 248 771   | 5 836 809   | 6 117 047   | 6 479 890   | 4 237 845   |
| Iron, steel and ferro-alloys             |           |             |             |             |             |             |
| Pig iron                                 | tonnes    | 806 327     | 793 050     | 652 786     | 688 421     | 380 731     |
| Sponge and powder                        | tonnes    | 516 423     | 641 804     | 611 893     | 621 627     | 295 665     |
| Ferro-chrome                             | tonnes    | 200 543     | 253 172     | 1 123 216   | 203 518     | 113 275     |
| Ferro-silico-magnesium                   | tonnes    | 5 256       | 2 891       | 7 289       | 9 890       | 5 818       |
| Ferro-manganese                          | tonnes    | 16 489      | 14 406      | 24 599      | 17 126      | 13 357      |
| Ferro-silico-manganese                   | tonnes    | 66 531      | 42 326      | 48 205      | 74 962      | 50 683      |
| Ferro-molybdenum                         | tonnes    | 6 327       | 10 473      | 5 863       | 3 777       | 3 756       |
| Ferro-nickel                             | tonnes    | 59 113      | 92 147      | 75 625      | 68 355      | 43 936      |
| Ferro-niobium                            | tonnes    | 906         | 515         | 8 283       | 685         | 553         |
| Ferro-phosphorus                         | tonnes    | 2 036       | 1 771       | 2 554       | 1 488       | 193         |
| Ferro-silicon                            | tonnes    | 39 623      | 52 215      | 71 487      | 46 445      | 27 140      |
| Ferro-titanium and ferro-silico-titanium | tonnes    | 1 880       | 796         | 1 276       | 1 006       | 611         |
| Ferro-vanadium                           | tonnes    | 824         | 515         | 1 189       | 1 122       | 809         |
| Other ferro-alloys                       | tonnes    | 6 546       | 4 586       | 82          | 4 378       | 360         |
| Silicon metal                            | tonnes    | 4 160       | 2 837       | 3 640       | 8 856       | 9 523       |
| Ingots, blooms, billets                  | tonnes    | 1 219 342   | 1 601 769   | 1 733 247   | 1 587 605   | 1 007 820   |
| Scrap                                    | tonnes    | 6 975 101   | 7 437 224   | 6 316 516   | 7 408 237   | 4 674 099   |
| Kaolin                                   | tonnes    | 1 366 226   | 1 506 142   | 1 571 143   | 1 470 440   | 757 859     |
| Lead                                     |           |             |             |             |             |             |
| Ores and concentrates                    | tonnes    | 1 526       | 2 299       | 8 188       | 7 107       | 3 199       |
| Unwrought                                | tonnes    | 174 618     | 147 423     | 157 485     | 116 492     | 121 522     |
| Scrap                                    | tonnes    | 30 499      | 30 625      | 42 629      | 35 506      | 35 703      |
| Lithium                                  |           |             |             |             |             |             |
| Oxides                                   | tonnes    | 480         | 573         | 600         | 501         | 521         |
| Carbonate                                | tonnes    | 1 553       | 828         | 1 811       | 3 908       | 2 825       |
| Magnesite and magnesia                   |           |             |             |             |             |             |
| Magnesite                                | tonnes    | 2 348       | 3 937       | 4 092       | 2 839       | 10 029      |
| Magnesia                                 | tonnes    | 103 747     | 88 898      | 117 867     | 143 849     | 42 980      |
| Manganese                                |           |             |             |             |             |             |
| Ores and concentrates                    | tonnes    | 415 959     | 393 476     | 349 131     | 640 677     | 54 606      |
| Metal                                    | tonnes    | 10 537      | 9 165       | 9 563       | 10 033      | 3 994       |
| Mercury                                  | kilograms | 572 872     | 628 737     | 906 297     | 337 117     | 467 614     |
| Mica                                     | tonnes    | 1 917       | 1 484       | 1 871       | 952         | 1 467       |
| Molybdenum                               |           |             |             |             |             |             |
| Ores and concentrates                    | tonnes    | 3 317       | 4 584       | 4 622       | 3 787       | 1 724       |
| Metal                                    | tonnes    | 31          | 163         | 113         | 189         | 236         |
| Nickel                                   |           |             |             |             |             |             |
| Unwrought                                | tonnes    | 27 452      | 28 171      | 21 202      | 22 668      | 12 290      |
| Unwrought alloys                         | tonnes    | 1 188       | 1 174       | 1 426       | 1 547       | 821         |
| Oxides                                   | tonnes    | 176         | 127         | 94          | 151         | 50          |
| Crude petroleum                          | tonnes    | 59 510 408  | 59 203 359  | 57 773 847  | 59 444 410  | 52 331 324  |
| Natural gas                              | tonnes    | 24 439 892  | 26 548 202  | 27 048 984  | 32 044 466  | 28 024 572  |

## Spain

## Imports continued

| Commodity                                | Units     | 2005      | 2006      | 2007      | 2008      | 2009    |
|--|-----------|-----------|-----------|-----------|-----------|---------|
| Phosphate rock                           | tonnes    | 1 768 425 | 1 556 734 | 1 653 874 | 1 611 494 | 438 755 |
| Platinum metals                          |           |           |           |           |           |         |
| Platinum and platinum metals (b)         | kilograms | * 6 000   | * 5 600   | * 4 500   | * 3 900   | * 3 000 |
| Waste and scrap                          | kilograms | 122       | 526       | 4 111     | 8 947     | 29 448  |
| Potash                                   |           |           |           |           |           |         |
| Sulphate                                 | tonnes    | 47 561    | 10 412    | 5 547     | 40 911    | 21 022  |
| Chloride                                 | tonnes    | 243 017   | 224 320   | 199 403   | 194 656   | 71 444  |
| Other potassic fertilisers               | tonnes    | 4 667     | 86        | 25        | 3 548     | 3 721   |
| Rare earths                              |           |           |           |           |           |         |
| Metals                                   | tonnes    | 20        | 84        | 95        | 274       | 108     |
| Cerium compounds                         | tonnes    | 476       | 572       | 580       | 444       | 443     |
| Other rare earth compounds               | tonnes    | 353       | 260       | 255       | 270       | 140     |
| Ferro-cerium and other pyrophoric alloys | tonnes    | 8         | 29        | 40        | 15        | 19      |
| Salt                                     | tonnes    | 111 449   | 37 632    | 33 691    | 97 348    | 81 729  |
| Sillimanite minerals                     | tonnes    | 27 308    | 22 102    | 27 792    | 34 909    | 21 648  |
| Silver                                   |           |           |           |           |           |         |
| Ores and concentrates                    | kilograms | 59 653    | 56 421    | 58 344    | 75 633    | 66 088  |
| Metal                                    | kilograms | 106 596   | 134 673   | 126 668   | 1 547 747 | 754 262 |
| Sulphur and pyrites                      |           |           |           |           |           |         |
| Pyrites                                  | tonnes    | 1 542     | 1 478     | 2 585     | 1 903     | 958     |
| Sulphur                                  | tonnes    | 188 096   | 133 552   | 152 566   | 153 575   | 24 015  |
| Sulphur, sublimed and precipitated       | tonnes    | 243       | 296       | 265       | 372       | 187     |
| Talc                                     | tonnes    | 80 726    | 87 578    | 96 298    | 85 942    | 81 043  |
| Tantalum and niobium                     |           |           |           |           |           |         |
| Tantalum                                 | tonnes    | 62        | 10        | 112       | —         | 3       |
| Tin                                      |           |           |           |           |           |         |
| Unwrought                                | tonnes    | 7 109     | 7 716     | 7 093     | 7 313     | 5 457   |
| Unwrought alloys                         | tonnes    | 170       | 220       | 167       | 261       | 243     |
| Scrap                                    | tonnes    | 1 919     | 1 576     | 185       | 376       | 441     |
| Titanium                                 |           |           |           |           |           |         |
| Ilmenite                                 | tonnes    | 121 204   | 159 090   | 121 898   | 119 467   | 26 512  |
| Other titanium minerals                  | tonnes    | 1 746     | 1 807     | 22 037    | 9 133     | 522     |
| Titanium slag                            | tonnes    | 57        | 8         | 2 164     | 10 004    | ...     |
| Metal                                    | tonnes    | 3 862     | 5 782     | 3 450     | 3 131     | 1 735   |
| Oxides                                   | tonnes    | 117 203   | 112 778   | 123 132   | 138 275   | 93 267  |
| Tungsten                                 |           |           |           |           |           |         |
| Metal                                    | tonnes    | 134       | 556       | 914       | 731       | 681     |
| Vanadium                                 |           |           |           |           |           |         |
| Ores and concentrates                    | tonnes    | 9         | 20        | 50        | 80        | 22      |
| Pentoxide                                | tonnes    | 62        | 71        | 45        | 43        | 50      |
| Zinc                                     |           |           |           |           |           |         |
| Ores and concentrates                    | tonnes    | 1 090 022 | 1 188 067 | 1 257 304 | 1 114 634 | 909 078 |
| Unwrought                                | tonnes    | 8 203     | 7 577     | 21 634    | 26 779    | 16 091  |
| Unwrought alloys                         | tonnes    | 17 858    | 18 933    | 17 411    | 15 000    | 9 230   |
| Scrap                                    | tonnes    | 3 927     | 4 996     | 6 601     | 7 396     | 3 127   |
| Zirconium                                |           |           |           |           |           |         |
| Concentrates                             | tonnes    | 153 619   | 149 710   | 138 442   | 152 604   | 95 103  |
| Metal                                    | tonnes    | 56        | 55        | 65        | 136       | 83      |

## Note(s)

(a) Including burnt pyrites

(b) BGS estimates, based on known exports from certain countries

## Sweden

### Production

| Commodity           | Units                     | 2005       | 2006       | 2007       | 2008        | 2009        |
|---------------------|---------------------------|------------|------------|------------|-------------|-------------|
| Primary aggregates  |                           |            |            |            |             |             |
| Sand and gravel     | tonnes                    | 21 755 752 | 21 488 963 | 20 036 785 | 18 804 343  | 14 400 000  |
| Crushed rock        | tonnes                    | 62 313 089 | 70 517 845 | 64 047 058 | 66 757 671  | 57 500 000  |
| Primary aluminium   | tonnes                    | 102 107    | 101 668    | 99 842     | 81 913      | 69 708      |
| Cement              |                           |            |            |            |             |             |
| Cement clinker      | tonnes                    | 2 457 245  | 2 660 045  | 1 712 626  | 1 881 054   | * 1 900 000 |
| Cement, finished    | tonnes                    | 2 731 000  | 2 952 000  | 2 950 000  | * 2 950 000 | * 2 900 000 |
| Copper, mine        | tonnes (metal content)    | 87 068     | 86 746     | 62 905     | 57 688      | 55 414      |
| Copper, smelter     | tonnes                    | 168 763    | 129 951    | 148 835    | 136 409     | 125 398     |
| Copper, refined     | tonnes                    | 223 482    | 229 241    | 213 894    | 227 774     | 205 759     |
| Feldspar            | tonnes                    | 30 000     | 24 000     | 25 000     | 22 000      | 18 000      |
| Gold, mine          | kilograms (metal content) | 6 564      | 6 848      | 5 159      | 4 953       | 5 542       |
| Iron ore            | tonnes                    | 23 255 000 | 23 302 000 | 24 714 000 | 23 888 000  | 17 677 000  |
| Pig iron            | tonnes                    | 3 844 000  | 3 701 000  | 3 947 000  | 3 708 000   | 1 966 000   |
| Crude steel         | tonnes                    | 5 725 600  | 5 466 100  | 5 672 900  | 5 197 600   | 2 803 700   |
| Ferro-alloys        |                           |            |            |            |             |             |
| Ferro-chrome        | tonnes                    | 127 500    | 136 400    | 124 400    | 118 700     | * 50 000    |
| Ferro-silicon       | tonnes                    | 9 800      | 4 600      | 4 300      | —           | —           |
| Lead, mine          | tonnes (metal content)    | 60 445     | 55 644     | 63 224     | 63 489      | 69 293      |
| Lead, refined       | tonnes                    | 72 760     | 70 239     | 69 730     | 56 812      | 51 574      |
| Selenium metal      | tonnes                    | 122        | 135        | 126        | 139         | * 140       |
| Silver, mine        | kilograms (metal content) | 309 933    | 292 255    | 323 171    | 293 068     | 288 590     |
| Sulphur and pyrites |                           |            |            |            |             |             |
| Recovered (a)       | tonnes (sulphur content)  | 180 000    | 180 000    | 177 000    | 199 600     | 186 100     |
| Recovered (b)       | tonnes (sulphur content)  | 59 839     | 68 391     | 66 569     | 84 456      | 83 646      |
| Talc                | tonnes                    | 7 000      | 6 000      | 7 000      | 4 000       | 4 000       |
| Zinc, mine          | tonnes (metal content)    | 215 691    | 210 029    | 214 576    | 187 987     | 192 502     |

Note(s)

- (a) From metal sulphide processing
- (b) From petroleum refining and/or Natural gas

### Exports

| Commodity                    | Units  | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------------------------|--------|-----------|-----------|-----------|-----------|-----------|
| Primary aggregates           | tonnes | 2 447 200 | 2 333 174 | 2 307 614 | 3 049 601 | 1 867 320 |
| Aluminium and bauxite        |        |           |           |           |           |           |
| Alumina                      | tonnes | 14 133    | 14 481    | 14 278    | 13 919    | 14 464    |
| Unwrought                    | tonnes | 9 390     | 910       | 735       | 6 307     | 2 143     |
| Unwrought alloys             | tonnes | 88 311    | 112 575   | 89 591    | 89 190    | 145 554   |
| Scrap                        | tonnes | 69 166    | 67 879    | 107 946   | 106 581   | 89 940    |
| Antimony                     |        |           |           |           |           |           |
| Metal                        | tonnes | 5         | 2         | 1         | 15        | 489       |
| Bentonite and fuller's earth |        |           |           |           |           |           |
| Bentonite                    | tonnes | 7 419     | 9 539     | 12 240    | 11 640    | 5 588     |
| Cadmium                      |        |           |           |           |           |           |
| Oxide                        | tonnes | 140       | ...       | 322       | 448       | 305       |
| Cement                       |        |           |           |           |           |           |
| Portland cement              | tonnes | 1 295 834 | 1 208 231 | 845 235   | 723 793   | 482 223   |
| Other cement                 | tonnes | 2 555     | 12 144    | 15 237    | 14 082    | 7 166     |
| Chromium                     |        |           |           |           |           |           |
| Metal                        | tonnes | 55        | 105       | 102       | 225       | 100       |
| Cobalt                       |        |           |           |           |           |           |
| Metal                        | tonnes | 127       | 110       | 152       | 67        | 285       |
| Copper                       |        |           |           |           |           |           |
| Unwrought, refined           | tonnes | 99 824    | 86 726    | 65 926    | 70 047    | 77 739    |
| Unwrought alloys             | tonnes | 5 247     | 6 443     | 8 837     | 5 610     | 3 181     |
| Scrap                        | tonnes | 43 816    | 45 456    | 54 673    | 57 245    | 55 603    |
| Diatomite                    | tonnes | 4 423     | 568       | 3 497     | 749       | 693       |
| Feldspar                     | tonnes | 16 515    | 15 880    | 14 383    | 10 670    | 7 646     |

## Sweden

## Exports continued

| Commodity                                  | Units     | 2005       | 2006       | 2007       | 2008       | 2009       |
|--|-----------|------------|------------|------------|------------|------------|
| Fluorspar                                  | tonnes    | 8 206      | 7 450      | 7 764      | 11 538     | 6 745      |
| Gold                                       |           |            |            |            |            |            |
| Metal                                      | kilograms | 18 000     | 19 000     | 17 800     | 19 400     | 14 500     |
| Waste and scrap                            | kilograms | 1 000      | 32 000     | 65 700     | 29 400     | 60 900     |
| Graphite                                   | tonnes    | 195        | 230        | 273        | 252        | 159        |
| Gypsum                                     |           |            |            |            |            |            |
| Crude and calcined                         | tonnes    | 7 832      | 9 954      | 12 694     | 11 525     | 9 358      |
| Iodine                                     | kilograms | 4 000      | 40         | 48         | 122        | 300        |
| Iron ore                                   | tonnes    | 17 597 351 | 18 409 475 | 19 033 842 | 17 617 162 | 16 104 129 |
| Iron, steel and ferro-alloys               |           |            |            |            |            |            |
| Pig iron                                   | tonnes    | 99 496     | 145 733    | 152 911    | 62 588     | 141 261    |
| Sponge and powder                          | tonnes    | 9 064      | 15 238     | 26 666     | 19 844     | 6 558      |
| Ferro-chrome                               | tonnes    | 1 801      | 1 973      | 2 247      | 3 534      | 3 368      |
| Ferro-silico-magnesium                     | tonnes    | 60         | 739        | 1 260      | ...        | 50         |
| Ferro-manganese and ferro-silico-manganese | tonnes    | 3 456      | 2 584      | 3 859      | 3 620      | 2 423      |
| Ferro-molybdenum                           | tonnes    | 158        | 157        | 304        | 301        | 193        |
| Ferro-phosphorus                           | tonnes    | 294        | 706        | 1 128      | 1 370      | 364        |
| Ferro-silicon                              | tonnes    | 731        | 1 968      | 2 892      | 2 616      | 3 004      |
| Ferro-vanadium                             | tonnes    | 249        | 61         | 135        | 112        | 250        |
| Other ferro-alloys                         | tonnes    | 1 171      | 1 289      | 216        | 895        | 280        |
| Silicon metal                              | tonnes    | 6 049      | 2 321      | 1 474      | 2 458      | 968        |
| Ingots, blooms, billets                    | tonnes    | 232 958    | 116 880    | 134 568    | 102 086    | 58 631     |
| Scrap                                      | tonnes    | 863 474    | 847 179    | 1 069 335  | 1 449 311  | 1 439 126  |
| Kaolin                                     | tonnes    | 18 473     | 15 735     | 18 229     | 30 495     | 31 122     |
| Lead                                       |           |            |            |            |            |            |
| Ores and concentrates                      | tonnes    | 62 155     | 50 854     | 56 581     | 61 439     | 72 220     |
| Unwrought                                  | tonnes    | 70 042     | 76 777     | 65 733     | 53 715     | 46 795     |
| Scrap                                      | tonnes    | 307        | 703        | 734        | 816        | 1 044      |
| Magnesite and magnesia                     |           |            |            |            |            |            |
| Magnesia                                   | tonnes    | 1 421      | 2 277      | 1 593      | 235        | 380        |
| Nickel                                     |           |            |            |            |            |            |
| Unwrought (a)                              | tonnes    | 112        | 516        | 390        | 288        | 522        |
| Oxides                                     | tonnes    | 291        | 349        | 457        | 511        | 363        |
| Scrap                                      | tonnes    | 4 369      | 5 743      | 5 344      | 1 513      | 1 376      |
| Phosphate rock                             | tonnes    | 392        | 969        | 1 623      | 4 897      | 1 228      |
| Platinum metals                            |           |            |            |            |            |            |
| Platinum and platinum metals               | kilograms | £663 000   | £1 514 000 | £900 000   | £851 000   | £177 000   |
| Waste and scrap                            | kilograms | 25 000     | 280 000    | 242 500    | 575 300    | 40 400     |
| Potash                                     |           |            |            |            |            |            |
| Sulphate                                   | tonnes    | 54 841     | 10 191     | 84 414     | 53 883     | 59 252     |
| Salt                                       | tonnes    | 8 783      | 9 357      | 12 601     | 10 444     | 10 025     |
| Silver                                     |           |            |            |            |            |            |
| Ores and concentrates                      | kilograms | ...        | ...        | 59 400     | ...        | —          |
| Metal                                      | kilograms | 421 000    | 368 000    | 364 500    | 521 200    | 476 300    |
| Sulphur and pyrites                        |           |            |            |            |            |            |
| Sulphur                                    | tonnes    | 16 883     | 12 071     | 5 168      | 5 525      | 3 018      |
| Sulphur, sublimed and precipitated         | tonnes    | 239        | 5 719      | 10 959     | 13 128     | 12 242     |
| Talc                                       | tonnes    | 10 080     | 7 556      | 9 415      | 9 227      | 8 032      |
| Tin  |           |            |            |            |            |            |
| Unwrought (a)                              | tonnes    | 217        | 250        | 201        | 213        | 122        |
| Scrap                                      | tonnes    | 45         | 43         | 161        | 96         | 63         |
| Titanium                                   |           |            |            |            |            |            |
| Metal                                      | tonnes    | 1 955      | 1 461      | 2 667      | 1 002      | 717        |
| Oxides                                     | tonnes    | 14 306     | 20 409     | 17 047     | 19 992     | 15 921     |
| Tungsten                                   |           |            |            |            |            |            |
| Ores and concentrates                      | tonnes    | 62         | —          | 3 192      | 75         | 96         |
| Metal                                      | tonnes    | 414        | 296        | 234        | 328        | 431        |
| Carbide                                    | tonnes    | 37         | 491        | 446        | 436        | 253        |
| Zinc                                       |           |            |            |            |            |            |
| Ores and concentrates                      | tonnes    | 372 925    | 402 219    | 405 682    | 389 473    | 395 616    |
| Unwrought (a)                              | tonnes    | 165        | 1 143      | 103        | 538        | 302        |
| Scrap                                      | tonnes    | 16 134     | 29 015     | 2 777      | 2 898      | 1 840      |

Note(s)

(a) Including alloys

## Imports

| Commodity                    | Units     | 2005       | 2006        | 2007        | 2008        | 2009        |
|------------------------------|-----------|------------|-------------|-------------|-------------|-------------|
| Primary aggregates           | tonnes    | 810 385    | 1 135 048   | 1 068 840   | 864 988     | 355 022     |
| Aluminium and bauxite        |           |            |             |             |             |             |
| Bauxite                      | tonnes    | 3 171      | 2 846       | 30 099      | 18 761      | 10 755      |
| Alumina                      | tonnes    | 191 504    | 201 496     | 43 101      | 161 638     | 109 806     |
| Alumina hydrate              | tonnes    | 62 549     | 56 535      | 94 218      | 95 834      | 81 026      |
| Unwrought                    | tonnes    | 17 916     | 7 959       | 46 431      | 47 534      | 39 248      |
| Unwrought alloys             | tonnes    | 117 202    | 135 270     | 159 628     | 144 343     | 124 277     |
| Scrap                        | tonnes    | 24 309     | 32 198      | 36 838      | 40 125      | 30 093      |
| Antimony                     |           |            |             |             |             |             |
| Metal                        | tonnes    | 199        | 337         | 546         | 166         | 58          |
| Oxide                        | tonnes    | 377        | 296         | 319         | 293         | 203         |
| Arsenic                      |           |            |             |             |             |             |
| Metallic arsenic             | tonnes    | 6          | ...         | 12          | 6           | 6           |
| Barytes                      | tonnes    | 4 610      | 4 876       | 6 504       | 6 371       | 3 346       |
| Bentonite and fuller's earth |           |            |             |             |             |             |
| Bentonite                    | tonnes    | 48 564     | 125 491     | 184 313     | 178 308     | 120 079     |
| Bismuth                      |           |            |             |             |             |             |
| Metal                        | tonnes    | 11         | 8           | 5           | 12          | 6           |
| Bromine                      | kilograms | 13 000     | 9 000       | 2 800       | 31 700      | 3 100       |
| Cadmium                      |           |            |             |             |             |             |
| Metal                        | tonnes    | 282        | 388         | 491         | 851         | 588         |
| Oxide                        | tonnes    | 35         | ...         | 25          | 83          | 42          |
| Cement                       |           |            |             |             |             |             |
| Cement clinkers              | tonnes    | 14 601     | 13 238      | 29 344      | 37 009      | 10 434      |
| Portland cement              | tonnes    | 242 326    | 249 670     | 55 784      | 61 891      | 29 482      |
| Other cement                 | tonnes    | 34 597     | 41 176      | 52 359      | 50 333      | 37 308      |
| Chromium                     |           |            |             |             |             |             |
| Ores and concentrates        | tonnes    | 240 000    | 315 000     | 350 000     | 337 933     | —           |
| Metal                        | tonnes    | 1 150      | 1 639       | 2 145       | 12 782      | 4 396       |
| Coal                         |           |            |             |             |             |             |
| Anthracite                   | tonnes    | 13 013     | 28 506      | 25 832      | 36 163      | 20 373      |
| Other coal                   | tonnes    | 3 187 798  | 3 003 919   | 3 154 331   | 2 811 668   | 1 831 397   |
| Briquettes                   | tonnes    | 8 443      | 27 164      | 287         | 9 029       | 33          |
| Cobalt                       |           |            |             |             |             |             |
| Metal                        | tonnes    | 660        | 743         | 676         | 698         | 189         |
| Copper                       |           |            |             |             |             |             |
| Ores and concentrates        | tonnes    | 311 085    | 267 753     | 420 050     | 393 295     | 362 803     |
| Unwrought, unrefined         | tonnes    | 15 452     | 35 496      | 10 495      | 23 539      | 22 072      |
| Unwrought, refined           | tonnes    | 40 106     | 41 036      | 31 535      | 21 123      | 23 107      |
| Unwrought alloys             | tonnes    | 2 926      | 3 944       | 5 867       | 5 239       | 2 040       |
| Scrap                        | tonnes    | 50 940     | 54 483      | 81 015      | 91 839      | 96 542      |
| Diamond                      |           |            |             |             |             |             |
| Unsorted                     | carats    | £220 000   | £143 000    | £141 000    | £100 000    | £23 000     |
| Gem, cut                     | carats    | 7 132      | 8 573       | 9 465       | 10 938      | 8 709       |
| Industrial                   | carats    | 198 724    | 188 546     | 224 486     | 217 127     | 6 907       |
| Dust                         | carats    | 5 000 000  | 10 000 000  | 11 500 000  | 4 000 000   | 1 500 000   |
| Diatomite                    | tonnes    | 5 096      | 6 095       | 6 976       | 6 929       | 6 082       |
| Feldspar                     | tonnes    | 9 387      | 4 029       | 6 021       | 3 861       | 4 268       |
| Fluorspar                    | tonnes    | 15 790     | 16 176      | 12 089      | 14 214      | 12 959      |
| Gold                         |           |            |             |             |             |             |
| Metal                        | kilograms | £8 625 000 | £10 124 000 | £18 292 000 | £25 583 000 | £26 296 000 |
| Waste and scrap              | kilograms | £180 000   | £7 000      | £112 000    | £565 000    | £53 000     |
| Graphite                     | tonnes    | 1 539      | 1 252       | 1 592       | 1 091       | 835         |
| Gypsum                       |           |            |             |             |             |             |
| Crude                        | tonnes    | 206 972    | 263 582     | 244 986     | 178 364     | 94 656      |
| Calcined                     | tonnes    | 97 746     | 166 829     | 146 638     | 154 201     | 158 842     |
| Iodine                       | kilograms | 2 000      | 2 000       | 5 000       | 600         | 400         |
| Iron ore                     | tonnes    | 104 570    | 82 211      | (a) 69 937  | (a) 71 441  | (a) 44 006  |

## Sweden

## Imports continued

| Commodity                                | Units     | 2005       | 2006       | 2007       | 2008       | 2009       |
|--|-----------|------------|------------|------------|------------|------------|
| Iron, steel and ferro-alloys             |           |            |            |            |            |            |
| Pig iron                                 | tonnes    | 38 223     | 43 492     | 59 661     | 80 450     | 40 076     |
| Sponge and powder                        | tonnes    | 2 091      | 7 346      | 16 799     | 11 861     | 2 691      |
| Ferro-chrome                             | tonnes    | 86 040     | 86 160     | 125 057    | 114 712    | 78 244     |
| Ferro-silico-chrome                      | tonnes    | 2 030      | 1 370      | 3 104      | 3 873      | 1 215      |
| Ferro-manganese                          | tonnes    | 43 005     | 49 295     | 75 409     | 68 246     | 27 869     |
| Ferro-silico-manganese                   | tonnes    | 18 995     | 20 566     | 17 085     | 10 677     | 5 754      |
| Ferro-molybdenum                         | tonnes    | 5 364      | 4 976      | 4 377      | 5 693      | 2 652      |
| Ferro-nickel                             | tonnes    | 7 431      | 8 076      | 9 162      | 6 803      | 3 286      |
| Ferro-niobium                            | tonnes    | 1 156      | 1 504      | 1 242      | 1 264      | 604        |
| Ferro-phosphorus                         | tonnes    | 314        | 433        | 1 331      | 386        | 430        |
| Ferro-silicon                            | tonnes    | 48 950     | 37 095     | 42 315     | 34 249     | 25 880     |
| Ferro-titanium and ferro-silico-titanium | tonnes    | 3 212      | 1 681      | 691        | 1 370      | 653        |
| Ferro-tungsten and ferro-silico-tungsten | tonnes    | 195        | 119        | 105        | 153        | 30         |
| Ferro-vanadium                           | tonnes    | 1 316      | 1 202      | 1 005      | 956        | 547        |
| Other ferro-alloys                       | tonnes    | 5 574      | 5 860      | 5 986      | 8 916      | 2 154      |
| Silicon metal                            | tonnes    | 10 832     | 7 531      | 6 756      | 7 631      | 4 404      |
| Ingots, blooms, billets                  | tonnes    | 294 616    | 108 821    | 137 032    | 264 782    | 119 549    |
| Scrap                                    | tonnes    | 254 358    | 279 956    | 242 167    | 193 207    | 174 279    |
| Kaolin                                   | tonnes    | 480 358    | 451 919    | 448 129    | 468 491    | 408 564    |
| Lead                                     |           |            |            |            |            |            |
| Ores and concentrates                    | tonnes    | 5 085      | 10 476     | —          | 275        | —          |
| Unwrought                                | tonnes    | 6 098      | 17 679     | 6 554      | 6 922      | 5 028      |
| Scrap                                    | tonnes    | 3 538      | 3 101      | 3 771      | 2 089      | 5 176      |
| Lithium                                  |           |            |            |            |            |            |
| Oxides                                   | tonnes    | 176        | 186        | 107        | 146        | 149        |
| Carbonate                                | tonnes    | 259        | 215        | 236        | 278        | 191        |
| Magnesite and magnesia                   |           |            |            |            |            |            |
| Magnesite                                | tonnes    | 41         | 39         | 477        | 38         | 2          |
| Magnesia                                 | tonnes    | 21 293     | 24 610     | 17 556     | 14 701     | 15 832     |
| Manganese                                |           |            |            |            |            |            |
| Ores and concentrates                    | tonnes    | 119        | 72         | 130        | 388        | 854        |
| Metal                                    | tonnes    | 2 632      | 2 380      | 3 012      | 3 287      | 1 880      |
| Mercury                                  | kilograms | 3 000      | 6 000      | 10 600     | 13 800     | 21 300     |
| Mica                                     | tonnes    | 592        | 515        | 584        | 755        | 721        |
| Molybdenum                               |           |            |            |            |            |            |
| Ores and concentrates                    | tonnes    | 5 690      | 6 863      | 7 003      | 4 645      | 2 514      |
| Metal                                    | tonnes    | 280        | 139        | 281        | 442        | 470        |
| Oxides                                   | tonnes    | 392        | 1 133      | 780        | 711        | 219        |
| Nickel                                   |           |            |            |            |            |            |
| Mattes, sinters etc                      | tonnes    | 4 346      | 4 215      | 4 252      | 1 490      | 1 607      |
| Unwrought                                | tonnes    | 26 931     | 28 101     | 25 303     | 25 474     | 16 544     |
| Unwrought alloys                         | tonnes    | 1 324      | 1 414      | 356        | 1 317      | 661        |
| Scrap                                    | tonnes    | 8 946      | 9 158      | 9 118      | 12 215     | 8 709      |
| Crude petroleum                          | tonnes    | 19 770 639 | 19 170 472 | 17 719 046 | 19 184 387 | 16 818 080 |
| Natural gas                              | tonnes    | 618 697    | 372 627    | 749 162    | 647 510    | 860 497    |
| Phosphate rock                           | tonnes    | 1 626      | 4 283      | 2 369      | 922        | 2 918      |
| Platinum metals                          |           |            |            |            |            |            |
| Platinum and platinum metals             | kilograms | £6 513 000 | £4 509 000 | £6 109 000 | £8 722 000 | £5 934 000 |
| Waste and scrap                          | kilograms | 577 000    | 618 000    | 731 700    | 13 800     | 80 200     |
| Potash                                   |           |            |            |            |            |            |
| Sulphate                                 | tonnes    | 4 911      | 10 191     | 1 004      | 2 872      | 965        |
| Chloride                                 | tonnes    | 43 106     | 44 941     | 27 470     | 15 689     | 4 769      |
| Other potassic fertilisers               | tonnes    | 1 119      | 4 109      | 4 886      | 4 735      | 4 211      |
| Rare earths                              |           |            |            |            |            |            |
| Metals                                   | tonnes    | 41         | 37         | 74         | 46         | 28         |
| Rare earth compounds                     | tonnes    | 26         | 20         | 56         | 68         | 54         |
| Salt                                     | tonnes    | 738 931    | 1 054 982  | 744 328    | 875 294    | 910 606    |
| Sillimanite minerals                     | tonnes    | 5 086      | 5 568      | 6 381      | 5 212      | 2 395      |
| Silver                                   |           |            |            |            |            |            |
| Ores and concentrates                    | kilograms | ...        | ...        | 21 000     | ...        | 2 330 100  |
| Metal                                    | kilograms | 151 000    | 137 000    | 162 900    | 122 200    | 85 300     |
| Sulphur and pyrites                      |           |            |            |            |            |            |
| Pyrites                                  | tonnes    | 319        | 557        | 750        | 691        | 544        |
| Sulphur                                  | tonnes    | 71 337     | 82 246     | 94 449     | 78 784     | 21 772     |
| Sulphur, sublimed and precipitated       | tonnes    | 16         | 23         | 4          | 112        | 143        |
| Talc                                     | tonnes    | 45 376     | 44 669     | 48 746     | 45 801     | 28 459     |

## Imports continued

| Commodity         | Units  | 2005   | 2006   | 2007   | 2008   | 2009   |
|-------------------|--------|--------|--------|--------|--------|--------|
| Tin               |        |        |        |        |        |        |
| Unwrought (b)     | tonnes | 761    | 838    | 720    | 555    | 364    |
| Titanium          |        |        |        |        |        |        |
| Titanium minerals | tonnes | 300    | 911    | 1 032  | 995    | 726    |
| Metal             | tonnes | 1 382  | 2 294  | 2 623  | 2 391  | 1 593  |
| Oxides            | tonnes | 50 099 | 62 841 | 65 872 | 61 890 | 53 071 |
| Tungsten          |        |        |        |        |        |        |
| Metal             | tonnes | 502    | 563    | 546    | 588    | 175    |
| Carbide           | tonnes | 925    | 738    | 876    | 904    | 233    |
| Vanadium          |        |        |        |        |        |        |
| Pentoxide         | tonnes | 3      | 1      | 1      | 76     | 25     |
| Metal             | tonnes | 20     | 40     | ...    | ...    | ...    |
| Zinc              |        |        |        |        |        |        |
| Unwrought         | tonnes | 29 847 | 25 763 | 21 570 | 29 211 | 29 750 |
| Unwrought alloys  | tonnes | 16 812 | 20 325 | 22 600 | 12 059 | 2 691  |
| Zirconium         |        |        |        |        |        |        |
| Concentrates      | tonnes | 588    | 750    | 825    | 832    | 248    |
| Metal             | tonnes | 91     | 134    | 219    | 185    | 218    |

## Note(s)

- (a) Including burnt pyrites  
 (b) Including alloys

Switzerland

## Switzerland

### Production

| Commodity            | Units  | 2005       | 2006       | 2007         | 2008         | 2009      |
|----------------------|--------|------------|------------|--------------|--------------|-----------|
| Primary aggregates   |        |            |            |              |              |           |
| Sand and gravel      | tonnes | 46 500 000 | 50 000 000 | * 50 000 000 | * 37 000 000 | ...       |
| Crushed rock         | tonnes | 5 300 000  | 5 700 000  | * 5 700 000  | * 5 000 000  | ...       |
| Primary aluminium    | tonnes | 44 800     | 12 000     | —            | —            | —         |
| Cement               |        |            |            |              |              |           |
| Cement, finished (a) | tonnes | 4 267 854  | 4 231 294  | 4 252 574    | 4 238 311    | 4 333 096 |
| Gypsum               | tonnes | * 300 000  | * 300 000  | * 300 000    | * 300 000    | * 300 000 |
| Crude steel          | tonnes | 1 158 000  | 1 252 000  | 1 264 000    | 1 312 000    | 934 000   |
| Lead, refined        | tonnes | 9 600      | * 9 000    | * 9 000      | * 8 000      | 800       |
| Salt                 | tonnes | 539 000    | 525 000    | 353 000      | 368 000      | 554 000   |

Note(s)

(a) Includes production in Liechtenstein

### Exports

| Commodity                    | Units     | 2005        | 2006        | 2007       | 2008       | 2009       |
|------------------------------|-----------|-------------|-------------|------------|------------|------------|
| Primary aggregates           | tonnes    | 283 508     | 273 603     | 486 288    | 202 846    | 194 006    |
| Aluminium and bauxite        |           |             |             |            |            |            |
| Unwrought (a)                | tonnes    | 14 499      | 21 257      | 22 645     | 9 938      | 14 444     |
| Alumina                      | tonnes    | 262         | 1 242       | 281        | 5 767      | 1 240      |
| Scrap                        | tonnes    | 122 729     | 140 657     | 139 599    | 125 769    | 116 520    |
| Asbestos                     |           |             |             |            |            |            |
| Unmanufactured               | tonnes    | 0           | 0           | 290        | 120        | 30         |
| Cement                       |           |             |             |            |            |            |
| Cement clinkers              | tonnes    | 121 014     | 103 367     | 114 075    | 91 167     | 70 207     |
| Portland cement              | tonnes    | 46 939      | 23 437      | 13 704     | 35 925     | 15 044     |
| Other cement                 | tonnes    | 2 692       | 988         | 4 014      | 9 009      | 4 062      |
| Chromium                     |           |             |             |            |            |            |
| Metal                        | tonnes    | 249         | 530         | 74         | 54         | 44         |
| Cobalt                       |           |             |             |            |            |            |
| Metal                        | tonnes    | 140         | 105         | 94         | 120        | 70         |
| Copper                       |           |             |             |            |            |            |
| Unwrought                    | tonnes    | 1 069       | 1 036       | 1 002      | 1 159      | 623        |
| Scrap                        | tonnes    | 74 878      | 74 079      | 75 542     | 82 687     | 71 204     |
| Diamond                      |           |             |             |            |            |            |
| Unsorted                     | carats    | ...         | ...         | ...        | ...        | ...        |
| Gem, rough                   | carats    | 195 614     | 119 619     | 4 360      | 5 000      | 1 230      |
| Gem, cut                     | carats    | 500 591     | 543 079     | 559 591    | 360 000    | 75 000     |
| Industrial                   | carats    | 13 934      | 76 604      | 12 100     | 15 000     | 7 139      |
| Dust                         | carats    | 126 190 000 | 128 180 000 | 40 985 000 | 44 105 000 | 30 400 000 |
| Gold                         |           |             |             |            |            |            |
| Metal                        | kilograms | 1 340 948   | 965 959     | 1 095 682  | 2 103 919  | 2 201 838  |
| Waste and scrap              | kilograms | 2 823       | 2 802       | 102 745    | 125 459    | 107 918    |
| Graphite                     | tonnes    | 326         | 225         | 384        | 600        | 355        |
| Gypsum                       |           |             |             |            |            |            |
| Crude and calcined           | tonnes    | 1 095       | 1 158       | 2 754      | 5 207      | 2 454      |
| Iodine                       | kilograms | 4 179       | 1 342       | 1 205      | 1 605      | 97         |
| Iron, steel and ferro-alloys |           |             |             |            |            |            |
| Sponge and powder            | tonnes    | 2 222       | 2 233       | 2 537      | 2 126      | 1 564      |
| Ferro-alloys                 | tonnes    | 867         | 616         | 653        | 642        | 943        |
| Ingots, blooms, billets      | tonnes    | 83 219      | 88 289      | 104 433    | 65 257     | 48 349     |
| Scrap                        | tonnes    | 561 972     | 582 567     | 585 342    | 636 462    | 565 415    |
| Kaolin                       | tonnes    | 246         | 433         | 786        | 128        | 203        |
| Lead                         |           |             |             |            |            |            |
| Unwrought                    | tonnes    | 4 657       | 7 966       | 7 383      | 7 387      | 1 765      |
| Scrap                        | tonnes    | 2 932       | 3 124       | 4 860      | 3 236      | 4 748      |
| Lithium                      |           |             |             |            |            |            |
| Oxides                       | tonnes    | 78          | 69          | 75         | 88         | 2 041      |
| Mercury                      | kilograms | 171 790     | 87 136      | 140 336    | 11 592     | 25 372     |

## Exports continued

| Commodity                  | Units     | 2005      | 2006    | 2007      | 2008      | 2009      |
|----------------------------|-----------|-----------|---------|-----------|-----------|-----------|
| Natural gas                | tonnes    | 3 244     | 1       | 4         | 2         | 4         |
| Nickel                     |           |           |         |           |           |           |
| Scrap                      | tonnes    | 1 403     | 1 669   | 1 750     | 1 603     | 1 519     |
| Unwrought (a)              | tonnes    | 73        | 154     | 113       | 94        | 53        |
| Platinum metals            |           |           |         |           |           |           |
| Platinum                   | kilograms | 42 102    | 62 243  | 57 569    | 69 404    | 61 433    |
| Palladium                  | kilograms | 75 105    | 46 578  | 52 880    | 86 503    | 57 571    |
| Other Platinum metals      | kilograms | 2 047     | 292     | 636       | 717       | 192       |
| Waste and scrap            | kilograms | 235 630   | 200 470 | 393 326   | 616 867   | 362 419   |
| Rare earths                |           |           |         |           |           |           |
| Cerium compounds           | tonnes    | 1         | 2       | 2         | 1         | 1         |
| Other rare earth compounds | tonnes    | 3         | 7       | 3         | 1         | 26        |
| Salt                       | tonnes    | 30 461    | 62 318  | 55 916    | 37 772    | 68 947    |
| Silver                     |           |           |         |           |           |           |
| Metal                      | kilograms | 1 044 080 | 930 397 | 1 201 402 | 1 444 198 | 2 059 830 |
| Tantalum and niobium       |           |           |         |           |           |           |
| Tantalum                   | tonnes    | 27        | 17      | 14        | 7         | 1         |
| Tin                        |           |           |         |           |           |           |
| Unwrought (a)              | tonnes    | 29        | 160     | 112       | 114       | 87        |
| Scrap                      | tonnes    | 157       | 130     | 123       | 76        | 136       |
| Titanium                   |           |           |         |           |           |           |
| Metal                      | tonnes    | 560       | 692     | 868       | 987       | 734       |
| Oxides                     | tonnes    | 1 020     | 1 024   | 1 133     | 1 276     | 1 203     |
| Tungsten                   |           |           |         |           |           |           |
| Metal                      | tonnes    | 316       | 270     | 392       | 400       | 239       |
| Zinc                       |           |           |         |           |           |           |
| Unwrought (a)              | tonnes    | 897       | 1 001   | 679       | 1 078     | 524       |
| Scrap                      | tonnes    | 2 480     | 2 856   | 2 408     | 2 445     | 2 574     |

## Note(s)

(a) Including alloys

## Imports

| Commodity                    | Units  | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------------------------|--------|-----------|-----------|-----------|-----------|-----------|
| Primary aggregates           | tonnes | 6 261 007 | 6 700 038 | 7 371 907 | 7 256 472 | 7 246 506 |
| Aluminium and bauxite        |        |           |           |           |           |           |
| Bauxite                      | tonnes | 9 929     | 5 901     | 5 850     | 12 439    | 8 360     |
| Alumina                      | tonnes | 88 358    | 21 431    | 10 745    | 11 036    | 9 074     |
| Alumina hydrate              | tonnes | 16 823    | 18 333    | 17 875    | 17 235    | 15 269    |
| Unwrought                    | tonnes | 75 987    | 111 780   | 136 214   | 127 018   | 108 096   |
| Unwrought alloys             | tonnes | 56 059    | 79 666    | 78 916    | 62 962    | 50 341    |
| Scrap                        | tonnes | 27 617    | 26 711    | 32 716    | 31 728    | 23 195    |
| Antimony                     |        |           |           |           |           |           |
| Ores and concentrates        | tonnes | 1 722     | 201       | 38        | —         | 25        |
| Oxide                        | tonnes | 1 026     | 1 141     | 1 461     | 1 328     | 793       |
| Barytes                      | tonnes | 2 242     | 2 433     | 2 843     | 3 644     | 2 605     |
| Bentonite and fuller's earth |        |           |           |           |           |           |
| Bentonite                    | tonnes | 20 861    | 24 407    | 21 334    | 21 876    | 20 407    |
| Fuller's earth               | tonnes | 1 844     | 916       | ...       | ...       | ...       |
| Bismuth                      |        |           |           |           |           |           |
| Metal                        | tonnes | 15        | 6         | 8         | 12        | 12        |
| Cement                       |        |           |           |           |           |           |
| Cement clinkers              | tonnes | 71 542    | 115 001   | 15 292    | 8 596     | 27 649    |
| Portland cement              | tonnes | 352 409   | 380 862   | 348 262   | 361 305   | 364 034   |
| Other cement                 | tonnes | 48 309    | 49 317    | 37 522    | 30 908    | 36 464    |
| Chromium                     |        |           |           |           |           |           |
| Ores and concentrates        | tonnes | 624       | 1 080     | 1 339     | 1 510     | 974       |
| Metal                        | tonnes | 127       | 162       | 114       | 134       | 38        |

## Switzerland

## Imports continued

| Commodity                    | Units     | 2005        | 2006        | 2007       | 2008       | 2009       |
|------------------------------|-----------|-------------|-------------|------------|------------|------------|
| Coal                         |           |             |             |            |            |            |
| Anthracite                   | tonnes    | 6 640       | 7 978       | 9 539      | 18 721     | 5 444      |
| Other coal                   | tonnes    | 93 584      | 143 425     | 214 684    | 132 824    | 172 990    |
| Lignite                      | tonnes    | 34 897      | 86 762      | 84 654     | 80 814     | 66 483     |
| Briquettes                   | tonnes    | 5 137       | 4 584       | 3 908      | 3 986      | 4 933      |
| Cobalt                       |           |             |             |            |            |            |
| Metal                        | tonnes    | 423         | 408         | 454        | 386        | 243        |
| Copper                       |           |             |             |            |            |            |
| Unwrought                    | tonnes    | 4 734       | 4 843       | 5 960      | 5 903      | 3 473      |
| Unwrought alloys             | tonnes    | 3 897       | 4 695       | 4 089      | 3 925      | 3 276      |
| Scrap                        | tonnes    | 9 937       | 7 641       | 7 995      | 5 266      | 2 710      |
| Diamond                      |           |             |             |            |            |            |
| Gem, rough                   | carats    | 195 180     | 118 710     | 8 634      | 11 566     | 4 498      |
| Gem, cut                     | carats    | 1 182 706   | 1 112 264   | 1 209 708  | 1 147 690  | 534 700    |
| Industrial                   | carats    | 100 219     | 63 939      | 39 174     | 20 205     | 23 178     |
| Dust                         | carats    | 142 135 000 | 127 740 000 | 59 930 000 | 54 445 000 | 39 130 000 |
| Diatomite                    | tonnes    | 3 291       | 3 157       | 4 636      | 4 864      | 5 071      |
| Feldspar                     | tonnes    | 7 977       | 6 219       | 8 056      | 7 653      | 6 478      |
| Fluorspar                    | tonnes    | 714         | 704         | 533        | 571        | 370        |
| Gold                         |           |             |             |            |            |            |
| Metal                        | kilograms | 1 655 691   | 1 498 693   | 1 667 100  | 2 101 027  | 2 198 967  |
| Waste and scrap              | kilograms | 72 764      | 104 957     | 57 001     | 214 839    | 319 257    |
| Graphite                     | tonnes    | 652         | 722         | 966        | 931        | 306        |
| Gypsum                       |           |             |             |            |            |            |
| Crude                        | tonnes    | 76 460      | 87 964      | 93 365     | 101 731    | 101 228    |
| Calcined                     | tonnes    | 88 511      | 92 787      | 95 000     | 97 296     | 87 350     |
| Iodine                       | kilograms | 7 949       | 11 133      | 18 136     | 7 260      | 7 156      |
| Iron ore (a)                 | tonnes    | 15 145      | 16 019      | 15 626     | 18 704     | 16 490     |
| Iron, steel and ferro-alloys |           |             |             |            |            |            |
| Pig iron                     | tonnes    | 24 628      | 24 497      | 28 095     | 28 630     | 12 256     |
| Sponge and powder            | tonnes    | 9 035       | 8 900       | 9 685      | 8 873      | 5 931      |
| Ferro-chrome                 | tonnes    | 1 203       | 1 306       | 1 834      | 1 803      | 288        |
| Ferro-manganese              | tonnes    | 9 033       | 10 423      | 9 922      | 11 696     | 8 003      |
| Ferro-silico-manganese       | tonnes    | 4 341       | 3 717       | 5 992      | 5 011      | 1 595      |
| Ferro-silicon                | tonnes    | 4 630       | 7 122       | 5 287      | 5 264      | 4 287      |
| Other ferro-alloys           | tonnes    | 1 602       | 1 435       | 1 478      | 1 086      | 611        |
| Silicon metal                | tonnes    | 1 135       | 1 164       | 1 508      | 1 255      | 1 256      |
| Ingots, blooms, billets      | tonnes    | 38 694      | 47 524      | 50 301     | 29 911     | 9 188      |
| Scrap                        | tonnes    | 390 607     | 499 914     | 475 542    | 505 597    | 313 055    |
| Kaolin                       | tonnes    | 37 368      | 41 481      | 45 629     | 39 932     | 33 555     |
| Lead                         |           |             |             |            |            |            |
| Unwrought                    | tonnes    | 8 067       | 9 185       | 7 087      | 9 915      | 9 446      |
| Lithium                      |           |             |             |            |            |            |
| Oxides                       | tonnes    | 81          | 112         | 142        | 143        | 110        |
| Magnesite and magnesia       |           |             |             |            |            |            |
| Magnesite                    | tonnes    | 168         | 394         | 1 024      | 69         | 502        |
| Magnesia                     | tonnes    | 6 708       | 7 506       | 7 144      | 7 772      | 4 762      |
| Manganese                    |           |             |             |            |            |            |
| Ores and concentrates        | tonnes    | 469         | 453         | 415        | 472        | 340        |
| Metal                        | tonnes    | 486         | 444         | 778        | 472        | 282        |
| Mercury                      | kilograms | 5 846       | 5 333       | 6 687      | 3 557      | 801        |
| Mica                         | tonnes    | 601         | 1 151       | 3 021      | 1 088      | 669        |
| Nickel                       |           |             |             |            |            |            |
| Unwrought (b)                | tonnes    | 1 401       | 1 706       | 1 787      | 2 054      | 1 202      |
| Crude petroleum              | tonnes    | 4 744 965   | 5 413 010   | 4 595 181  | 5 141 634  | 4 755 189  |
| Natural gas                  | tonnes    | 2 539 454   | 2 560 801   | 2 402 267  | 2 596 153  | 2 450 414  |
| Phosphate rock               | tonnes    | 3 516       | 1 612       | 4 645      | 358        | 585        |
| Platinum metals              |           |             |             |            |            |            |
| Platinum                     | kilograms | 51 377      | 76 842      | 43 113     | 67 022     | 91 048     |
| Palladium                    | kilograms | 46 565      | 126 416     | 46 744     | 60 666     | 50 258     |
| Other Platinum metals        | kilograms | 780         | 1 078       | 913        | 1 255      | 1 319      |
| Waste and scrap              | kilograms | 156 229     | 172 679     | 267 258    | 494 962    | 688 973    |
| Potash                       |           |             |             |            |            |            |
| Sulphate                     | tonnes    | 3 325       | 4 215       | 5 259      | 4 685      | 3 967      |
| Chloride                     | tonnes    | 18 971      | 18 811      | 19 279     | 15 158     | 7 595      |
| Other potassic fertilisers   | tonnes    | 3 411       | 2 555       | 2 504      | 2 861      | 1 676      |

## Imports continued

| Commodity                                | Units     | 2005      | 2006      | 2007     | 2008      | 2009      |
|--|-----------|-----------|-----------|----------|-----------|-----------|
| Rare earths                              |           |           |           |          |           |           |
| Rare earth compounds                     | tonnes    | 34        | 38        | 34       | 34        | 30        |
| Ferro-cerium and other pyrophoric alloys | tonnes    | ...       | ...       | ...      | 6         | 44        |
| Salt                                     | tonnes    | 48 114    | 19 300    | 8 913    | 8 988     | 70 386    |
| Sillimanite minerals                     | tonnes    | 413       | 463       | 1 035    | 1 128     | 527       |
| Silver                                   |           |           |           |          |           |           |
| Ores and concentrates (c)                | kilograms | * 309 400 | * 792 000 | * 39 800 | * 9 600   | * 100 900 |
| Metal                                    | kilograms | 1 484 207 | 1 306 866 | 849 037  | 1 520 531 | 2 136 092 |
| Sulphur and pyrites                      |           |           |           |          |           |           |
| Pyrites                                  | tonnes    | 76        | 69        | 51       | 135       | 68        |
| Sulphur                                  | tonnes    | 24 977    | 19 369    | 20 982   | 17 425    | 12 086    |
| Talc                                     | tonnes    | 10 254    | 10 786    | 10 360   | 8 756     | 7 987     |
| Tantalum and niobium                     |           |           |           |          |           |           |
| Tantalum                                 | tonnes    | 1         | 6         | 2        | 4         | 2         |
| Tin                                      |           |           |           |          |           |           |
| Unwrought (b)                            | tonnes    | 909       | 1 042     | 1 241    | 1 093     | 800       |
| Titanium                                 |           |           |           |          |           |           |
| Metal                                    | tonnes    | 1 273     | 1 357     | 1 352    | 1 168     | 862       |
| Oxides                                   | tonnes    | 19 055    | 18 805    | 20 455   | 19 550    | 17 086    |
| Tungsten                                 |           |           |           |          |           |           |
| Metal                                    | tonnes    | 235       | 146       | 257      | 272       | 105       |
| Zinc                                     |           |           |           |          |           |           |
| Unwrought                                | tonnes    | 13 045    | 12 189    | 14 473   | 13 715    | 9 431     |
| Unwrought alloys                         | tonnes    | 2 601     | 2 214     | 2 700    | 2 471     | 1 549     |
| Zirconium                                |           |           |           |          |           |           |
| Metal                                    | tonnes    | 117       | 29        | 29       | 19        | 38        |

## Note(s)

- (a) Including burnt pyrites
- (b) Including alloys
- (c) BGS estimates, based on known exports from certain countries

# Turkey

## Production

| Commodity                      | Units                                     | 2005        | 2006        | 2007        | 2008        | 2009        |
|--------------------------------|---|-------------|-------------|-------------|-------------|-------------|
| Bauxite                        | tonnes                                    | 356 480     | 771 227     | 863 404     | * 900 000   | 406 700     |
| Alumina                        | tonnes ( $\text{Al}_2\text{O}_3$ content) | 112 558     | 150 117     | 163 435     | * 150 000   | * 150 000   |
| Primary aluminium              | tonnes                                    | 59 000      | 60 000      | 63 400      | 61 100      | 30 000      |
| Antimony, mine                 | tonnes (metal content)                    | * 1 200     | * 1 100     | * 1 200     | * 1 300     | * 1 300     |
| Barytes                        | tonnes                                    | 157 200     | 160 000     | 150 000     | 150 000     | 150 000     |
| Bentonite and fuller's earth   |   |             |             |             |             |             |
| Bentonite                      | tonnes                                    | 582 735     | * 600 000   | 748 170     | 683 253     | 753 155     |
| Sepiolite                      | tonnes                                    | * 10 000    | * 10 000    | * 10 000    | * 10 000    | * 10 000    |
| Borates                        | tonnes                                    | 2 087 000   | 2 373 345   | 1 997 163   | 2 139 224   | 1 682 000   |
| Cement                         |   |             |             |             |             |             |
| Cement clinker                 | tonnes                                    | 31 355 180  | 32 824 687  | 39 363 683  | 41 652 824  | 41 084 368  |
| Cement, finished               | tonnes                                    | 41 100 274  | 47 906 365  | 50 995 107  | 54 027 283  | 55 741 176  |
| Chromium ores and concentrates | tonnes                                    | 858 729     | 1 059 901   | 1 678 932   | 1 885 712   | 1 770 029   |
| Coal                           |   |             |             |             |             |             |
| Anthracite                     | tonnes                                    | 2 785 505   | 3 070 793   | 3 230 787   | 3 343 409   | 3 773 603   |
| Bituminous                     | tonnes                                    | 737 701     | ...         | ...         | ...         | ...         |
| Lignite                        | tonnes                                    | 60 867 574  | 61 010 000  | 74 316 728  | 86 074 626  | 82 263 104  |
| Copper, mine                   | tonnes (metal content)                    | 54 100      | 46 400      | 81 400      | 83 000      | 87 070      |
| Copper, smelter                | tonnes                                    | 27 700      | 26 300      | 17 900      | 38 000      | —           |
| Copper, refined                | tonnes                                    | 94 900      | 105 800     | 99 600      | 88 000      | 33 500      |
| Feldspar                       | tonnes                                    | 4 750 000   | 5 500 000   | 6 000 000   | 6 500 000   | 4 000 000   |
| Gold, mine                     | kilograms (metal content)                 | 4 170       | 8 040       | 9 920       | 11 120      | * 15 000    |
| Graphite                       | tonnes                                    | * 1 100     | 1 200       | * 1 500     | * 1 500     | * 1 500     |
| Gypsum                         | tonnes                                    | * 3 500 864 | * 4 369 771 | * 3 241 177 | * 3 000 000 | * 3 000 000 |
| Iron ore                       | tonnes                                    | 3 889 934   | 3 251 969   | 4 549 556   | 3 990 110   | 4 169 972   |
| Pig iron                       | tonnes                                    | 5 398 500   | 5 952 000   | 6 235 537   | 6 697 372   | 6 913 325   |
| Crude steel                    | tonnes                                    | 20 961 240  | 23 307 523  | 25 760 889  | 26 809 050  | 25 303 741  |
| Ferro-alloys                   |   |             |             |             |             |             |
| Ferro-chrome                   | tonnes                                    | 26 043      | 67 975      | 69 730      | 75 840      | 41 028      |
| Ferro-silico-chrome            | tonnes                                    | 6 695       | 7 310       | 6 624       | 6 094       | 2 903       |
| Kaolin                         | tonnes                                    | 615 271     | * 600 000   | 456 238     | 232 746     | 234 614     |
| Lead, mine                     | tonnes (metal content)                    | 11 341      | 14 000      | 14 000      | 21 000      | 15 000      |
| Lead, refined                  | tonnes                                    | * 6 000     | * 6 000     | * 6 000     | * 6 000     | * 6 000     |
| Magnesite                      | tonnes                                    | 2 372 206   | 2 088 033   | 1 984 908   | 2 143 047   | * 2 000 000 |
| Manganese ore                  | tonnes                                    | 4 751       | ...         | ...         | ...         | ...         |
| Nickel, mine                   | tonnes (metal content)                    | 700         | 1 900       | 1 700       | —           | 11 300      |
| Perlite                        | tonnes                                    | 156 935     | * 160 000   | * 160 000   | * 160 000   | * 160 000   |
| Crude petroleum                | tonnes                                    | 2 280 764   | 2 175 353   | 2 131 288   | 2 222 594   | 2 489 914   |
| Natural gas                    | million m <sup>3</sup>                    | 484         | 307         | 839         | 894         | 660         |
| Salt                           |   |             |             |             |             |             |
| Rock salt                      | tonnes                                    | 512         | ...         | ...         | ...         | ...         |
| Sea salt                       | tonnes                                    | 529 235     | * 500 000   | * 500 000   | * 500 000   | * 500 000   |
| Other salt                     | tonnes                                    | 1 196 486   | * 1 200 000 | 1 385 822   | 1 367 981   | * 1 300 000 |
| Silver, mine                   | kilograms (metal content)                 | 219 000     | * 266 000   | * 315 000   | * 286 000   | * 286 000   |
| Strontium minerals             | tonnes                                    | * 18 000    | * 6 300     | * 4 200     | * 1 600     | ...         |
| Sulphur and pyrites            |   |             |             |             |             |             |
| Pyrites                        | tonnes (sulphur content)                  | 55 000      | 59 000      | 61 000      | 79 000      | 79 000      |
| Recovered (a) (b)              | tonnes (sulphur content)                  | 76 000      | 73 000      | 73 000      | 73 000      | 73 000      |
| Zinc, mine                     | tonnes (metal content)                    | 56 000      | 59 000      | 71 000      | 74 000      | 79 000      |

### Note(s)

(1) Turkey is believed to produce diatomite and wollastonite

- (a) From petroleum refining and/or Natural gas
- (b) Other

## Exports

| Commodity                    | Units     | 2005        | 2006        | 2007        | 2008        | 2009        |
|------------------------------|-----------|-------------|-------------|-------------|-------------|-------------|
| Primary aggregates           | tonnes    | 1 631 232   | 586 393     | 73 162      | 1 183 150   | 908 010     |
| Aluminium and bauxite        |           |             |             |             |             |             |
| Bauxite                      | tonnes    | 1 531       | 89 764      | 254 689     | 262 708     | 103 317     |
| Alumina                      | tonnes    | 45 914      | 73 707      | 142 557     | 118 915     | 77 727      |
| Unwrought                    | tonnes    | 21 034      | 38 690      | 47 574      | 50 056      | 26 337      |
| Unwrought alloys             | tonnes    | 6 138       | 9 072       | 13 012      | 10 827      | 9 368       |
| Scrap                        | tonnes    | 12 558      | 14 275      | 13 415      | 16 218      | 14 483      |
| Antimony                     |           |             |             |             |             |             |
| Ores and concentrates        | tonnes    | 920         | 679         | 819         | 1 000       | 1 408       |
| Metal                        | tonnes    | 63          | 5           | 28          | 0           | 8           |
| Asbestos                     |           |             |             |             |             |             |
| Unmanufactured               | tonnes    | —           | 3           | 990         | 685         | —           |
| Barytes                      | tonnes    | 134 482     | 159 128     | 115 039     | 123 485     | 121 744     |
| Bentonite and fuller's earth |           |             |             |             |             |             |
| Bentonite                    | tonnes    | 211 926     | 84 595      | 22 237      | 244 177     | 250 082     |
| Fuller's earth               | tonnes    | 342         | 251         | ...         | ...         | ...         |
| Cement                       |           |             |             |             |             |             |
| Cement clinkers              | tonnes    | 2 990 365   | 1 559 980   | 1 539 287   | 2 558 779   | 3 856 403   |
| Portland cement              | tonnes    | 6 713 088   | 3 277 480   | 4 323 666   | 11 010 951  | 16 356 895  |
| Other cement                 | tonnes    | 261 816     | 112 683     | 124 395     | 150 785     | 245 770     |
| Chromium                     |           |             |             |             |             |             |
| Ores and concentrates        | tonnes    | 834 034     | 887 689     | 1 265 036   | 1 816 427   | 1 748 194   |
| Metal                        | tonnes    | 238         | 6           | 7           | 122         | 2 667       |
| Coal                         |           |             |             |             |             |             |
| Anthracite                   | tonnes    | 10 324      | 1 259       | —           | 1 043       | 194         |
| Copper                       |           |             |             |             |             |             |
| Ores and concentrates        | tonnes    | 145 118     | 68 286      | 36 046      | 251 958     | 356 922     |
| Unwrought                    | tonnes    | 13 524      | 13 876      | 11 813      | 41 780      | 6 742       |
| Scrap                        | tonnes    | 15 083      | 12 630      | 8 920       | 9 670       | 16 426      |
| Diamond                      |           |             |             |             |             |             |
| Dust                         | carats    | £29 000     | £15 000     | £28 000     | £146 000    | £128 000    |
| Diatomite                    | tonnes    | 23 366      | * 32 000    | 34 424      | 40 370      | 39 267      |
| Feldspar (a)                 | tonnes    | * 3 800 000 | * 4 300 000 | * 4 300 000 | * 4 600 000 | * 2 500 000 |
| Gold                         |           |             |             |             |             |             |
| Metal                        | kilograms | 29 624      | 13 581      | 12 068      | 142 244     | 162 208     |
| Graphite                     | tonnes    | 72          | 57          | 13          | 390         | 257         |
| Gypsum                       |           |             |             |             |             |             |
| Crude                        | tonnes    | 4 346       | 26 683      | 43 195      | 37 899      | 145 717     |
| Calcined                     | tonnes    | 477 710     | 481 313     | 544 954     | 838 314     | 643 873     |
| Iodine                       | kilograms | 21 250      | 20 213      | 11 098      | 1 212       | 31 908      |
| Iron, steel and ferro-alloys |           |             |             |             |             |             |
| Pig iron                     | tonnes    | 9 358       | 1 150       | —           | 10 372      | 10 616      |
| Ferro-chrome                 | tonnes    | 39 038      | 60 952      | 63 209      | 39 324      | 75 236      |
| Other ferro-alloys           | tonnes    | 1 356       | 1 747       | 7 122       | 5 682       | 6 199       |
| Ingots, blooms, billets      | tonnes    | 2 174 257   | 1 630 209   | 1 660 642   | 2 501 135   | 2 431 211   |
| Scrap                        | tonnes    | 64 281      | 44 474      | 29 237      | 77 654      | 66 673      |
| Kaolin                       | tonnes    | 177 881     | 192 298     | 132 834     | 130 923     | 61 828      |
| Lead                         |           |             |             |             |             |             |
| Ores and concentrates (b)    | tonnes    | 30 226      | 18 415      | 34 715      | 52 988      | 35 973      |
| Unwrought                    | tonnes    | 2 875       | 4 271       | 930         | 832         | 361         |
| Magnesite and magnesia       |           |             |             |             |             |             |
| Magnesite                    | tonnes    | 41 353      | 28 937      | 40 414      | 68 054      | 35 097      |
| Magnesia                     | tonnes    | 198 654     | 205 989     | 181 870     | 175 441     | 162 651     |
| Manganese                    |           |             |             |             |             |             |
| Ores and concentrates        | tonnes    | 955         | 2 466       | 13 007      | 81 280      | 59 183      |
| Metal                        | tonnes    | —           | 4           | 20          | 401         | 81          |
| Nickel                       |           |             |             |             |             |             |
| Scrap                        | tonnes    | 300         | 102         | 79          | 734         | 470         |
| Ores and concentrates        | tonnes    | 52 062      | 91 828      | 175 712     | 130 179     | 99 700      |
| Unwrought (c)                | tonnes    | 48          | 9           | —           | 232         | 141         |
| Crude petroleum (a)          | tonnes    | * 75 000    | * 545 000   | * 3 584 000 | * 4 115 000 | * 2 956 000 |
| Natural gas                  | tonnes    | —           | 2 974       | 5 392       | 412 655     | 665 247     |
| Potash                       |           |             |             |             |             |             |
| Potassic fertilisers         | tonnes    | 313         | 148         | 488         | 3 544       | 6 438       |
| Salt                         | tonnes    | 22 167      | 17 095      | 11 164      | 27 393      | 26 223      |
| Silver                       |           |             |             |             |             |             |
| Metal                        | kilograms | 27 323      | 8 932       | 10 700      | 20 897      | 170 009     |

Turkey

Exports continued

| Commodity                          | Units  | 2005    | 2006    | 2007    | 2008    | 2009    |
|------------------------------------|--------|---------|---------|---------|---------|---------|
| Sulphur and pyrites                |        |         |         |         |         |         |
| Sulphur                            | tonnes | 638     | 152     | 7 091   | 21 289  | 6 495   |
| Sulphur, sublimed and precipitated | tonnes | 127     | 170     | 15 376  | 17 259  | 14 769  |
| Talc                               | tonnes | 2 806   | 1 195   | 1 742   | 1 636   | 1 712   |
| Tin                                |        |         |         |         |         |         |
| Unwrought (c)                      | tonnes | 17      | 18      | 179     | 118     | 37      |
| Titanium                           |        |         |         |         |         |         |
| Metal                              | tonnes | 30      | 17      | —       | 49      | 47      |
| Oxides                             | tonnes | 2 350   | 2 023   | 2 489   | 2 607   | 2 237   |
| Tungsten                           |        |         |         |         |         |         |
| Metal                              | tonnes | 115     | 25      | 33      | 99      | 213     |
| Vanadium                           |        |         |         |         |         |         |
| Pentoxide                          | tonnes | 940     | —       | 24      | 200     | 119     |
| Zinc                               |        |         |         |         |         |         |
| Ores and concentrates              | tonnes | 138 288 | 144 662 | 123 956 | 253 573 | 272 559 |
| Scrap                              | tonnes | 53      | 176     | 281     | 468     | 1 929   |

Note(s)

(a) BGS estimates, based on known imports into certain countries

(b) Complex lead-zinc ore

(c) Including alloys

## Imports

| Commodity                    | Units     | 2005       | 2006       | 2007       | 2008       | 2009       |
|------------------------------|-----------|------------|------------|------------|------------|------------|
| Primary aggregates           | tonnes    | 7 978      | 4 661      | 3 843      | 4 590      | 3 636      |
| Aluminium and bauxite        |           |            |            |            |            |            |
| Bauxite                      | tonnes    | 46 016     | 52 627     | 53 202     | 39 256     | 17 350     |
| Alumina                      | tonnes    | 19 665     | 23 179     | 12 713     | 39 507     | 26 123     |
| Unwrought                    | tonnes    | 236 076    | 245 876    | 296 098    | 327 525    | 358 748    |
| Unwrought alloys             | tonnes    | 146 853    | 168 498    | 193 702    | 270 871    | 201 124    |
| Scrap                        | tonnes    | 16 723     | 7 061      | 5 634      | 16 868     | 14 215     |
| Antimony                     |           |            |            |            |            |            |
| Metal                        | tonnes    | 40         | 181        | 308        | 346        | 369        |
| Oxide                        | tonnes    | 377        | 381        | 501        | 522        | 588        |
| Arsenic                      |           |            |            |            |            |            |
| Metallic arsenic             | tonnes    | 98         | 77         | 63         | 71         | 74         |
| Asbestos                     |           |            |            |            |            |            |
| Unmanufactured               | tonnes    | 12 576     | 6 124      | 2 518      | 585        | —          |
| Barytes                      | tonnes    | 2 003      | 279        | 741        | 455        | 507        |
| Bentonite and fuller's earth |           |            |            |            |            |            |
| Bentonite                    | tonnes    | 4 188      | 5 210      | 10 541     | 9 806      | 1 827      |
| Fuller's earth               | tonnes    | 159        | 93         | ...        | ...        | ...        |
| Bismuth                      |           |            |            |            |            |            |
| Metal                        | tonnes    | 7          | 11         | 14         | 21         | 15         |
| Bromine (a)                  | kilograms | 125 982    | 55 642     | 28 424     | 6 761      | 6 497      |
| Cement                       |           |            |            |            |            |            |
| Cement clinkers              | tonnes    | 567 256    | 1 209 618  | 1 360 090  | 380 516    | 6 053      |
| Portland cement              | tonnes    | 66 260     | 71 237     | 39 270     | 12 279     | 13 471     |
| Other cement                 | tonnes    | 4 693      | 3 979      | 4 202      | 5 036      | 3 358      |
| Chromium                     |           |            |            |            |            |            |
| Ores and concentrates        | tonnes    | 89 844     | 84 467     | 107 524    | 119 806    | 113 461    |
| Coal                         |           |            |            |            |            |            |
| Anthracite                   | tonnes    | 413 333    | 502 178    | 530 393    | 707 425    | 457 575    |
| Other coal                   | tonnes    | 16 126 628 | 14 658 368 | 13 850 371 | 18 781 879 | 19 501 679 |
| Cobalt                       |           |            |            |            |            |            |
| Metal                        | tonnes    | 167        | 186        | 176        | 148        | 125        |
| Oxides                       | tonnes    | 139        | 165        | 142        | 152        | 150        |

## Imports continued

| Commodity                                | Units     | 2005       | 2006       | 2007       | 2008       | 2009       |
|--|-----------|------------|------------|------------|------------|------------|
| Copper                                   |           |            |            |            |            |            |
| Ores and concentrates                    | tonnes    | 44 633     | 18 111     | 32         | 3 884      | —          |
| Unwrought, unrefined                     | tonnes    | 53 214     | 54 790     | 34 389     | 38 116     | 4 852      |
| Unwrought, refined                       | tonnes    | 223 978    | 150 412    | 128 077    | 287 705    | 289 672    |
| Unwrought alloys                         | tonnes    | 3 212      | 2 160      | 1 975      | 3 060      | 2 828      |
| Scrap                                    | tonnes    | 10 104     | 6 602      | 3 013      | 1 263      | 870        |
| Diamond                                  |           |            |            |            |            |            |
| Gem                                      | carats    | 124 043    | 112 906    | 135 413    | 141 553    | 51 740     |
| Industrial                               | carats    | 27 325     | 44 601     | 36 999     | 102 596    | 29 724     |
| Dust                                     | carats    | 26 765 000 | 13 675 000 | 9 835 000  | 18 430 000 | 19 120 000 |
| Diatomite                                | tonnes    | 1 460      | 1 619      | 1 385      | 1 491      | 1 392      |
| Feldspar                                 | tonnes    | 40 739     | 44 159     | 46 323     | 28 594     | 28 166     |
| Fluorspar                                | tonnes    | 30 446     | 21 750     | 23 139     | 34 073     | 36 114     |
| Gold                                     |           |            |            |            |            |            |
| Metal                                    | kilograms | 403 415    | 157 792    | 155 471    | 179 606    | 52 654     |
| Graphite                                 | tonnes    | 11 956     | 6 300      | 6 095      | 13 230     | 6 788      |
| Gypsum                                   |           |            |            |            |            |            |
| Crude and calcined                       | tonnes    | 196 747    | 278 129    | 180 159    | 167 572    | 202 523    |
| Iodine                                   | kilograms | 5 634      | 3 219      | 8 594      | 9 498      | 12 133     |
| Iron ore                                 |           |            |            |            |            |            |
| Iron ore                                 | tonnes    | 4 621 446  | 7 197 305  | 6 925 163  | 5 004 508  | 7 757 561  |
| Burnt pyrites                            | tonnes    | 63 666     | 11 596     | ...        | 17 092     | 14 097     |
| Iron, steel and ferro-alloys             |           |            |            |            |            |            |
| Pig iron                                 | tonnes    | 396 658    | 333 981    | 338 641    | 802 741    | 770 160    |
| Sponge and powder                        | tonnes    | 68 952     | 34 440     | 19 801     | 96 393     | 81 008     |
| Ferro-chrome                             | tonnes    | 5 443      | 4 610      | 11 138     | 11 321     | 2 787      |
| Ferro-manganese                          | tonnes    | 43 743     | 60 213     | 56 619     | 73 319     | 46 760     |
| Ferro-silico-manganese                   | tonnes    | 159 496    | 216 036    | 236 039    | 195 623    | 191 605    |
| Ferro-molybdenum                         | tonnes    | 1 253      | 1 020      | 1 628      | 1 645      | 1 173      |
| Ferro-niobium                            | tonnes    | 433        | 435        | 446        | 609        | 338        |
| Ferro-phosphorus                         | tonnes    | 1 710      | 919        | 246        | 1 731      | 412        |
| Ferro-silicon                            | tonnes    | 58 007     | 72 599     | 100 758    | 90 477     | 60 164     |
| Ferro-titanium and ferro-silico-titanium | tonnes    | 447        | 649        | 616        | 634        | 651        |
| Ferro-vanadium                           | tonnes    | 426        | 483        | 472        | 529        | 323        |
| Other ferro-alloys                       | tonnes    | 5 983      | 7 357      | 9 642      | 12 345     | 6 060      |
| Silicon metal                            | tonnes    | 4 794      | 5 233      | 2 530      | 6 207      | 5 852      |
| Ingots, blooms, billets                  | tonnes    | 1 816 973  | 1 504 374  | 1 930 627  | 3 849 141  | 3 590 665  |
| Scrap                                    | tonnes    | 13 010 728 | 12 860 533 | 13 335 810 | 17 414 983 | 15 372 727 |
| Kaolin                                   | tonnes    | 265 530    | 190 924    | 163 015    | 402 812    | 301 086    |
| Lead                                     |           |            |            |            |            |            |
| Unwrought                                | tonnes    | 71 680     | 56 792     | 46 966     | 79 460     | 73 520     |
| Lithium                                  |           |            |            |            |            |            |
| Oxides                                   | tonnes    | 183        | 248        | 245        | 257        | 208        |
| Carbonate                                | tonnes    | 433        | 491        | 683        | 617        | 613        |
| Magnesite and magnesia                   |           |            |            |            |            |            |
| Magnesia                                 | tonnes    | 52 432     | 29 148     | 43 360     | 61 519     | 40 595     |
| Manganese                                |           |            |            |            |            |            |
| Ores and concentrates                    | tonnes    | 259        | 383        | 428        | 2 531      | 540        |
| Metal                                    | tonnes    | 300        | 509        | 719        | 874        | 583        |
| Mercury                                  | kilograms | 1 440      | 2 052      | 9          | 3 069      | 1 635      |
| Mica                                     | tonnes    | 266        | 413        | 293        | 385        | 477        |
| Molybdenum                               |           |            |            |            |            |            |
| Ores and concentrates                    | tonnes    | 1          | 2          | 4          | 3          | 291        |
| Metal                                    | tonnes    | 4          | 6          | 8          | 89         | 16         |
| Oxides                                   | tonnes    | 82         | 80         | 69         | 167        | 54         |
| Nickel                                   |           |            |            |            |            |            |
| Unwrought (b)                            | tonnes    | 3 333      | 3 417      | 3 710      | 4 038      | 2 711      |
| Oxides                                   | tonnes    | 128        | 150        | 140        | 142        | 148        |
| Crude petroleum                          | tonnes    | 23 389 647 | 23 786 875 | 23 445 764 | 21 833 471 | 14 219 427 |
| Phosphate rock                           | tonnes    | 496 738    | 744 504    | 782 996    | 741 190    | 707 595    |
| Platinum metals                          |           |            |            |            |            |            |
| Platinum and platinum metals             | kilograms | 188        | 212        | 316        | 463        | 235        |
| Potash                                   |           |            |            |            |            |            |
| Sulphate                                 | tonnes    | 39 198     | 19 373     | 57 661     | 33 427     | 11 576     |
| Chloride                                 | tonnes    | 135 433    | 78 671     | 96 038     | 82 412     | 50 634     |

## Turkey

## Imports continued

| Commodity                                | Units     | 2005    | 2006    | 2007    | 2008    | 2009    |
|--|-----------|---------|---------|---------|---------|---------|
| Rare earths                              |           |         |         |         |         |         |
| Rare earth compounds                     | tonnes    | 155     | 117     | 183     | 360     | 204     |
| Ferro-cerium and other pyrophoric alloys | tonnes    | ...     | ...     | ...     | 12      | 10      |
| Metals                                   | tonnes    | 0       | 0       | 8       | 9       | 9       |
| Salt                                     | tonnes    | 320 147 | 285 694 | 35 382  | 257 146 | 99 400  |
| Sillimanite minerals                     | tonnes    | 5 504   | 2 939   | 6 987   | 9 535   | 8 526   |
| Silver                                   |           |         |         |         |         |         |
| Metal                                    | kilograms | 409 844 | 108 588 | 996 239 | 154 639 | 57 700  |
| Sulphur and pyrites                      |           |         |         |         |         |         |
| Pyrites                                  | tonnes    | 94      | 231     | 252     | 224     | 67      |
| Sulphur                                  | tonnes    | 139 197 | 162 187 | 168 952 | 128 685 | 164 034 |
| Sulphur, sublimed and precipitated       | tonnes    | 111     | 111     | 194     | 321     | 1 315   |
| Talc                                     | tonnes    | 15 454  | 17 143  | 18 549  | 17 706  | 14 893  |
| Tin                                      |           |         |         |         |         |         |
| Unwrought (b)                            | tonnes    | 2 731   | 2 380   | 2 788   | 2 603   | 1 630   |
| Titanium                                 |           |         |         |         |         |         |
| Titanium minerals                        | tonnes    | 6 755   | 6 831   | * 9 000 | 7 762   | 5 628   |
| Oxides                                   | tonnes    | 92 136  | 108 721 | 111 858 | 106 206 | 98 100  |
| Zinc                                     |           |         |         |         |         |         |
| Unwrought                                | tonnes    | 141 842 | 397 384 | 136 916 | 147 215 | 137 765 |
| Unwrought alloys                         | tonnes    | 6 121   | 5 481   | 3 775   | 4 091   | 1 714   |
| Scrap                                    | tonnes    | 153     | 3 206   | 1 913   | 1 381   | 181     |
| Zirconium                                |           |         |         |         |         |         |
| Concentrates                             | tonnes    | 4 581   | 1 118   | 980     | 4 844   | 2 918   |

## Note(s)

- (a) May include some fluorine  
 (b) Including alloys

# United Kingdom

## Production

| Commodity                    | Units                             | 2005        | 2006        | 2007        | 2008        | 2009        |
|------------------------------|-----------------------------------|-------------|-------------|-------------|-------------|-------------|
| Primary aggregates           |                                   |             |             |             |             |             |
| Sand and gravel              | tonnes                            | 94 666 000  | 92 107 000  | 93 236 000  | 85 473 000  | 66 226 000  |
| Crushed rock (a)             | tonnes                            | 141 636 000 | 145 578 000 | 148 534 000 | 127 996 000 | 99 444 000  |
| Primary aluminium            | tonnes                            | 368 477     | 360 325     | 364 595     | 326 900     | 313 702     |
| Barytes                      | tonnes                            | 64 000      | 48 000      | 53 000      | 43 000      | 36 000      |
| Bentonite and fuller's earth |                                   |             |             |             |             |             |
| Fuller's earth (b)           | tonnes                            | 6 200       | —           | —           | —           | —           |
| Cement                       |                                   |             |             |             |             |             |
| Cement clinker               | tonnes                            | 10 074 000  | 10 069 000  | 10 227 000  | 8 700 000   | 6 421 000   |
| Cement, finished             | tonnes                            | 11 216 000  | 11 469 000  | 11 887 000  | 10 071 000  | 7 623 000   |
| Coal                         |                                   |             |             |             |             |             |
| Bituminous (c)               | tonnes                            | 20 498 000  | 18 517 000  | 17 070 000  | 18 053 000  | 17 874 000  |
| Feldspar (d) (e)             | tonnes                            | 1 835       | 1 441       | 1 112       | 430         | * 400       |
| Fluorspar                    | tonnes                            | 56 417      | 49 676      | 44 936      | 36 801      | 18 536      |
| Gold, mine                   | kilograms (metal content)         | —           | —           | 88          | 163         | 188         |
| Gypsum                       | tonnes                            | * 1 700 000 | * 1 700 000 | * 1 700 000 | * 1 700 000 | * 1 700 000 |
| Iron ore                     | tonnes                            | 354         | 341         | * 300       | 145         | —           |
| Pig iron                     | tonnes                            | 10 188 800  | 10 695 700  | 10 959 800  | 10 136 800  | 7 674 000   |
| Crude steel                  | tonnes                            | 13 238 900  | 13 904 600  | 14 392 300  | 13 520 500  | 10 080 000  |
| Kaolin (f) (g)               | tonnes                            | 1 910 874   | 1 762 328   | 1 671 426   | 1 355 365   | 1 059 848   |
| Lead, mine                   | tonnes (metal content)            | * 400       | * 400       | * 300       | * 300       | * 300       |
| Lead, refined                | tonnes                            | 304 350     | 318 703     | 263 391     | 283 000     | 301 865     |
| Nickel, smelter/refinery     | tonnes                            | 37 600      | 36 750      | 34 050      | 40 800      | 17 800      |
| Crude petroleum              | tonnes                            | 77 179 000  | 69 665 000  | 70 357 000  | 65 497 000  | 62 820 000  |
| Natural gas                  | million m <sup>3</sup>            | 93 505      | 84 748      | 76 970      | 74 936      | 62 890      |
| Potash                       |                                   |             |             |             |             |             |
| Chloride                     | tonnes (K <sub>2</sub> O content) | 439 200     | 427 000     | 430 000     | 403 800     | 360 000     |
| Salt                         |                                   |             |             |             |             |             |
| Rock salt                    | tonnes                            | * 2 000 000 | * 2 000 000 | * 2 000 000 | * 2 000 000 | * 2 000 000 |
| Brine salt                   | tonnes                            | * 1 000 000 | * 1 000 000 | * 1 000 000 | * 1 000 000 | * 1 000 000 |
| Salt in brine (h)            | tonnes                            | * 2 800 000 | * 2 800 000 | * 2 800 000 | * 2 800 000 | * 2 800 000 |
| Silver, mine                 | kilograms (metal content)         | —           | —           | 212         | 398         | 505         |
| Sulphur and pyrites          |                                   |             |             |             |             |             |
| Recovered (i)                | tonnes (sulphur content)          | 124 000     | 115 000     | 130 000     | 135 000     | 145 000     |
| Talc                         | tonnes                            | 6 000       | 4 325       | 2 850       | 2 410       | 2 861       |

### Note(s)

- (1) United Kingdom is believed to produce arsenic  
 (2) In addition to the countries producing sillimanite minerals, synthetic mullite is known to be produced in the United Kingdom

- (a) Includes small quantities for other purposes in Northern Ireland
- (b) Saleable production based on data from producing companies
- (c) Including anthracite
- (d) Including weathered granite feldspar
- (e) China stone
- (f) Sales
- (g) Dry weight
- (h) Used for purposes other than salt-making
- (i) From petroleum refining and/or Natural gas

## Exports

| Commodity                    | Units     | 2005        | 2006        | 2007        | 2008        | 2009        |
|------------------------------|-----------|-------------|-------------|-------------|-------------|-------------|
| Primary aggregates           | tonnes    | 13 304 920  | 14 631 060  | 14 048 387  | 13 008 608  | 10 714 861  |
| Aluminium and bauxite        |           |             |             |             |             |             |
| Bauxite                      | tonnes    | 4 325       | 28 636      | 4 276       | 6 121       | 3 873       |
| Alumina                      | tonnes    | 4 336       | 9 979       | 9 016       | 9 517       | 16 810      |
| Alumina hydrate (a)          | tonnes    | * 20 600    | * 1 900     | * 5 300     | * 5 300     | * 4 400     |
| Unwrought                    | tonnes    | 48 684      | 17 530      | 30 631      | 20 690      | 17 688      |
| Unwrought alloys             | tonnes    | 329 691     | 331 598     | 269 523     | 265 018     | 305 849     |
| Scrap                        | tonnes    | 474 587     | 385 211     | 906 831     | 872 988     | 422 574     |
| Antimony                     |           |             |             |             |             |             |
| Metal                        | tonnes    | 54          | 27          | 21          | 35          | 75          |
| Oxide                        | tonnes    | 621         | 397         | 379         | 558         | 407         |
| Barytes                      | tonnes    | 16 334      | 4 250       | 9 242       | 9 976       | 13 095      |
| Bentonite and fuller's earth |           |             |             |             |             |             |
| Bentonite                    | tonnes    | 49 514      | 42 548      | 47 122      | 43 261      | 34 622      |
| Fuller's earth               | tonnes    | 778         | 1 102       | ...         | ...         | ...         |
| Bismuth                      |           |             |             |             |             |             |
| Metal                        | tonnes    | 2 426       | 2 703       | 2 588       | 905         | 941         |
| Bromine                      | kilograms | 234 977     | 1 137 544   | 1 469 781   | 1 015 304   | 497 246     |
| Cadmium                      |           |             |             |             |             |             |
| Metal                        | tonnes    | 79          | 7           | 76          | 54          | 25          |
| Cement                       |           |             |             |             |             |             |
| Cement clinkers              | tonnes    | 134 992     | 91 357      | 28 432      | 15 071      | 4 708       |
| Portland cement              | tonnes    | 320 680     | 521 784     | 459 629     | 230 920     | 92 628      |
| Other cement                 | tonnes    | 68 554      | 86 858      | 88 452      | 93 122      | 51 359      |
| Chromium                     |           |             |             |             |             |             |
| Ores and concentrates        | tonnes    | 228         | 47          | 178         | —           | 32 507      |
| Metal                        | tonnes    | 4 547       | 5 123       | 6 777       | 6 501       | 5 058       |
| Coal                         |           |             |             |             |             |             |
| Anthracite                   | tonnes    | 169 252     | 137 353     | 123 549     | 165 473     | 119 472     |
| Other coal                   | tonnes    | 380 426     | 354 281     | 419 193     | 742 582     | 391 414     |
| Lignite                      | tonnes    | 2 321       | 2 748       | 1 965       | 2 334       | 2 186       |
| Briquettes                   | tonnes    | 20 713      | 20 037      | 27 591      | 52 605      | 68 226      |
| Cobalt                       |           |             |             |             |             |             |
| Metal                        | tonnes    | 1 471       | 1 695       | 2 300       | 2 614       | 2 572       |
| Oxides                       | tonnes    | 994         | 750         | 689         | 798         | 891         |
| Copper                       |           |             |             |             |             |             |
| Matte and cement             | tonnes    | 41          | 515         | 16          | 28          | 14          |
| Unwrought, unrefined         | tonnes    | 271         | 153         | 786         | 3 066       | 205         |
| Unwrought, refined           | tonnes    | 15 982      | 5 969       | 8 489       | 4 850       | 14 059      |
| Unwrought alloys             | tonnes    | 15 013      | 17 251      | 18 142      | 17 822      | 11 839      |
| Scrap                        | tonnes    | 238 557     | 311 058     | 346 361     | 358 981     | 429 467     |
| Diamond                      |           |             |             |             |             |             |
| Unsorted                     | carats    | 16 818 545  | 3 544 216   | 5 307 857   | 3 388 395   | 4 090 534   |
| Gem, rough                   | carats    | 76 400 064  | 88 991 279  | 84 573 134  | 66 479 817  | 43 775 775  |
| Gem, cut                     | carats    | 5 330 874   | 2 341 635   | 477 463     | 795 612     | 257 202     |
| Industrial                   | carats    | 21 647 850  | 13 652 233  | 4 754 029   | 6 121 081   | 8 881 844   |
| Dust                         | carats    | 124 529 495 | 111 788 350 | 104 552 775 | 122 681 695 | 105 427 132 |
| Diatomite                    | tonnes    | 708         | 687         | 1 238       | 903         | 533         |
| Feldspar                     | tonnes    | 48          | 38          | 40          | 82          | 369         |
| Fluorspar                    | tonnes    | 4 315       | 2 451       | 589         | 187         | 303         |
| Gold                         |           |             |             |             |             |             |
| Metal                        | kilograms | 638 262     | 166 080     | 224 598     | 600 018     | 96 231      |
| Waste and scrap              | kilograms | 541 399     | 313 712     | 282 298     | 272 339     | 533 182     |
| Graphite                     | tonnes    | 2 685       | 2 979       | 3 065       | 3 156       | 2 271       |
| Gypsum                       |           |             |             |             |             |             |
| Crude                        | tonnes    | 2 299       | 2 679       | 1 248       | 1 493       | 1 978       |
| Calcined                     | tonnes    | 54 356      | 63 533      | 57 988      | 48 340      | 32 551      |
| Iodine                       | kilograms | 197 086     | 314 659     | 368 785     | 174 965     | 121 370     |
| Iron ore                     | tonnes    | 2 107       | 5 229       | 5 396       | 7 731       | 32 579      |

## Exports continued

| Commodity                                | Units     | 2005       | 2006       | 2007       | 2008       | 2009       |
|--|-----------|------------|------------|------------|------------|------------|
| Iron, steel and ferro-alloys             |           |            |            |            |            |            |
| Pig iron                                 | tonnes    | 1 387      | 5 407      | 15 892     | 2 523      | 27 765     |
| Sponge and powder                        | tonnes    | 3 605      | 2 346      | 4 969      | 2 794      | 3 103      |
| Ferro-chrome and ferro-silico-chrome     | tonnes    | 6 238      | 4 066      | 2 973      | 1 385      | 1 525      |
| Ferro-silico-chrome                      | tonnes    | 8          | 8          | 35         | 9          | 50         |
| Ferro-silico-magnesium                   | tonnes    | 542        | 653        | 917        | 976        | 1 373      |
| Ferro-manganese                          | tonnes    | 661        | 946        | 1 136      | 1 210      | 963        |
| Ferro-silico-manganese                   | tonnes    | 5 003      | 60         | 7          | 49         | 129        |
| Ferro-molybdenum                         | tonnes    | 11 501     | 12 004     | 11 823     | 11 283     | 7 634      |
| Ferro-nickel                             | tonnes    | 55         | 329        | 52         | 81         | 18         |
| Ferro-niobium                            | tonnes    | 79         | 74         | 49         | 58         | 52         |
| Ferro-phosphorus                         | tonnes    | 189        | 36         | 33         | 45         | 312        |
| Ferro-silicon                            | tonnes    | 2 652      | 2 733      | 2 314      | 3 250      | 3 338      |
| Ferro-titanium and ferro-silico-titanium | tonnes    | 17 361     | 17 645     | 19 515     | 18 557     | 13 098     |
| Ferro-tungsten and ferro-silico-tungsten | tonnes    | 37         | 17         | 8          | 31         | 1          |
| Ferro-vanadium                           | tonnes    | 157        | 151        | 96         | 79         | 64         |
| Other ferro-alloys                       | tonnes    | 6 167      | 4 327      | 3 867      | 5 002      | 2 142      |
| Silicon metal                            | tonnes    | 2 466      | 6 963      | 11 325     | 151 132    | 7 753      |
| Ingots, blooms, billets                  | tonnes    | 2 246 377  | 2 692 654  | 3 514 850  | 3 348 794  | 2 118 701  |
| Scrap                                    | tonnes    | 6 105 955  | 7 407 174  | 6 013 907  | 6 616 708  | 6 007 656  |
| Kaolin (b)                               | tonnes    | 1 698 747  | 1 566 025  | 1 490 416  | 1 188 267  | 932 180    |
| Lead                                     |           |            |            |            |            |            |
| Unwrought                                | tonnes    | 52 593     | 89 271     | 68 152     | 57 466     | 181 248    |
| Unwrought alloys                         | tonnes    | 38 806     | 48 589     | 39 246     | 79 520     | 54 505     |
| Scrap                                    | tonnes    | 27 248     | 1 859      | 31 942     | 47 660     | 56 055     |
| Lithium                                  |           |            |            |            |            |            |
| Oxides                                   | tonnes    | 125        | 94         | 92         | 232        | 569        |
| Carbonate                                | tonnes    | 203        | 271        | 158        | 216        | 193        |
| Magnesite and magnesia                   |           |            |            |            |            |            |
| Magnesite                                | tonnes    | 87         | 26         | 51         | 316        | 518        |
| Magnesia                                 | tonnes    | 20 077     | 19 036     | 16 371     | 13 647     | 9 662      |
| Manganese                                |           |            |            |            |            |            |
| Metal (a)                                | tonnes    | * 3 100    | * 2 000    | * 2 100    | * 3 100    | * 1 800    |
| Mercury                                  | kilograms | 191 193    | 78 514     | 4 311      | 6 369      | 178 571    |
| Mica                                     | tonnes    | 4 052      | 4 593      | 3 820      | 4 749      | 3 944      |
| Molybdenum                               |           |            |            |            |            |            |
| Ores and concentrates                    | tonnes    | 179        | 166        | 78         | 64         | 35         |
| Metal                                    | tonnes    | 807        | 318        | 237        | 241        | 433        |
| Natural gas                              | tonnes    | 1 373 020  | 60 124     | 30 814     | 7 641      | 1 416      |
| Nickel                                   |           |            |            |            |            |            |
| Mattes, sinters etc                      | tonnes    | 196        | 517        | 40         | 26         | 107        |
| Unwrought                                | tonnes    | 38 524     | 31 610     | 24 147     | 26 235     | 15 834     |
| Unwrought alloys                         | tonnes    | 6 141      | 6 486      | 4 375      | 4 378      | 4 753      |
| Scrap                                    | tonnes    | 14 119     | 15 555     | 16 872     | 18 229     | 12 693     |
| Crude petroleum                          | tonnes    | 50 619 044 | 47 864 601 | 47 058 702 | 43 354 245 | 43 550 953 |
| Phosphate rock                           | tonnes    | 1 548      | 335        | 504        | 759        | 514        |
| Platinum metals                          |           |            |            |            |            |            |
| Platinum                                 | kilograms | 41 500     | 42 843     | 52 789     | 40 630     | 43 177     |
| Palladium                                | kilograms | 51 807     | 48 688     | 56 994     | 47 142     | 53 091     |
| Other Platinum metals                    | kilograms | 17 852     | 23 353     | 23 731     | 22 548     | 20 044     |
| Waste and scrap                          | kilograms | 2 881 226  | 3 507 381  | 3 793 637  | 4 278 682  | 4 273 222  |
| Potash                                   |           |            |            |            |            |            |
| Chloride                                 | tonnes    | * 340 000  | * 430 000  | * 350 000  | * 283 000  | * 200 000  |
| Other potassic fertilisers               | tonnes    | 699        | 612        | 399        | 562        | 228        |
| Rare earths                              |           |            |            |            |            |            |
| Cerium compounds                         | tonnes    | 121        | 111        | 37         | 73         | 105        |
| Other rare earth compounds               | tonnes    | 1 189      | 954        | 1 089      | 622        | 459        |
| Ferro-cerium and other pyrophoric alloys | tonnes    | 2          | 76         | 80         | 7          | 6          |
| Metals                                   | tonnes    | 26         | 29         | 143        | 237        | 54         |
| Salt                                     | tonnes    | 538 796    | 557 311    | 514 868    | 873 708    | 449 303    |
| Sillimanite minerals                     | tonnes    | 2 417      | 1 925      | 2 430      | 2 076      | 1 414      |
| Silver                                   |           |            |            |            |            |            |
| Ores and concentrates                    | kilograms | 13 387     | ...        | 1 627      | 192        | 1 338      |
| Metal                                    | kilograms | 2 289 098  | 1 069 383  | 2 317 951  | 6 071 009  | 943 522    |

United Kingdom

Exports continued

| Commodity                          | Units  | 2005    | 2006    | 2007    | 2008    | 2009    |
|------------------------------------|--------|---------|---------|---------|---------|---------|
| Sulphur and pyrites                |        |         |         |         |         |         |
| Sulphur, crude                     | tonnes | 105     | 113     | 8 207   | 13 182  | 2 545   |
| Sulphur, refined                   | tonnes | 326     | 643     | 15 268  | 27 872  | 38 723  |
| Sulphur, sublimed and precipitated | tonnes | 1 458   | 1 312   | 624     | 1 144   | 1 902   |
| Talc                               | tonnes | 5 244   | 4 626   | 2 389   | 3 129   | 2 402   |
| Tantalum and niobium               |        |         |         |         |         |         |
| Tantalum                           | tonnes | 131     | 83      | 77      | 55      | 72      |
| Tin                                |        |         |         |         |         |         |
| Concentrates                       | tonnes | 2       | 4       | 373     | 254     | 61      |
| Unwrought                          | tonnes | 1 608   | 8 395   | 4 085   | 1 264   | 928     |
| Unwrought alloys                   | tonnes | 442     | 698     | 696     | 532     | 537     |
| Scrap                              | tonnes | 20 603  | 35 252  | 27 329  | 19 110  | 22 597  |
| Titanium                           |        |         |         |         |         |         |
| Metal                              | tonnes | 17 212  | 14 028  | 12 934  | 11 155  | 9 555   |
| Oxides                             | tonnes | 215 741 | 182 246 | 212 068 | 222 503 | 203 873 |
| Tungsten                           |        |         |         |         |         |         |
| Metal                              | tonnes | 1 732   | 2 100   | 2 444   | 1 625   | 1 541   |
| Carbide                            | tonnes | 83      | 251     | 303     | 51      | 80      |
| Vanadium                           |        |         |         |         |         |         |
| Pentoxide                          | tonnes | 20      | 23      | 697     | 589     | 487     |
| Metal                              | tonnes | 433     | 69      | 2 182   | 2       | 18      |
| Zinc                               |        |         |         |         |         |         |
| Ores and concentrates              | tonnes | 141     | 468     | 82      | 246     | 11 418  |
| Unwrought                          | tonnes | 1 661   | 5 325   | 5 932   | 3 883   | 3 600   |
| Unwrought alloys                   | tonnes | 38 267  | 37 120  | 33 799  | 28 408  | 13 578  |
| Scrap                              | tonnes | 9 881   | 4 571   | 7 543   | 5 699   | 6 030   |
| Zirconium                          |        |         |         |         |         |         |
| Concentrates                       | tonnes | 699     | 902     | 1 096   | 716     | 742     |
| Metal                              | tonnes | 127     | 90      | 54      | 61      | 19      |

Note(s)

- (a) BGS estimates, based on known imports into certain countries
- (b) Dry weight

## Imports

| Commodity                    | Units     | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Primary aggregates           | tonnes    | 2 160 513 | 2 905 198 | 2 806 448 | 2 631 986 | 2 054 272 |
| Aluminium and bauxite        |           |           |           |           |           |           |
| Bauxite                      | tonnes    | 103 522   | 86 882    | 48 741    | 57 971    | 37 461    |
| Alumina                      | tonnes    | 755 443   | 823 115   | 787 218   | 705 033   | 352 250   |
| Alumina hydrate              | tonnes    | 130 321   | 101 126   | 112 287   | 110 503   | 98 516    |
| Unwrought                    | tonnes    | 114 189   | 169 259   | 201 262   | 160 797   | 304 621   |
| Unwrought alloys             | tonnes    | 87 063    | 245 496   | 93 145    | 93 210    | 43 601    |
| Scrap                        | tonnes    | 116 285   | 137 626   | 158 827   | 145 819   | 117 651   |
| Antimony                     |           |           |           |           |           |           |
| Metal                        | tonnes    | 60        | 81        | 110       | 98        | 88        |
| Oxide                        | tonnes    | 2 048     | 2 291     | 1 917     | 2 454     | 1 548     |
| Arsenic                      |           |           |           |           |           |           |
| Metallic arsenic             | tonnes    | 3         | 49        | 70        | 52        | 60        |
| Asbestos                     |           |           |           |           |           |           |
| Unmanufactured               | tonnes    | ...       | 0         | 187       | ...       | 11        |
| Barytes                      | tonnes    | 54 753    | 78 225    | 84 617    | 56 794    | 61 308    |
| Bentonite and fuller's earth |           |           |           |           |           |           |
| Bentonite                    | tonnes    | 151 179   | 173 483   | 157 388   | 205 853   | 140 301   |
| Sepiolite                    | tonnes    | 65 565    | 72 340    | 282 733   | 227 453   | 70 651    |
| Fuller's earth               | tonnes    | 3 122     | 14 700    | ...       | ...       | ...       |
| Bismuth                      |           |           |           |           |           |           |
| Metal                        | tonnes    | 2 858     | 2 347     | 1 908     | 1 582     | 310       |
| Bromine                      | kilograms | 7 994 939 | 7 592 352 | 5 266 339 | 5 903 423 | 6 534 300 |
| Cadmium                      |           |           |           |           |           |           |
| Metal                        | tonnes    | 206       | 129       | 276       | 212       | 246       |

## Imports continued

| Commodity                                | Units     | 2005        | 2006        | 2007        | 2008        | 2009       |
|--|-----------|-------------|-------------|-------------|-------------|------------|
| Cement                                   |           |             |             |             |             |            |
| Cement clinkers                          | tonnes    | 406 044     | 516 583     | 836 788     | 366 791     | 206 857    |
| Portland cement                          | tonnes    | 1 645 088   | 1 397 025   | 1 534 683   | 1 731 228   | 1 718 146  |
| Other cement                             | tonnes    | 37 705      | 26 790      | 26 215      | 28 324      | 30 815     |
| Chromium                                 |           |             |             |             |             |            |
| Ores and concentrates                    | tonnes    | 122 042     | 74 907      | 103 551     | 117 715     | 33 867     |
| Metal                                    | tonnes    | 1 723       | 4 022       | 2 134       | 3 099       | 2 904      |
| Coal                                     |           |             |             |             |             |            |
| Anthracite                               | tonnes    | 187 388     | 125 011     | 135 941     | 213 318     | 207 327    |
| Other coal                               | tonnes    | 43 890 778  | 49 544 012  | 43 024 560  | 43 038 043  | 36 553 574 |
| Briquettes                               | tonnes    | 6 554       | 9 995       | 6 501       | 14 131      | 9 021      |
| Cobalt                                   |           |             |             |             |             |            |
| Ore                                      | tonnes    | 6           | 74          | 59          | 72          | 200        |
| Metal                                    | tonnes    | 3 888       | 4 427       | 5 422       | 5 395       | 3 928      |
| Oxides                                   | tonnes    | 107         | 195         | 180         | 138         | 168        |
| Copper                                   |           |             |             |             |             |            |
| Unwrought, unrefined                     | tonnes    | 1 978       | 264         | 7 401       | 5 529       | 3 034      |
| Unwrought, refined                       | tonnes    | 181 767     | 183 727     | 46 820      | 47 716      | 45 249     |
| Unwrought alloys                         | tonnes    | 820         | 6 399       | 6 202       | 5 721       | 4 066      |
| Scrap                                    | tonnes    | 42 264      | 19 744      | 21 852      | 21 132      | 18 549     |
| Diamond                                  |           |             |             |             |             |            |
| Unsorted                                 | carats    | 33 441 810  | 14 408 621  | 13 661 786  | 10 283 610  | 8 348 854  |
| Gem, rough                               | carats    | 78 735 595  | 78 790 692  | 81 195 314  | 59 534 653  | 44 064 081 |
| Gem, cut                                 | carats    | 12 039 040  | 7 370 573   | 973 433     | 1 343 330   | 868 406    |
| Industrial                               | carats    | 25 367 064  | 11 884 651  | 7 524 168   | 5 127 610   | 6 643 340  |
| Dust                                     | carats    | 125 510 400 | 199 882 920 | 198 484 150 | 187 268 975 | 88 148 090 |
| Diatomite                                | tonnes    | 29 208      | 28 290      | 24 224      | 23 084      | 22 014     |
| Feldspar                                 | tonnes    | 23 139      | 17 098      | 26 751      | 18 899      | 9 299      |
| Fluorspar                                | tonnes    | 4 051       | 6 620       | 3 875       | 8 429       | 6 436      |
| Gold                                     |           |             |             |             |             |            |
| Metal                                    | kilograms | 351 258     | 781 840     | 649 163     | 914 000     | 1 166 948  |
| Waste and scrap                          | kilograms | 66 198      | 7 925       | 17 046      | 43 143      | 213 440    |
| Graphite                                 | tonnes    | 17 766      | 16 978      | 17 225      | 14 309      | 7 850      |
| Gypsum                                   |           |             |             |             |             |            |
| Crude                                    | tonnes    | 627 595     | 369 714     | 196 613     | 140 783     | 396 138    |
| Calcined                                 | tonnes    | 133 522     | 92 069      | 52 678      | 88 766      | 60 337     |
| Iodine                                   | kilograms | 1 092 633   | 1 019 543   | 1 225 368   | 1 106 864   | 1 075 328  |
| Iron ore                                 |           |             |             |             |             |            |
| Iron ore                                 | tonnes    | 16 204 615  | 16 370 705  | 17 435 472  | 15 282 786  | 9 185 919  |
| Burnt pyrites                            | tonnes    | 1 911       | 1 282       | 131 230     | 693         | 232        |
| Iron, steel and ferro-alloys             |           |             |             |             |             |            |
| Pig iron                                 | tonnes    | 102 531     | 81 689      | 89 863      | 61 657      | 19 703     |
| Sponge and powder                        | tonnes    | 21 914      | 34 768      | 11 766      | 27 003      | 17 483     |
| Ferro-chrome                             | tonnes    | 63 478      | 52 494      | 46 975      | 79 692      | 34 884     |
| Ferro-silico-chrome                      | tonnes    | 728         | 350         | 1 242       | 128         | 26         |
| Ferro-silico-magnesium                   | tonnes    | 5 448       | 3 810       | 2 303       | 1 614       | 1 535      |
| Ferro-manganese                          | tonnes    | 79 045      | 86 598      | 100 694     | 96 461      | 49 700     |
| Ferro-silico-manganese                   | tonnes    | 57 136      | 59 985      | 56 036      | 52 966      | 74 227     |
| Ferro-molybdenum                         | tonnes    | 861         | 640         | 515         | 369         | 327        |
| Ferro-nickel                             | tonnes    | 11 325      | 13 169      | 14 960      | 16 520      | 2 777      |
| Ferro-niobium                            | tonnes    | 1 175       | 1 098       | 1 490       | 1 189       | 686        |
| Ferro-phosphorus                         | tonnes    | 3 261       | 386         | 2 070       | 2 473       | 282        |
| Ferro-silicon                            | tonnes    | 116 450     | 64 610      | 66 838      | 59 438      | 31 091     |
| Ferro-titanium and ferro-silico-titanium | tonnes    | 1 883       | 1 087       | 1 677       | 1 290       | 396        |
| Ferro-vanadium                           | tonnes    | 609         | 1 623       | 755         | 543         | 209        |
| Other ferro-alloys                       | tonnes    | 2 499       | 2 399       | 3 281       | 2 264       | 3 090      |
| Silicon metal                            | tonnes    | 77 103      | 29 512      | 25 787      | 56 807      | 67 882     |
| Ingots, blooms, billets                  | tonnes    | 722 452     | 1 053 176   | 849 803     | 679 019     | 212 829    |
| Scrap                                    | tonnes    | 180 261     | 154 967     | 204 100     | 228 294     | 213 818    |
| Kaolin                                   | tonnes    | 84 617      | 99 262      | 73 014      | 79 546      | 77 504     |
| Lead                                     |           |             |             |             |             |            |
| Unwrought, base bullion (a)              | tonnes    | 173 910     | 120 871     | 119 726     | 194 113     | 130 312    |
| Unwrought, other                         | tonnes    | 31 347      | 53 892      | 31 187      | 39 493      | 17 277     |
| Scrap                                    | tonnes    | 3 898       | 5 914       | 17 685      | 4 621       | 4 962      |
| Lithium                                  |           |             |             |             |             |            |
| Oxides                                   | tonnes    | 446         | 385         | 614         | 466         | 914        |
| Carbonate                                | tonnes    | 657         | 650         | 779         | 536         | 622        |

## United Kingdom

## Imports continued

| Commodity                                | Units     | 2005       | 2006       | 2007       | 2008       | 2009       |
|--|-----------|------------|------------|------------|------------|------------|
| Magnesite and magnesia                   |           |            |            |            |            |            |
| Magnesite                                | tonnes    | 13 896     | 10 644     | 10 194     | 7 016      | 3 567      |
| Magnesia                                 | tonnes    | 78 843     | 64 896     | 57 905     | 59 300     | 43 873     |
| Manganese                                |           |            |            |            |            |            |
| Ores and concentrates (b)                | tonnes    | 698        | 8 458      | 1 569      | 4 133      | 941        |
| Metal                                    | tonnes    | 8 223      | 8 563      | 7 021      | 8 773      | 4 123      |
| Mercury                                  | kilograms | 32 306     | 2 128      | 2 668      | 2 387      | 1 121      |
| Mica                                     |           |            |            |            |            |            |
| Unmanufactured                           | tonnes    | 296        | 251        | 289        | 377        | 328        |
| Ground                                   | tonnes    | 6 684      | 5 856      | 6 705      | 7 061      | 6 396      |
| Waste                                    | tonnes    | 4 485      | 3 474      | 3 433      | 2 030      | 49         |
| Molybdenum                               |           |            |            |            |            |            |
| Ores and concentrates                    | tonnes    | 18 600     | 19 032     | 18 381     | 15 130     | 9 007      |
| Metal                                    | tonnes    | 2 877      | 3 445      | 1 390      | 2 102      | 707        |
| Oxides                                   | tonnes    | 630        | 635        | 513        | 1 433      | 510        |
| Natural gas                              | tonnes    | 7 309 558  | 7 881 575  | 15 277 213 | 18 133 087 | 25 002 507 |
| Nickel                                   |           |            |            |            |            |            |
| Mattes, sinters etc                      | tonnes    | 57 492     | 56 336     | 62 637     | 63 553     | 25 929     |
| Unwrought                                | tonnes    | 24 019     | 17 414     | 21 044     | 16 888     | 8 003      |
| Unwrought alloys                         | tonnes    | 1 629      | 2 883      | 2 947      | 3 210      | 3 596      |
| Scrap                                    | tonnes    | 10 927     | 7 975      | 10 376     | 10 291     | 9 593      |
| Oxides                                   | tonnes    | 277        | 59         | 49         | 13         | 1          |
| Crude petroleum                          | tonnes    | 54 067 943 | 55 735 570 | 44 129 689 | 52 103 843 | 50 656 965 |
| Phosphate rock                           | tonnes    | 30 177     | 7 803      | 23 052     | 28 971     | 5 600      |
| Platinum metals                          |           |            |            |            |            |            |
| Platinum                                 | kilograms | 51 553     | 23 472     | 26 015     | 29 943     | 30 339     |
| Palladium                                | kilograms | 30 576     | 37 226     | 42 395     | 32 806     | 36 652     |
| Other Platinum metals                    | kilograms | 7 134      | 9 127      | 6 507      | 5 409      | 6 713      |
| Waste and scrap                          | kilograms | 1 271 315  | 1 148 802  | 1 456 413  | 1 416 905  | 1 100 117  |
| Potash                                   |           |            |            |            |            |            |
| Fertiliser salts                         | tonnes    | 9 517      | 10 696     | ...        | ...        | ...        |
| Sulphate                                 | tonnes    | 12 206     | 14 274     | 16 166     | 15 157     | 15 766     |
| Chloride                                 | tonnes    | 198 893    | 170 942    | 202 623    | 165 331    | 80 842     |
| Other potassic fertilisers               | tonnes    | 945        | 1 310      | 10 813     | 11 919     | 10 422     |
| Rare earths                              |           |            |            |            |            |            |
| Cerium compounds                         | tonnes    | 2 324      | 1 615      | 2 167      | 2 067      | 612        |
| Other rare earth compounds               | tonnes    | 775        | 600        | 664        | 251        | 103        |
| Ferro-cerium and other pyrophoric alloys | tonnes    | 19         | 60         | 77         | 57         | 148        |
| Metals                                   | tonnes    | 166        | 88         | 88         | 133        | 99         |
| Salt                                     | tonnes    | 287 623    | 246 879    | 237 772    | 237 288    | 410 434    |
| Sillimanite minerals                     |           |            |            |            |            |            |
| Sillimanite minerals                     | tonnes    | 39 650     | 10 268     | 10 239     | 11 920     | 7 763      |
| Mullite                                  | tonnes    | 10 430     | 7 468      | 12 036     | 6 488      | 5 255      |
| Silver                                   |           |            |            |            |            |            |
| Ores and concentrates                    | kilograms | 12 640     | 249        | 8 283      | 8 332      | 1 106      |
| Metal                                    | kilograms | 1 485 290  | 7 316 639  | 3 635 563  | 3 943 638  | 6 649 190  |
| Waste and scrap                          | kilograms | 2 282 562  | 2 741 705  | 3 049 452  | 4 222 712  | 3 311 165  |
| Sulphur and pyrites                      |           |            |            |            |            |            |
| Pyrites                                  | tonnes    | 26         | 19         | 105        | 704        | 104        |
| Sulphur, crude                           | tonnes    | 24 222     | 11 608     | 5 101      | 64         | 74         |
| Sulphur, refined                         | tonnes    | 7 263      | 7 334      | 8 577      | 9 574      | 6 211      |
| Sulphur, sublimed and precipitated       | tonnes    | 577        | 1 297      | 1 073      | 1 186      | 473        |
| Talc                                     | tonnes    | 65 496     | 55 200     | 54 812     | 53 864     | 39 520     |
| Tantalum and niobium                     |           |            |            |            |            |            |
| Tantalum                                 | tonnes    | 97         | 119        | 96         | 161        | 145        |
| Tin                                      |           |            |            |            |            |            |
| Unwrought                                | tonnes    | 4 812      | 3 558      | 13 630     | 7 181      | 4 522      |
| Unwrought alloys                         | tonnes    | 2 067      | 891        | 525        | 400        | 370        |
| Scrap                                    | tonnes    | 468        | 1 728      | 452        | 448        | 121        |
| Titanium                                 |           |            |            |            |            |            |
| Ilmenite                                 | tonnes    | 80 435     | 175 882    | 181 794    | 194 719    | 112 068    |
| Other titanium minerals                  | tonnes    | 109 238    | 48 147     | 42         | 37         | 23         |
| Titanium slag                            | tonnes    | 64 849     | 91 603     | 151 494    | 316 390    | 127 224    |
| Metal                                    | tonnes    | 27 938     | 30 267     | 30 905     | 32 305     | 23 178     |
| Oxides                                   | tonnes    | 67 102     | 71 528     | 74 708     | 58 748     | 53 864     |

## Imports continued

| Commodity        | Units  | 2005    | 2006    | 2007    | 2008    | 2009   |
|------------------|--------|---------|---------|---------|---------|--------|
| Tungsten         |        |         |         |         |         |        |
| Metal            | tonnes | 3 204   | 4 607   | 2 925   | 1 865   | 1 477  |
| Carbide          | tonnes | 974     | 913     | 1 409   | 1 023   | 614    |
| Vanadium         |        |         |         |         |         |        |
| Pentoxide        | tonnes | 339     | 472     | 425     | 344     | 84     |
| Metal            | tonnes | 812     | 407     | 583     | 314     | 112    |
| Zinc             |        |         |         |         |         |        |
| Unwrought        | tonnes | 135 840 | 119 676 | 122 458 | 119 911 | 84 594 |
| Unwrought alloys | tonnes | 16 128  | 15 666  | 13 201  | 8 524   | 1 869  |
| Zirconium        |        |         |         |         |         |        |
| Concentrates     | tonnes | 19 519  | 13 729  | 11 007  | 13 092  | 6 386  |
| Metal            | tonnes | 338     | 467     | 446     | 521     | 203    |

## Note(s)

- (a) Includes a substantial precious metal content, mainly silver  
 (b) Including manganiferous iron ore

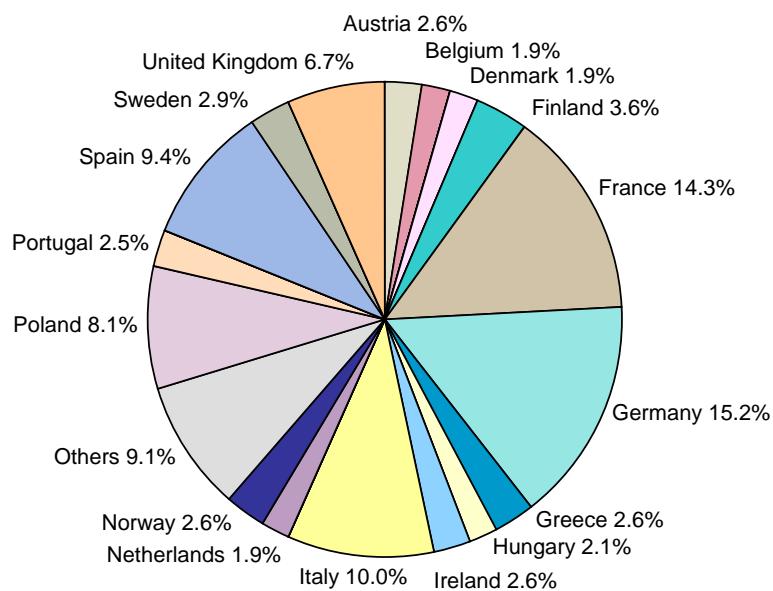


## **STATISTICAL INFORMATION BY COMMODITY**

## Primary aggregates

- Primary aggregates are sand, gravel and crushed rock aggregates that are widely used in the construction industry. The trade data presented here are for crushed rock combined with sand and gravel.
- Aggregates data are very difficult to establish accurately. There are frequent inconsistencies in the way countries report aggregates production and trade. Different definitions for similar materials are commonplace, and many countries do not require production to be reported from quarries that have less than a certain number of employees.
- Aggregates are used primarily by the construction industry to build and maintain the physical infrastructure on which everyone depends: houses, offices, roads, schools, hospitals, railways, shops, flood defences, etc. Aggregates are either used directly, for example for drainage or fill purposes, or are used to manufacture concrete and asphalt.
- Germany was the largest EU33 producer of primary aggregates in 2009, with 377.5 million tonnes (15.2 per cent of EU total), closely followed by France (14.3 per cent). Despite production falling by nearly seven per cent, Italy moved ahead of Spain for the first time in 2009 due to Spain's output falling by 29 per cent compared to the previous year. Almost every country in the EU33 saw their production of aggregates decline in 2009 as a result of the global recession; the only country to reverse this trend was Poland where output increased by seven per cent.

**EU33 Production of aggregates 2009**



**Production of primary aggregates (sand and gravel and crushed rock)** tonnes

| Country                 | 2005       | 2006       | 2007         | 2008         | 2009         |
|-------------------------|------------|------------|--------------|--------------|--------------|
| Austria                 |            |            |              |              |              |
| Sand and gravel (a)     | 29 065 350 | 27 281 864 | 29 230 545   | 32 440 624   | 30 457 247   |
| Crushed rock (a)        | 25 093 602 | 26 536 938 | 25 248 136   | 33 867 686   | 33 046 433   |
| Belgium                 |            |            |              |              |              |
| Sand and gravel (b) (c) | 8 330 239  | 8 636 966  | * 8 600 000  | * 8 600 000  | * 8 000 000  |
| Crushed rock (b) (d)    | 38 826 735 | 39 937 651 | * 43 000 000 | * 42 000 000 | * 40 000 000 |
| Bulgaria                |            |            |              |              |              |
| Sand and gravel         | 12 835 622 | 15 289 051 | 17 607 212   | 19 697 937   | 12 882 651   |
| Crushed rock            | 8 121 646  | 8 889 017  | 12 199 339   | 21 094 047   | 15 667 880   |
| Croatia                 |            |            |              |              |              |
| Sand and gravel         | ...        | ...        | ...          | 7 275 077    | 6 583 880    |
| Cyprus                  |            |            |              |              |              |
| Crushed rock            | 12 064 112 | 12 198 513 | 13 129 470   | 14 174 480   | 11 467 987   |
| Czech Republic          |            |            |              |              |              |
| Sand and gravel         | 15 672 765 | 16 931 536 | 16 036 363   | 17 943 635   | 15 876 221   |
| Crushed rock            | 30 221 600 | 32 731 255 | 35 302 421   | 36 282 774   | 24 760 133   |
| Denmark                 |            |            |              |              |              |
| Sand and gravel         | 69 500 000 | 72 508 000 | 68 255 000   | 59 937 000   | 46 932 000   |
| Crushed rock            | 378 000    | 372 000    | 410 000      | 384 000      | 312 000      |

Aggregates

## Production continued

tonnes

| Country              | 2005          | 2006          | 2007          | 2008          | 2009          |
|----------------------|---------------|---------------|---------------|---------------|---------------|
| Estonia              |               |               |               |               |               |
| Sand and gravel      | 3 459 760     | 4 209 080     | 6 531 740     | 3 635 700     | 3 911 980     |
| Crushed rock         | 6 828 600     | 8 298 400     | 8 855 800     | 7 945 900     | 6 034 500     |
| Finland              |               |               |               |               |               |
| Sand and gravel      | 53 000 000    | 54 000 000    | 59 000 000    | * 59 000 000  | * 47 000 000  |
| Crushed rock         | 45 000 000    | 46 000 000    | 54 000 000    | * 54 000 000  | * 43 000 000  |
| France               |               |               |               |               |               |
| Sand and gravel      | 168 640 000   | 174 360 000   | 180 450 000   | 171 610 000   | 146 290 000   |
| Crushed rock         | 222 780 000   | 233 090 000   | 242 950 000   | 236 770 000   | 209 440 000   |
| Germany              |               |               |               |               |               |
| Sand and gravel      | 252 000 000   | 266 000 000   | 263 300 000   | 260 000 000   | 245 000 000   |
| Crushed rock         | 122 244 000   | 138 700 000   | 134 000 000   | 137 400 000   | 132 500 000   |
| Greece               | * 90 000 000  | * 90 000 000  | * 90 000 000  | * 85 000 000  | * 65 000 000  |
| Hungary              |               |               |               |               |               |
| Sand and gravel      | 69 027 609    | 46 458 296    | 34 815 891    | 36 647 400    | 35 248 167    |
| Crushed rock         | 15 078 440    | 17 944 036    | 13 046 962    | 17 030 760    | 16 462 070    |
| Ireland, Republic of |               |               |               |               |               |
| Sand and gravel      | * 40 000 000  | * 64 000 000  | * 40 000 000  | * 25 000 000  | * 20 000 000  |
| Crushed rock         | * 94 000 000  | * 96 000 000  | * 90 000 000  | * 60 000 000  | * 45 000 000  |
| Italy                |               |               |               |               |               |
| Sand and gravel (a)  | 183 908 475   | 185 382 004   | 170 071 749   | 174 779 712   | 164 218 753   |
| Crushed rock (a)     | 69 164 106    | 91 397 876    | 97 463 072    | 91 373 378    | 84 717 579    |
| Latvia               |               |               |               |               |               |
| Sand and gravel      | 6 059 487     | 5 957 744     | 9 998 863     | 8 905 937     | 6 507 487     |
| Crushed rock         | 586 607       | 582 081       | 937 030       | 1 413 395     | 815 712       |
| Lithuania            |               |               |               |               |               |
| Sand and gravel      | 7 034 402     | 7 633 311     | 9 181 552     | 9 469 411     | 5 029 476     |
| Crushed rock         | 4 757 023     | 5 259 535     | 6 424 791     | 6 913 160     | 2 849 122     |
| Netherlands          |               |               |               |               |               |
| Sand and gravel      | 63 579 000    | 72 147 000    | 69 437 000    | 67 622 000    | * 47 000 000  |
| Norway               |               |               |               |               |               |
| Sand and gravel      | 15 000 000    | 13 418 000    | 14 855 000    | 14 817 000    | 13 047 000    |
| Crushed rock         | 38 000 000    | 45 947 000    | 51 533 000    | 52 338 000    | 51 378 000    |
| Poland               |               |               |               |               |               |
| Sand and gravel (e)  | * 99 648 000  | * 116 561 000 | * 139 388 000 | * 149 312 000 | * 150 000 000 |
| Crushed rock         | 33 098 360    | 38 835 618    | 46 854 829    | 39 465 558    | 52 217 696    |
| Portugal             |               |               |               |               |               |
| Sand and gravel      | 8 284 238     | 9 764 029     | 10 664 828    | * 10 100 000  | * 9 900 000   |
| Crushed rock         | 73 343 159    | 65 428 239    | 60 822 000    | * 57 000 000  | * 51 500 000  |
| Romania              |               |               |               |               |               |
| Sand and gravel      | 17 030 886    | 21 817 372    | 26 276 857    | 31 377 110    | 17 424 115    |
| Crushed rock         | 2 328 165     | 3 373 384     | 5 905 842     | 4 635 010     | 4 214 806     |
| Slovakia             |               |               |               |               |               |
| Sand and gravel      | 6 807 116     | 7 522 034     | 6 470 725     | 7 517 655     | * 6 919 826   |
| Crushed rock         | 13 834 800    | 14 088 600    | 13 338 000    | 16 345 800    | 15 233 400    |
| Slovenia             |               |               |               |               |               |
| Sand and gravel      | 12 432 000    | 17 873 000    | 21 548 000    | 19 171 000    | 15 720 000    |
| Crushed rock         | 12 223 182    | 14 213 319    | 14 279 253    | 14 982 560    | 13 609 727    |
| Spain                |               |               |               |               |               |
| Sand and gravel      | 125 299 480   | 130 000 000   | 143 000 000   | 118 000 000   | 105 000 000   |
| Crushed rock         | 340 000 000   | 355 000 000   | 280 000 000   | 214 000 000   | 130 000 000   |
| Sweden               |               |               |               |               |               |
| Sand and gravel      | 21 755 752    | 21 488 963    | 20 036 785    | 18 804 343    | 14 400 000    |
| Crushed rock         | 62 313 089    | 70 517 845    | 64 047 058    | 66 757 671    | 57 500 000    |
| Switzerland          |               |               |               |               |               |
| Sand and gravel      | 46 500 000    | 50 000 000    | * 50 000 000  | * 37 000 000  | ...           |
| Crushed rock         | 5 300 000     | 5 700 000     | * 5 700 000   | * 5 000 000   | ...           |
| United Kingdom       |               |               |               |               |               |
| Sand and gravel      | 94 666 000    | 92 107 000    | 93 236 000    | 85 473 000    | 66 226 000    |
| Crushed rock (f)     | 141 636 000   | 145 578 000   | 148 534 000   | 127 996 000   | 99 444 000    |
| EU33 Total           | 2 937 000 000 | 3 108 000 000 | 3 066 000 000 | 2 898 000 000 | 2 488 000 000 |

Note(s)  
(See over)

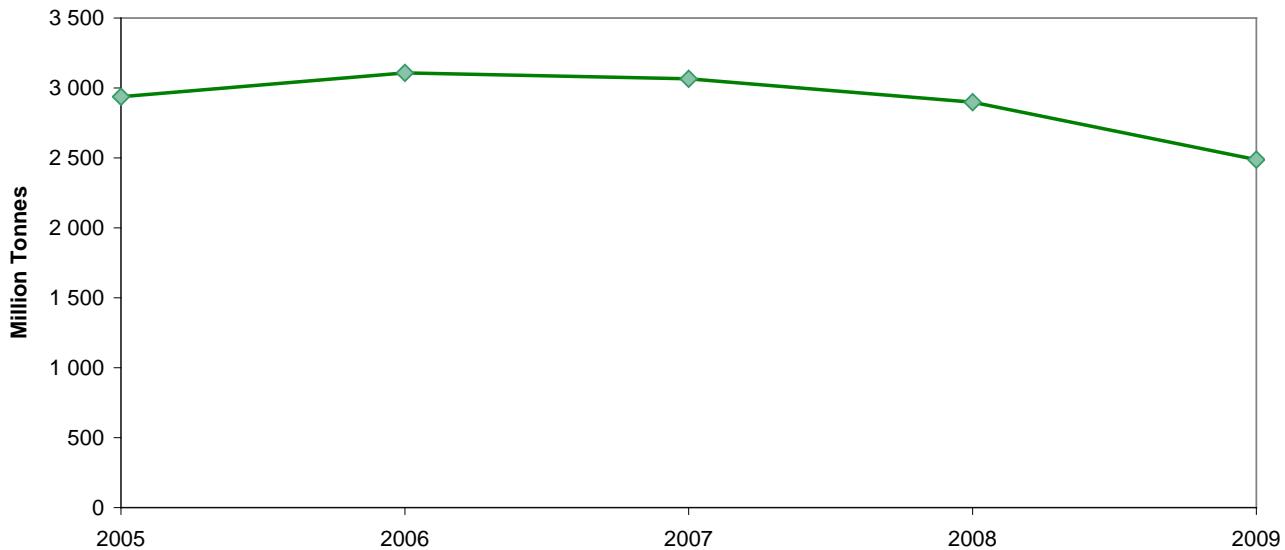
## Aggregates

### Production continued

#### Note(s)

- (1) So far as possible, these production statistics include construction sand; gravel, pebbles, shingle and flint; crushed stone used for concrete aggregates, roadstone and other construction uses; granules, chippings and powders. Listed under Prodcom codes 14211190, 14211210, 14211230, 14211250 and 14211290.
- (2) Where official sources show more than one series for aggregates the higher series has generally been used in this compilation
- (3) Where marine sands and gravels have been identified, these are included
- (4) Information may be incomplete or absent due to reporting methods, confidentiality or lack of available information. All EU33 countries produce sand and gravel and crushed rock
- (5) Production from many small operations are not officially compiled. The minimum number of employees for which establishments are required to report production varies between different countries and can also vary from year to year within a country
- (6) Quantities of sand from sand and gravel operations may be discarded due to low demand. This may or may not be included in the statistics
  - (a) Sales
  - (b) Deliveries
  - (c) Includes construction sand and silica sand. Excludes gravel
  - (d) Includes gravel
  - (e) Includes an estimate for small producers
  - (f) Includes small quantities for other purposes in Northern Ireland

**EU33 Production of aggregates 2005 - 09**



**Exports of primary aggregates (sand and gravel and crushed rock)**

tonnes

| Country              | 2005       | 2006       | 2007       | 2008        | 2009         |
|----------------------|------------|------------|------------|-------------|--------------|
| Austria              | 2 745 393  | 3 086 027  | 3 394 988  | 3 130 358   | 2 634 211    |
| Belgium-Luxembourg   | 14 573 270 | 15 452 434 | 16 081 634 | 15 843 526  | 13 721 097   |
| Bulgaria             | 160 032    | 282 018    | 330 088    | 268 120     | 76 129       |
| Croatia              | 1 908 732  | 2 390 517  | 3 334 229  | 2 950 159   | 3 087 216    |
| Cyprus               | 55         | 5 118      | 148 994    | 124 576     | 38 469       |
| Czech Republic       | 468 540    | 772 913    | 716 787    | 699 987     | 597 101      |
| Denmark              | 787 389    | 973 497    | 1 194 349  | 846 490     | 955 036      |
| Estonia              | 522 792    | 563 697    | 573 530    | 701 067     | 503 048      |
| Finland              | 580 815    | 735 655    | 837 957    | 850 685     | 645 609      |
| France               | 8 492 936  | 8 928 358  | 8 383 027  | 8 565 175   | 7 586 323    |
| Germany              | 21 698 651 | 25 912 337 | 29 024 954 | 29 470 321  | 27 973 749   |
| Greece               | 43 306     | 48 990     | 49 781     | 50 453      | 59 216       |
| Hungary              | 736 586    | 961 775    | 1 889 989  | 1 382 695   | 1 294 700    |
| Iceland              | 1 081      | 14 236     | 35 965     | 41 024      | 29 712       |
| Ireland, Republic of | 62 729     | 230 125    | 85 146     | 255 295     | 40 626       |
| Italy                | 1 734 620  | 1 720 142  | 1 482 346  | 1 522 229   | 1 308 016    |
| Latvia               | 13 178     | 11 618     | 32 783     | 54 321      | 121 260      |
| Lithuania            | 957 488    | 871 522    | 1 053 802  | 943 673     | 163 850      |
| Netherlands          | 6 900 000  | 9 100 000  | 9 300 000  | 10 400 000  | * 10 000 000 |
| Norway               | 13 334 212 | 14 357 509 | 16 183 927 | 16 683 638  | 13 843 722   |
| Poland               | 1 237 482  | 1 671 890  | 1 378 634  | 1 237 976   | 902 193      |
| Portugal             | 138 939    | 101 721    | 120 914    | 44 174      | 101 421      |
| Romania              | 63 110     | 51 793     | 111 803    | 60 190      | 160 241      |
| Slovakia (a)         | * 796 000  | * 644 000  | * 744 000  | * 1 388 000 | * 758 000    |
| Slovenia             | 221 830    | 324 830    | 437 208    | 402 033     | 451 012      |
| Spain                | 1 546 315  | 2 489 305  | 2 042 075  | 1 478 362   | 1 060 445    |
| Sweden               | 2 447 200  | 2 333 174  | 2 307 614  | 3 049 601   | 1 867 320    |
| Switzerland          | 283 508    | 273 603    | 486 288    | 202 846     | 194 006      |
| Turkey               | 1 631 232  | 586 393    | 73 162     | 1 183 150   | 908 010      |
| United Kingdom       | 13 304 920 | 14 631 060 | 14 048 387 | 13 008 608  | 10 714 861   |

## Note(s)

(1) The figures in this table include construction sands; pebbles, gravel shingle, flint; crushed rock; granules, chippings and powders covered by Harmonised System codes 2505.90, 2517.10, 2517.41 and 2517.49

(a) BGS estimates, based on known imports into certain countries

**Imports of primary aggregates (sand and gravel and crushed rock)**

tonnes

| Country              | 2005       | 2006       | 2007       | 2008       | 2009         |
|----------------------|------------|------------|------------|------------|--------------|
| Austria              | 2 516 839  | 2 622 855  | 3 961 223  | 3 447 013  | 2 924 359    |
| Belgium-Luxembourg   | 20 831 220 | 22 303 782 | 23 810 336 | 27 170 472 | 23 932 936   |
| Bulgaria             | 17 200     | 19 383     | 41 782     | 41 256     | 22 189       |
| Croatia              | 4 603 358  | 3 867 559  | 4 583 241  | 4 618 579  | 1 871 236    |
| Cyprus               | 5 921      | 11 605     | 15 497     | 28 990     | 11 564       |
| Czech Republic       | 574 008    | 690 730    | 252 049    | 333 726    | 398 613      |
| Denmark              | 2 804 325  | 3 151 321  | 3 077 714  | 3 346 209  | 2 932 586    |
| Estonia              | 933 376    | 932 688    | 929 218    | 988 981    | 1 006 376    |
| Finland              | 43 488     | 254 665    | 326 347    | 280 600    | 330 108      |
| France               | 10 264 292 | 12 064 403 | 11 381 954 | 11 214 300 | 10 907 837   |
| Germany              | 11 563 984 | 11 147 034 | 11 913 688 | 13 369 162 | 12 866 444   |
| Greece               | 22 026     | 45 081     | 341 376    | 425 485    | 177 887      |
| Hungary              | 446 504    | 211 927    | 455 416    | 806 281    | 446 187      |
| Ireland, Republic of | 1 444 893  | 1 687 279  | 1 729 337  | 1 368 008  | 781 470      |
| Italy                | 4 331 596  | 4 655 740  | 4 967 745  | 4 139 144  | 3 654 570    |
| Latvia               | 1 320 287  | 1 412 127  | 1 663 783  | 2 033 701  | 565 877      |
| Lithuania            | 1 289 117  | 1 214 058  | 1 333 772  | 1 301 091  | 695 973      |
| Malta                | 4 529      | 11 666     | 29 929     | 25 817     | 47 363       |
| Netherlands          | 40 800 000 | 43 000 000 | 33 400 000 | 38 100 000 | * 38 000 000 |
| Norway               | 67 562     | 66 708     | 72 906     | 80 161     | 66 884       |
| Poland               | 1 775 291  | 2 976 252  | 5 566 874  | 5 868 908  | 5 349 230    |
| Portugal             | 698 717    | 488 917    | 731 709    | 194 088    | 175 576      |
| Romania              | 197 911    | 332 190    | 352 576    | 351 123    | 205 133      |

## Aggregates

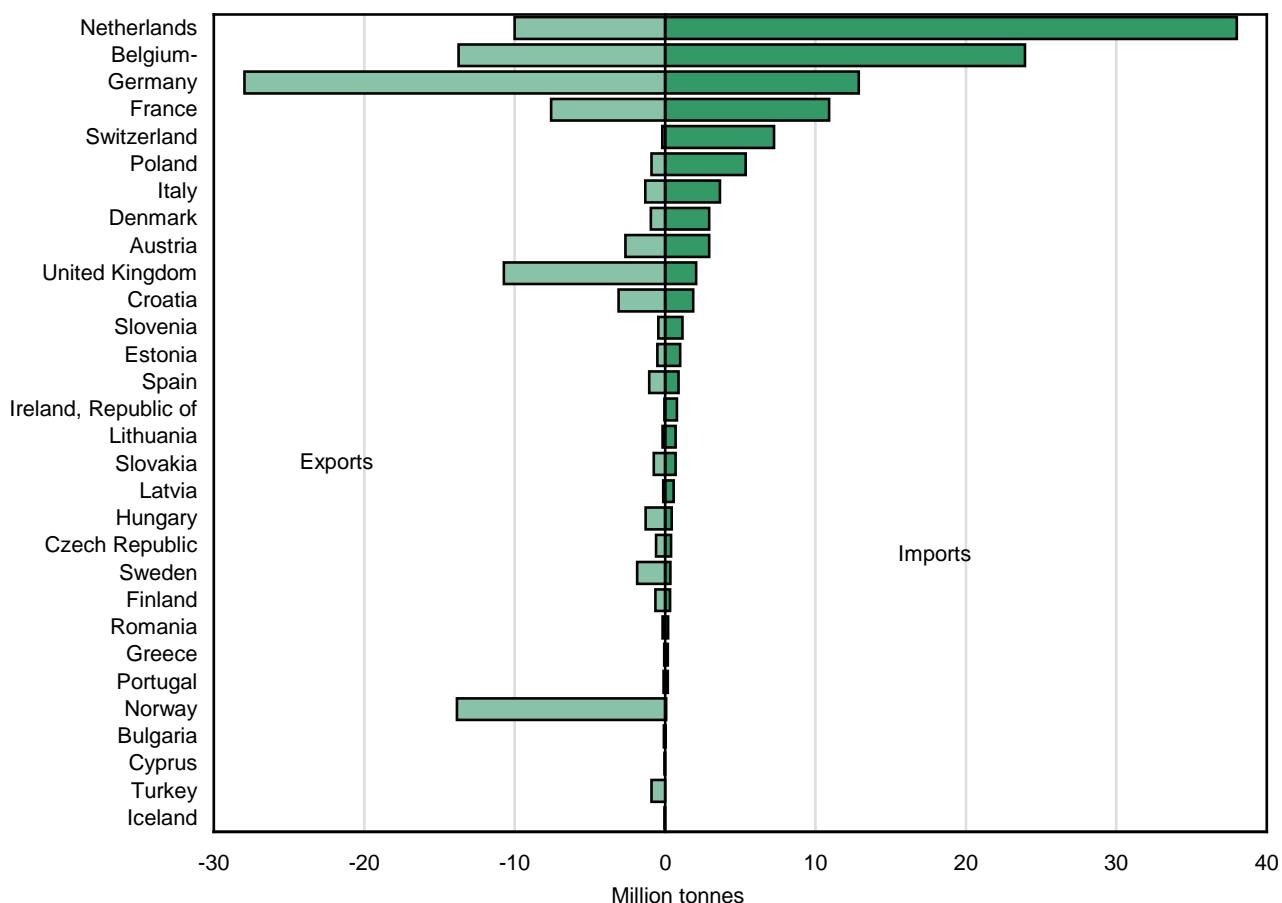
### Imports continued

| Country        | 2005      | 2006      | 2007      | 2008      | 2009      |
|----------------|-----------|-----------|-----------|-----------|-----------|
| Slovakia       | 828 096   | 665 844   | 633 400   | 755 496   | 692 609   |
| Slovenia       | 364 091   | 863 881   | 3 113 823 | 1 424 240 | 1 165 083 |
| Spain          | 1 305 835 | 762 652   | 1 396 928 | 1 035 555 | 889 156   |
| Sweden         | 810 385   | 1 135 048 | 1 068 840 | 864 988   | 355 022   |
| Switzerland    | 6 261 007 | 6 700 038 | 7 371 907 | 7 256 472 | 7 246 506 |
| Turkey         | 7 978     | 4 661     | 3 843     | 4 590     | 3 636     |
| United Kingdom | 2 160 513 | 2 905 198 | 2 806 448 | 2 631 986 | 2 054 272 |

### Note(s)

(1) The figures in this table include construction sands; pebbles, gravel shingle, flint; crushed rock; granules, chippings and powders covered by Harmonised System codes 2505.90, 2517.10, 2517.41 and 2517.49

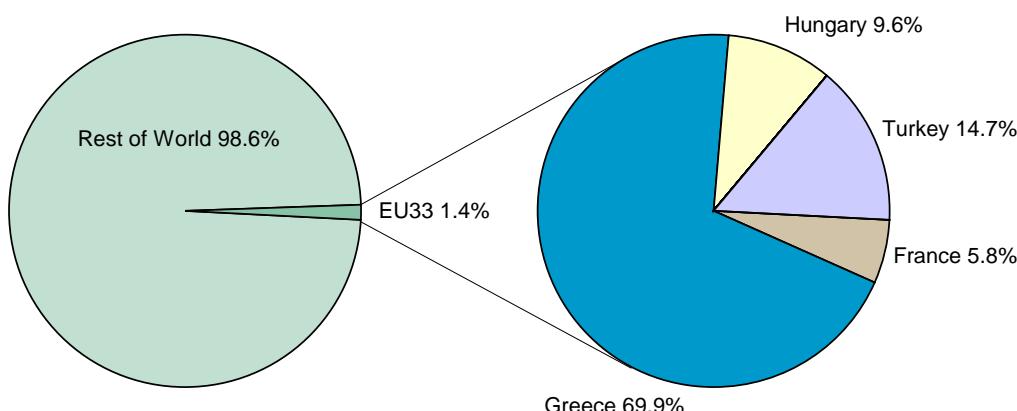
## Aggregates - EU33 trade in 2009



## Bauxite

- Bauxite is the only source of aluminium that is currently mined and is produced by deep chemical weathering of rocks in tropical to sub-tropical climates. There is limited EU33 production, leaving a very strong dependence on imports from countries outside the EU33.
- The chief use of bauxite is as a raw material for the production of alumina (aluminium oxide) the majority of which is converted to aluminium metal by electrolysis. Approximately ten per cent of bauxite is non-metallurgical grade and most of this is calcined for use in the abrasive or refractory markets.
- Australia continued to be the world's largest producer in 2009, with 33 per cent of the total world output. Greece was the largest producer within the EU33, with 69.9 per cent of EU33 production (although this is still less than one per cent of the world total).

**EU33 Production of bauxite 2009**



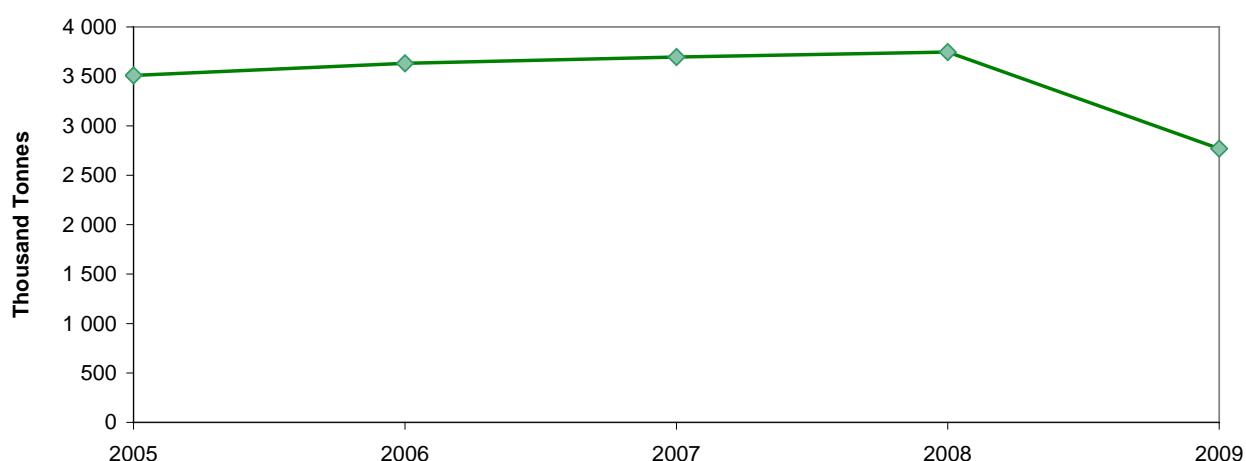
## Production of bauxite

| Country    | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------|-----------|-----------|-----------|-----------|-----------|
| France     | 175 000   | 160 000   | * 160 000 | * 160 000 | * 160 000 |
| Greece     | 2 441 443 | 2 162 900 | 2 125 900 | 2 174 000 | 1 935 000 |
| Hungary    | 535 337   | 538 258   | 546 310   | 511 337   | 267 000   |
| Turkey     | 356 480   | 771 227   | 863 404   | * 900 000 | 406 700   |
| EU33 Total | 3 508 000 | 3 632 000 | 3 696 000 | 3 745 000 | 2 769 000 |

Note(s)

(1) This table includes production of refractory bauxite

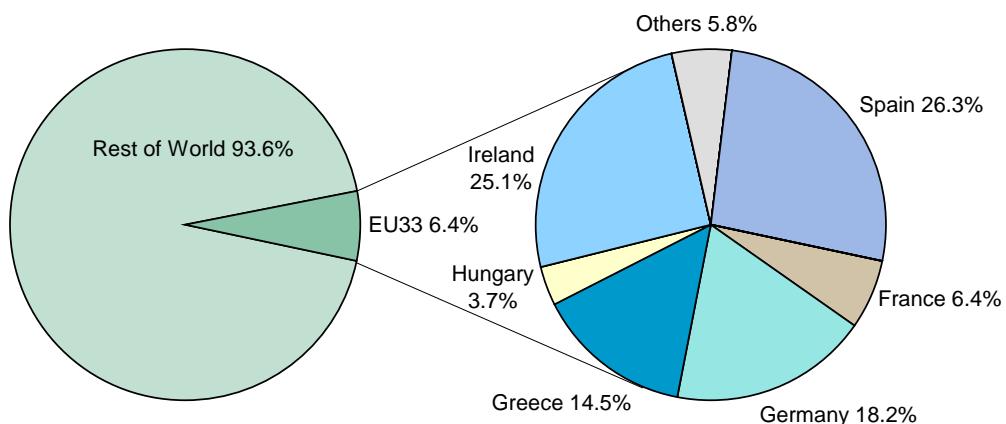
**EU33 Production of bauxite 2005 - 09**



## Alumina

- Alumina (aluminium oxide) is an intermediate product in the manufacture of aluminium metal from raw bauxite ore. Alumina hydrate is a form of alumina containing combined water and is used in the paper, petroleum, paint and other industries.
- China was the world's largest producer of alumina in 2009, with an increase in output of four per cent compared to 2008, representing 31 per cent of the total world production. The EU33 produced 4.9 million tonnes in 2009, representing 6.4 per cent of world production.

**EU33 Production of alumina 2009**



## Production of alumina

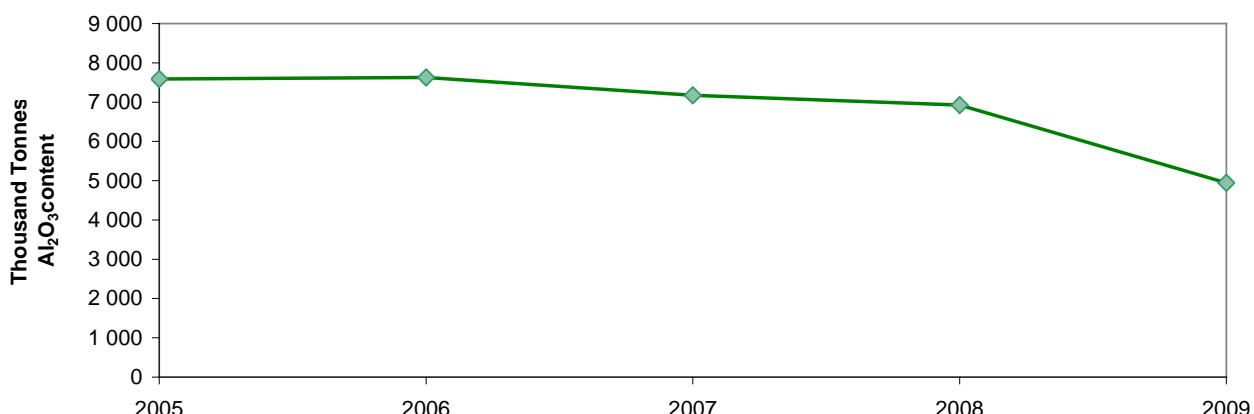
tonnes ( $\text{Al}_2\text{O}_3$  content)

| Country              | 2005        | 2006        | 2007        | 2008        | 2009        |
|----------------------|-------------|-------------|-------------|-------------|-------------|
| France               | * 600 000   | * 636 000   | * 600 000   | * 572 000   | * 317 000   |
| Germany              | * 830 000   | * 850 000   | * 900 000   | * 900 000   | * 900 000   |
| Greece               | 782 000     | 780 000     | 761 746     | 771 769     | 718 797     |
| Hungary              | * 305 000   | * 301 000   | * 301 000   | * 299 000   | * 185 000   |
| Ireland, Republic of | * 1 800 000 | 1 800 000   | 1 800 000   | 1 890 000   | 1 240 000   |
| Italy                | 1 070 000   | 1 090 000   | 1 327 000   | 1 045 000   | 92 000      |
| Romania              | 689 329     | 622 083     | 22 830      | 344         | 44 000      |
| Spain                | * 1 400 000 | * 1 400 000 | * 1 300 000 | * 1 300 000 | * 1 300 000 |
| Turkey               | 112 558     | 150 117     | 163 435     | * 150 000   | * 150 000   |
| EU33 Total           | 7 589 000   | 7 629 000   | 7 176 000   | 6 928 000   | 4 947 000   |

Note(s)

(1) Where possible, figures in this table show the alumina equivalent ( $\text{Al}_2\text{O}_3$ ) of total hydrate produced, whether or not calcined

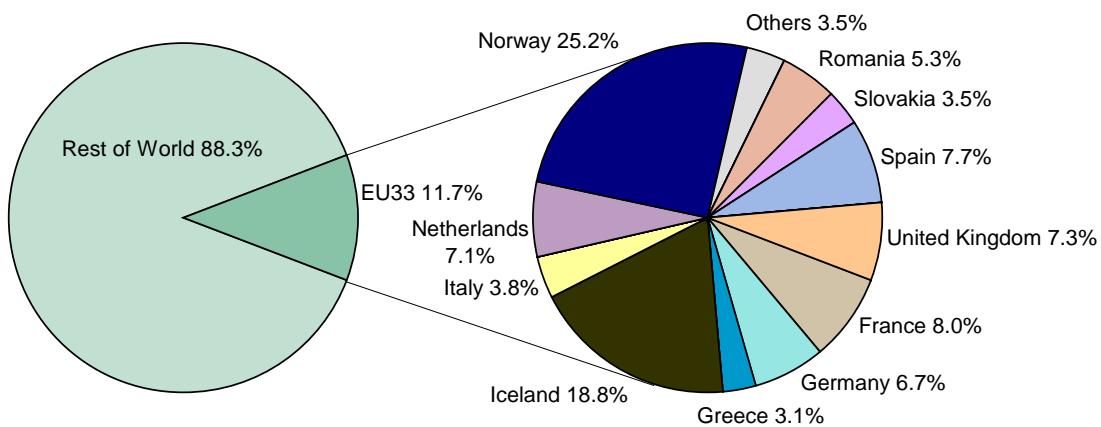
**EU33 Production of alumina 2005 - 09**



## Aluminium metal

- Aluminium is a strong, lightweight metallic element that has many applications. The chief uses are in transportation, packaging and construction.
- China remained the world's largest producer in 2009, with 35 per cent of world production. The EU33 produced 4.3 million tonnes, representing 11.7 per cent of world production.

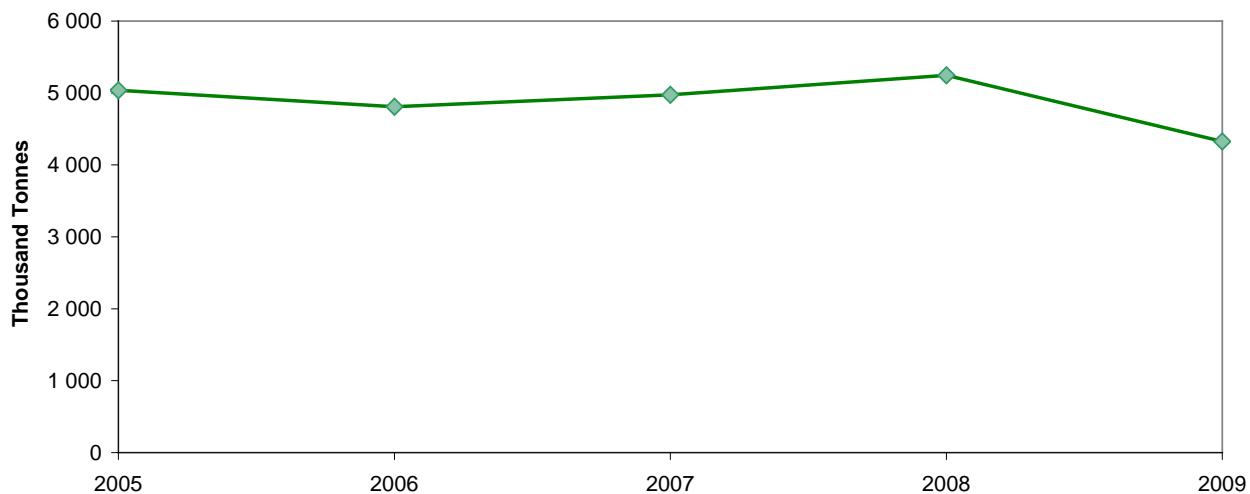
**EU33 Production of primary aluminium 2009**



## Production of primary aluminium

tonnes

| Country        | 2005      | 2006      | 2007      | 2008      | 2009      |
|----------------|-----------|-----------|-----------|-----------|-----------|
| France         | 440 000   | 442 879   | 430 159   | 389 000   | 345 000   |
| Germany        | 647 900   | 515 539   | 551 000   | 605 880   | 291 750   |
| Greece         | 165 300   | 164 500   | 167 937   | 162 339   | 134 737   |
| Hungary        | 31 000    | 300       | —         | —         | —         |
| Iceland        | 273 318   | 328 424   | 446 297   | 761 204   | 813 880   |
| Italy          | 192 900   | 194 200   | 179 500   | 186 400   | 165 800   |
| Netherlands    | 333 820   | 285 317   | 296 900   | 317 000   | 306 000   |
| Norway         | 1 391 000 | 1 383 000 | 1 362 000 | 1 368 000 | 1 090 000 |
| Poland         | 53 582    | 55 939    | 53 379    | 46 730    | 16 851    |
| Romania        | 243 607   | 262 056   | 283 449   | 288 156   | 228 630   |
| Slovakia       | 159 203   | 158 289   | 160 461   | 162 995   | 149 604   |
| Slovenia       | 138 500   | 118 100   | 111 016   | 83 300    | 35 148    |
| Spain          | 394 200   | 367 400   | 405 100   | 405 800   | 334 600   |
| Sweden         | 102 107   | 101 668   | 99 842    | 81 913    | 69 708    |
| Switzerland    | 44 800    | 12 000    | —         | —         | —         |
| Turkey         | 59 000    | 60 000    | 63 400    | 61 100    | 30 000    |
| United Kingdom | 368 477   | 360 325   | 364 595   | 326 900   | 313 702   |
| EU33 Total     | 5 039 000 | 4 810 000 | 4 975 000 | 5 247 000 | 4 325 000 |

**EU33 Production of primary aluminium 2005 - 09****Exports of bauxite, alumina and aluminium**

tonnes

| Country            | 2005    | 2006    | 2007    | 2008    | 2009    |
|--------------------|---------|---------|---------|---------|---------|
| Austria            |         |         |         |         |         |
| Bauxite            | 980     | 765     | 1 225   | 1 202   | 546     |
| Unwrought          | 6 616   | 7 630   | 8 294   | 4 120   | 2 332   |
| Unwrought alloys   | 125 796 | 119 058 | 111 571 | 109 757 | 98 966  |
| Scrap              | 67 434  | 80 200  | 91 960  | 90 825  | 118 028 |
| Belgium-Luxembourg |         |         |         |         |         |
| Bauxite            | 46 717  | 53 680  | 75 904  | 53 444  | 223 631 |
| Alumina            | 10 714  | 18 151  | 13 629  | 4 858   | 5 686   |
| Unwrought          | 267 811 | 210 559 | 164 800 | 160 684 | 121 708 |
| Unwrought alloys   | 38 889  | 29 871  | 268 119 | 175 510 | 108 301 |
| Scrap              | 149 914 | 186 613 | 208 272 | 190 301 | 44 530  |
| Bulgaria           |         |         |         |         |         |
| Unwrought alloys   | 5 254   | 11 692  | 10 290  | 8 931   | 2 775   |
| Scrap              | 21 902  | 29 245  | 23 577  | 18 478  | 20 577  |
| Croatia            |         |         |         |         |         |
| Scrap              | 15 927  | 19 832  | 20 886  | 17 769  | 15 779  |
| Cyprus             |         |         |         |         |         |
| Scrap              | 4 578   | 4 880   | 4 745   | 4 409   | 5 934   |
| Czech Republic     |         |         |         |         |         |
| Unwrought (a)      | 48 885  | 45 876  | 54 457  | 53 682  | 59 913  |
| Scrap              | 39 297  | 53 986  | 61 067  | 59 196  | 49 251  |
| Denmark            |         |         |         |         |         |
| Alumina            | 3 579   | 3 470   | 5 471   | 5 300   | 4 002   |
| Unwrought alloys   | 23 509  | 31 768  | 36 831  | 32 499  | 7 505   |
| Scrap              | 70 828  | 62 734  | 50 164  | 56 727  | 70 649  |
| Estonia            |         |         |         |         |         |
| Unwrought (a)      | 2 414   | 3 013   | 8 083   | 27 839  | 8 357   |
| Scrap              | 10 686  | 8 263   | 10 379  | 19 895  | 6 958   |
| Finland            |         |         |         |         |         |
| Unwrought alloys   | 14 107  | 11 411  | 12 924  | 14 239  | 8 939   |
| Scrap              | 21 053  | 25 921  | 38 364  | 37 345  | 34 910  |
| France             |         |         |         |         |         |
| Bauxite            | 5 195   | 46 042  | 26 661  | 12 295  | 9 296   |
| Alumina            | 255 392 | 224 866 | 276 207 | 319 388 | 178 570 |
| Alumina hydrate    | 139 694 | 168 250 | 146 531 | 130 881 | 100 293 |
| Unwrought          | 77 097  | 65 943  | 45 503  | 46 364  | 91 682  |
| Unwrought alloys   | 95 700  | 148 253 | 136 803 | 139 176 | 125 580 |
| Scrap              | 314 243 | 345 107 | 380 708 | 344 436 | 345 372 |

Exports continued

tonnes

| Country              | 2005      | 2006      | 2007      | 2008      | 2009      |
|----------------------|-----------|-----------|-----------|-----------|-----------|
| Germany              |           |           |           |           |           |
| Bauxite              | 28 087    | 30 772    | 36 361    | 33 636    | 16 591    |
| Alumina              | 204 075   | 313 586   | 282 245   | 305 514   | 382 750   |
| Alumina hydrate      | 527 900   | 717 433   | 672 561   | 634 635   | 461 601   |
| Unwrought            | 60 757    | 72 132    | 61 090    | 75 386    | 67 356    |
| Unwrought alloys     | 330 843   | 360 157   | 361 917   | 359 628   | 288 023   |
| Scrap                | 583 987   | 675 261   | 770 042   | 702 739   | 753 218   |
| Greece               |           |           |           |           |           |
| Bauxite              | 1 136 505 | 912 093   | 1 086 405 | 787 160   | 409 508   |
| Alumina              | 439 374   | 457 726   | 715 003   | 412 385   | 412 888   |
| Alumina hydrate      | 2 944     | 8 239     | 21 716    | 29 552    | 74 996    |
| Unwrought            | 60 964    | 64 487    | 27 195    | 26 083    | 17 533    |
| Unwrought alloys     | 15 017    | 18 804    | 67 732    | 64 998    | 57 668    |
| Scrap                | 15 205    | 19 105    | 13 566    | 13 261    | 14 681    |
| Hungary              |           |           |           |           |           |
| Alumina              | 142 470   | 170 030   | 178 984   | 168 347   | 89 857    |
| Alumina hydrate      | 75 811    | 90 705    | 98 187    | 102 652   | 88 515    |
| Unwrought (a)        | 22 635    | 28 884    | 27 580    | 10 981    | 26 176    |
| Scrap                | 41 192    | 34 986    | 29 228    | 22 098    | 35 060    |
| Iceland              |           |           |           |           |           |
| Unwrought            | 283 608   | 303 288   | 446 297   | 760 764   | 805 450   |
| Scrap                | 1 312     | 4 603     | 3 872     | 12 483    | 4 467     |
| Ireland, Republic of |           |           |           |           |           |
| Bauxite              | 472       | 9 210     | 11 167    | 1 438     | 2 619     |
| Alumina              | 1 459 036 | 1 534 845 | 1 652 967 | 1 709 302 | 895 034   |
| Alumina hydrate      | 85 062    | 115 676   | 10 011    | 88 039    | 95 548    |
| Unwrought alloys     | 3 542     | 4 637     | 5 425     | 3 711     | 2 455     |
| Scrap                | 16 475    | 18 784    | 22 397    | 21 041    | 18 257    |
| Italy                |           |           |           |           |           |
| Bauxite              | 121 029   | 12 082    | 49 989    | 26 718    | 4 585     |
| Alumina              | 651 704   | 748 594   | 696 603   | 571 090   | 61 223    |
| Alumina hydrate      | 26 652    | 26 668    | 34 521    | 35 538    | 1 243     |
| Unwrought            | 8 742     | 20 315    | 18 971    | 18 249    | 30 019    |
| Unwrought alloys     | 57 573    | 73 137    | 104 361   | 96 798    | 122 294   |
| Scrap                | 35 904    | 50 024    | 42 052    | 56 214    | 82 055    |
| Latvia               |           |           |           |           |           |
| Unwrought alloys     | 34 697    | 18 180    | 19 281    | 17 012    | 11 772    |
| Scrap                | 910       | 1 767     | 2 416     | 4 203     | 4 419     |
| Lithuania            |           |           |           |           |           |
| Unwrought alloys     | 3 922     | 3 410     | 3 453     | 3 994     | 2 614     |
| Scrap                | 7 210     | 5 640     | 5 701     | 5 280     | 4 796     |
| Macedonia            |           |           |           |           |           |
| Scrap                | 2 105     | 2 788     | 1 795     | 2 043     | 1 514     |
| Malta                |           |           |           |           |           |
| Scrap                | 1 142     | 1 221     | 1 136     | 1 441     | 1 361     |
| Netherlands          |           |           |           |           |           |
| Bauxite              | 93 993    | 107 660   | 41 170    | 129 186   | * 59 000  |
| Alumina              | 264 116   | 301 767   | 542 794   | 257 169   | 62 131    |
| Alumina hydrate      | 48 643    | 45 480    | 151 641   | 85 713    | 65 279    |
| Unwrought            | 304 993   | 370 471   | 490 373   | 332 871   | 218 141   |
| Unwrought alloys     | 304 675   | 341 439   | 341 670   | 361 012   | 191 239   |
| Scrap                | 265 755   | 334 426   | 317 877   | 264 142   | 200 650   |
| Norway               |           |           |           |           |           |
| Unwrought            | 147 295   | 126 841   | 113 285   | 105 729   | 106 593   |
| Unwrought alloys     | 1 365 929 | 1 412 569 | 1 496 556 | 1 484 854 | 1 249 830 |
| Scrap                | 38 218    | 42 804    | 41 296    | 41 476    | 80 729    |
| Poland               |           |           |           |           |           |
| Bauxite              | 1 300     | 1 693     | 596       | 536       | 833       |
| Unwrought (a)        | 81 962    | 80 266    | 78 187    | 82 242    | 66 065    |
| Scrap                | 82 875    | 107 939   | 113 649   | 123 468   | 102 757   |
| Portugal             |           |           |           |           |           |
| Unwrought alloys     | 140 505   | 152 591   | 130 636   | 127 150   | 90 869    |
| Scrap                | 41 797    | 38 026    | 41 603    | 40 020    | 32 481    |

Aluminium and Bauxite

Exports continued

tonnes

| Country             | 2005     | 2006    | 2007    | 2008    | 2009    |
|---------------------|----------|---------|---------|---------|---------|
| Romania             |          |         |         |         |         |
| Bauxite             | 8 967    | 129     | 47      | 526     | 161     |
| Alumina             | 261 862  | 137 753 | 5 191   | 0       | 99      |
| Unwrought           | 31 543   | 12 672  | 23 193  | 61 638  | 50 496  |
| Unwrought alloys    | 7 711    | 10 110  | 9 080   | 6 690   | 5 898   |
| Scrap               | 4 829    | 11 132  | 14 332  | 16 021  | 20 775  |
| Slovakia            |          |         |         |         |         |
| Unwrought           | 15 302   | 66 893  | 61 319  | 44 845  | 77 013  |
| Unwrought alloys    | 159 134  | 93 141  | 118 286 | 129 771 | 110 484 |
| Scrap               | 8 042    | 9 876   | 10 421  | 10 109  | 9 441   |
| Slovenia            |          |         |         |         |         |
| Bauxite             | ...      | 2 650   | 8 013   | 450     | 2 537   |
| Alumina             | 205 584  | 241 631 | 243 062 | 258 238 | 242 215 |
| Unwrought alloys    | 123 555  | 133 005 | 123 041 | 88 038  | 61 800  |
| Scrap               | 21 103   | 27 584  | 30 132  | 26 863  | 23 382  |
| Spain               |          |         |         |         |         |
| Bauxite             | 3 821    | 3 647   | 6 057   | 5 623   | 4 951   |
| Alumina             | 561 125  | 511 992 | 539 739 | 671 009 | 612 933 |
| Alumina hydrate     | 264 829  | 258 854 | 199 679 | 236 855 | 163 303 |
| Unwrought           | 3 002    | 8 245   | 15 999  | 39 359  | 19 816  |
| Unwrought alloys    | 111 992  | 128 262 | 125 008 | 123 577 | 230 539 |
| Scrap               | 36 688   | 41 923  | 34 520  | 109 493 | 46 307  |
| Sweden              |          |         |         |         |         |
| Alumina             | 14 133   | 14 481  | 14 278  | 13 919  | 14 464  |
| Unwrought           | 9 390    | 910     | 735     | 6 307   | 2 143   |
| Unwrought alloys    | 88 311   | 112 575 | 89 591  | 89 190  | 145 554 |
| Scrap               | 69 166   | 67 879  | 107 946 | 106 581 | 89 940  |
| Switzerland         |          |         |         |         |         |
| Alumina             | 262      | 1 242   | 281     | 5 767   | 1 240   |
| Unwrought (a)       | 14 499   | 21 257  | 22 645  | 9 938   | 14 444  |
| Scrap               | 122 729  | 140 657 | 139 599 | 125 769 | 116 520 |
| Turkey              |          |         |         |         |         |
| Bauxite             | 1 531    | 89 764  | 254 689 | 262 708 | 103 317 |
| Alumina             | 45 914   | 73 707  | 142 557 | 118 915 | 77 727  |
| Unwrought           | 21 034   | 38 690  | 47 574  | 50 056  | 26 337  |
| Unwrought alloys    | 6 138    | 9 072   | 13 012  | 10 827  | 9 368   |
| Scrap               | 12 558   | 14 275  | 13 415  | 16 218  | 14 483  |
| United Kingdom      |          |         |         |         |         |
| Bauxite             | 4 325    | 28 636  | 4 276   | 6 121   | 3 873   |
| Alumina             | 4 336    | 9 979   | 9 016   | 9 517   | 16 810  |
| Alumina hydrate (b) | * 20 600 | * 1 900 | * 5 300 | * 5 300 | * 4 400 |
| Unwrought           | 48 684   | 17 530  | 30 631  | 20 690  | 17 688  |
| Unwrought alloys    | 329 691  | 331 598 | 269 523 | 265 018 | 305 849 |
| Scrap               | 474 587  | 385 211 | 906 831 | 872 988 | 422 574 |

Note(s)

- (1) Except where alumina hydrate is separately specified, national trade figures for alumina can be considered as inclusive of hydrate
- (2) In this table the term 'unwrought' aluminium corresponds to item 7601 of the Harmonised System and comprises ingots, blocks, unwrought bars, etc.
- (3) Metal traded in ferro-alloy form is included under iron, steel and ferro-alloys

(a) Including alloys

(b) BGS estimates, based on known imports into certain countries

**Imports of bauxite, alumina and aluminium**

tonnes

| Country            | 2005      | 2006      | 2007      | 2008      | 2009      |
|--------------------|-----------|-----------|-----------|-----------|-----------|
| Austria            |           |           |           |           |           |
| Bauxite            | 36 123    | 25 291    | 16 717    | 21 727    | 2 370     |
| Alumina            | 41 269    | 45 777    | 49 728    | 55 639    | 27 193    |
| Alumina hydrate    | 10 125    | 12 821    | 16 056    | 20 205    | 13 219    |
| Unwrought          | 82 597    | 113 047   | 140 286   | 154 792   | 103 145   |
| Unwrought alloys   | 214 611   | 235 053   | 250 209   | 218 902   | 175 583   |
| Scrap              | 150 412   | 157 256   | 161 995   | 170 315   | 168 055   |
| Belgium-Luxembourg |           |           |           |           |           |
| Bauxite            | 87 376    | 59 874    | 85 963    | 88 894    | 40 840    |
| Alumina            | 10 879    | 28 030    | 28 985    | 14 918    | 8 104     |
| Alumina hydrate    | 37 831    | 45 723    | 46 815    | 36 100    | 30 199    |
| Unwrought          | 497 013   | 451 309   | 485 128   | 372 140   | 356 107   |
| Unwrought alloys   | 265 937   | 286 345   | 329 777   | 245 870   | 130 970   |
| Scrap              | 158 799   | 197 942   | 380 317   | 320 354   | 252 712   |
| Bulgaria           |           |           |           |           |           |
| Alumina            | 1 401     | 2 039     | 2 368     | 1 370     | 1 859     |
| Unwrought          | 25 562    | 46 154    | 39 850    | 42 738    | 39 759    |
| Unwrought alloys   | 15 185    | 20 490    | 19 617    | 18 557    | 16 050    |
| Scrap              | 1 449     | 2 179     | 3 554     | 4 028     | 3 014     |
| Croatia            |           |           |           |           |           |
| Bauxite            | 112 007   | 80 441    | 115 367   | 107 237   | 72 103    |
| Alumina            | 1 672     | 1 405     | 2 431     | 2 440     | 1 021     |
| Unwrought          | 56 509    | 53 021    | 54 067    | 57 828    | 37 828    |
| Unwrought alloys   | 14 915    | 18 893    | 22 039    | 20 786    | 28 251    |
| Cyprus             |           |           |           |           |           |
| Unwrought alloys   | 9 898     | 12 481    | 13 868    | 13 408    | 8 721     |
| Czech Republic     |           |           |           |           |           |
| Bauxite            | 24 315    | 24 829    | 26 865    | 17 698    | 9 857     |
| Alumina            | 28 458    | 24 078    | 30 523    | 28 245    | 5 995     |
| Alumina hydrate    | 10 898    | 9 782     | 7 834     | 6 916     | 6 672     |
| Unwrought          | 69 977    | 74 392    | 82 910    | 68 362    | 62 972    |
| Unwrought alloys   | 96 702    | 104 238   | 119 773   | 124 643   | 108 231   |
| Scrap              | 34 226    | 48 937    | 63 508    | 58 424    | 50 379    |
| Denmark            |           |           |           |           |           |
| Bauxite            | 9 148     | 9 025     | 6 572     | 7 317     | 8 108     |
| Alumina            | 21 979    | 28 709    | 25 643    | 27 582    | 21 968    |
| Unwrought (a)      | 70 617    | 79 573    | 86 389    | 85 420    | 61 259    |
| Scrap              | 63 678    | 64 803    | 66 038    | 70 726    | 5 321     |
| Estonia            |           |           |           |           |           |
| Unwrought (a)      | 1 686     | 7 021     | 3 035     | 26 545    | 5 956     |
| Scrap              | 453       | 1 338     | 808       | 485       | 535       |
| Finland            |           |           |           |           |           |
| Bauxite            | 3 661     | 6 366     | 4 909     | 10 461    | 1 584     |
| Alumina            | 2 659     | 2 327     | 3 296     | 2 350     | 1 733     |
| Alumina hydrate    | 28 300    | 31 024    | 37 163    | 22 243    | 20 614    |
| Unwrought          | 4 057     | 1 145     | 1 213     | 1 332     | 1 204     |
| Unwrought alloys   | 40 510    | 39 755    | 49 299    | 41 635    | 29 303    |
| Scrap              | 15 537    | 14 906    | 19 051    | 21 978    | 10 998    |
| France             |           |           |           |           |           |
| Bauxite            | 1 799 671 | 1 664 642 | 2 001 899 | 1 788 358 | 1 024 569 |
| Alumina            | 655 246   | 667 146   | 710 029   | 722 371   | 849 798   |
| Alumina hydrate    | 41 682    | 45 085    | 46 584    | 51 289    | 46 113    |
| Unwrought          | 150 798   | 198 042   | 147 693   | 113 771   | 87 130    |
| Unwrought alloys   | 366 369   | 394 929   | 449 505   | 396 382   | 311 287   |
| Scrap              | 135 611   | 208 142   | 191 897   | 197 876   | 216 872   |
| Germany            |           |           |           |           |           |
| Bauxite            | 2 435 244 | 2 143 631 | 3 141 693 | 2 995 241 | 2 069 109 |
| Alumina            | 999 798   | 912 564   | 790 515   | 1 017 746 | 518 456   |
| Alumina hydrate    | 231 124   | 219 035   | 266 042   | 241 736   | 168 216   |
| Unwrought          | 648 764   | 754 311   | 786 506   | 693 075   | 495 511   |
| Unwrought alloys   | 1 121 715 | 1 318 713 | 1 444 289 | 1 370 179 | 1 157 271 |
| Scrap              | 438 066   | 539 367   | 613 084   | 543 839   | 362 582   |

Aluminium and Bauxite

Imports continued

tonnes

| Country              | 2005      | 2006      | 2007      | 2008      | 2009      |
|----------------------|-----------|-----------|-----------|-----------|-----------|
| Greece               |           |           |           |           |           |
| Bauxite              | 206 870   | 268 899   | 376 304   | 226 374   | 351 677   |
| Alumina              | 1 049     | 71 073    | 283 255   | 38 828    | 963       |
| Unwrought            | 121 266   | 125 541   | 125 327   | 129 407   | 110 311   |
| Unwrought alloys     | 68 958    | 62 828    | 73 561    | 63 670    | 32 252    |
| Scrap                | 18 083    | 20 030    | 50 470    | 28 960    | 17 339    |
| Hungary              |           |           |           |           |           |
| Bauxite              | 279 660   | 243 873   | 319 681   | 297 832   | 178 031   |
| Alumina              | 15 638    | 2 558     | 3 350     | 9 505     | 12 598    |
| Unwrought            | 109 382   | 109 506   | 132 695   | 122 319   | 100 897   |
| Unwrought alloys     | 54 362    | 72 573    | 149 299   | 107 123   | 79 437    |
| Scrap                | 17 164    | 49 076    | 37 204    | 56 347    | 30 212    |
| Iceland              |           |           |           |           |           |
| Alumina              | 434 801   | 663 691   | 814 258   | 1 620 531 | 1 557 309 |
| Unwrought (a)        | 1 095     | 291       | 293       | 439       | 1 461     |
| Ireland, Republic of |           |           |           |           |           |
| Bauxite              | 3 606 983 | 3 368 967 | 4 144 231 | 3 009 615 | 2 786 723 |
| Alumina              | 4 252     | 7 470     | 9 268     | 9 579     | 4 711     |
| Unwrought (a)        | 4 092     | 2 756     | 1 261     | 309       | 287       |
| Italy                |           |           |           |           |           |
| Bauxite              | 2 602 224 | 2 618 296 | 2 374 609 | 2 417 499 | 36 975    |
| Alumina              | 147 537   | 137 469   | 148 384   | 144 473   | 88 864    |
| Alumina hydrate      | 155 718   | 156 231   | 166 453   | 143 217   | 142 005   |
| Unwrought            | 426 721   | 481 919   | 534 385   | 445 882   | 284 779   |
| Unwrought alloys     | 463 411   | 504 142   | 545 052   | 436 207   | 310 560   |
| Scrap                | 326 901   | 366 623   | 432 780   | 377 441   | 268 836   |
| Latvia               |           |           |           |           |           |
| Unwrought (a)        | 1 810     | 577       | 154       | 21        | 592       |
| Scrap                | 16 970    | 6 505     | 6 837     | 7 677     | 5 974     |
| Lithuania            |           |           |           |           |           |
| Bauxite              | ...       | ...       | 1         | ...       | 6 922     |
| Alumina              | 13 079    | 11 176    | 13 304    | 10 282    | 1 815     |
| Scrap                | 1 841     | 1 964     | 3 380     | 1 887     | 888       |
| Macedonia            |           |           |           |           |           |
| Alumina              | 82        | 412       | 1 476     | 1 225     | 425       |
| Unwrought (a)        | 1 610     | 2 941     | 3 930     | 3 446     | 2 164     |
| Scrap                | 492       | 496       | 663       | 485       | 1 341     |
| Netherlands          |           |           |           |           |           |
| Bauxite              | 169 012   | 118 203   | 108 088   | 182 711   | 68 038    |
| Alumina              | 654 487   | 440 195   | 706 255   | 689 724   | 153 891   |
| Alumina hydrate      | 223 823   | 205 902   | 190 351   | 178 940   | 52 798    |
| Unwrought            | 370 979   | 650 035   | 713 441   | 248 386   | 134 950   |
| Unwrought alloys     | 287 504   | 321 582   | 358 930   | 479 786   | 284 410   |
| Scrap                | 189 722   | 197 160   | 204 117   | 210 203   | 88 053    |
| Norway               |           |           |           |           |           |
| Bauxite              | 16 601    | 11 384    | 3 446     | 10 232    | 15 444    |
| Alumina              | 2 723 588 | 2 730 064 | 2 535 547 | 2 753 105 | 2 069 424 |
| Alumina hydrate      | 45 957    | 43 721    | 48 560    | 50 401    | 45 252    |
| Unwrought            | 328 722   | 352 293   | 435 126   | 381 638   | 240 409   |
| Unwrought alloys     | 42 056    | 34 783    | 73 058    | 58 995    | 95 120    |
| Scrap                | 20 806    | 26 326    | 32 024    | 37 386    | 26 598    |
| Poland               |           |           |           |           |           |
| Bauxite              | 59 758    | 61 638    | 71 598    | 59 907    | 49 033    |
| Alumina              | 102 845   | 114 800   | 120 768   | 126 143   | 27 626    |
| Alumina hydrate      | 29 538    | 27 358    | 27 634    | 25 334    | 23 083    |
| Unwrought            | 62 403    | 76 996    | 105 281   | 71 563    | 67 561    |
| Unwrought alloys     | 140 792   | 167 914   | 192 930   | 195 072   | 144 983   |
| Scrap                | 39 907    | 52 498    | 59 623    | 67 176    | 67 408    |
| Portugal             |           |           |           |           |           |
| Alumina              | 6 250     | 7 760     | 9 325     | 9 750     | 13 742    |
| Unwrought            | 13 941    | 16 292    | 16 859    | 17 732    | 15 200    |
| Unwrought alloys     | 224 631   | 237 617   | 214 990   | 214 614   | 149 759   |
| Scrap                | 2 651     | 1 487     | 3 994     | 2 409     | 15 819    |

## Imports continued

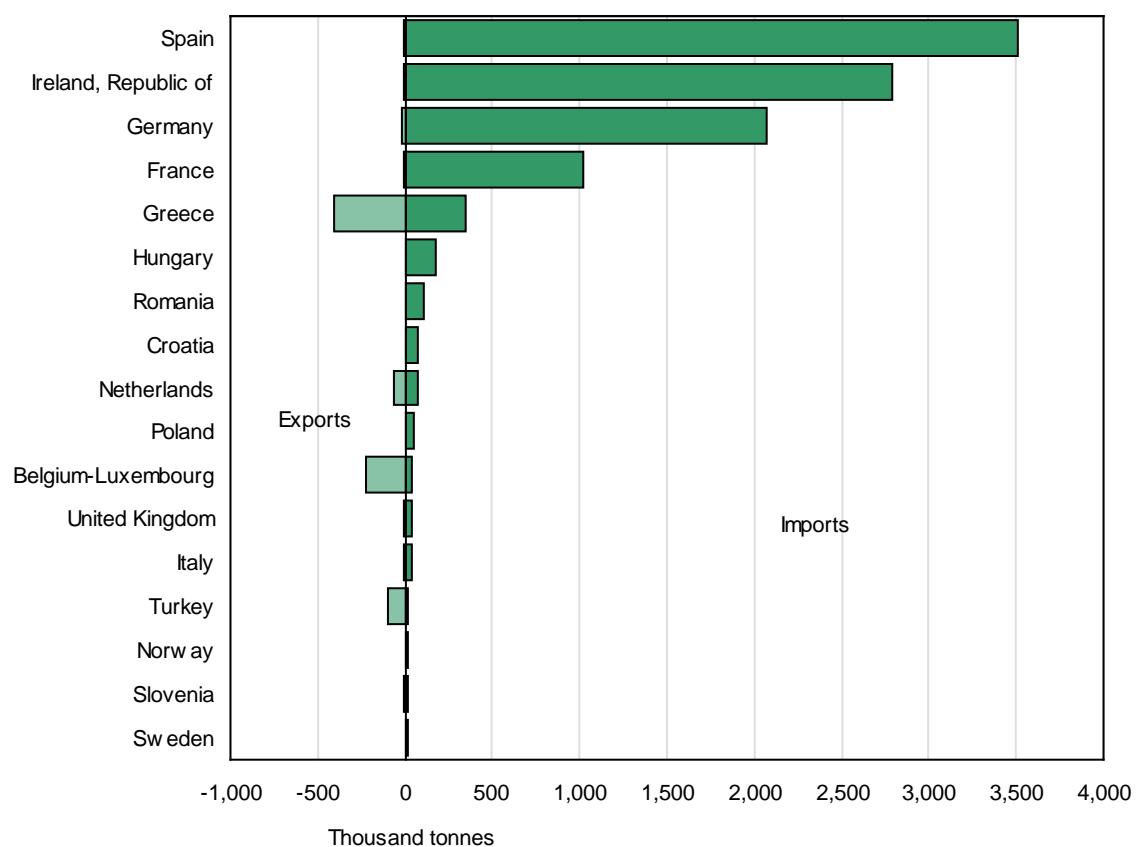
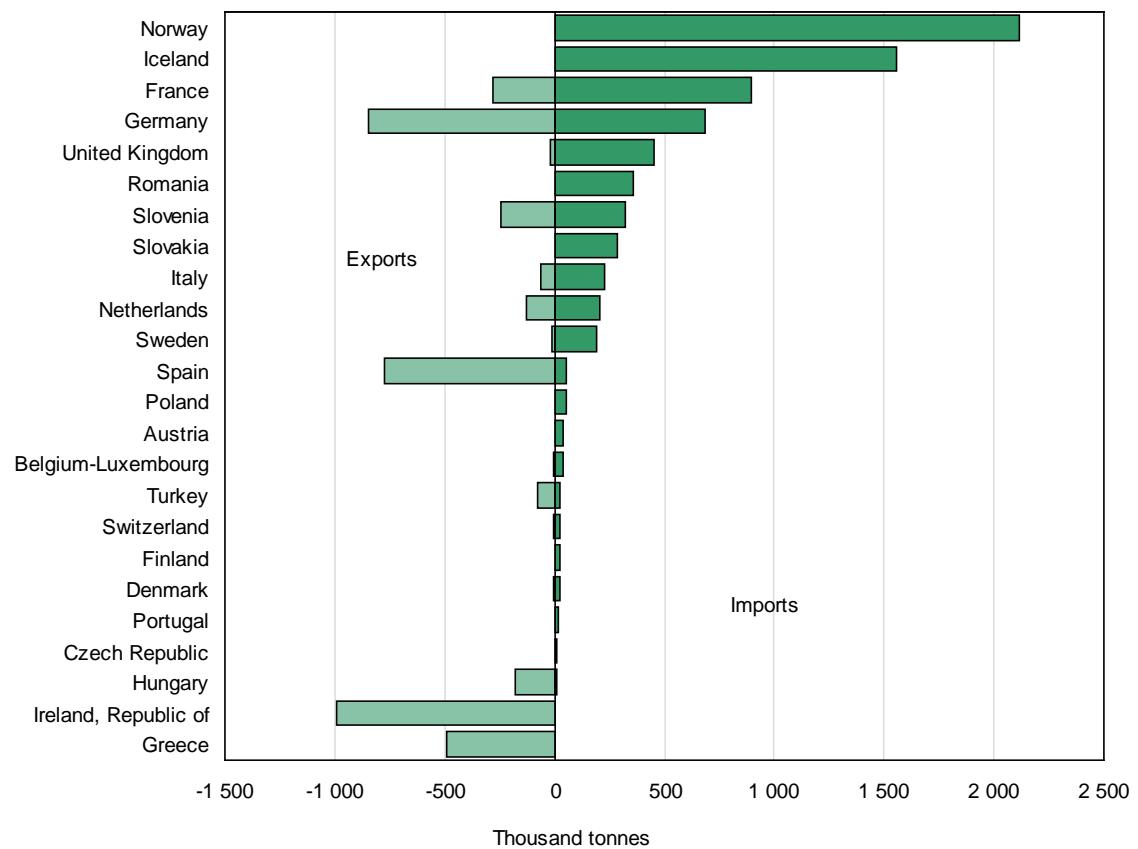
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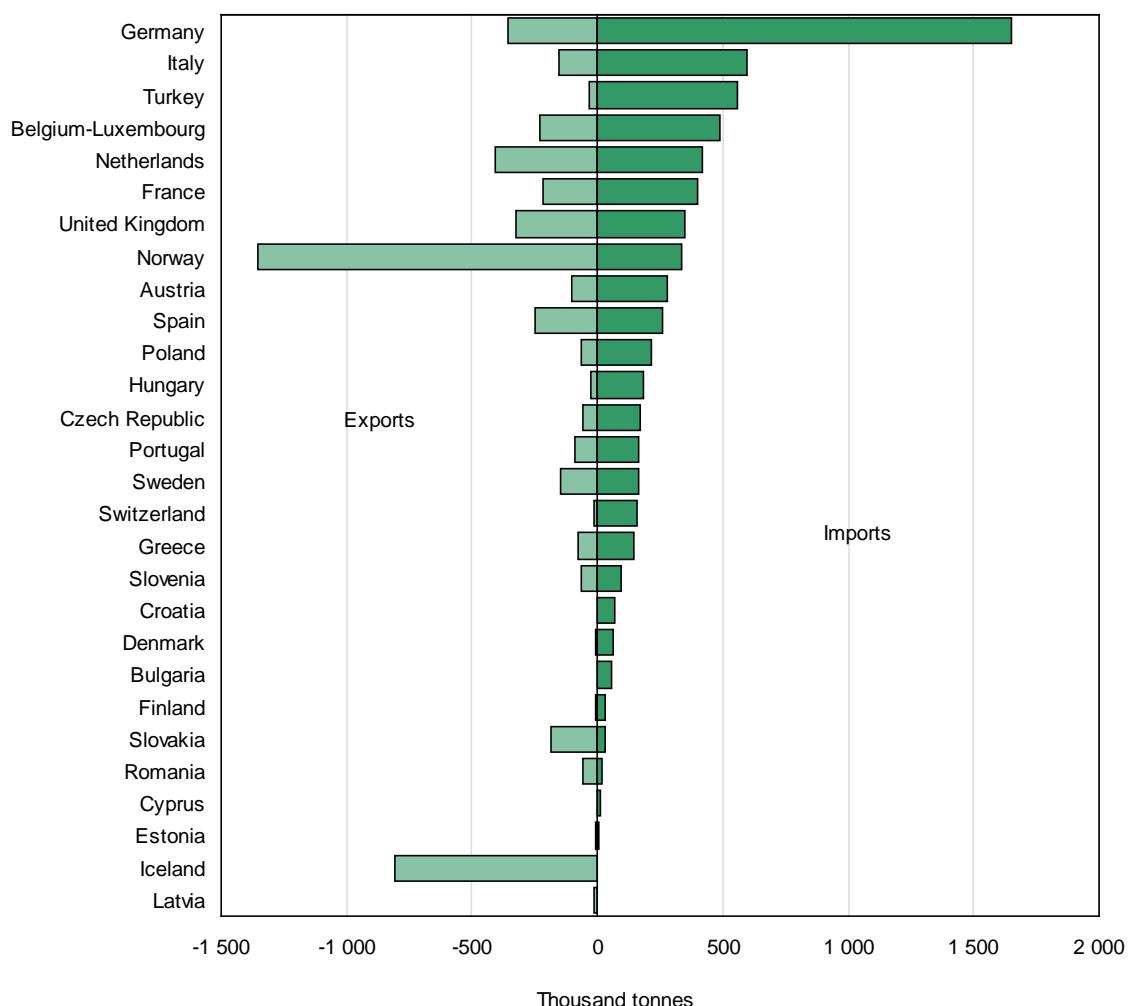
| Country          | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------------|-----------|-----------|-----------|-----------|-----------|
| Romania          |           |           |           |           |           |
| Bauxite          | 1 655 045 | 1 597 023 | 75 934    | 45 527    | 104 404   |
| Alumina          | 27 498    | 28 342    | 482 375   | 487 304   | 353 846   |
| Alumina hydrate  | 1 852     | 15 253    | 16 927    | 17 822    | 7 996     |
| Unwrought (a)    | 2 849     | 4 151     | 10 191    | 16 416    | 17 383    |
| Scrap            | 565       | 436       | 3 833     | 598       | 3 838     |
| Slovakia         |           |           |           |           |           |
| Bauxite          | 3 669     | 5 886     | 7 524     | 5 778     | 5 443     |
| Alumina          | 307 756   | 314 576   | 311 914   | 311 891   | 288 753   |
| Unwrought (a)    | 31 683    | 31 521    | 52 718    | 41 681    | 27 853    |
| Scrap            | 12 567    | 8 550     | 8 748     | 4 638     | 1 760     |
| Slovenia         |           |           |           |           |           |
| Bauxite          | 47 935    | 51 064    | 63 229    | 40 006    | 13 966    |
| Alumina          | 450 273   | 480 454   | 466 163   | 438 579   | 302 520   |
| Alumina hydrate  | 23 581    | 24 102    | 28 628    | 27 121    | 20 629    |
| Unwrought        | 73 137    | 48 337    | 65 589    | 67 405    | 62 162    |
| Unwrought alloys | 46 782    | 60 484    | 58 215    | 50 389    | 34 530    |
| Scrap            | 47 381    | 50 865    | 52 338    | 51 319    | 37 677    |
| Spain            |           |           |           |           |           |
| Bauxite          | 3 224 101 | 3 007 043 | 3 547 201 | 3 618 306 | 3 509 294 |
| Alumina          | 58 627    | 56 961    | 53 579    | 50 417    | 22 239    |
| Alumina hydrate  | 43 246    | 49 725    | 49 451    | 41 614    | 30 522    |
| Unwrought        | 110 257   | 95 436    | 122 303   | 82 512    | 95 461    |
| Unwrought alloys | 223 627   | 303 607   | 328 314   | 281 270   | 162 026   |
| Scrap            | 99 459    | 103 839   | 123 074   | 110 745   | 63 517    |
| Sweden           |           |           |           |           |           |
| Bauxite          | 3 171     | 2 846     | 30 099    | 18 761    | 10 755    |
| Alumina          | 191 504   | 201 496   | 43 101    | 161 638   | 109 806   |
| Alumina hydrate  | 62 549    | 56 535    | 94 218    | 95 834    | 81 026    |
| Unwrought        | 17 916    | 7 959     | 46 431    | 47 534    | 39 248    |
| Unwrought alloys | 117 202   | 135 270   | 159 628   | 144 343   | 124 277   |
| Scrap            | 24 309    | 32 198    | 36 838    | 40 125    | 30 093    |
| Switzerland      |           |           |           |           |           |
| Bauxite          | 9 929     | 5 901     | 5 850     | 12 439    | 8 360     |
| Alumina          | 88 358    | 21 431    | 10 745    | 11 036    | 9 074     |
| Alumina hydrate  | 16 823    | 18 333    | 17 875    | 17 235    | 15 269    |
| Unwrought        | 75 987    | 111 780   | 136 214   | 127 018   | 108 096   |
| Unwrought alloys | 56 059    | 79 666    | 78 916    | 62 962    | 50 341    |
| Scrap            | 27 617    | 26 711    | 32 716    | 31 728    | 23 195    |
| Turkey           |           |           |           |           |           |
| Bauxite          | 46 016    | 52 627    | 53 202    | 39 256    | 17 350    |
| Alumina          | 19 665    | 23 179    | 12 713    | 39 507    | 26 123    |
| Unwrought        | 236 076   | 245 876   | 296 098   | 327 525   | 358 748   |
| Unwrought alloys | 146 853   | 168 498   | 193 702   | 270 871   | 201 124   |
| Scrap            | 16 723    | 7 061     | 5 634     | 16 868    | 14 215    |
| United Kingdom   |           |           |           |           |           |
| Bauxite          | 103 522   | 86 882    | 48 741    | 57 971    | 37 461    |
| Alumina          | 755 443   | 823 115   | 787 218   | 705 033   | 352 250   |
| Alumina hydrate  | 130 321   | 101 126   | 112 287   | 110 503   | 98 516    |
| Unwrought        | 114 189   | 169 259   | 201 262   | 160 797   | 304 621   |
| Unwrought alloys | 87 063    | 245 496   | 93 145    | 93 210    | 43 601    |
| Scrap            | 116 285   | 137 626   | 158 827   | 145 819   | 117 651   |

## Note(s)

- (1) Except where alumina hydrate is separately specified, national trade figures for alumina can be considered as inclusive of hydrate  
 (2) In this table the term 'unwrought' aluminium corresponds to item 7601 of the Harmonised System and comprises ingots, blocks, unwrought bars, etc.  
 (3) Metal traded in ferro-alloy form is included under iron, steel and ferro-alloys

(a) Including alloys

**Bauxite - EU33 trade in 2009****Alumina and alumina hydrate - EU33 trade in 2009**

**Aluminium metal - EU33 trade in 2009**

## Antimony

- Antimony is a toxic metallic element with several specialised uses. It is frequently alloyed with lead, where it greatly increases hardness and strength. Antimony is also used in semi-conductors and its compounds form excellent flame-retardants in cable sheaths.
- China was by far the largest mine producer of antimony in 2009, with 93 per cent of world production. Antimony is also produced as a by-product of lead refining in many countries. Less than one per cent of world production of antimony is produced in the EU33.

### Mine production of antimony

| Country | 2005    | 2006    | 2007    | 2008    | 2009    |
|---------|---------|---------|---------|---------|---------|
| Turkey  | * 1 200 | * 1 100 | * 1 200 | * 1 300 | * 1 300 |

#### Note(s)

- (1) This table includes antimony content of antimonial lead alloys  
(2) In addition, Hungary is believed to produce antimony

### Exports of antimony

| Country             | 2005   | 2006   | 2007   | 2008  | 2009  |
|---------------------|--------|--------|--------|-------|-------|
| Austria             |        |        |        |       |       |
| Metal               | 1 089  | 3      | 1      | 0     | —     |
| Belgium-Luxembourg  |        |        |        |       |       |
| Ores & concentrates | 77     | 360    | 301    | 228   | 530   |
| Metal               | 693    | 1 580  | 974    | 494   | 533   |
| Oxide               | 11 526 | 12 661 | 11 643 | 9 636 | 8 811 |
| Czech Republic      |        |        |        |       |       |
| Oxide               | 145    | 108    | 139    | 133   | 89    |
| France              |        |        |        |       |       |
| Metal               | 186    | 53     | 19     | 44    | 34    |
| Oxide               | 5 177  | 4 964  | 6 109  | 6 261 | 6 788 |
| Germany             |        |        |        |       |       |
| Metal               | 15     | 30     | 141    | 33    | 101   |
| Oxide               | 724    | 892    | 1 130  | 932   | 448   |
| Greece              |        |        |        |       |       |
| Metal               | 141    | 160    | 143    | 81    | —     |
| Italy               |        |        |        |       |       |
| Ores & concentrates | 274    | 250    | 355    | 386   | 566   |
| Oxide               | 94     | 254    | 237    | 569   | 391   |
| Netherlands         |        |        |        |       |       |
| Metal               | 570    | 886    | 308    | 185   | 171   |
| Oxide               | 664    | 780    | 496    | 346   | 285   |
| Poland              |        |        |        |       |       |
| Metal               | 18     | 36     | 22     | 25    | 65    |
| Portugal            |        |        |        |       |       |
| Metal               | 1      | 646    | 267    | 60    | 119   |
| Spain               |        |        |        |       |       |
| Metal               | 13     | 21     | 17     | 143   | 62    |
| Oxide               | 859    | 2 031  | 246    | 1 023 | 894   |
| Sweden              |        |        |        |       |       |
| Metal               | 5      | 2      | 1      | 15    | 489   |
| Turkey              |        |        |        |       |       |
| Ores & concentrates | 920    | 679    | 819    | 1 000 | 1 408 |
| Metal               | 63     | 5      | 28     | 0     | 8     |
| United Kingdom      |        |        |        |       |       |
| Metal               | 54     | 27     | 21     | 35    | 75    |
| Oxide               | 621    | 397    | 379    | 558   | 407   |

**Imports of antimony**

tonnes

| Country             | 2005   | 2006   | 2007   | 2008   | 2009  |
|---------------------|--------|--------|--------|--------|-------|
| Austria             |        |        |        |        |       |
| Metal               | 74     | 51     | 104    | 63     | 64    |
| Oxide               | 263    | 271    | 277    | 245    | 192   |
| Belgium-Luxembourg  |        |        |        |        |       |
| Metal               | 10 722 | 11 543 | 11 915 | 8 851  | 7 523 |
| Oxide               | 1 735  | 2 524  | 2 342  | 920    | 750   |
| Bulgaria            |        |        |        |        |       |
| Metal               | ...    | 34     | 100    | 35     | 40    |
| Czech Republic      |        |        |        |        |       |
| Metal               | 72     | 82     | 64     | 131    | 55    |
| Oxide               | 588    | 503    | 604    | 521    | 209   |
| Finland             |        |        |        |        |       |
| Oxide               | 199    | 256    | 281    | 160    | 101   |
| France              |        |        |        |        |       |
| Metal               | 7 766  | 8 919  | 8 568  | 9 078  | 7 682 |
| Oxide               | 2 243  | 2 092  | 3 315  | 1 923  | 1 277 |
| Germany             |        |        |        |        |       |
| Metal               | 148    | 421    | 612    | 700    | 552   |
| Oxide               | 6 560  | 8 305  | 8 527  | 8 672  | 5 072 |
| Greece              |        |        |        |        |       |
| Ores & concentrates | 95     | 131    | 83     | 27     | 6     |
| Metal               | 24     | 0      | 21     | 63     | 85    |
| Hungary             |        |        |        |        |       |
| Oxide               | 180    | 139    | 192    | 144    | 173   |
| Italy               |        |        |        |        |       |
| Ores & concentrates | 1 005  | 829    | 851    | 1 171  | 935   |
| Metal               | 164    | 279    | 399    | 300    | 198   |
| Oxide               | 5 543  | 6 061  | 5 950  | 6 168  | 4 602 |
| Lithuania           |        |        |        |        |       |
| Oxide               | 6      | 36     | 61     | 110    | 117   |
| Netherlands         |        |        |        |        |       |
| Metal               | 705    | 651    | 699    | 234    | 150   |
| Oxide               | 41 562 | 35 127 | 3 783  | 51 439 | 2 257 |
| Norway              |        |        |        |        |       |
| Metal               | 71     | 11     | 70     | 44     | 1     |
| Oxide               | 305    | 507    | 337    | 371    | 200   |
| Poland              |        |        |        |        |       |
| Metal               | 28     | 158    | 142    | 52     | 71    |
| Oxide               | 1 231  | 1 338  | 1 315  | 1 086  | 1 034 |
| Portugal            |        |        |        |        |       |
| Oxide               | 137    | 166    | 172    | 161    | 146   |
| Romania             |        |        |        |        |       |
| Metal               | 55     | 43     | 68     | 30     | 36    |
| Oxide               | 73     | 97     | 190    | 153    | 87    |
| Slovakia            |        |        |        |        |       |
| Oxide               | 118    | 82     | 104    | 48     | 35    |
| Slovenia            |        |        |        |        |       |
| Metal               | 137    | 98     | 110    | 71     | 50    |
| Spain               |        |        |        |        |       |
| Ores & concentrates | 108    | 175    | 164    | 154    | 55    |
| Metal               | 1 881  | 1 596  | 1 676  | 1 987  | 1 478 |
| Oxide               | 808    | 984    | 1 146  | 899    | 493   |
| Sweden              |        |        |        |        |       |
| Metal               | 199    | 337    | 546    | 166    | 58    |
| Oxide               | 377    | 296    | 319    | 293    | 203   |
| Switzerland         |        |        |        |        |       |
| Ores & concentrates | 1 722  | 201    | 38     | —      | 25    |
| Oxide               | 1 026  | 1 141  | 1 461  | 1 328  | 793   |
| Turkey              |        |        |        |        |       |
| Metal               | 40     | 181    | 308    | 346    | 369   |
| Oxide               | 377    | 381    | 501    | 522    | 588   |
| United Kingdom      |        |        |        |        |       |
| Metal               | 60     | 81     | 110    | 98     | 88    |
| Oxide               | 2 048  | 2 291  | 1 917  | 2 454  | 1 548 |

## Arsenic

- Arsenic is a toxic semi-metallic element produced and traded chiefly as 'white arsenic' (arsenic trioxide). Its principal uses are as compounds in wood preservatives and pesticides. Gallium arsenide is used in semi-conductors whilst arsenic metal has a number of minor uses.
- China was the largest producer of white arsenic in 2009 and is estimated to produce more than half of world output.

### Production of white arsenic

| Country  | 2005    | 2006    | 2007    | 2008    | 2009    |
|----------|---------|---------|---------|---------|---------|
| Belgium  | * 1 000 | * 1 000 | * 1 000 | * 1 000 | * 1 000 |
| Portugal | * 15    | * 15    | * 15    | * 15    | * 15    |

## Note(s)

- (1) This table includes calculated trioxide equivalent of arsenic metal produced except where this would involve double counting  
(2) In addition to the countries listed, Austria, Finland, Hungary, Spain and the United Kingdom are believed to produce arsenic

### Exports of arsenic

| Country            | 2005 | 2006  | 2007 | 2008 | 2009 |
|--------------------|------|-------|------|------|------|
| Belgium-Luxembourg |      |       |      |      |      |
| Metallic arsenic   | 101  | 2 542 | 117  | 77   | 42   |
| France             |      |       |      |      |      |
| Metallic arsenic   | 8    | 15    | 3    | 5    | 9    |
| Germany            |      |       |      |      |      |
| Metallic arsenic   | 20   | 20    | 32   | 41   | 31   |
| Italy              |      |       |      |      |      |
| Metallic arsenic   | 16   | 2     | —    | —    | —    |
| Netherlands        |      |       |      |      |      |
| Metallic arsenic   | 50   | 33    | 59   | 67   | * 30 |

## Note(s)

- (1) This table does not purport to be comprehensive: data relating to arsenic are not fully recorded by many countries

### Imports of arsenic

| Country              | 2005 | 2006 | 2007 | 2008 | 2009 |
|----------------------|------|------|------|------|------|
| Belgium-Luxembourg   |      |      |      |      |      |
| Metallic arsenic     | 164  | 105  | 466  | 65   | 17   |
| Bulgaria             |      |      |      |      |      |
| Metallic arsenic     | 5    | 10   | 30   | 12   | 11   |
| Czech Republic       |      |      |      |      |      |
| Metallic arsenic     | 9    | 11   | 10   | 26   | —    |
| France               |      |      |      |      |      |
| Metallic arsenic     | 21   | 20   | 19   | 8    | 4    |
| Greece               |      |      |      |      |      |
| Metallic arsenic     | 35   | 16   | 9    | 9    | 11   |
| Ireland, Republic of |      |      |      |      |      |
| Metallic arsenic     | 158  | 125  | 137  | 95   | ...  |
| Italy                |      |      |      |      |      |
| Metallic arsenic     | 54   | 52   | 64   | 43   | 45   |
| Netherlands          |      |      |      |      |      |
| Metallic arsenic     | 85   | 20   | 19   | 8    | * 45 |
| Poland               |      |      |      |      |      |
| Metallic arsenic     | 39   | 21   | 24   | 42   | 20   |
| Slovenia             |      |      |      |      |      |
| Metallic arsenic     | 5    | 12   | 11   | —    | 3    |

## Imports continued

tonnes

| Country          | 2005 | 2006 | 2007 | 2008 | 2009 |
|------------------|------|------|------|------|------|
| Spain            |      |      |      |      |      |
| Metallic arsenic | 112  | 143  | 116  | 192  | 48   |
| Sweden           |      |      |      |      |      |
| Metallic arsenic | 6    | ...  | 12   | 6    | 6    |
| Turkey           |      |      |      |      |      |
| Metallic arsenic | 98   | 77   | 63   | 71   | 74   |
| United Kingdom   |      |      |      |      |      |
| Metallic arsenic | 3    | 49   | 70   | 52   | 60   |

## Note(s)

(1) This table does not purport to be comprehensive: data relating to arsenic are not fully recorded by many countries

## Asbestos

- Asbestos is a commercial term for six fibrous minerals of which chrysotile (white asbestos), the fibrous form of serpentine, is the only form of asbestos now worked. Asbestos was once highly sought after because of its unique combination of properties:
  - non-combustibility
  - resistance to heat, friction, corrosion and acid/alkali attack
  - good thermal and sound insulation qualities
  - good dielectric properties
- Airborne asbestos fibres are a serious hazard to health and virtually all industrial use of asbestos has now ceased in Europe, together with all production in the EU33. The largest producer in the world is Russia with 48 per cent of world production followed by China with 18 per cent of world production.

### Production of asbestos

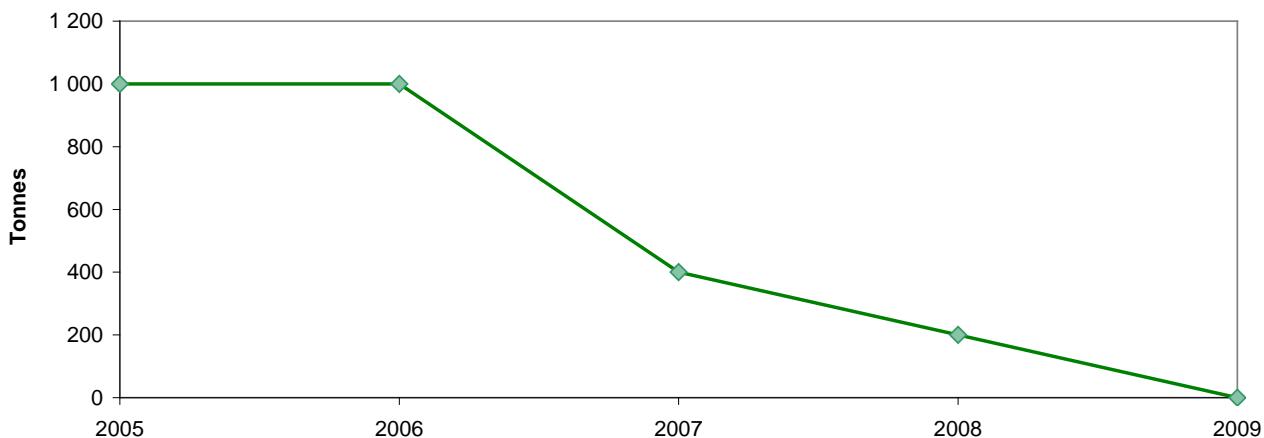
tonnes

| Country  | 2005  | 2006  | 2007 | 2008 | 2009 |
|----------|-------|-------|------|------|------|
| Slovakia | 1 000 | 1 000 | 400  | 200  | —    |

Note(s)

(1) In addition to the countries listed, Romania is believed to produce asbestos

EU33 Production of asbestos 2005 - 09



### Exports of unmanufactured asbestos

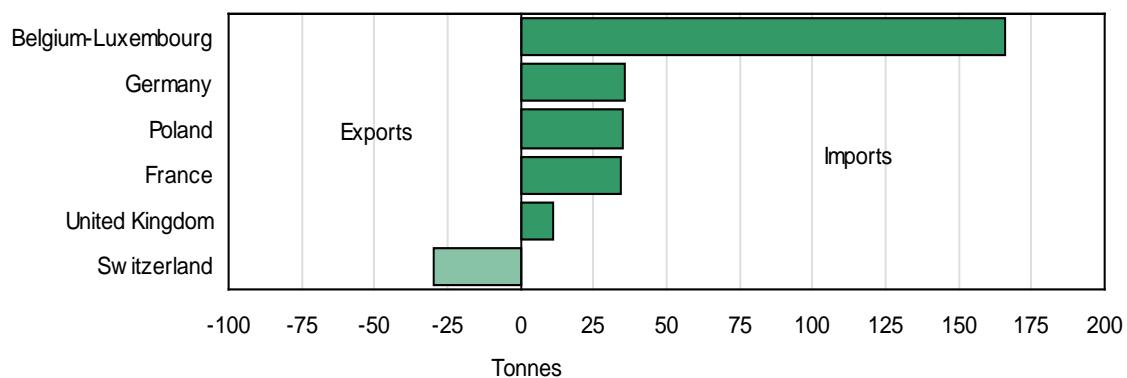
tonnes

| Country            | 2005 | 2006 | 2007 | 2008 | 2009 |
|--------------------|------|------|------|------|------|
| Belgium-Luxembourg | ...  | 164  | 17   | —    | —    |
| Italy              | 20   | 5    | 29   | —    | ...  |
| Malta              | 65   | 16   | ...  | ...  | ...  |
| Switzerland        | 0    | 0    | 290  | 120  | 30   |
| Turkey             | —    | 3    | 990  | 685  | —    |

**Imports of unmanufactured asbestos**

tonnes

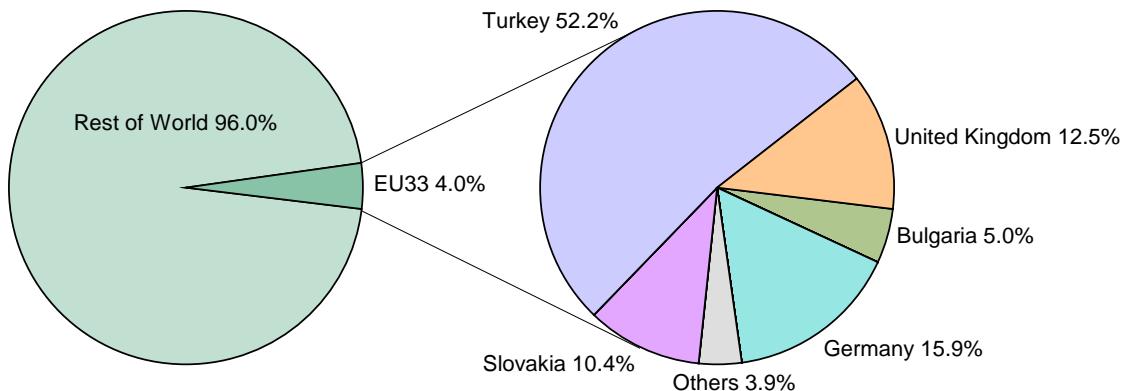
| Country              | 2005   | 2006  | 2007  | 2008 | 2009 |
|----------------------|--------|-------|-------|------|------|
| Belgium-Luxembourg   | 13     | 200   | 200   | 6    | 166  |
| Croatia              | 2 429  | ...   | ...   | ...  | ...  |
| France               | 5      | 52    | 169   | 120  | 34   |
| Germany              | 98     | 61    | 54    | 54   | 36   |
| Ireland, Republic of | 2 794  | 2 700 | 23    | 3    | —    |
| Poland               | 6      | 52    | ...   | ...  | 35   |
| Portugal             | 356    | ...   | ...   | 0    | ...  |
| Romania              | 9 077  | 3 272 | 0     | 1    | ...  |
| Spain                | 23     | 20    | 50    | 21   | —    |
| Turkey               | 12 576 | 6 124 | 2 518 | 585  | —    |
| United Kingdom       | ...    | 0     | 187   | ...  | 11   |

**Asbestos - EU33 trade in 2009**

## Barytes

- Barytes (barium sulphate) is used in a variety of industries that utilise its properties of high specific gravity, softness, non-abrasiveness, chemical neutrality and brightness. About 88 per cent of barytes production is used in the manufacture and utilisation of drilling fluids in oil and gas exploration.
- The EU33 countries contributed four per cent of world barytes production in 2009. The largest producer amongst the EU33 is Turkey, which produced more than 52 per cent of the EU33 production. The largest world producer is China, which accounted for 41 per cent of world production in 2009, despite output falling by 42 per cent.

**EU33 Production of barytes 2009**



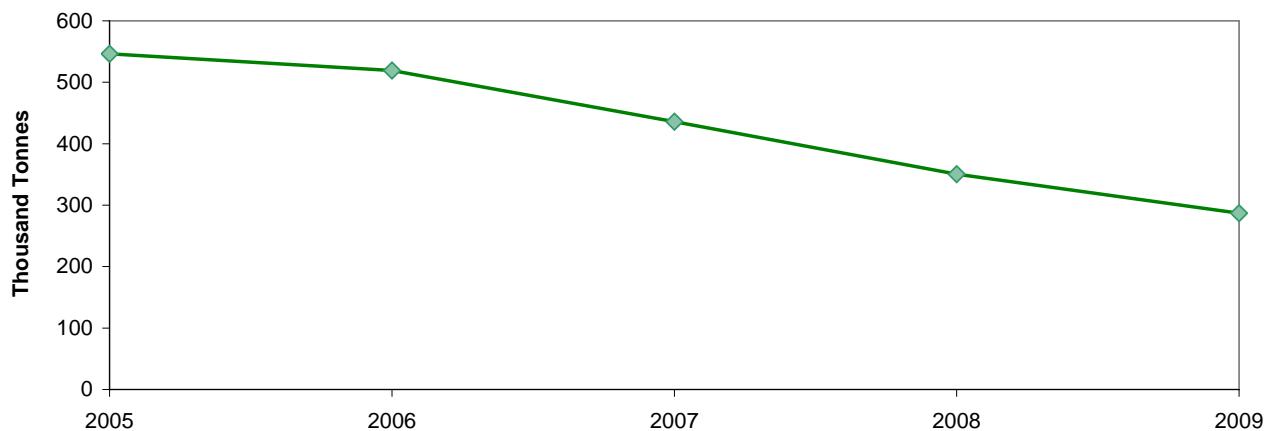
## Production of barytes

tonnes

| Country        | 2005     | 2006     | 2007    | 2008    | 2009    |
|----------------|----------|----------|---------|---------|---------|
| Bulgaria       | 76 600   | 74 500   | 50 900  | 40 100  | 14 300  |
| France         | * 81 000 | * 40 000 | —       | —       | —       |
| Germany        | 88 591   | 85 524   | 88 265  | 78 941  | 45 606  |
| Italy          | 7 312    | * 7 000  | * 7 000 | * 7 000 | * 7 000 |
| Poland         | 2 357    | 2 034    | 2 000   | 308     | 300     |
| Portugal       | 21       | 24       | 25      | 171     | 1 078   |
| Slovakia       | 26 589   | 57 000   | 58 000  | 20 000  | 30 000  |
| Spain          | 42 792   | 45 001   | 26 770  | 11 100  | 2 814   |
| Turkey         | 157 200  | 160 000  | 150 000 | 150 000 | 150 000 |
| United Kingdom | 64 000   | 48 000   | 53 000  | 43 000  | 36 000  |
| EU33 Total     | 546 000  | 519 000  | 436 000 | 351 000 | 287 000 |

Note(s)

(1) This table may include small quantities of witherite

**EU33 Production of barytes 2005 - 09****Exports of barytes**

tonnes

| Country            | 2005     | 2006     | 2007     | 2008     | 2009     |
|--------------------|----------|----------|----------|----------|----------|
| Austria            | 1 407    | 5 830    | 3 023    | 2 440    | 1 276    |
| Belgium-Luxembourg | 4 016    | 19 004   | 506      | 1 381    | 2 638    |
| Bulgaria           | 76 644   | 74 523   | 50 922   | 46 907   | 14 326   |
| France (a)         | * 57 700 | * 36 300 | * 37 100 | * 10 000 | * 11 500 |
| Germany            | 32 375   | 33 947   | 43 104   | 38 111   | 45 360   |
| Italy              | 505      | 1 000    | 2 239    | 1 238    | 2 890    |
| Netherlands        | 52 444   | 37 392   | 68 798   | 58 740   | 121 567  |
| Norway             | 1 482    | 14 199   | 13 425   | 5 608    | 4 069    |
| Slovakia           | 7 876    | 13 843   | 9 174    | 685      | 6 309    |
| Spain              | 27 389   | 27 743   | 31 693   | 33 676   | 29 776   |
| Turkey             | 134 482  | 159 128  | 115 039  | 123 485  | 121 744  |
| United Kingdom     | 16 334   | 4 250    | 9 242    | 9 976    | 13 095   |

## Note(s)

(1) Trade in barytes is reported under item 2511 of the Harmonised System and is described as 'barytes and witherite'. However, only small quantities of witherite are traded

(a) BGS estimates, based on known imports into certain countries

**Imports of barytes**

tonnes

| Country              | 2005    | 2006    | 2007    | 2008    | 2009    |
|----------------------|---------|---------|---------|---------|---------|
| Austria              | 5 863   | 12 550  | 4 898   | 6 234   | 2 733   |
| Belgium-Luxembourg   | 26 832  | 32 196  | 39 041  | 33 685  | 20 867  |
| Croatia              | 715     | 893     | 98      | 1 525   | 889     |
| Czech Republic       | 8 552   | 7 195   | 6 358   | 7 388   | 4 641   |
| Denmark              | 28 788  | 58 303  | 38 096  | 22 324  | 27 656  |
| Finland              | 3 931   | 4 498   | 5 018   | 4 735   | 2 573   |
| France               | 31 965  | 24 471  | 40 760  | 34 166  | 26 227  |
| Germany              | 231 471 | 272 526 | 320 702 | 278 335 | 129 220 |
| Greece               | 996     | 1 065   | 1 255   | 1 348   | 2 133   |
| Hungary              | ...     | ...     | 1 444   | 492     | 4 529   |
| Ireland, Republic of | 894     | 293     | 586     | 229     | 169     |
| Italy                | 84 178  | 84 398  | 89 745  | 102 684 | 51 615  |
| Netherlands          | 116 512 | 88 489  | 148 808 | 122 039 | 43 928  |
| Norway               | 109 802 | 125 134 | 127 181 | 121 259 | 146 535 |
| Poland               | 7 744   | 9 138   | 10 895  | 14 334  | 8 349   |
| Portugal             | 5 382   | 3 099   | 1 934   | 3 806   | 3 744   |
| Romania              | 5 747   | 7 604   | 14 040  | 25 475  | 8 351   |
| Slovakia             | 814     | 872     | 147     | 142     | 99      |

## Barytes

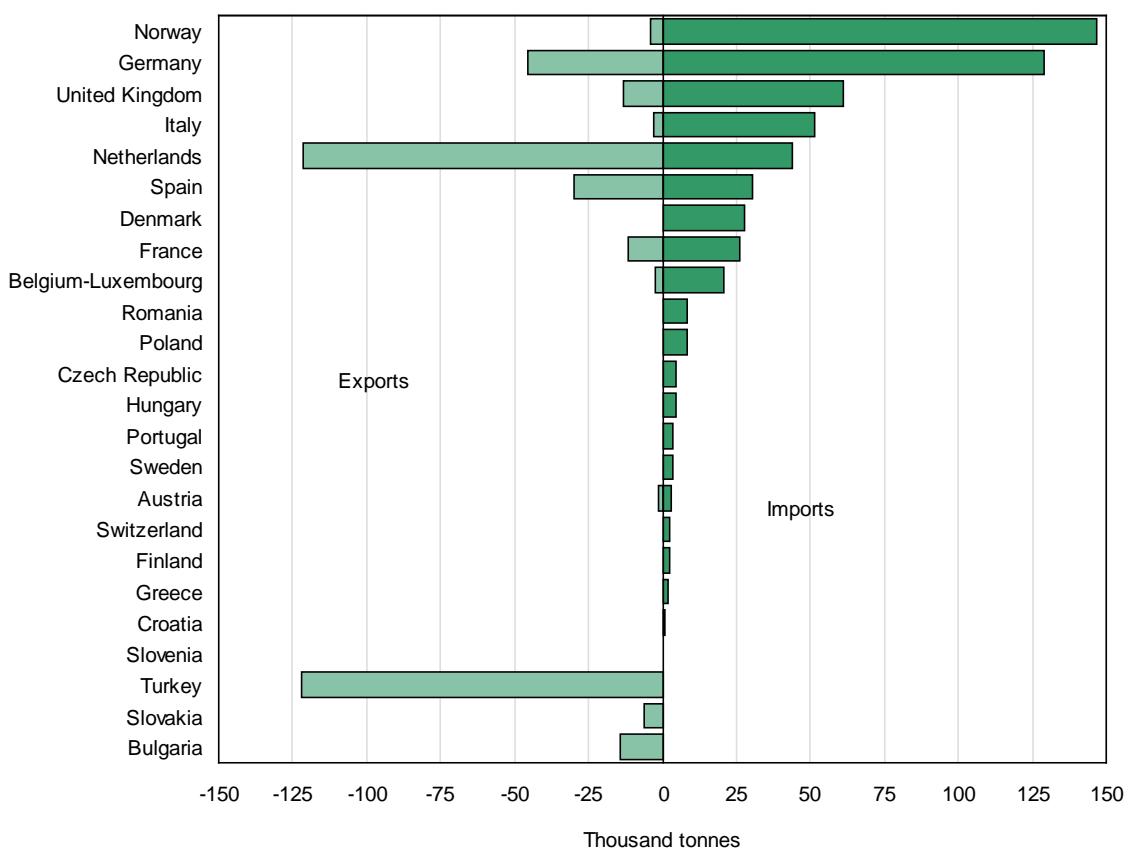
### Imports continued

| Country        | 2005   | 2006   | 2007   | 2008   | 2009   |
|----------------|--------|--------|--------|--------|--------|
| Slovenia       | 845    | 1 044  | 585    | 596    | 530    |
| Spain          | 47 923 | 50 743 | 65 569 | 71 025 | 30 503 |
| Sweden         | 4 610  | 4 876  | 6 504  | 6 371  | 3 346  |
| Switzerland    | 2 242  | 2 433  | 2 843  | 3 644  | 2 605  |
| Turkey         | 2 003  | 279    | 741    | 455    | 507    |
| United Kingdom | 54 753 | 78 225 | 84 617 | 56 794 | 61 308 |

### Note(s)

(1) Trade in barytes is reported under item 2511 of the Harmonised System and is described as 'barytes and witherite'. However, only small quantities of witherite are traded

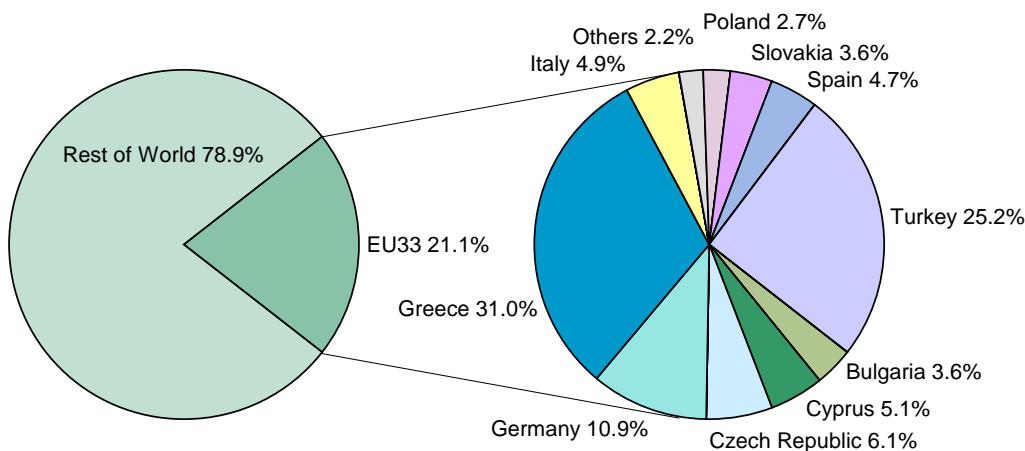
### Barytes - EU33 trade in 2009



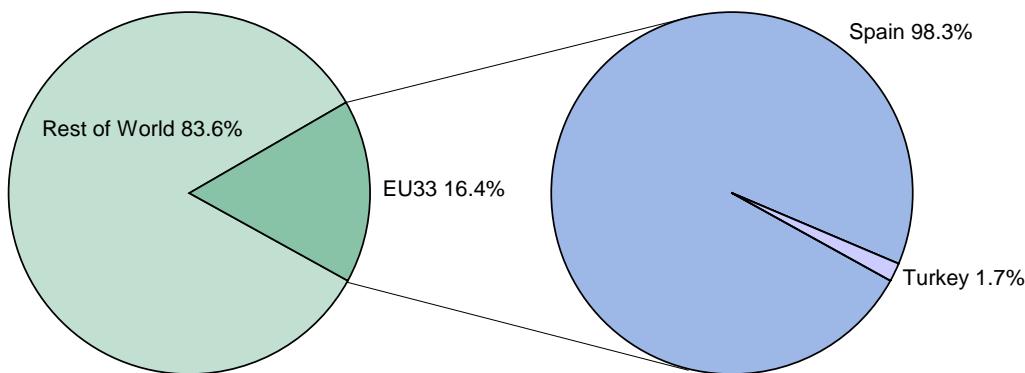
## Bentonite and fullers earth

- Bentonites consist of montmorillonite (a clay mineral) that occurs as two main varieties — calcium bentonite and the more commercially important sodium bentonite. In the UK the name fuller's earth is given to calcium bentonite (and in the USA, attapulgite). Sepiolite is a fibrous clay that can be a substitute for bentonite. Calcium bentonite can be changed to sodium bentonite by the ion-exchange process. The main uses of bentonite and fuller's earth take advantage of their natural sorptive and thixotropic properties. They are used as additions to drilling muds, in making foundry moulds, pelletising iron ore and in the manufacture of cat litter.
- The EU33 countries produced 21.1 per cent of world bentonite in 2009. The world's largest producer was the USA with 29 per cent of world production. Greece is the largest producer of bentonite in the EU33 with 31.0 per cent of EU33 production. UK production of fuller's earth ceased in 2005 and there is no longer any significant production in the EU33. More than 80 per cent of world production comes from the USA. Most of Europe's sepiolite production in 2009 came from Spain, with a smaller (estimated) contribution from Turkey.

**EU33 Production of bentonite 2009**



**EU33 Production of attapulgite and sepiolite 2009**



### Production of bentonite and fuller's earth

tonnes

| Country        | 2005    | 2006    | 2007    | 2008    | 2009     |
|----------------|---------|---------|---------|---------|----------|
| Bulgaria       |         |         |         |         |          |
| Bentonite      | 181 200 | 134 500 | 99 000  | 178 700 | 108 400  |
| Croatia        |         |         |         |         |          |
| Bentonite      | 17 391  | 16 410  | 19 578  | 19 759  | * 20 000 |
| Cyprus         |         |         |         |         |          |
| Bentonite      | 172 366 | 150 620 | 154 655 | 155 125 | 152 722  |
| Czech Republic |         |         |         |         |          |
| Bentonite      | 216 000 | 267 000 | 335 000 | 235 000 | 181 000  |

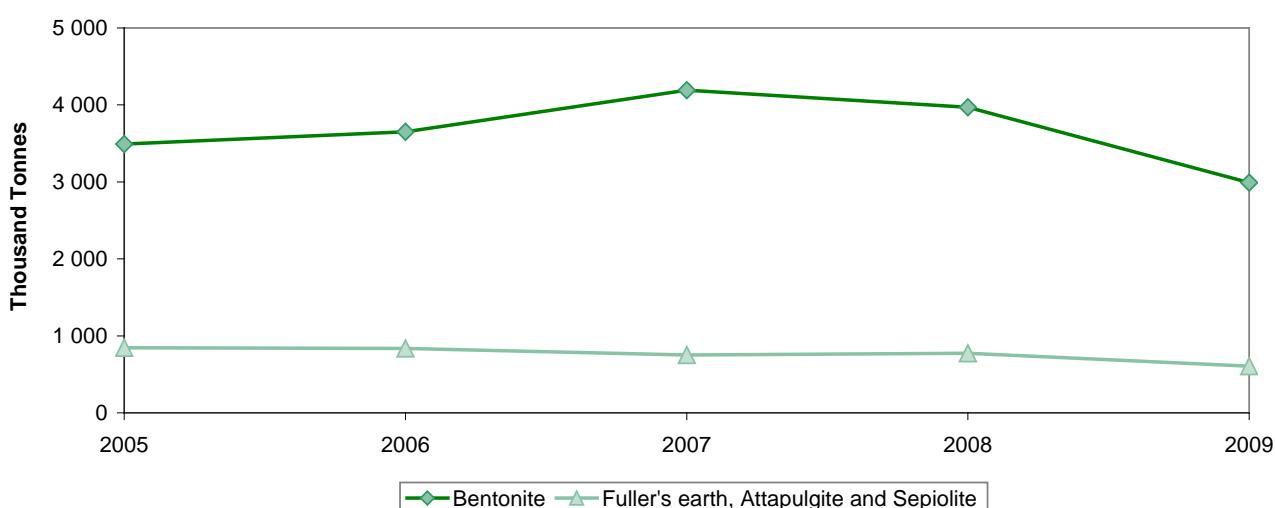
Bentonite and Fuller's Earth

| Country            | 2005      | 2006        | 2007          | 2008          | 2009        |
|--------------------|-----------|-------------|---------------|---------------|-------------|
| Denmark            |           |             |               |               |             |
| Bentonite          | 18 515    | 19 211      | 20 093        | 22 458        | 24 040      |
| Germany            |           |             |               |               |             |
| Bentonite          | 352 374   | 363 998     | 384 709       | 414 336       | 326 461     |
| Greece             |           |             |               |               |             |
| Bentonite          | 1 124 795 | * 1 200 000 | (a) 1 389 800 | (a) 1 528 584 | (a) 926 186 |
| Hungary            |           |             |               |               |             |
| Bentonite          | 4 900     | 6 635       | 54 231        | 7 464         | 2 839       |
| Italy              |           |             |               |               |             |
| Bentonite          | 445 573   | 469 654     | 599 735       | 281 119       | 146 318     |
| Macedonia          |           |             |               |               |             |
| Bentonite          | 14 958    | 20 353      | 22 509        | 13 689        | 9 033       |
| Poland             |           |             |               |               |             |
| Bentonite          | 86 331    | 97 900      | 105 943       | 121 031       | 81 354      |
| Romania            |           |             |               |               |             |
| Bentonite          | 18 190    | 21 165      | 16 911        | 16 638        | 13 694      |
| Slovakia           |           |             |               |               |             |
| Bentonite          | 97 000    | 136 000     | 149 000       | 145 000       | 109 000     |
| Spain              |           |             |               |               |             |
| Bentonite          | 163 290   | 154 746     | 147 253       | 154 534       | * 140 000   |
| Attapulgite        | 20 565    | 20 933      | 24 615        | 27 348        | 21 110      |
| Sepiolite          | 807 820   | 806 345     | 717 728       | 737 659       | 573 937     |
| Turkey             |           |             |               |               |             |
| Bentonite          | 582 735   | * 600 000   | 748 170       | 683 253       | 753 155     |
| Sepiolite          | * 10 000  | * 10 000    | * 10 000      | * 10 000      | * 10 000    |
| United Kingdom     |           |             |               |               |             |
| Fuller's earth (b) | 6 200     | —           | —             | —             | —           |
| EU33 Total         |           |             |               |               |             |
| Bentonite          | 3 496 000 | 3 658 000   | 4 247 000     | 3 977 000     | 2 994 000   |
| Fullers Earth (a)  | 845 000   | 837 000     | 752 000       | 775 000       | 605 000     |

Note(s)

- (1) Bentonites consist of montmorillonite (one of the smectite group of clay minerals) and occur in two main varieties, calcium bentonite, the most commonly occurring, and sodium bentonite, industrially the more important
  - (2) Calcium bentonite can be converted to sodium bentonite by a sodium-exchange process
  - (3) In some countries, such as the United Kingdom, calcium bentonite is known as fuller's earth, a term which is also used to refer attapulgite, a mineralogically distinct clay mineral but exhibiting similar properties
  - (4) In addition to the countries listed, Austria is believed to produce bentonite and France may produce fuller's earth
- (a) Including attapulgite and sepiolite  
(b) Saleable production based on data from producing companies

### EU33 Production of bentonite, fuller's earth, attapulgite and sepiolite 2005 - 09



**Exports of bentonite and fuller's earth**

tonnes

| Country            | 2005    | 2006    | 2007    | 2008    | 2009      |
|--------------------|---------|---------|---------|---------|-----------|
| Austria            |         |         |         |         |           |
| Bentonite          | 10 173  | 8 112   | 5 589   | 5 225   | 4 350     |
| Belgium-Luxembourg |         |         |         |         |           |
| Bentonite          | 26 049  | 32 407  | 18 504  | 34 034  | 36 264    |
| Fuller's earth     | 501     | 303     | ...     | ...     | ...       |
| Bulgaria           |         |         |         |         |           |
| Bentonite          | 76 614  | 89 531  | 74 412  | 103 106 | 79 359    |
| Cyprus             |         |         |         |         |           |
| Bentonite          | 85 724  | 159 472 | 156 871 | 92 089  | 95 674    |
| Czech Republic     |         |         |         |         |           |
| Bentonite          | 85 093  | 86 296  | 97 358  | 105 403 | 99 584    |
| Denmark            |         |         |         |         |           |
| Bentonite          | 17 066  | 19 214  | 19 495  | 15 734  | 13 004    |
| Finland            |         |         |         |         |           |
| Bentonite          | 155     | 232     | 115     | 42      | 803       |
| France             |         |         |         |         |           |
| Bentonite          | 9 243   | 9 788   | 13 454  | 12 231  | 9 211     |
| Germany            |         |         |         |         |           |
| Bentonite          | 71 977  | 77 368  | 81 272  | 67 109  | 52 424    |
| Fuller's earth     | 1 540   | 1 378   | ...     | ...     | ...       |
| Greece             |         |         |         |         |           |
| Bentonite          | 1 283   | 12 620  | 168     | 8 885   | 5 116     |
| Fuller's earth     | 90      | 122     | ...     | ...     | ...       |
| Hungary            |         |         |         |         |           |
| Bentonite          | 442     | 860     | 849     | 1 191   | 555       |
| Italy              |         |         |         |         |           |
| Bentonite          | 245 515 | 272 438 | 296 809 | 293 417 | 186 219   |
| Lithuania          |         |         |         |         |           |
| Bentonite          | 26      | 2 491   | 5 457   | 1 929   | 266       |
| Macedonia          |         |         |         |         |           |
| Bentonite          | 4 346   | 4 747   | 4 181   | 5 201   | 3 716     |
| Netherlands        |         |         |         |         |           |
| Bentonite          | 186 286 | 132 076 | 129 692 | 120 946 | 135 722   |
| Fuller's earth     | 2 931   | 2 141   | ...     | ...     | ...       |
| Poland             |         |         |         |         |           |
| Bentonite          | 12 061  | 15 851  | 19 107  | 20 384  | 23 918    |
| Fuller's earth     | 404     | 580     | ...     | ...     | ...       |
| Portugal           |         |         |         |         |           |
| Bentonite          | 444     | 518     | 1 718   | 1 608   | 691       |
| Romania            |         |         |         |         |           |
| Bentonite          | 7 154   | 521     | 68      | 10      | 31        |
| Slovakia           |         |         |         |         |           |
| Bentonite          | 76 014  | 105 273 | 89 517  | 79 936  | 65 429    |
| Fuller's earth     | 1 757   | ...     | ...     | ...     | ...       |
| Slovenia           |         |         |         |         |           |
| Bentonite          | ...     | 107     | 196     | 142     | 284       |
| Spain              |         |         |         |         |           |
| Bentonite          | 75 450  | 73 767  | 72 278  | 75 287  | 1 021 034 |
| Sepiolite          | 507 103 | 465 599 | 474 788 | 460 485 | 418 644   |
| Fuller's earth     | 9 828   | 7 896   | ...     | ...     | ...       |
| Sweden             |         |         |         |         |           |
| Bentonite          | 7 419   | 9 539   | 12 240  | 11 640  | 5 588     |
| Turkey             |         |         |         |         |           |
| Bentonite          | 211 926 | 84 595  | 22 237  | 244 177 | 250 082   |
| Fuller's earth     | 342     | 251     | ...     | ...     | ...       |
| United Kingdom     |         |         |         |         |           |
| Bentonite          | 49 514  | 42 548  | 47 122  | 43 261  | 34 622    |
| Fuller's earth     | 778     | 1 102   | ...     | ...     | ...       |

## Note(s)

- (1) See notes 1-3 to production table
- (2) The figures in this table refer to natural and sodium-exchanged bentonite, and fuller's earth, Harmonised System 2508.10 and 2508.20
- (3) Activated bentonite and fuller's earth, Harmonised System 3802.90, are excluded
- (4) Some countries are believed to include sodium-exchanged bentonite, often referred to as activated bentonite, under Harmonised System 3802.90, e.g. Italy, but these are not included in this table
- (5) From 2007 Harmonised System 2508.20, used in this table for fuller's earth, is no longer available

**Imports of bentonite and fuller's earth**

tonnes

| Country              | 2005    | 2006    | 2007    | 2008    | 2009      |
|----------------------|---------|---------|---------|---------|-----------|
| Austria              |         |         |         |         |           |
| Bentonite            | 58 344  | 60 667  | 58 727  | 68 703  | 66 575    |
| Fuller's earth       | 374     | 427     | ...     | ...     | ...       |
| Belgium-Luxembourg   |         |         |         |         |           |
| Bentonite            | 45 282  | 48 871  | 42 816  | 74 621  | 63 062    |
| Fuller's earth       | 8 028   | 7 036   | ...     | ...     | ...       |
| Bulgaria             |         |         |         |         |           |
| Bentonite            | 1 178   | 1 455   | 2 979   | 3 386   | 2 422     |
| Fuller's earth       | 422     | 537     | ...     | ...     | ...       |
| Croatia              |         |         |         |         |           |
| Bentonite            | 1 897   | 2 053   | 7 633   | 39 289  | 22 383    |
| Fuller's earth       | 136     | 260     | ...     | ...     | ...       |
| Cyprus               |         |         |         |         |           |
| Bentonite            | 3 057   | 9 063   | 10 556  | 12 496  | 5 709     |
| Czech Republic       |         |         |         |         |           |
| Bentonite            | 14 776  | 18 452  | 23 559  | 24 239  | 25 129    |
| Fuller's earth       | 1 290   | 1 039   | ...     | ...     | ...       |
| Denmark              |         |         |         |         |           |
| Bentonite            | 47 386  | 49 695  | 43 555  | 34 012  | 35 089    |
| Fuller's earth       | 137     | 921     | ...     | ...     | ...       |
| Estonia              |         |         |         |         |           |
| Bentonite            | 2 014   | 2 223   | 1 995   | 1 506   | 1 631     |
| Finland              |         |         |         |         |           |
| Bentonite            | 26 395  | 32 520  | 37 741  | 31 445  | 19 429    |
| Fuller's earth       | 201     | 109     | ...     | ...     | ...       |
| France               |         |         |         |         |           |
| Bentonite            | 163 999 | 220 996 | 243 350 | 198 787 | 158 715   |
| Fuller's earth       | 18 445  | 23 522  | ...     | ...     | ...       |
| Germany              |         |         |         |         |           |
| Bentonite            | 253 226 | 323 999 | 351 991 | 361 782 | 335 990   |
| Fuller's earth       | 9 571   | 9 371   | ...     | ...     | ...       |
| Greece               |         |         |         |         |           |
| Bentonite            | 22 164  | 14 573  | 19 780  | 21 261  | 8 593     |
| Fuller's earth       | 844     | 811     | ...     | ...     | ...       |
| Hungary              |         |         |         |         |           |
| Bentonite            | 2 794   | 4 850   | 2 933   | 3 095   | 3 608     |
| Fuller's earth       | 281     | ...     | ...     | ...     | ...       |
| Iceland              |         |         |         |         |           |
| Bentonite            | 726     | 2 468   | 5 022   | 2 392   | 1 259     |
| Ireland, Republic of |         |         |         |         |           |
| Bentonite            | 2 658   | 1 725   | 2 916   | 2 643   | 2 741     |
| Italy                |         |         |         |         |           |
| Bentonite            | 138 973 | 121 697 | 155 568 | 136 417 | 96 698    |
| Fuller's earth       | 7 893   | 8 208   | ...     | ...     | ...       |
| Latvia               |         |         |         |         |           |
| Bentonite            | 1 629   | 1 544   | 1 850   | 2 628   | 2 148     |
| Lithuania            |         |         |         |         |           |
| Bentonite            | 2 675   | 2 838   | 3 105   | 3 068   | 3 368     |
| Netherlands          |         |         |         |         |           |
| Bentonite            | 199 692 | 281 144 | 305 364 | 314 298 | * 190 000 |
| Fuller's earth       | 70 482  | 80 511  | ...     | ...     | ...       |
| Norway               |         |         |         |         |           |
| Bentonite            | 10 000  | 15 246  | 14 399  | 14 783  | 12 612    |
| Fuller's earth       | 260     | 209     | ...     | ...     | ...       |
| Poland               |         |         |         |         |           |
| Bentonite            | 115 208 | 153 266 | 162 424 | 171 633 | 122 165   |
| Fuller's earth       | 2 566   | 2 564   | ...     | ...     | ...       |
| Portugal             |         |         |         |         |           |
| Bentonite            | 16 881  | 17 640  | 18 480  | 20 304  | 12 788    |
| Fuller's earth       | 483     | 379     | ...     | ...     | ...       |
| Romania              |         |         |         |         |           |
| Bentonite            | 3 805   | 4 685   | 5 253   | 6 014   | 3 859     |
| Fuller's earth       | 321     | 358     | ...     | ...     | ...       |
| Slovakia             |         |         |         |         |           |
| Bentonite            | 6 863   | 6 916   | 7 145   | 8 987   | 5 890     |
| Fuller's earth       | 1 082   | 886     | ...     | ...     | ...       |

## Imports continued

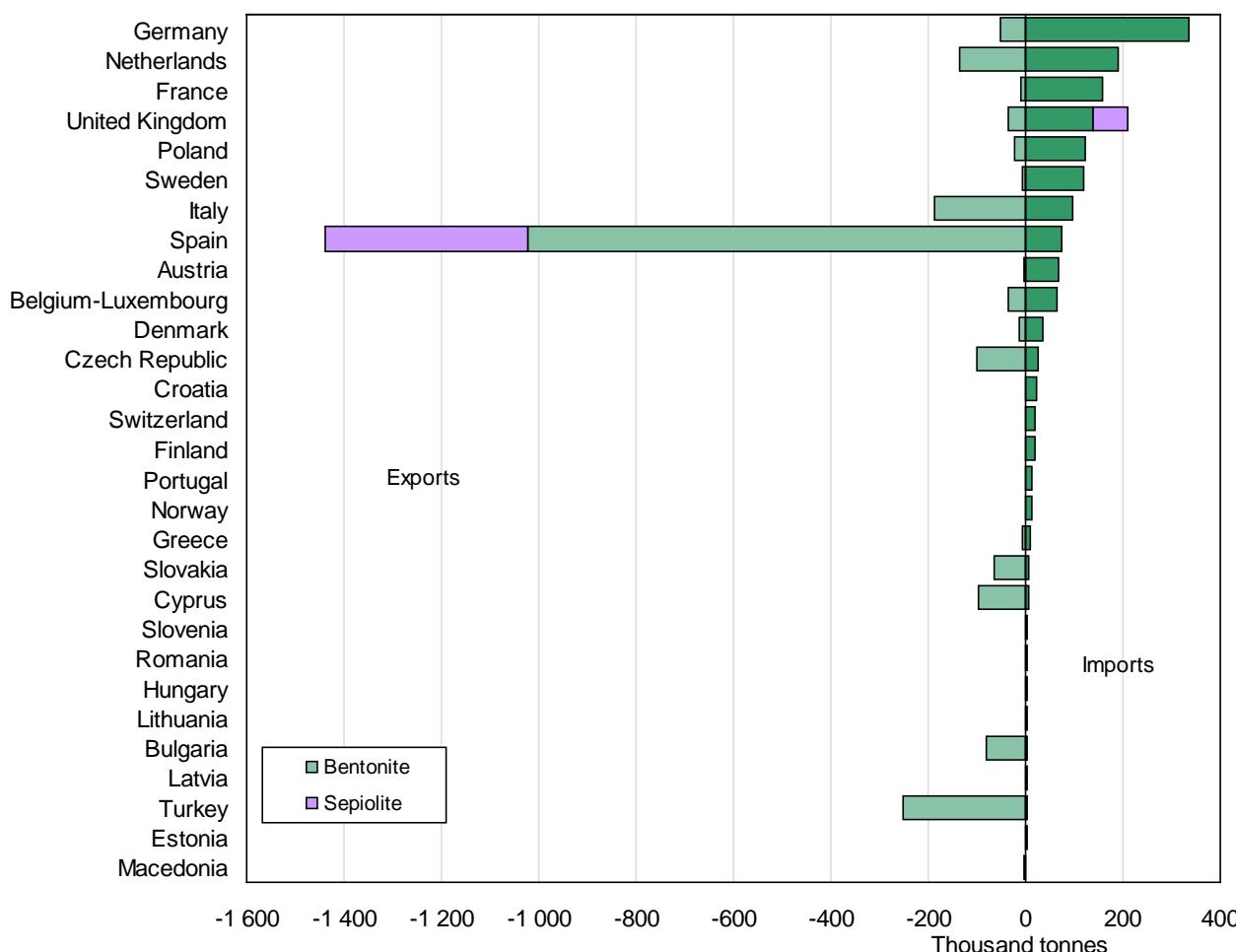
tonnes

| Country        | 2005    | 2006    | 2007    | 2008    | 2009    |
|----------------|---------|---------|---------|---------|---------|
| Slovenia       |         |         |         |         |         |
| Bentonite      | 3 612   | 4 981   | 4 048   | 3 976   | 4 421   |
| Spain          |         |         |         |         |         |
| Bentonite      | 83 784  | 82 645  | 104 057 | 103 602 | 72 993  |
| Fuller's earth | 238     | 159     | ...     | ...     | ...     |
| Sweden         |         |         |         |         |         |
| Bentonite      | 48 564  | 125 491 | 184 313 | 178 308 | 120 079 |
| Switzerland    |         |         |         |         |         |
| Bentonite      | 20 861  | 24 407  | 21 334  | 21 876  | 20 407  |
| Fuller's earth | 1 844   | 916     | ...     | ...     | ...     |
| Turkey         |         |         |         |         |         |
| Bentonite      | 4 188   | 5 210   | 10 541  | 9 806   | 1 827   |
| Fuller's earth | 159     | 93      | ...     | ...     | ...     |
| United Kingdom |         |         |         |         |         |
| Bentonite      | 151 179 | 173 483 | 157 388 | 205 853 | 140 301 |
| Sepiolite      | 65 565  | 72 340  | 282 733 | 227 453 | 70 651  |
| Fuller's earth | 3 122   | 14 700  | ...     | ...     | ...     |

## Note(s)

- (1) See notes 1-3 to production table
- (2) The figures in this table refer to natural and sodium-exchanged bentonite, and fuller's earth, Harmonised System 2508.10 and 2508.20
- (3) Activated bentonite and fuller's earth, Harmonised System 3802.90, are excluded
- (4) Some countries are believed to include sodium-exchanged bentonite, often referred to as activated bentonite, under Harmonised System 3802.90, e.g. Italy, but these are not included in this table
- (5) From 2007 Harmonised System 2508.20, used in this table for fuller's earth, is no longer available

## Bentonite and Fuller's earth - EU33 trade in 2009



## Bismuth

- Bismuth is a metallic element, chiefly used in its compound form, in pharmaceuticals and as metal in fusible (low-melting) alloys. It is also highly valued as a substitute for lead.
- China and Mexico are the world's largest producers of bismuth, with 62.5 per cent of world production in 2009 coming from these two countries. Peru was previously a large producer but its output in 2009 fell by more than 60 per cent compared to the previous year. There is very little mine production in the EU33, although, bismuth is produced as a by-product of lead and zinc refining.

### Mine production of bismuth

tonnes (metal content)

| Country  | 2005 | 2006 | 2007 | 2008 | 2009 |
|----------|------|------|------|------|------|
| Bulgaria | * 40 | * 45 | * 45 | * 45 | ...  |
| Romania  | * 40 | * 40 | * 40 | * 40 | * 40 |

## Note(s)

- (1) The figures in this table are in some instances derived from reported bismuth content of refined and impure metal plus recoverable in ores and concentrates exported
- (2) Production for some countries may include bismuth produced from imported ores but it is thought that any resulting duplication is insignificant in the countries shown

### Exports of bismuth metal

tonnes

| Country            | 2005  | 2006  | 2007  | 2008 | 2009 |
|--------------------|-------|-------|-------|------|------|
| Austria            | 8     | 0     | 12    | 1    | 1    |
| Belgium-Luxembourg | * —   | * —   | 355   | 162  | 413  |
| France             | 39    | 24    | 52    | 74   | 6    |
| Germany            | 371   | 534   | 901   | 276  | 143  |
| Italy              | 2     | 1     | 1     | 38   | 5    |
| Netherlands        | 97    | 48    | 238   | 196  | 28   |
| Spain              | 9     | 118   | 32    | 19   | 14   |
| United Kingdom     | 2 426 | 2 703 | 2 588 | 905  | 941  |

### Imports of bismuth metal

tonnes

| Country              | 2005  | 2006  | 2007  | 2008  | 2009 |
|----------------------|-------|-------|-------|-------|------|
| Austria              | 62    | 114   | 42    | 148   | 80   |
| Belgium-Luxembourg   | 27    | 109   | 111   | 190   | 9    |
| Croatia              | 10    | 5     | 10    | 8     | —    |
| Czech Republic       | 50    | 77    | 70    | 78    | 53   |
| France               | 1 029 | 547   | 382   | 219   | 102  |
| Germany              | 1 508 | 1 337 | 1 130 | 1 262 | 881  |
| Greece               | 6     | 6     | 11    | 3     | —    |
| Hungary              | 2     | 3     | 3     | 13    | 84   |
| Ireland, Republic of | 6     | 8     | 12    | 38    | 14   |
| Italy                | 203   | 251   | 316   | 269   | 152  |
| Netherlands          | 85    | 168   | 127   | 120   | 42   |
| Poland               | 14    | 14    | 15    | 25    | 20   |
| Slovenia             | 69    | 66    | 90    | 60    | 24   |
| Spain                | 179   | 297   | 190   | 212   | 52   |
| Sweden               | 11    | 8     | 5     | 12    | 6    |
| Switzerland          | 15    | 6     | 8     | 12    | 12   |
| Turkey               | 7     | 11    | 14    | 21    | 15   |
| United Kingdom       | 2 858 | 2 347 | 1 908 | 1 582 | 310  |

## Bromine

- Bromine is the only non-metallic element that is liquid at room temperature. It is strongly reactive and hazardous in pure forms and has a wide range of uses including medicines, fumigants, dyes, and pesticides.
- Bromine is almost entirely produced from processing sea-water. The largest producer is the USA with 44 per cent of the world's total. The second largest producer is now China (with 27 per cent of the world's total), which overtook Israel in 2009 largely as a result of the latter's production from the Dead Sea falling by 22 per cent compared to 2008.

### Production of bromine

| Country | 2005      | 2006      | 2007      | 2008      | 2009      |
|---------|-----------|-----------|-----------|-----------|-----------|
| Spain   | * 100 000 | * 100 000 | * 100 000 | * 100 000 | * 100 000 |

### Exports of bromine

| Country            | 2005       | 2006       | 2007       | 2008       | 2009       |
|--------------------|------------|------------|------------|------------|------------|
| Belgium-Luxembourg | 19 124 000 | 20 738 100 | 17 430 000 | 20 963 000 | 17 466 300 |
| Germany            | 3 000      | 4 600      | 3 400      | 14 400     | 6 031      |
| Italy              | 1 000      | 228 287    | 55 156     | 1 000      | 43         |
| Netherlands        | 1 593 400  | 1 334 000  | 1 475 500  | 1 821 400  | 1 960 700  |
| Poland             | 3 000      | 5 500      | 9 400      | 5 000      | 5 500      |
| Spain              | 1 000      | 192 339    | 418 531    | 2 000      | 2 578      |
| United Kingdom     | 234 977    | 1 137 544  | 1 469 781  | 1 015 304  | 497 246    |

Note(s)

(1) This table does not purport to be comprehensive: trade in bromine is not separately distinguished from other halogens by many countries

### Imports of bromine

| Country            | 2005       | 2006       | 2007       | 2008       | 2009       |
|--------------------|------------|------------|------------|------------|------------|
| Austria            | 222 000    | 228 600    | 463 900    | 488 000    | 65 300     |
| Belgium-Luxembourg | 25 108 000 | 24 553 300 | 21 768 500 | 26 540 000 | 20 618 700 |
| Czech Republic     | 1 174      | 5 066      | 7 700      | 12 000     | 2 600      |
| Finland            | 71 000     | 36 158     | 100        | 146 800    | 242 982    |
| France             | 13 989 000 | 13 971 600 | 12 146 400 | 12 428 800 | 11 720 470 |
| Germany            | 1 304 000  | 801 100    | 607 500    | 646 400    | 456 893    |
| Hungary            | 12 000     | 9 300      | (a) 29 143 | 9 900      | 10 500     |
| Italy              | 281 000    | 522 069    | 374 426    | 598 800    | 958 588    |
| Netherlands (a)    | 5 019 289  | 3 037      | 4 403      | 7 661      | 63 310     |
| Poland             | 6 000      | 16 000     | 14 300     | 10 600     | 6 100      |
| Romania (a)        | 9 827      | 9 104      | 152 319    | 267 073    | 285 593    |
| Slovakia           | 400        | 9 700      | 2 600      | (a) 582    | (a) 2 470  |
| Spain              | 53 000     | 82 351     | 77 578     | 169 159    | 75 099     |
| Sweden             | 13 000     | 9 000      | 2 800      | 31 700     | 3 100      |
| Turkey (a)         | 125 982    | 55 642     | 28 424     | 6 761      | 6 497      |
| United Kingdom     | 7 994 939  | 7 592 352  | 5 266 339  | 5 903 423  | 6 534 300  |

Note(s)

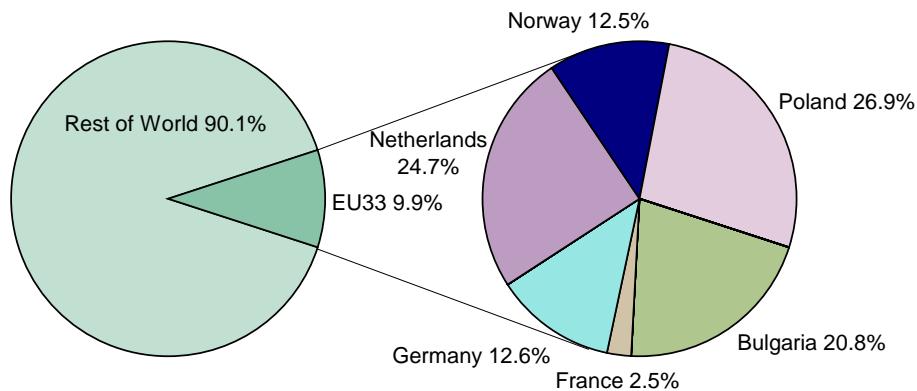
(1) This table does not purport to be comprehensive: trade in bromine is not separately distinguished from other halogens by many countries

(a) May include some fluorine

## Cadmium

- Cadmium is a highly toxic metallic element mostly produced as a by-product of zinc refining. The bulk of cadmium in use is in nickel-cadmium (NiCd) rechargeable batteries. Other major uses are in pigments and in metal coatings.
- The three largest world producers in 2009 were China (35 per cent of the world total), the Republic of Korea (12.4 per cent) and Japan (nine per cent). The EU33 contributed 9.9 per cent of world production in 2009. Poland was the largest EU33 producer accounting for about 26.9 per cent of EU33 production, followed by the Netherlands (24.7 per cent) and Bulgaria (20.8 per cent).

**EU33 Production of cadmium 2009**



### Production of cadmium

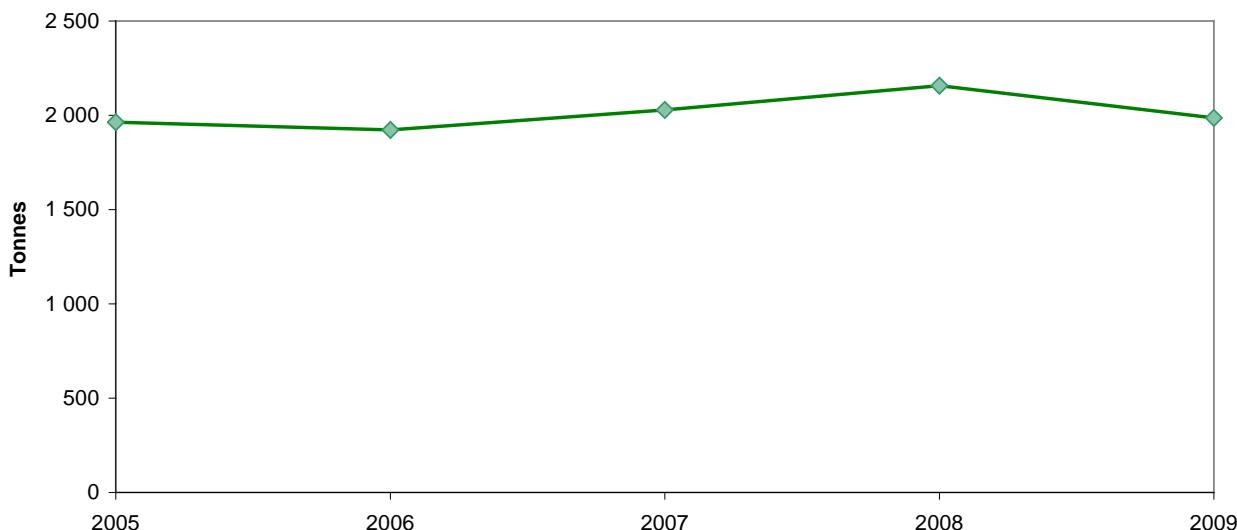
tonnes

| Country     | 2005  | 2006  | 2007  | 2008  | 2009  |
|-------------|-------|-------|-------|-------|-------|
| Bulgaria    | 319   | 320   | 318   | 376   | 413   |
| France      | * 100 | * 90  | * 50  | * 50  | * 50  |
| Germany     | * 490 | * 490 | * 475 | * 420 | * 250 |
| Netherlands | 494   | 524   | 495   | 530   | 490   |
| Norway      | 153   | 125   | 269   | 178   | 249   |
| Poland      | 408   | 373   | 421   | 603   | 534   |
| EU33 Total  | 2 000 | 1 900 | 2 000 | 2 200 | 2 000 |

Note(s)

(1) Data in this table excludes secondary metal unless otherwise stated

**EU33 Production of cadmium 2005 - 09**



**Exports of cadmium**

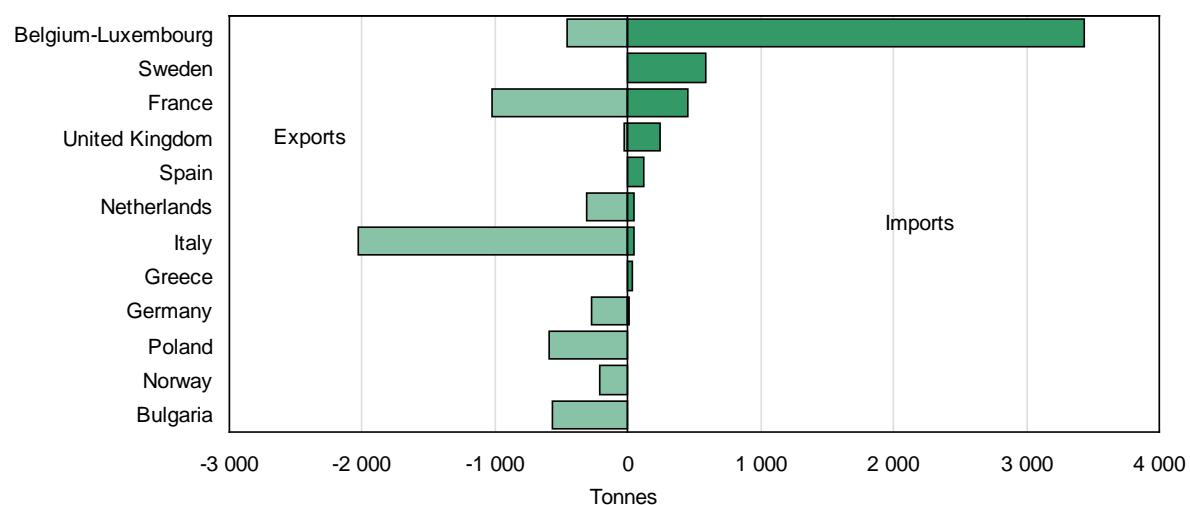
| Country            | 2005 | 2006  | 2007 | 2008  | 2009  |
|--------------------|------|-------|------|-------|-------|
| Belgium-Luxembourg |      |       |      |       |       |
| Metal              | 639  | 298   | 181  | 442   | 452   |
| Sulphide           | 29   | 7     | ...  | ...   | ...   |
| Bulgaria           |      |       |      |       |       |
| Metal              | 316  | 369   | 434  | 374   | 569   |
| France             |      |       |      |       |       |
| Metal              | 533  | 798   | 815  | 890   | 1 022 |
| Germany            |      |       |      |       |       |
| Metal              | ...  | ...   | ...  | 287   | 276   |
| Sulphide           | 14   | 4     | ...  | ...   | ...   |
| Italy              |      |       |      |       |       |
| Metal              | 18   | 1     | 796  | 1 633 | 2 030 |
| Netherlands        |      |       |      |       |       |
| Metal              | 553  | 1 064 | 544  | 816   | 305   |
| Norway             |      |       |      |       |       |
| Metal              | 132  | 90    | 205  | 259   | 211   |
| Poland             |      |       |      |       |       |
| Metal              | 610  | 364   | 368  | 558   | 590   |
| Sweden             |      |       |      |       |       |
| Oxide              | 140  | ...   | 322  | 448   | 305   |
| United Kingdom     |      |       |      |       |       |
| Metal              | 79   | 7     | 76   | 54    | 25    |

**Imports of cadmium**

| Country            | 2005  | 2006  | 2007  | 2008  | 2009  |
|--------------------|-------|-------|-------|-------|-------|
| Belgium-Luxembourg |       |       |       |       |       |
| Metal              | 4 779 | 3 948 | 5 038 | 5 511 | 3 439 |
| Sulphide           | 29    | 13    | ...   | ...   | ...   |
| Czech Republic     |       |       |       |       |       |
| Oxide              | 251   | ...   | 338   | 463   | 396   |
| Sulphide           | 21    | 14    | ...   | ...   | ...   |
| France             |       |       |       |       |       |
| Metal              | 2 114 | 527   | 771   | 645   | 455   |
| Oxide              | 584   | ...   | 885   | 1 114 | 605   |
| Germany            |       |       |       |       |       |
| Metal              | 16    | 7     | 22    | 53    | 11    |
| Oxide              | 231   | ...   | 423   | 507   | 522   |
| Sulphide           | 18    | ...   | ...   | ...   | ...   |
| Greece             |       |       |       |       |       |
| Metal              | 1     | 1     | 1     | 18    | 39    |
| Italy              |       |       |       |       |       |
| Metal              | 72    | 30    | 40    | 49    | 43    |
| Oxide              | 55    | ...   | 1     | 3     | 3     |
| Netherlands        |       |       |       |       |       |
| Metal              | 233   | 113   | 437   | 186   | 50    |
| Spain              |       |       |       |       |       |
| Metal              | 2     | 19    | 0     | 21    | 118   |
| Oxide              | 53    | 17    | 22    | 25    | 3     |
| Sweden             |       |       |       |       |       |
| Metal              | 282   | 388   | 491   | 851   | 588   |
| Oxide              | 35    | ...   | 25    | 83    | 42    |
| United Kingdom     |       |       |       |       |       |
| Metal              | 206   | 129   | 276   | 212   | 246   |

Cadmium

**Cadmium metal - EU33 trade in 2009**



## Cement

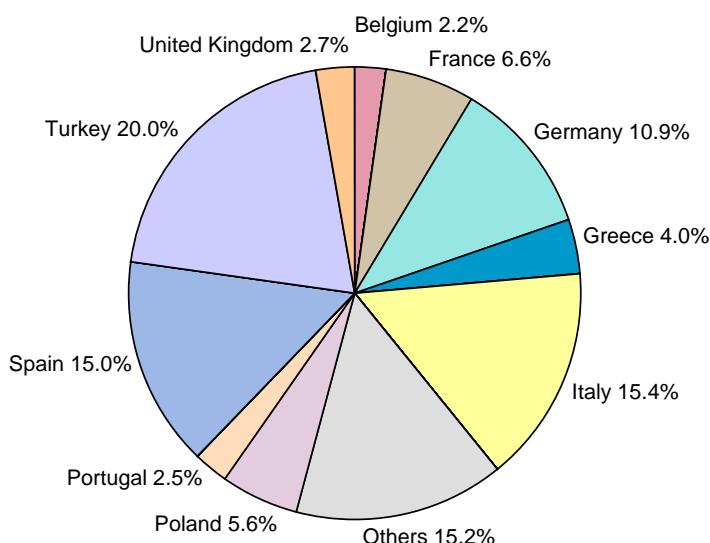
- Cement is a manufactured product and is the essential basis of concrete and mortar. Its chief raw materials are limestone or chalk and clay or mudstone. In Europe it is the largest use of limestone after crushed rock aggregate.
- Cement is made by firing a mixture of limestone and clay in a kiln to produce 'cement clinker'. This is a mixture of calcium silicates and calcium aluminates, which is finely ground with the addition of five per cent gypsum/anhydrite to produce finished cement.
- Turkey was the largest producer of cement clinker in the EU33 during 2009, with 26 per cent of EU33 production. Italy is normally also a significant producer but accurate data are difficult to obtain. Turkey is also the largest producer of finished cement with 20 per cent of the EU33 total. There is significant international trade in both clinker and finished cement.

### Production of cement clinker

| Country        | 2005         | 2006         | 2007         | 2008         | 2009           |
|----------------|--------------|--------------|--------------|--------------|----------------|
| Austria        | 90 053       | 188 588      | 221 684      | 287 911      | 167 641        |
| Bulgaria       | ...          | ...          | ...          | 3 509 817    | 1 858 850      |
| Cyprus         | 37 891       | 97 846       | —            | —            | 30 286         |
| Czech Republic | ...          | ...          | 3 127 530    | 3 137 828    | 2 433 746      |
| Denmark        | 42 691       | 5 499        | 21 209       | 16 092       | 122            |
| Estonia        | 635 500      | 704 700      | 1 042 800    | 1 040 000    | 448 500        |
| France         | 17 332 000   | 17 731 000   | 18 046 000   | 16 885 000   | 14 568 000     |
| Germany        | 24 315 000   | 24 921 000   | 26 992 000   | 25 366 000   | 23 232 000     |
| Greece         | 12 442 361   | 10 852 453   | 12 035 077   | 11 361 397   | 8 649 322      |
| Hungary        | ...          | 2 533 076    | 2 500 698    | * 2 500 000  | * 2 400 000    |
| Italy          | ...          | ...          | ...          | ...          | (a) 25 028 774 |
| Lithuania      | ...          | ...          | ...          | —            | 233 292        |
| Luxembourg     | 834 000      | 816 000      | 817 000      | 761 800      | 706 426        |
| Poland         | 9 468 410    | 11 219 940   | 13 167 950   | 12 443 103   | 10 659 214     |
| Portugal (a)   | 1 450 646    | 1 484 856    | 1 513 487    | 1 760 510    | 1 749 406      |
| Romania        | 464 613      | 606 088      | 222 699      | 111 719      | —              |
| Spain (a)      | 482 536      | 540 482      | 579 236      | 2 011 830    | 2 961 500      |
| Sweden         | 2 457 245    | 2 660 045    | 1 712 626    | 1 881 054    | * 1 900 000    |
| Turkey         | 31 355 180   | 32 824 687   | 39 363 683   | 41 652 824   | 41 084 368     |
| United Kingdom | 10 074 000   | 10 069 000   | 10 227 000   | 8 700 000    | 6 421 000      |
| EU33 Total     | *150 000 000 | *153 000 000 | *164 000 000 | *163 000 000 | *145 000 000   |

Note(s)  
 (a) Sales

### EU33 Production of finished cement 2009



**Production of finished cement**

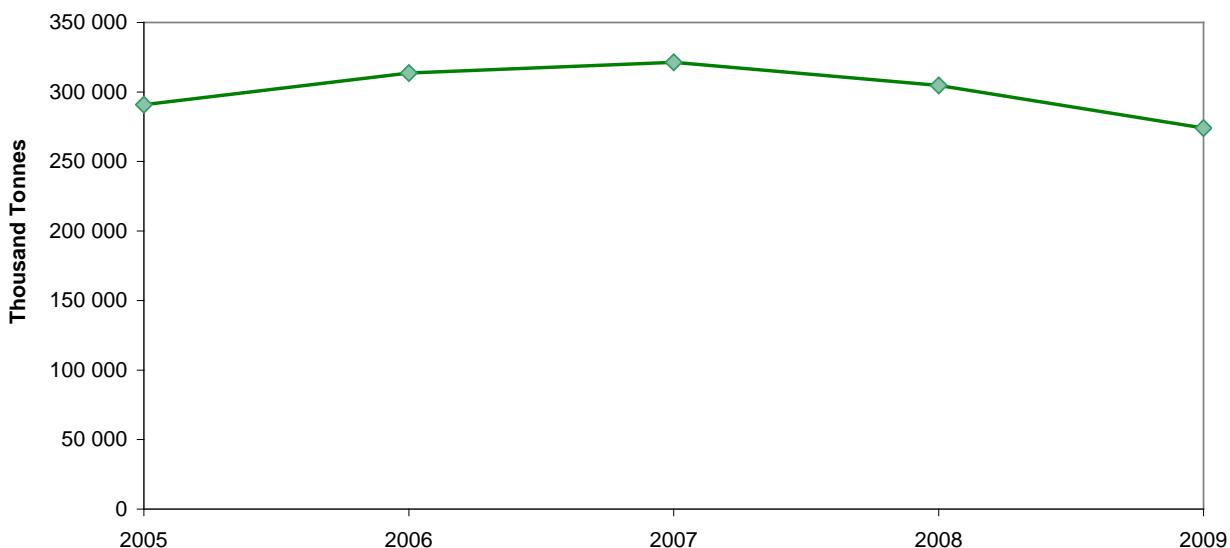
tonnes

| Country              | 2005        | 2006        | 2007        | 2008        | 2009        |
|----------------------|-------------|-------------|-------------|-------------|-------------|
| Austria              | 4 676 768   | 5 293 370   | 5 518 303   | 6 131 257   | 5 230 755   |
| Belgium              | 6 587 000   | 6 965 000   | 6 930 000   | 7 135 000   | 6 113 000   |
| Bulgaria             | 3 559 420   | 4 003 664   | * 4 290 000 | 4 900 336   | 2 660 176   |
| Cyprus               | 1 804 645   | 1 786 488   | 1 872 531   | 1 913 620   | 1 480 843   |
| Czech Republic       | 3 978 056   | 4 677 150   | 4 898 530   | 4 804 845   | 3 851 100   |
| Denmark              | 2 880 554   | 2 937 132   | 2 871 402   | 2 538 822   | 1 578 614   |
| Estonia              | 726 000     | 848 900     | 937 400     | 808 000     | 326 200     |
| Finland (a)          | 1 347 000   | 1 684 507   | 1 771 000   | 1 638 000   | * 1 042 000 |
| France               | 21 277 000  | 22 268 000  | 22 268 000  | 21 443 000  | 18 300 000  |
| Germany              | 30 600 000  | 33 630 000  | 33 382 000  | 33 581 000  | 30 441 000  |
| Greece               | 15 191 761  | 15 723 088  | 14 559 293  | 14 013 312  | 11 160 205  |
| Hungary              | 3 371 000   | 3 724 153   | 3 551 746   | 3 544 000   | * 3 200 000 |
| Ireland, Republic of | * 4 900 000 | * 4 700 000 | * 4 700 000 | * 3 910 000 | * 2 640 000 |
| Italy                | 46 400 000  | 47 400 000  | 46 700 000  | 43 000 000  | 43 000 000  |
| Latvia               | * 280 000   | * 280 000   | * 300 000   | * 310 000   | * 300 000   |
| Lithuania            | 832 076     | 1 065 367   | 1 105 365   | 1 075 581   | 583 067     |
| Luxembourg           | 767 000     | 796 000     | 908 000     | 907 500     | 929 820     |
| Netherlands          | 2 496 000   | 2 790 000   | 2 700 000   | * 2 700 000 | * 2 700 000 |
| Norway               | 1 613 000   | 1 695 000   | 1 700 000   | * 1 700 000 | * 1 700 000 |
| Poland               | 12 646 223  | 14 688 353  | 16 963 752  | 17 206 735  | 15 536 984  |
| Portugal (a)         | 8 426 830   | 8 326 687   | 9 178 735   | 8 365 242   | 7 031 438   |
| Romania              | 7 032 100   | 8 198 090   | 9 844 706   | 10 461 456  | 2 871 757   |
| Slovakia             | 3 498 685   | 3 592 509   | 3 718 410   | 4 157 356   | 3 011 460   |
| Slovenia             | 1 114 000   | 1 269 000   | * 1 300 000 | * 1 300 000 | * 1 000 000 |
| Spain                | 50 300 000  | 54 032 770  | 54 720 445  | 42 088 110  | 42 000 000  |
| Sweden               | 2 731 000   | 2 952 000   | 2 950 000   | * 2 950 000 | * 2 900 000 |
| Switzerland (b)      | 4 267 854   | 4 231 294   | 4 252 574   | 4 238 311   | 4 333 096   |
| Turkey               | 41 100 274  | 47 906 365  | 50 995 107  | 54 027 283  | 55 741 176  |
| United Kingdom       | 11 216 000  | 11 469 000  | 11 887 000  | 10 071 000  | 7 623 000   |
| EU33 Total           | 290 900 000 | 313 600 000 | 321 300 000 | 304 800 000 | 274 100 000 |

## Note(s)

(a) Sales

(b) Includes production in Liechtenstein

**EU33 Production of finished cement 2005 - 09**

**Exports of cement**

tonnes

| Country              | 2005      | 2006      | 2007      | 2008      | 2009      |
|----------------------|-----------|-----------|-----------|-----------|-----------|
| Austria              |           |           |           |           |           |
| Cement clinkers      | 32 877    | 136 381   | 189 450   | 243 906   | 146 991   |
| Portland cement      | 151 330   | 201 687   | 314 112   | 344 338   | 272 440   |
| Other cement         | 53 951    | 38 926    | 59 361    | 82 570    | 56 934    |
| Belgium-Luxembourg   |           |           |           |           |           |
| Cement clinkers      | 833 257   | 544 183   | 1 078 149 | 1 075 183 | 994 914   |
| Portland cement      | 1 715 979 | 1 811 884 | 2 087 094 | 2 069 807 | 1 841 912 |
| Other cement         | 612 642   | 609 236   | 606 807   | 821 103   | 555 773   |
| Bulgaria             |           |           |           |           |           |
| Cement clinkers      | 338 505   | 293 031   | 353 996   | 120 588   | 14 836    |
| Portland cement      | 455 824   | 334 013   | 52 803    | 130 932   | 109 923   |
| Other cement         | 27        | 40        | 1 067     | 22 589    | 394       |
| Croatia              |           |           |           |           |           |
| Cement clinkers      | 196 594   | 244 043   | 310 378   | 235 377   | 169 394   |
| Portland cement      | 1 254 309 | 1 282 560 | 855 579   | 667 503   | 615 827   |
| Other cement         | 92 074    | 89 957    | 94 185    | 468 597   | 276 981   |
| Cyprus               |           |           |           |           |           |
| Cement clinkers      | 37 891    | 91 635    | 0         | ...       | 24 215    |
| Portland cement      | 219 460   | 155 271   | 51 022    | ...       | 27 324    |
| Czech Republic       |           |           |           |           |           |
| Cement clinkers      | 29 169    | 32 521    | 29 924    | 19 039    | 85 427    |
| Portland cement      | 526 784   | 394 105   | 458 701   | 436 600   | 374 515   |
| Other cement         | 34 046    | 67 930    | 151 422   | 196 133   | 156 650   |
| Denmark              |           |           |           |           |           |
| Cement clinkers      | 54 542    | 11 981    | 9 673     | 7 287     | 7 784     |
| Portland cement      | 1 235 477 | 1 290 816 | 1 094 730 | 969 666   | 568 656   |
| Other cement         | 13 118    | 14 153    | 16 222    | 25 482    | 20 751    |
| Estonia              |           |           |           |           |           |
| Cement clinkers      | 97 442    | 87 638    | 325 263   | 426 384   | 395 641   |
| Portland cement      | 225 729   | 228 971   | 274 997   | 383 449   | 120 294   |
| Other cement         | 13        | 29        | 452       | 1 387     | 59        |
| Finland              |           |           |           |           |           |
| Portland cement      | 3 367     | 647       | 982       | 2 618     | 1 275     |
| France               |           |           |           |           |           |
| Cement clinkers      | 310 228   | 325 352   | 325 897   | 260 529   | 170 883   |
| Portland cement      | 792 192   | 683 110   | 590 684   | 578 230   | 621 568   |
| Other cement         | 102 222   | 113 145   | 13 999    | 10 056    | —         |
| Germany              |           |           |           |           |           |
| Cement clinkers      | 773 394   | 687 056   | 1 051 733 | 1 120 078 | 467 042   |
| Portland cement      | 3 587 966 | 4 251 126 | 4 874 062 | 5 115 858 | 4 445 980 |
| Other cement         | 1 876 289 | 1 852 990 | 2 086 591 | 2 077 175 | 2 101 709 |
| Greece               |           |           |           |           |           |
| Cement clinkers      | 304 750   | 356 077   | 848 925   | 722 151   | 851 946   |
| Portland cement      | 3 502 085 | 2 816 832 | 2 685 623 | 2 842 584 | 3 051 954 |
| Other cement         | 242 957   | 181 529   | 207 665   | 205 640   | 297 036   |
| Hungary              |           |           |           |           |           |
| Cement clinkers      | 27 328    | —         | —         | —         | 1 701     |
| Portland cement      | 274 262   | 257 050   | 177 191   | 329 647   | 220 069   |
| Other cement         | 123       | 32        | 4 448     | 25 169    | 2 987     |
| Ireland, Republic of |           |           |           |           |           |
| Cement clinkers      | 0         | —         | 16 033    | —         | 4 823     |
| Portland cement      | 942 655   | 972 585   | 1 120 808 | 1 144 186 | 1 054 533 |
| Other cement         | 10        | 1 489     | 1 596     | 1 512     | 1 317     |
| Italy                |           |           |           |           |           |
| Cement clinkers      | 19 427    | 61 437    | 143 235   | 38 106    | 5 280     |
| Portland cement      | 2 379 941 | 2 091 427 | 2 143 940 | 2 094 130 | 1 637 605 |
| Other cement         | 130 120   | 660 595   | 536 324   | 491 150   | 469 636   |
| Latvia               |           |           |           |           |           |
| Cement clinkers      | 184       | 326       | 35 307    | —         | 2 382     |
| Portland cement      | 10 762    | 5 528     | 43 951    | 240 311   | 147 960   |
| Other cement         | 1         | 141       | 10 178    | 20        | 126       |
| Lithuania            |           |           |           |           |           |
| Portland cement      | 299 782   | 246 350   | 154 649   | 204 951   | 170 273   |
| Other cement         | 10        | 16        | 893       | 1 531     | 491       |
| Macedonia            |           |           |           |           |           |
| Cement clinkers      | 129 570   | 151 663   | 90 869    | 173 089   | 5 638     |
| Portland cement      | 207 457   | 220 588   | 308 468   | 281 782   | 2 305     |

Cement

Exports continued

tonnes

| Country             | 2005      | 2006      | 2007      | 2008       | 2009       |
|---------------------|-----------|-----------|-----------|------------|------------|
| Netherlands         |           |           |           |            |            |
| Cement clinkers     | 2 513     | 3 119     | 10 725    | 0          | 352        |
| Portland cement     | 295 457   | 410 232   | 278 904   | 298 133    | 194 392    |
| Other cement        | 18 513    | 134 225   | 12 931    | 6 217      | 11 447     |
| Norway              |           |           |           |            |            |
| Cement clinkers (a) | * 50 000  | * 65 000  | * 117 000 | * 118 000  | * 104 000  |
| Portland cement (a) | * 569 000 | * 369 000 | * 236 000 | * 152 000  | —          |
| Poland              |           |           |           |            |            |
| Cement clinkers     | 256 621   | 856 035   | 181 690   | 163 902    | 127 806    |
| Portland cement     | 460 479   | 402 741   | 313 361   | 314 733    | 405 940    |
| Other cement        | 49 970    | 67 457    | 65 822    | 78 349     | 35 305     |
| Portugal            |           |           |           |            |            |
| Cement clinkers     | 1 271 578 | 1 138 307 | 1 263 190 | 1 448 397  | 1 553 992  |
| Portland cement     | 1 110 739 | 1 204 981 | 1 481 219 | 1 102 589  | 758 854    |
| Other cement        | 17 301    | 11 364    | 58 931    | 11 139     | 15 231     |
| Romania             |           |           |           |            |            |
| Cement clinkers     | 465 660   | 608 616   | 243 116   | 111 719    | 182        |
| Portland cement     | 739 215   | 447 713   | 134 044   | 7 449      | 17 869     |
| Slovakia            |           |           |           |            |            |
| Cement clinkers     | 26 549    | 27 092    | 30 800    | 53 871     | 127 016    |
| Portland cement     | 1 433 926 | 1 372 554 | 1 346 692 | 1 622 292  | 1 344 258  |
| Other cement        | 44 670    | 35 596    | 85 987    | 144 311    | 217 328    |
| Slovenia            |           |           |           |            |            |
| Cement clinkers     | 58 765    | 21 440    | 2         | 1          | —          |
| Portland cement     | 56 776    | 73 187    | 55 803    | 77 656     | 96 736     |
| Other cement        | 63 732    | 115 104   | 156 183   | 227 400    | 97 258     |
| Spain               |           |           |           |            |            |
| Cement clinkers     | 13 259    | 28 809    | 37 343    | 907 694    | 1 181 783  |
| Portland cement     | 1 713 572 | 1 386 652 | 1 358 857 | 1 474 428  | 1 411 588  |
| Other cement        | 51 340    | 43 262    | 46 348    | 63 825     | 74 007     |
| Sweden              |           |           |           |            |            |
| Portland cement     | 1 295 834 | 1 208 231 | 845 235   | 723 793    | 482 223    |
| Other cement        | 2 555     | 12 144    | 15 237    | 14 082     | 7 166      |
| Switzerland         |           |           |           |            |            |
| Cement clinkers     | 121 014   | 103 367   | 114 075   | 91 167     | 70 207     |
| Portland cement     | 46 939    | 23 437    | 13 704    | 35 925     | 15 044     |
| Other cement        | 2 692     | 988       | 4 014     | 9 009      | 4 062      |
| Turkey              |           |           |           |            |            |
| Cement clinkers     | 2 990 365 | 1 559 980 | 1 539 287 | 2 558 779  | 3 856 403  |
| Portland cement     | 6 713 088 | 3 277 480 | 4 323 666 | 11 010 951 | 16 356 895 |
| Other cement        | 261 816   | 112 683   | 124 395   | 150 785    | 245 770    |
| United Kingdom      |           |           |           |            |            |
| Cement clinkers     | 134 992   | 91 357    | 28 432    | 15 071     | 4 708      |
| Portland cement     | 320 680   | 521 784   | 459 629   | 230 920    | 92 628     |
| Other cement        | 68 554    | 86 858    | 88 452    | 93 122     | 51 359     |

Note(s)

(a) BGS estimates, based on known imports into certain countries

**Imports of cement**

tonnes

| Country              | 2005      | 2006      | 2007      | 2008      | 2009      |
|----------------------|-----------|-----------|-----------|-----------|-----------|
| Austria              |           |           |           |           |           |
| Cement clinkers      | 532 745   | 487 406   | 520 714   | 456 127   | 404 998   |
| Portland cement      | 860 087   | 686 652   | 626 723   | 753 529   | 639 545   |
| Other cement         | 43 083    | 31 100    | 39 568    | 40 766    | 52 715    |
| Belgium-Luxembourg   |           |           |           |           |           |
| Cement clinkers      | 442 986   | 545 575   | 798 670   | 664 109   | 702 461   |
| Portland cement      | 898 871   | 897 315   | 892 981   | 988 208   | 836 178   |
| Other cement         | 275 177   | 277 825   | 391 850   | 315 620   | 308 913   |
| Bulgaria             |           |           |           |           |           |
| Cement clinkers      | 180 254   | 586 194   | 123 806   | 248 737   | 45 002    |
| Portland cement      | 23 787    | 9 127     | 5 690     | 13 645    | 481 991   |
| Other cement         | 1 128     | 1 665     | 1 829     | 1 110     | 955       |
| Croatia              |           |           |           |           |           |
| Portland cement      | 379 711   | 447 202   | 340 112   | 393 886   | 393 613   |
| Other cement         | 1 569     | 5 547     | 5 242     | 7 447     | 10 620    |
| Cyprus               |           |           |           |           |           |
| Cement clinkers      | 43 375    | 17 819    | 17 498    | 66 787    | 15 455    |
| Portland cement      | 2 339     | 1 241     | 1 017     | 29 311    | 249       |
| Czech Republic       |           |           |           |           |           |
| Cement clinkers      | 95 108    | 117 477   | 109 392   | 134 179   | 101 031   |
| Portland cement      | 1 027 011 | 1 001 321 | 918 739   | 932 685   | 890 776   |
| Other cement         | 38 434    | 38 439    | 30 602    | 23 816    | 51 482    |
| Denmark              |           |           |           |           |           |
| Cement clinkers      | 31 634    | 46 600    | 35 555    | 33 825    | 31 847    |
| Portland cement      | 230 842   | 274 151   | 243 348   | 289 307   | 208 467   |
| Other cement         | 36 753    | 54 194    | 52 662    | 38 687    | 46 117    |
| Estonia              |           |           |           |           |           |
| Cement clinkers      | 21 219    | 44 059    | 31 127    | 25 438    | —         |
| Portland cement      | 3 311     | 1 833     | 2 536     | 4 613     | 30 424    |
| Finland              |           |           |           |           |           |
| Cement clinkers      | 17 594    | 95 730    | 314 436   | 236 439   | 536       |
| Portland cement      | 383 260   | 380 296   | 341 748   | 281 924   | 320 084   |
| Other cement         | 13 211    | 12 176    | 16 006    | 15 911    | 12 232    |
| France               |           |           |           |           |           |
| Cement clinkers      | 946 642   | 1 010 056 | 1 739 962 | 1 338 362 | 784 892   |
| Portland cement      | 1 271 478 | 1 556 864 | 1 793 027 | 1 940 065 | 1 744 423 |
| Other cement         | 984 597   | 1 120 524 | 1 223 442 | 1 185 083 | 980 685   |
| Germany              |           |           |           |           |           |
| Cement clinkers      | 289 600   | 235 023   | 92 757    | 14 184    | 9 200     |
| Portland cement      | 934 865   | 794 716   | 833 311   | 770 566   | 904 023   |
| Other cement         | 380 858   | 345 286   | 311 152   | 293 583   | 272 741   |
| Greece               |           |           |           |           |           |
| Cement clinkers      | 1 494     | 50 907    | 45 388    | 23 558    | 4 249     |
| Portland cement      | 425       | 3 237     | 3 603     | 74 239    | 136 300   |
| Other cement         | 4 548     | 3 228     | 3 010     | 2 618     | 2 359     |
| Hungary              |           |           |           |           |           |
| Cement clinkers      | 9 051     | 65 437    | 40 099    | ...       | 117 232   |
| Portland cement      | 565 366   | 455 108   | 560 863   | 643 776   | 565 552   |
| Other cement         | 508 067   | 375 337   | 144 824   | 55 798    | 49 051    |
| Iceland              |           |           |           |           |           |
| Cement clinkers      | 45 464    | 11 922    | 17 978    | 628       | 30        |
| Portland cement      | 59 628    | 199 525   | 166 488   | 111 918   | 38 640    |
| Other cement         | 27 165    | 847       | 868       | 505       | 241       |
| Ireland, Republic of |           |           |           |           |           |
| Cement clinkers      | 245 955   | 395 053   | 330 948   | 36 153    | 31 983    |
| Portland cement      | 335 055   | 559 645   | 664 977   | 780 528   | 192 556   |
| Other cement         | 8 958     | 9 079     | 16 409    | 14 649    | 10 698    |
| Italy                |           |           |           |           |           |
| Cement clinkers      | 2 828 906 | 2 872 114 | 2 827 333 | 2 095 716 | 1 495 609 |
| Portland cement      | 2 014 905 | 1 564 049 | 1 162 254 | 962 746   | 1 433 820 |
| Other cement         | 152 325   | 184 862   | 287 190   | 295 988   | 308 222   |
| Latvia               |           |           |           |           |           |
| Cement clinkers      | 38 589    | 43 774    | 29 438    | 30 233    | 34 375    |
| Portland cement      | 234 862   | 322 187   | 431 482   | 353 174   | 87 660    |
| Lithuania            |           |           |           |           |           |
| Cement clinkers      | 766       | 416       | 104 219   | 79 102    | 996       |
| Portland cement      | 265 103   | 209 400   | 170 955   | 111 578   | 133 039   |

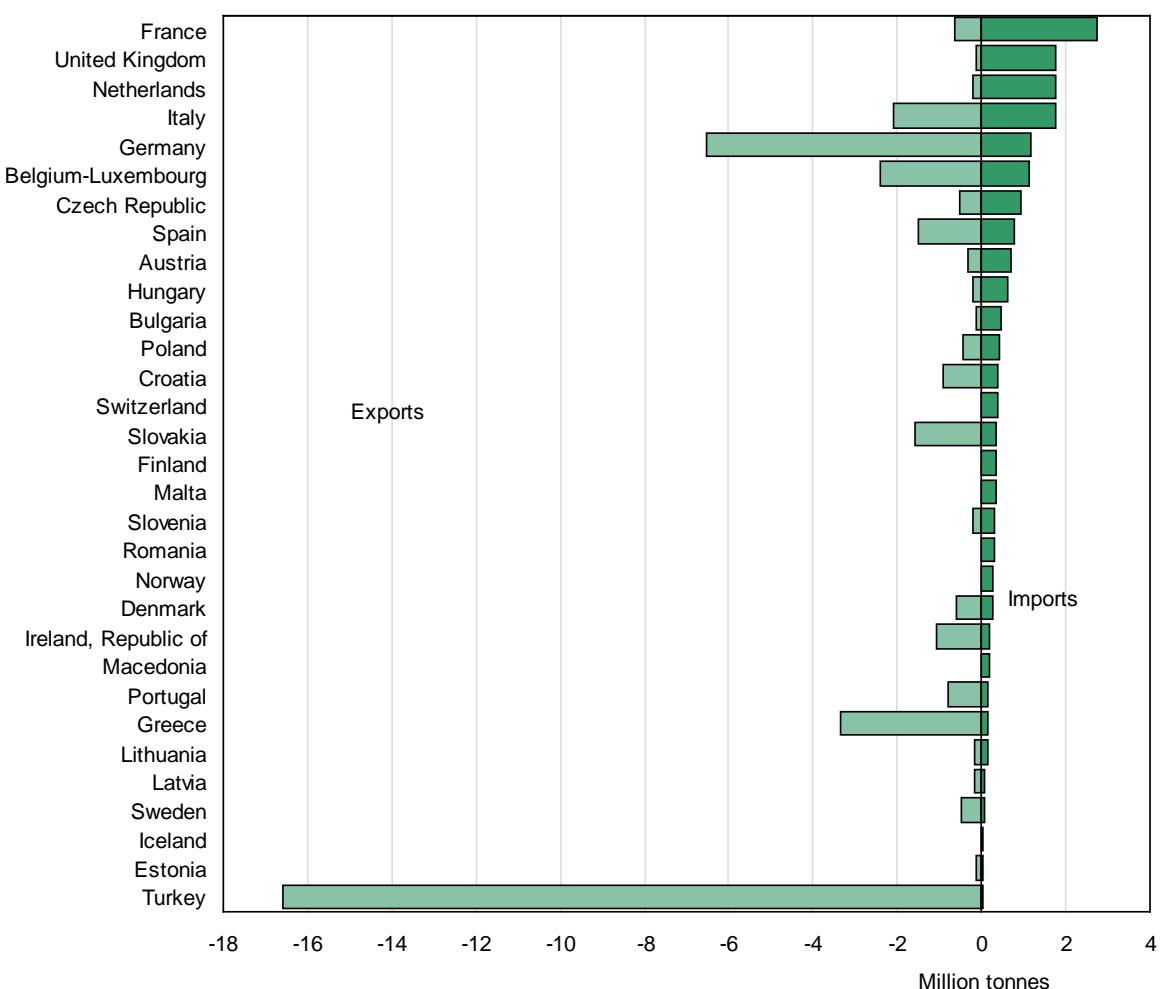
## Cement

## Imports continued

tonnes

| Country         | 2005      | 2006      | 2007       | 2008      | 2009      |
|-----------------|-----------|-----------|------------|-----------|-----------|
| Macedonia       |           |           |            |           |           |
| Portland cement | 59 679    | 44 542    | 69 220     | 136 030   | 193 076   |
| Malta           |           |           |            |           |           |
| Portland cement | 316 012   | 389 690   | 356 365    | 374 392   | 328 411   |
| Other cement    | 181       | 1 518     | 2 949      | 1 498     | 1 552     |
| Netherlands     |           |           |            |           |           |
| Cement clinkers | 388 146   | 494 944   | 228 817    | 380 281   | 511 560   |
| Portland cement | 1 632 872 | 1 925 756 | 2 072 034  | 1 705 144 | 904 788   |
| Other cement    | 846 622   | 1 452 353 | 722 635    | 993 318   | 842 190   |
| Norway          |           |           |            |           |           |
| Cement clinkers | 6 615     | 8 782     | 14 895     | 36 704    | 6 904     |
| Portland cement | 373 788   | 443 104   | 441 619    | 361 216   | 237 896   |
| Other cement    | 12 319    | 14 147    | 19 062     | 22 317    | 20 474    |
| Poland          |           |           |            |           |           |
| Cement clinkers | 33 673    | 45 560    | 65 632     | 127 428   | 35 106    |
| Portland cement | 444 855   | 285 135   | 520 330    | 680 447   | 421 822   |
| Other cement    | 5 537     | 5 700     | 22 982     | 29 529    | 21 466    |
| Portugal        |           |           |            |           |           |
| Cement clinkers | 17 084    | 140 673   | 331 025    | 196 929   | 24 156    |
| Portland cement | 669 272   | 356 040   | 45 012     | 22 862    | 150 065   |
| Other cement    | 10 479    | 14 286    | 11 966     | 8 842     | 11 072    |
| Romania         |           |           |            |           |           |
| Cement clinkers | 50        | 280       | 500 794    | 486 462   | 23 613    |
| Portland cement | 167 686   | 102 759   | 142 476    | 538 259   | 296 687   |
| Other cement    | 1 653     | 3 085     | 12 072     | 32 765    | 15 779    |
| Slovakia        |           |           |            |           |           |
| Cement clinkers | 68 894    | 42 666    | 52 608     | 94 510    | 13 076    |
| Portland cement | 88 403    | 98 625    | 123 589    | 172 555   | 284 457   |
| Other cement    | 49 619    | 56 418    | 58 035     | 93 031    | 56 060    |
| Slovenia        |           |           |            |           |           |
| Cement clinkers | 1 343     | 11 970    | 145 638    | 5 783     | 60        |
| Portland cement | 215 473   | 249 749   | 328 312    | 326 096   | 297 617   |
| Other cement    | 2 906     | 6 917     | 17 037     | 4 618     | 17 414    |
| Spain           |           |           |            |           |           |
| Cement clinkers | 7 852 531 | 9 108 499 | 10 894 888 | 5 496 563 | 2 079 944 |
| Portland cement | 2 845 856 | 2 771 668 | 2 929 208  | 1 729 088 | 694 757   |
| Other cement    | 20 031    | 40 164    | 74 401     | 58 007    | 73 362    |
| Sweden          |           |           |            |           |           |
| Cement clinkers | 14 601    | 13 238    | 29 344     | 37 009    | 10 434    |
| Portland cement | 242 326   | 249 670   | 55 784     | 61 891    | 29 482    |
| Other cement    | 34 597    | 41 176    | 52 359     | 50 333    | 37 308    |
| Switzerland     |           |           |            |           |           |
| Cement clinkers | 71 542    | 115 001   | 15 292     | 8 596     | 27 649    |
| Portland cement | 352 409   | 380 862   | 348 262    | 361 305   | 364 034   |
| Other cement    | 48 309    | 49 317    | 37 522     | 30 908    | 36 464    |
| Turkey          |           |           |            |           |           |
| Cement clinkers | 567 256   | 1 209 618 | 1 360 090  | 380 516   | 6 053     |
| Portland cement | 66 260    | 71 237    | 39 270     | 12 279    | 13 471    |
| Other cement    | 4 693     | 3 979     | 4 202      | 5 036     | 3 358     |
| United Kingdom  |           |           |            |           |           |
| Cement clinkers | 406 044   | 516 583   | 836 788    | 366 791   | 206 857   |
| Portland cement | 1 645 088 | 1 397 025 | 1 534 683  | 1 731 228 | 1 718 146 |
| Other cement    | 37 705    | 26 790    | 26 215     | 28 324    | 30 815    |

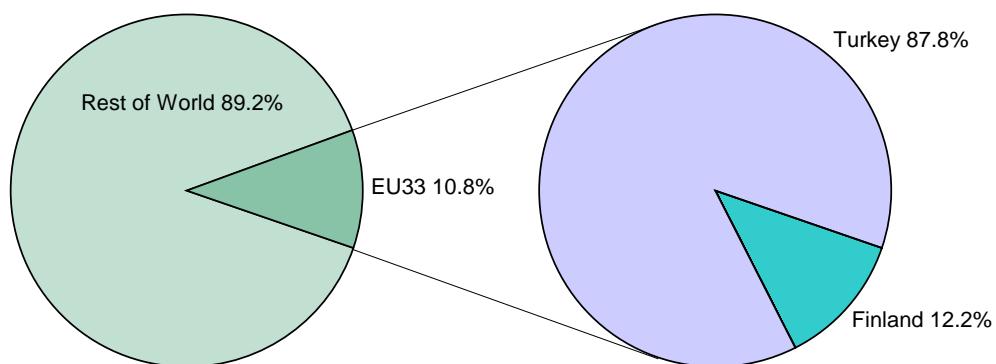
## Cement - EU33 trade in 2009



## Chromium ores and concentrates

- Chromium is a hard metallic element that is an essential component of stainless steel and other alloy steels, where it is used in the form of the alloy ferro-chromium. It is also used extensively in superalloys and metal plating. Its compounds are important pigments and the natural mineral chromite is used in refractories.
- World production of chromium ores and concentrates is dominated by South Africa, India and Kazakhstan which together produced 73 per cent of the world total in 2009. Finland and Turkey are the only countries in the EU33 with significant production, which amounted to nearly 11 per cent of the world total.

**EU33 Production of chromium ores and concentrates 2009**



### Production of chromium ores and concentrates

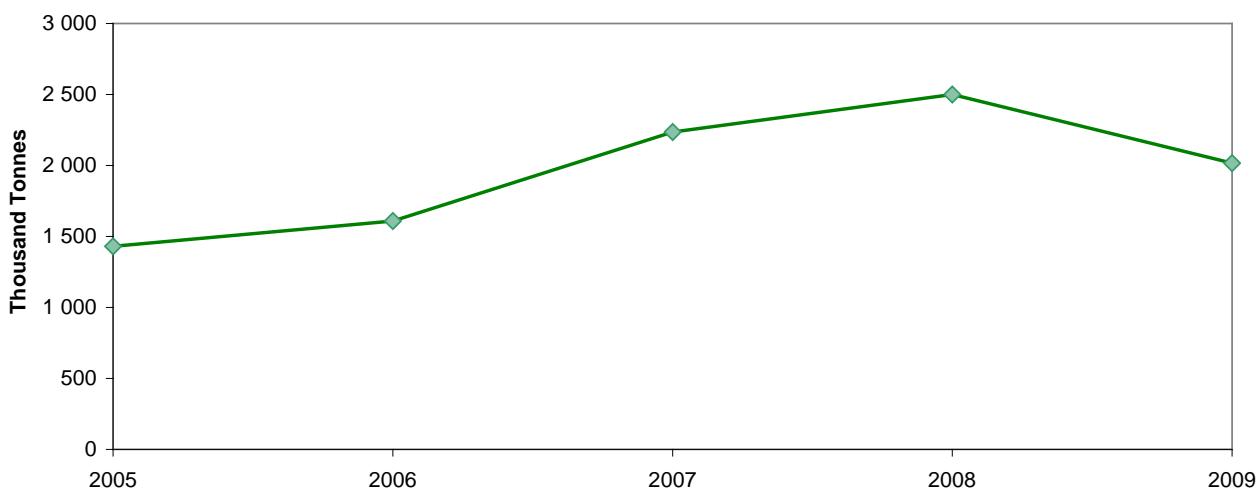
tonnes

| Country    | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------|-----------|-----------|-----------|-----------|-----------|
| Finland    | 572 000   | 549 000   | 556 000   | 614 000   | 247 000   |
| Turkey     | 858 729   | 1 059 901 | 1 678 932 | 1 885 712 | 1 770 029 |
| EU33 Total | 1 431 000 | 1 609 000 | 2 235 000 | 2 500 000 | 2 017 000 |

## Note(s)

(1) In addition to the countries listed, Bulgaria is believed to produce chromite

**EU33 Production of chromium ores and concentrates 2005 - 09**



**Exports of chromium**

tonnes

| Country             | 2005    | 2006    | 2007      | 2008      | 2009      |
|---------------------|---------|---------|-----------|-----------|-----------|
| Austria             |         |         |           |           |           |
| Ores & concentrates | 276     | 136     | 491       | 833       | 333       |
| Metal               | 8 893   | 11 770  | 14 739    | 6 596     | 5 845     |
| Belgium-Luxembourg  |         |         |           |           |           |
| Ores & concentrates | 10 777  | 14 485  | 11 405    | 48 086    | 15 562    |
| Metal               | 782     | 520     | 635       | 772       | 1 228     |
| Czech Republic      |         |         |           |           |           |
| Ores & concentrates | 523     | 645     | 800       | 507       | 369       |
| Metal               | 109     | 2 104   | 946       | 594       | 662       |
| Denmark             |         |         |           |           |           |
| Metal               | 703     | 855     | 549       | 1 262     | 659       |
| Finland             |         |         |           |           |           |
| Ores & concentrates | 841     | 1 570   | 2 492     | 3 041     | 2 050     |
| Metal               | 1       | 5       | —         | 1 034     | 1 577     |
| France              |         |         |           |           |           |
| Ores & concentrates | 2 340   | 2 013   | 2 391     | 4 694     | 1 935     |
| Metal               | 8 074   | 6 457   | 7 225     | 7 844     | 4 767     |
| Germany             |         |         |           |           |           |
| Ores & concentrates | 14 188  | 24 185  | 20 629    | 23 563    | 15 922    |
| Metal               | 1 478   | 2 877   | 3 114     | 5 379     | 4 685     |
| Greece              |         |         |           |           |           |
| Ores & concentrates | 249     | 726     | —         | 98        | 44        |
| Italy               |         |         |           |           |           |
| Ores & concentrates | 4 673   | 5 446   | 3 980     | 2 567     | 1 762     |
| Metal               | 1 070   | 111     | 1 666     | 166       | 29        |
| Lithuania           |         |         |           |           |           |
| Ores & concentrates | 948     | 2 213   | 1 156     | 240       | 78        |
| Macedonia           |         |         |           |           |           |
| Ores & concentrates | 46      | ...     | 1 835     | 160       | ...       |
| Netherlands         |         |         |           |           |           |
| Ores & concentrates | 72 062  | 74 909  | 78 433    | 117 639   | 32 485    |
| Metal               | 3 543   | 4 430   | 2 125     | 4 282     | 885       |
| Poland              |         |         |           |           |           |
| Metal               | 1       | 13      | 1 556     | 1 465     | 568       |
| Portugal            |         |         |           |           |           |
| Ores & concentrates | 1 111   | 591     | 295       | 70        | —         |
| Slovakia            |         |         |           |           |           |
| Metal               | 1 876   | 1 735   | 1 116     | 1 299     | 424       |
| Spain               |         |         |           |           |           |
| Ores & concentrates | 1 314   | 1 908   | 1 529     | 1 073     | 1 022     |
| Metal               | 709     | 990     | 779       | 1 165     | 516       |
| Sweden              |         |         |           |           |           |
| Metal               | 55      | 105     | 102       | 225       | 100       |
| Switzerland         |         |         |           |           |           |
| Metal               | 249     | 530     | 74        | 54        | 44        |
| Turkey              |         |         |           |           |           |
| Ores & concentrates | 834 034 | 887 689 | 1 265 036 | 1 816 427 | 1 748 194 |
| Metal               | 238     | 6       | 7         | 122       | 2 667     |
| United Kingdom      |         |         |           |           |           |
| Ores & concentrates | 228     | 47      | 178       | —         | 32 507    |
| Metal               | 4 547   | 5 123   | 6 777     | 6 501     | 5 058     |

## Note(s)

(1) Metal traded in ferro-alloy form is included under iron, steel and ferro-alloys

## Chromium

**Imports of chromium**

tonnes

| Country                 | 2005    | 2006    | 2007    | 2008    | 2009   |
|-------------------------|---------|---------|---------|---------|--------|
| Austria                 |         |         |         |         |        |
| Ores & concentrates     | 21 398  | 37 326  | 39 071  | 42 008  | 25 891 |
| Metal                   | 4 440   | 8 879   | 14 480  | 8 006   | 4 325  |
| Belgium-Luxembourg      |         |         |         |         |        |
| Ores & concentrates     | 18 464  | 22 053  | 20 761  | 56 183  | 19 050 |
| Metal                   | 1 245   | 1 264   | 1 188   | 1 114   | 874    |
| Bulgaria                |         |         |         |         |        |
| Ores & concentrates     | 997     | 1 440   | 969     | 793     | 637    |
| Croatia                 |         |         |         |         |        |
| Ores & concentrates     | 537     | 615     | 584     | 568     | 282    |
| Metal                   | 54      | 51      | 280     | 394     | 307    |
| Czech Republic          |         |         |         |         |        |
| Ores & concentrates     | 12 440  | 11 380  | 13 936  | 12 990  | 7 798  |
| Metal                   | 149     | 123     | 281     | 282     | 83     |
| Denmark                 |         |         |         |         |        |
| Ores & concentrates     | 837     | 774     | 945     | 974     | 384    |
| Finland                 |         |         |         |         |        |
| Ores & concentrates     | 6 962   | 8 388   | 9 324   | 8 866   | 4 521  |
| Metal                   | 258     | 575     | 282     | 327     | 105    |
| France                  |         |         |         |         |        |
| Ores & concentrates     | 18 980  | 23 031  | 20 156  | 26 952  | 10 813 |
| Metal                   | 669     | 1 040   | 717     | 1 335   | 478    |
| Germany                 |         |         |         |         |        |
| Ores & concentrates     | 141 483 | 126 874 | 154 367 | 175 277 | 45 684 |
| Metal                   | 5 428   | 7 552   | 8 454   | 7 022   | 3 328  |
| Greece                  |         |         |         |         |        |
| Ores & concentrates     | 477     | 732     | 257     | 298     | 230    |
| Hungary                 |         |         |         |         |        |
| Ores & concentrates     | 388     | 306     | 492     | 479     | 251    |
| Metal                   | 182     | 289     | 28      | 86      | 23     |
| Ireland, Republic of    |         |         |         |         |        |
| Metal                   | 40      | 44      | 101     | 120     | 138    |
| Italy                   |         |         |         |         |        |
| Ores & concentrates     | 39 999  | 41 992  | 46 433  | 36 552  | 23 842 |
| Metal                   | 958     | 830     | 891     | 742     | 850    |
| Macedonia               |         |         |         |         |        |
| Ores & concentrates     | 3       | 709     | 1 432   | 306     | 495    |
| Netherlands             |         |         |         |         |        |
| Ores & concentrates     | 80 622  | 99 305  | 125 778 | 145 698 | 18 702 |
| Metal                   | 1 838   | 3 632   | 2 222   | 3 897   | 2 157  |
| Norway                  |         |         |         |         |        |
| Ores & concentrates (a) | * 500   | * 500   | * 20    | * 600   | * 400  |
| Metal                   | 92      | 73      | 253     | 128     | 74     |
| Poland                  |         |         |         |         |        |
| Ores & concentrates     | 9 391   | 16 161  | 38 543  | 36 646  | 12 728 |
| Metal                   | 54      | 45      | 1 717   | 2 137   | 679    |
| Portugal                |         |         |         |         |        |
| Ores & concentrates     | 2 599   | 2 845   | 3 339   | 5 369   | 2 361  |
| Metal                   | 18      | 336     | 55      | 53      | 28     |
| Romania                 |         |         |         |         |        |
| Ores & concentrates     | 2 828   | 1 675   | 1 856   | 77 546  | 705    |
| Metal                   | 245     | 958     | 78      | 64      | 39     |
| Slovakia                |         |         |         |         |        |
| Ores & concentrates     | 12 475  | 11 252  | 16 819  | 11 969  | 2 533  |
| Metal                   | 55      | 11      | 20      | 104     | 52     |
| Slovenia                |         |         |         |         |        |
| Ores & concentrates     | 446     | 1 414   | 986     | 999     | 1 005  |
| Metal                   | 122     | 97      | 85      | 313     | 143    |
| Spain                   |         |         |         |         |        |
| Ores & concentrates     | 10 262  | 5 906   | 6 437   | 6 721   | 4 031  |
| Metal                   | 1 206   | 1 552   | 1 393   | 1 219   | 1 192  |
| Sweden                  |         |         |         |         |        |
| Ores & concentrates     | 240 000 | 315 000 | 350 000 | 337 933 | —      |
| Metal                   | 1 150   | 1 639   | 2 145   | 12 782  | 4 396  |
| Switzerland             |         |         |         |         |        |
| Ores & concentrates     | 624     | 1 080   | 1 339   | 1 510   | 974    |
| Metal                   | 127     | 162     | 114     | 134     | 38     |

Chromium

Imports continued

tonnes

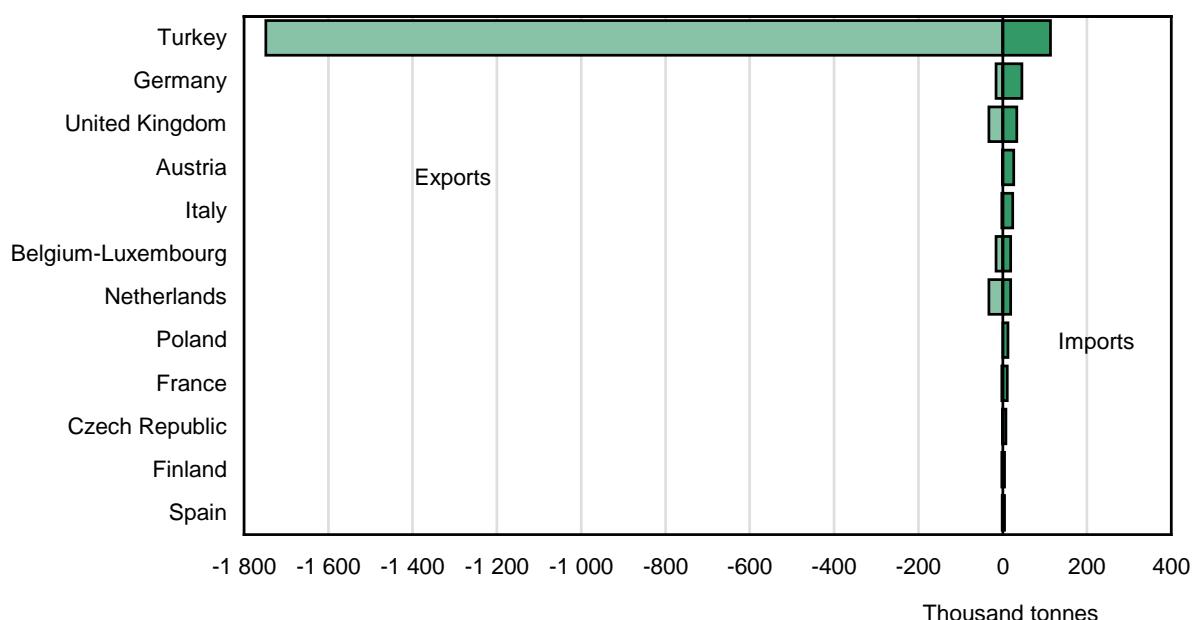
| Country             | 2005    | 2006   | 2007    | 2008    | 2009    |
|---------------------|---------|--------|---------|---------|---------|
| Turkey              |         |        |         |         |         |
| Ores & concentrates | 89 844  | 84 467 | 107 524 | 119 806 | 113 461 |
| United Kingdom      |         |        |         |         |         |
| Ores & concentrates | 122 042 | 74 907 | 103 551 | 117 715 | 33 867  |
| Metal               | 1 723   | 4 022  | 2 134   | 3 099   | 2 904   |

Note(s)

(1) Metal traded in ferro-alloy form is included under iron, steel and ferro-alloys

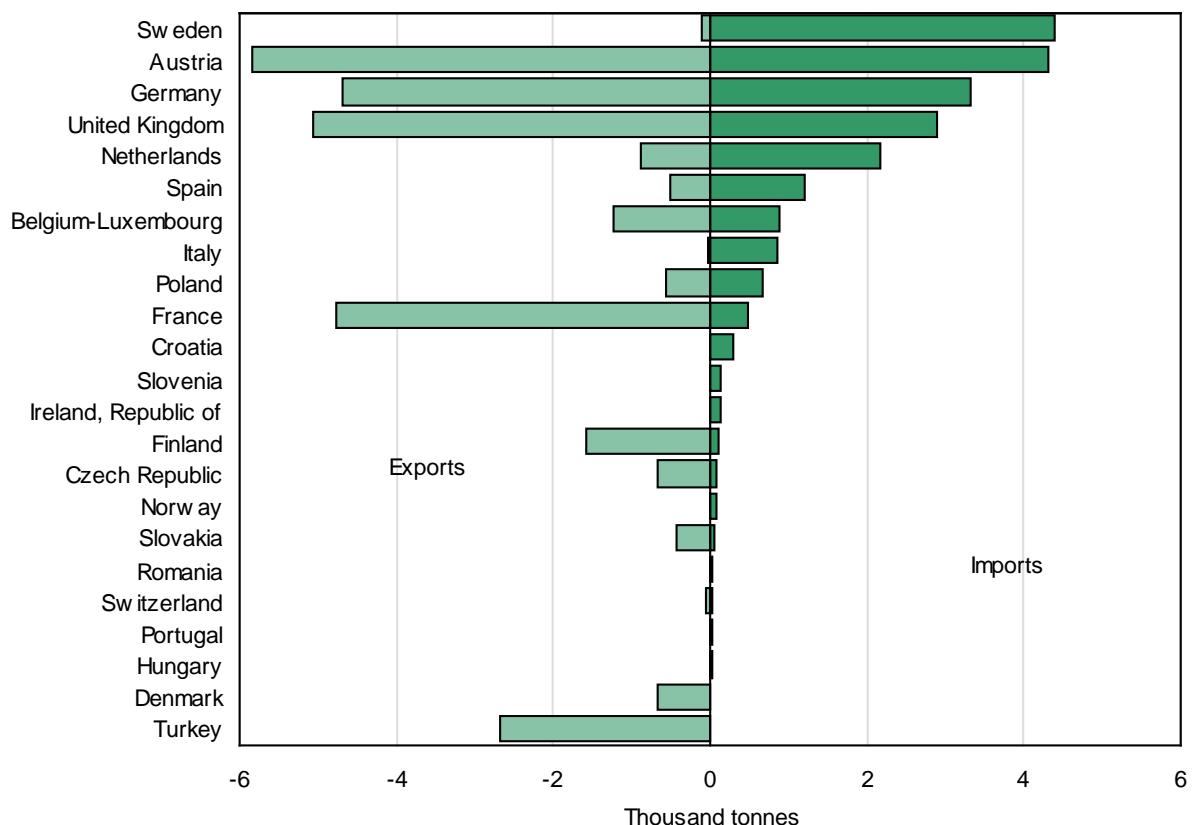
(a) BGS estimates, based on known exports from certain countries

**Chromium ores and concentrates - EU33 trade in 2009**



## Chromium

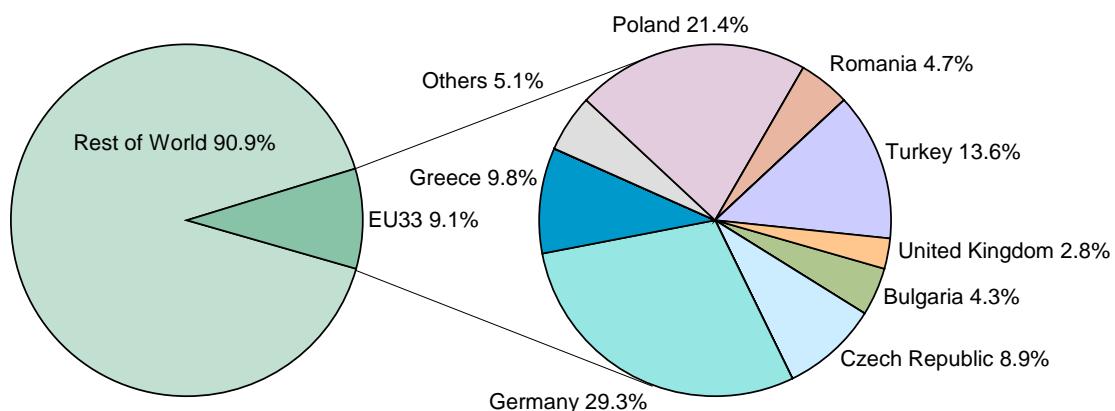
Chromium metal - EU33 trade in 2009



## Coal

- Coal is a combustible rock, composed of lithified plant remains. It is an important source of energy throughout the world.
- Coal has two predominant end uses. Steam coal (or thermal coal) is burnt in power stations for electricity generation and is also used for other domestic and industrial purposes. Coking coal, which commands a higher price, is used in the steel industry to de-oxidise iron ore in the blast furnace. Both black coal (anthracite and bituminous) and brown coal (lignite) are used as steam coal; only bituminous coal is used as coking coal.
- In 2009 the EU33 countries produced 9.1 per cent of the world's coal (all types) of which more than half was contributed by Germany and Poland. China, the world's largest coal producer, has seen an increase in production of 38 per cent between 2005 and 2009, and now accounts for 44 per cent of the world total.

**EU33 Production of coal 2009**



## Production of coal

tonnes

| Country                  | 2005        | 2006        | 2007        | 2008        | 2009            |
|--------------------------|-------------|-------------|-------------|-------------|-----------------|
| Austria                  |             |             |             |             |                 |
| Brown coal & lignite (a) | 13 931      | 7 854       | —           | —           | —               |
| Bulgaria                 |             |             |             |             |                 |
| Lignite                  | 22 146 100  | 22 749 500  | 25 325 000  | 26 007 800  | 25 014 800      |
| Brown coal               | 2 469 200   | 2 556 900   | 2 833 500   | 2 643 200   | 2 243 800       |
| Czech Republic           |             |             |             |             |                 |
| Bituminous               | 12 778 000  | 13 017 000  | 12 462 000  | 12 197 000  | 10 621 000      |
| Lignite                  | 467 000     | 459 000     | 437 000     | 416 000     | 262 000         |
| Brown coal               | 48 658 000  | 48 915 000  | 49 134 000  | 47 456 000  | 45 354 000      |
| Germany                  |             |             |             |             |                 |
| Anthracite & Bituminous  | 28 018 000  | 23 762 000  | 24 185 000  | 19 143 000  | 14 971 000      |
| Brown coal               | 177 907 945 | 176 324 117 | 180 409 054 | 175 313 020 | 169 857 142     |
| Greece                   |             |             |             |             |                 |
| Lignite                  | 70 600 000  | 64 800 000  | 66 100 000  | 64 521 000  | 61 800 000      |
| Hungary                  |             |             |             |             |                 |
| Lignite                  | 8 153 968   | 8 467 220   | 8 351 563   | 8 041 168   | 8 026 587       |
| Brown coal               | 1 426 000   | 1 431 700   | 1 450 400   | 1 386 140   | 952 000         |
| Macedonia                |             |             |             |             |                 |
| Lignite                  | 6 879 726   | 6 650 182   | 6 569 220   | 7 669 103   | 7 395 915       |
| Norway                   |             |             |             |             |                 |
| Bituminous (b)           | 1 667 000   | 2 359 000   | 3 223 000   | 3 429 000   | 2 437 000       |
| Poland                   |             |             |             |             |                 |
| Bituminous               | 97 903 730  | 95 222 512  | 88 313 369  | 84 345 443  | 78 064 462      |
| Lignite                  | 61 636 445  | 60 844 278  | 57 537 727  | 59 668 166  | 57 108 304      |
| Romania                  |             |             |             |             |                 |
| Anthracite & Bituminous  | 3 079 000   | —           | —           | —           | —               |
| Lignite                  | 28 491 480  | 32 753 526  | 35 671 000  | 34 529 000  | (c)* 30 000 000 |
| Brown coal               | 62 609      | * 58 000    | 97 000      | 205 000     | ...             |

Coal

Production continued

tonnes

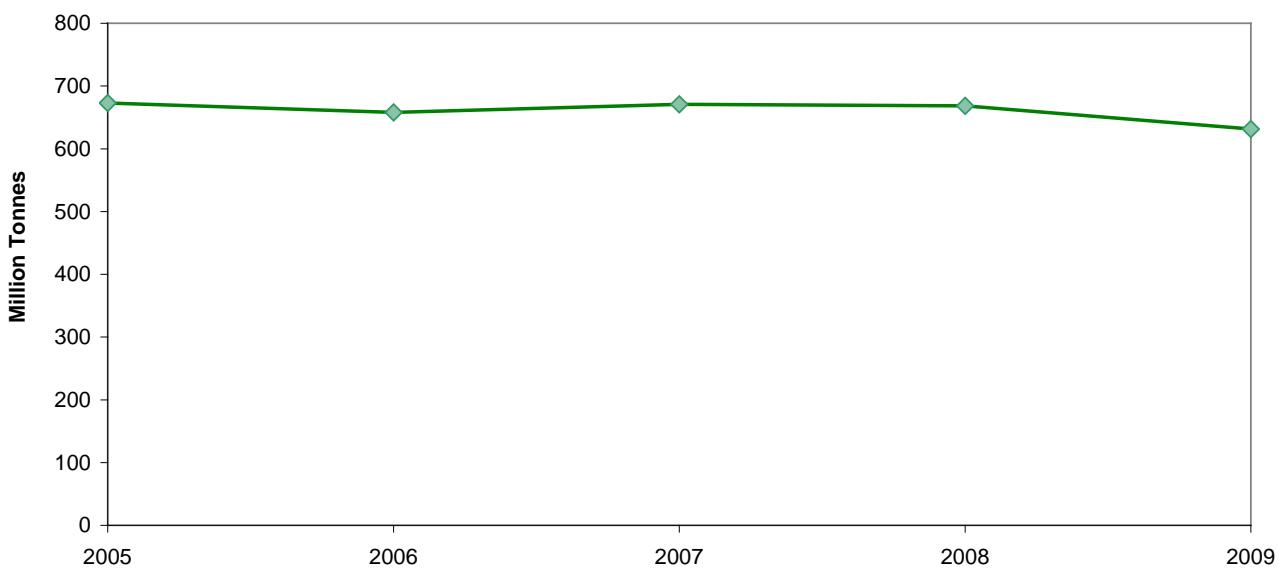
| Country        | 2005        | 2006        | 2007        | 2008        | 2009        |
|----------------|-------------|-------------|-------------|-------------|-------------|
| Slovakia       |             |             |             |             |             |
| Lignite        | 35 000      | 6 000       | 20 000      | 87 000      | 115 000     |
| Brown coal     | 2 268 000   | 2 016 000   | 1 839 000   | 2 075 000   | 2 106 000   |
| Slovenia       |             |             |             |             |             |
| Lignite        | 3 945 100   | 3 932 842   | 4 037 766   | 4 008 440   | 3 921 750   |
| Brown coal     | 594 456     | 587 912     | 483 417     | 488 828     | 510 769     |
| Spain          |             |             |             |             |             |
| Anthracite     | 3 888 838   | 3 775 504   | 3 485 083   | 3 152 550   | 4 060 194   |
| Bituminous     | 4 664 589   | 4 572 350   | 4 387 416   | 4 085 652   | 2 891 839   |
| Sub-bituminous | 3 354 014   | 3 221 083   | 3 128 081   | 2 890 230   | 2 453 963   |
| Lignite        | 7 587 113   | 6 859 641   | 6 112 946   | —           | —           |
| Turkey         |             |             |             |             |             |
| Anthracite     | 2 785 505   | 3 070 793   | 3 230 787   | 3 343 409   | 3 773 603   |
| Bituminous     | 737 701     | * ...       | ...         | ...         | ...         |
| Lignite        | 60 867 574  | 61 010 000  | 74 316 728  | 86 074 626  | 82 263 104  |
| United Kingdom |             |             |             |             |             |
| Bituminous (d) | 20 498 000  | 18 517 000  | 17 070 000  | 18 053 000  | 17 874 000  |
| EU33 Total     | 672 800 000 | 657 900 000 | 670 700 000 | 668 300 000 | 631 600 000 |

Note(s)

(1) There is no international agreement as to the separate definition of lignite and brown coal. In some cases they are distinguished. Elsewhere both may be aggregated under one or other term

- (a) Coal; all forms
- (b) Spitzbergen: not including production from mines controlled by Russia
- (c) Including brown coal
- (d) Including anthracite

**EU33 Production of coal 2005 - 09**



**Exports of coal**

tonnes

| Country              | 2005       | 2006       | 2007       | 2008      | 2009      |
|----------------------|------------|------------|------------|-----------|-----------|
| Belgium-Luxembourg   |            |            |            |           |           |
| Anthracite           | 1 463 646  | 1 521 523  | 1 454 115  | 1 400 377 | 675 097   |
| Other coal           | 2 948 838  | 3 734 518  | 3 670 706  | 4 416 217 | 4 640 602 |
| Briquettes           | 11 682     | 7 923      | 8 214      | 11 331    | 11 453    |
| Bulgaria             |            |            |            |           |           |
| Hard coal (a)        | 3 920      | 5 372      | 17 358     | 36 095    | 11 511    |
| Czech Republic       |            |            |            |           |           |
| Hard coal (a)        | 5 260 739  | 6 690 917  | 6 732 974  | 5 993 824 | 6 028 577 |
| Lignite              | 1 324 025  | 1 300 406  | 1 076 140  | 1 561 097 | 1 207 715 |
| Briquettes           | 148 966    | 213 621    | ...        | 75 459    | 93 479    |
| Denmark              |            |            |            |           |           |
| Hard coal (a)        | 86 739     | 54 338     | 75 866     | 27 070    | 1 973 198 |
| Estonia              |            |            |            |           |           |
| Hard coal (a)        | 9 054      | 3 164      | 2 035      | ...       | 20 296    |
| France               |            |            |            |           |           |
| Anthracite           | 14 913     | 10 442     | 13 161     | 57 436    | 5 272     |
| Other coal           | 68 197     | 128 523    | 200 682    | 128 614   | 91 266    |
| Germany              |            |            |            |           |           |
| Anthracite           | ...        | ...        | 7 444      | 16 575    | 179 880   |
| Other coal           | 251 623    | 305 046    | 309 501    | 518 629   | 129 955   |
| Lignite              | 73         | 27 801     | 140 400    | 425 680   | 523 720   |
| Briquettes           | 74 952     | 83 990     | 72 008     | 370 211   | 493 552   |
| Greece               |            |            |            |           |           |
| Hard coal (a)        | 11 673     | 15 852     | 25 717     | 8 426     | 4 799     |
| Briquettes           | 51 752     | 23 465     | 12         | 25        | —         |
| Hungary              |            |            |            |           |           |
| Lignite              | 366 132    | —          | —          | 89 444    | 41 329    |
| Ireland, Republic of |            |            |            |           |           |
| Anthracite           | 501        | 3 791      | 30 451     | ...       | 2         |
| Other coal           | 9 800      | 6 382      | 4 395      | 6 158     | 3 861     |
| Briquettes           | 13 103     | 4 823      | ...        | 6 508     | 9 858     |
| Italy                |            |            |            |           |           |
| Hard coal (a)        | 66 115     | 38 239     | 41 075     | 31 201    | 29 473    |
| Lithuania            |            |            |            |           |           |
| Hard coal            | ...        | 499        | 4 599      | 7 685     | 10 915    |
| Netherlands          |            |            |            |           |           |
| Anthracite           | 165 918    | 196 407    | 158 572    | 109 516   | 78 064    |
| Other coal           | 8 445 919  | 11 940 024 | 14 089 233 | 6 399 941 | 5 154 853 |
| Poland               |            |            |            |           |           |
| Anthracite           | 23 331     | 31 200     | 30 256     | 16 173    | 5 282     |
| Other coal           | 20 816 121 | 16 586 467 | 11 761 743 | 7 775 799 | 8 368 190 |
| Lignite              | 8 211      | 317        | —          | 1 009     | 68 273    |
| Romania              |            |            |            |           |           |
| Hard coal (a)        | 661        | 7 997      | 67 304     | 5 331     | 19 771    |
| Slovakia             |            |            |            |           |           |
| Hard coal (a)        | 33 608     | 33 665     | 26 600     | 30 131    | 122 287   |
| Slovenia             |            |            |            |           |           |
| Lignite              | 6 881      | 29 794     | 2 150      | 377       | 4 615     |
| Spain                |            |            |            |           |           |
| Anthracite           | 49 563     | 74 826     | 101 968    | 186 293   | 123 114   |
| Other coal           | 8 208      | 135 401    | 872 269    | 1 636 071 | 1 252 923 |
| Briquettes           | 1          | 53         | ...        | 21 735    | 193       |
| Turkey               |            |            |            |           |           |
| Anthracite           | 10 324     | 1 259      | —          | 1 043     | 194       |
| United Kingdom       |            |            |            |           |           |
| Anthracite           | 169 252    | 137 353    | 123 549    | 165 473   | 119 472   |
| Other coal           | 380 426    | 354 281    | 419 193    | 742 582   | 391 414   |
| Lignite              | 2 321      | 2 748      | 1 965      | 2 334     | 2 186     |
| Briquettes           | 20 713     | 20 037     | 27 591     | 52 605    | 68 226    |

Note(s)

(1) This table excludes bunker shipments

(a) Including anthracite

**Imports of coal**

tonnes

| Country              | 2005       | 2006          | 2007       | 2008       | 2009          |
|----------------------|------------|---------------|------------|------------|---------------|
| Austria              |            |               |            |            |               |
| Hard coal (a)        | 4 108 821  | 3 912 731     | 4 509 917  | 4 118 906  | 4 082 877     |
| Lignite              | 2 139      | 2 294         | 53 331     | 46 392     | 72 734        |
| Briquettes           | 96 318     | 101 162       | 13 045     | 26 474     | 30 538        |
| Belgium-Luxembourg   |            |               |            |            |               |
| Anthracite           | 3 293 344  | 2 608 840     | 2 864 554  | 3 999 349  | 1 453 024     |
| Other coal           | 8 997 265  | 10 534 424    | 9 679 689  | 10 252 899 | 5 890 867     |
| Lignite              | 229 192    | 279 982       | 278 700    | 372 271    | 263 260       |
| Briquettes           | 14 120     | 29 848        | 26 260     | 21 776     | 32 151        |
| Bulgaria             |            |               |            |            |               |
| Anthracite           | 2 016 911  | 2 170 631     | 2 229 619  | 2 841 458  | 1 938 000     |
| Other coal           | 1 853 556  | 2 221 526     | 2 415 165  | 2 054 649  | 1 130 146     |
| Briquettes           | 986        | 61            | 112 769    | 66 678     | 10 238        |
| Croatia              |            |               |            |            |               |
| Hard coal (a)        | 957 899    | 1 082 446     | 1 101 803  | 1 189 379  | 712 873       |
| Lignite              | 77 959     | 78 226        | 62 789     | 58 417     | 47 504        |
| Briquettes           | 4 733      | 6 084         | 2 604      | 2 796      | 1 730         |
| Cyprus               |            |               |            |            |               |
| Hard coal (a)        | 3          | 23 473        | 56 896     | 46 258     | 28 911        |
| Czech Republic       |            |               |            |            |               |
| Anthracite           | 43 713     | 61 255        | 45 114     | 39 211     | 24 054        |
| Other coal           | 1 192 214  | 1 896 977     | 2 507 091  | 2 181 691  | 1 761 947     |
| Lignite              | 1 371      | 24 412        | 33 472     | 33 579     | 36 617        |
| Briquettes           | 853        | 23 837        | 1 393      | 18 654     | 60 962        |
| Denmark              |            |               |            |            |               |
| Anthracite           | 52 143     | 85 883        | 47 233     | 45 282     | 12 593        |
| Other coal           | 5 881 938  | 9 234 248     | 8 034 596  | 7 412 557  | 6 423 923     |
| Briquettes           | 15 865     | 511           | 194        | 1 000      | 455           |
| Estonia              |            |               |            |            |               |
| Hard coal (a)        | 53 647     | 95 079        | 175 599    | 123 194    | 30 413        |
| Finland              |            |               |            |            |               |
| Hard coal (a)        | 4 724 392  | 6 683 990     | 6 669 717  | 5 671 385  | 5 937 153     |
| France               |            |               |            |            |               |
| Anthracite           | 3 266 840  | 3 018 025     | 3 532 378  | 2 817 048  | 1 914 614     |
| Other coal           | 16 234 759 | 16 372 754    | 15 425 960 | 18 470 782 | 13 893 343    |
| Lignite              | 34 396     | 36 436        | 51 589     | 68 426     | 51 577        |
| Briquettes           | 116 845    | 147 381       | 175 350    | 154 140    | 151 863       |
| Germany              |            |               |            |            |               |
| Anthracite           | 991 877    | 2 499 908     | 4 353 426  | 4 137 690  | 3 893 429     |
| Other coal           | 29 452 512 | 35 218 836    | 37 993 445 | 37 215 220 | 30 926 568    |
| Lignite              | 9 890      | 10 070        | 15 411     | 39 248     | 37 839        |
| Briquettes           | 110 971    | 128 877       | 96 169     | 70 400     | 132 895       |
| Greece               |            |               |            |            |               |
| Anthracite           | 35 475     | 39 250        | 59 007     | 41 475     | 37 585        |
| Other coal           | 724 600    | 461 181       | 382 933    | 288 441    | 138 831       |
| Lignite              | 0          | 50            | 3 029      | 35 457     | 48 841        |
| Briquettes           | 1 803      | 1 382         | 1 144      | 111        | 5 827         |
| Hungary              |            |               |            |            |               |
| Hard coal            | 1 298 122  | (a) 1 765 117 | 1 950 139  | 1 893 076  | (a) 1 340 769 |
| Lignite              | 710 417    | 686 862       | 572 742    | 767 480    | 413 094       |
| Briquettes           | 14 310     | 15 416        | 13 589     | 16 093     | 17 519        |
| Iceland              |            |               |            |            |               |
| Anthracite           | 103 401    | 91 545        | 107 686    | 91 576     | 104 094       |
| Other coal           | 13 556     | 6             | 31 882     | 6 609      | 9 903         |
| Ireland, Republic of |            |               |            |            |               |
| Anthracite           | 60 325     | 68 190        | 33 175     | 47 392     | 53 413        |
| Other coal           | 2 641 074  | 1 908 618     | 1 830 979  | 2 169 185  | 1 721 651     |
| Briquettes           | 35 959     | 96 279        | 14 271     | 19 049     | 40 482        |
| Italy                |            |               |            |            |               |
| Anthracite           | 369 840    | 282 831       | 406 331    | 490 757    | 210 384       |
| Other coal           | 24 714 768 | 24 860 362    | 25 111 043 | 25 745 375 | 20 165 036    |
| Briquettes           | 9 136      | 10 207        | 6 921      | 5 392      | 7 786         |
| Latvia               |            |               |            |            |               |
| Hard coal (a)        | 115 720    | 159 787       | 153 806    | 169 211    | 136 277       |
| Lithuania            |            |               |            |            |               |
| Hard coal (a)        | 290 058    | 391 032       | 356 342    | 382 695    | 215 439       |

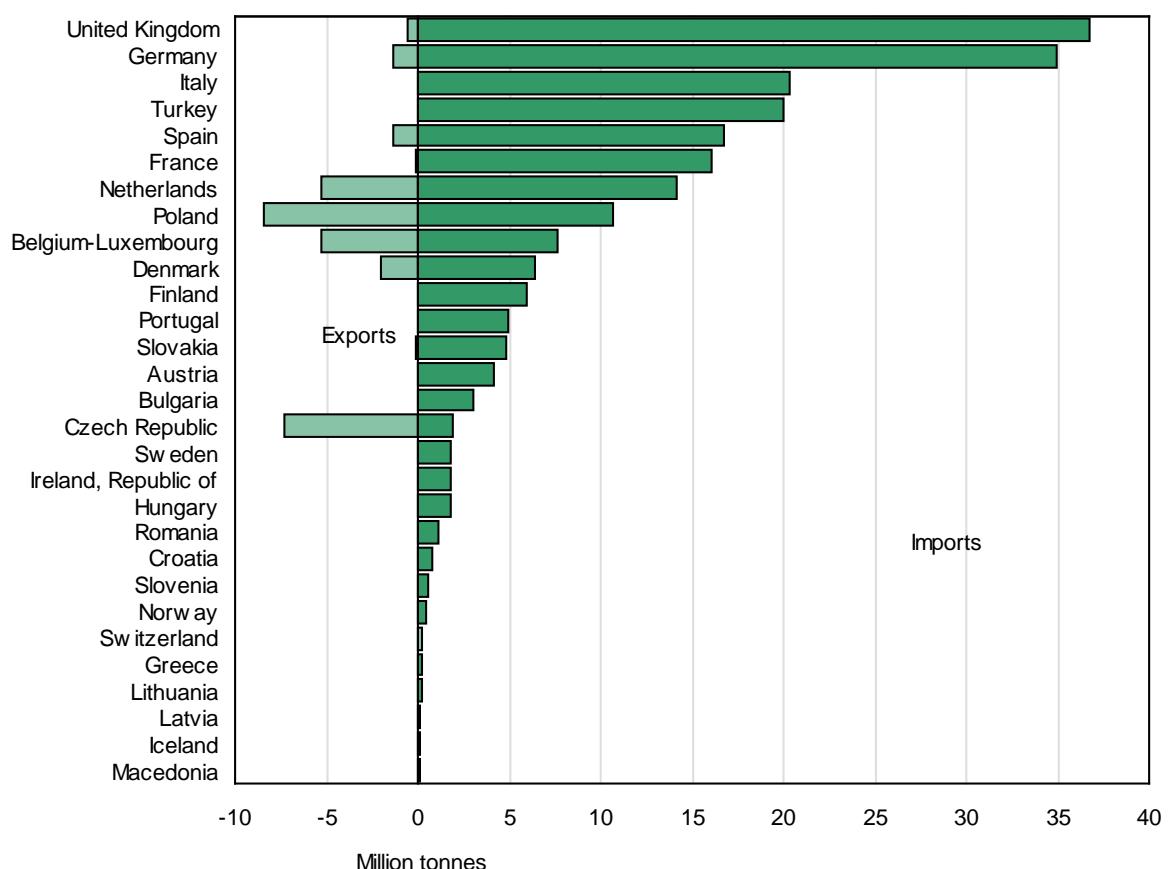
## Imports continued

tonnes

| Country        | 2005       | 2006       | 2007         | 2008         | 2009         |
|----------------|------------|------------|--------------|--------------|--------------|
| Macedonia      |            |            |              |              |              |
| Hard coal (a)  | 98 024     | 179 193    | 199 946      | 214 078      | 85 660       |
| Briquettes     | 188 634    | 103 508    | 63 805       | 56 640       | 9 207        |
| Netherlands    |            |            |              |              |              |
| Anthracite     | 186 936    | 218 516    | 62 577       | 79 784       | 8 005        |
| Other coal     | 21 958 859 | 21 368 119 | 24 622 621   | 17 843 689   | 14 084 993   |
| Lignite        | 30 769     | 22 548     | 29 517       | 5 265        | 29 239       |
| Briquettes     | 51 100     | 83 734     | 68 765       | 53 432       | 53 030       |
| Norway         |            |            |              |              |              |
| Anthracite (b) | 92 673     | 55 914     | 76 744       | 81 955       | 54 199       |
| Other coal (b) | 575 921    | 472 129    | (c)* 527 000 | (c)* 538 000 | (c)* 367 000 |
| Briquettes     | 282        | 349        | 706          | 24 406       | 1 074        |
| Poland         |            |            |              |              |              |
| Anthracite     | 263 929    | 295 026    | 449 362      | 553 152      | 310 290      |
| Other coal     | 3 112 462  | 4 866 783  | 5 442 327    | 9 531 959    | 10 362 090   |
| Lignite        | 0          | 4 406      | 8 946        | 18 057       | 30 307       |
| Briquettes     | 2 118      | 3 932      | ...          | 10 960       | 25 788       |
| Portugal       |            |            |              |              |              |
| Anthracite     | 48 785     | 30 688     | 44 447       | 48 793       | 28 472       |
| Other coal     | 5 386 968  | 5 630 721  | 4 733 158    | 3 721 513    | 4 922 698    |
| Romania        |            |            |              |              |              |
| Anthracite     | 82 683     | 60 272     | 68 924       | 110 484      | 56 296       |
| Other coal     | 3 681 406  | 3 398 344  | 4 421 709    | 3 008 391    | 937 077      |
| Lignite        | 367 781    | 620 251    | 575 514      | 121 227      | 62 469       |
| Briquettes     | 282        | 95         | 237 051      | 148 890      | 102 372      |
| Slovakia       |            |            |              |              |              |
| Anthracite     | 112 482    | 38 147     | 176 682      | 258 597      | 264 286      |
| Other coal     | 5 249 848  | 4 411 685  | 4 802 258    | 4 253 530    | 3 828 520    |
| Lignite        | 704 690    | 889 241    | 725 586      | 983 151      | 693 786      |
| Briquettes     | 33 067     | 12 150     | 5 813        | 6 733        | 7 877        |
| Slovenia       |            |            |              |              |              |
| Hard coal (a)  | 51 173     | 47 221     | 83 100       | 74 508       | 33 143       |
| Lignite        | 543 465    | 614 851    | 567 139      | 833 308      | 507 013      |
| Spain          |            |            |              |              |              |
| Anthracite     | 2 534 019  | 2 508 261  | 1 019 341    | 957 293      | 767 027      |
| Other coal     | 22 222 316 | 21 196 872 | 23 420 766   | 20 010 533   | 15 967 793   |
| Sweden         |            |            |              |              |              |
| Anthracite     | 13 013     | 28 506     | 25 832       | 36 163       | 20 373       |
| Other coal     | 3 187 798  | 3 003 919  | 3 154 331    | 2 811 668    | 1 831 397    |
| Briquettes     | 8 443      | 27 164     | 287          | 9 029        | 33           |
| Switzerland    |            |            |              |              |              |
| Anthracite     | 6 640      | 7 978      | 9 539        | 18 721       | 5 444        |
| Other coal     | 93 584     | 143 425    | 214 684      | 132 824      | 172 990      |
| Lignite        | 34 897     | 86 762     | 84 654       | 80 814       | 66 483       |
| Briquettes     | 5 137      | 4 584      | 3 908        | 3 986        | 4 933        |
| Turkey         |            |            |              |              |              |
| Anthracite     | 413 333    | 502 178    | 530 393      | 707 425      | 457 575      |
| Other coal     | 16 126 628 | 14 658 368 | 13 850 371   | 18 781 879   | 19 501 679   |
| United Kingdom |            |            |              |              |              |
| Anthracite     | 187 388    | 125 011    | 135 941      | 213 318      | 207 327      |
| Other coal     | 43 890 778 | 49 544 012 | 43 024 560   | 43 038 043   | 36 553 574   |
| Briquettes     | 6 554      | 9 995      | 6 501        | 14 131       | 9 021        |

## Note(s)

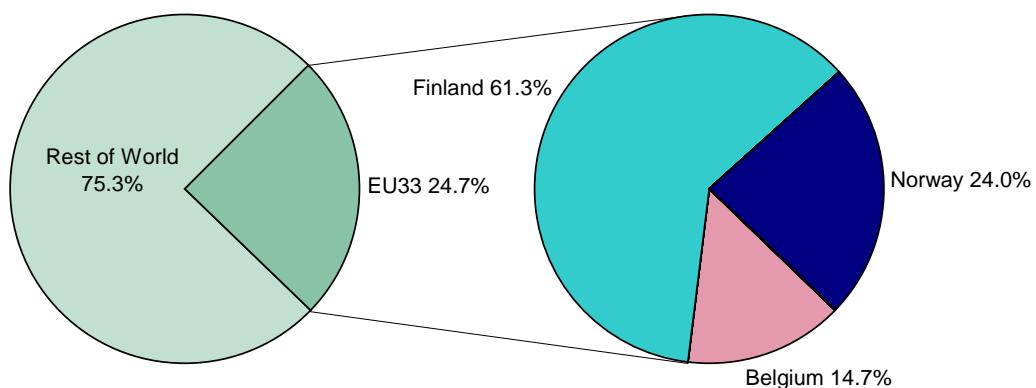
- (a) Including anthracite  
 (b) Excludes coal imported from Spitzbergen  
 (c) BGS estimates, based on known exports from certain countries

**Coal - EU33 trade in 2009**

## Cobalt

- Cobalt is a lustrous, greyish-silver, brittle metal. It is also very hard and can take a high polish. It retains its strength at high temperatures and is ferromagnetic, which means it is capable of being magnetised. Cobalt is extensively used as an alloying metal and is valued for its ability to produce very hard superalloys with useful magnetic properties and resistance to high temperatures. It is also used in the manufacture of chemical compounds for a wide range of industrial uses, in rechargeable batteries and as a pigment in glass, enamels, pottery and china.
- Democratic Republic of Congo was the largest world producer of mined cobalt in 2009, with 55 per cent of the world total. Zambia, Australia, Canada and Cuba also produced between five and nine per cent each. Within the EU33, Finland produces a very small amount of mined cobalt.
- China was the world's largest producer of cobalt metal, producing 39 per cent of the world total in 2009, up from 24 per cent in 2005. Finland was the second largest world producer, with 15 per cent. Altogether, the EU33 contributed 24.7 per cent to the world's total output of cobalt metal.

**EU33 Production of cobalt metal 2009**



### Production of cobalt metal

tonnes

| Country     | 2005   | 2006   | 2007   | 2008   | 2009   |
|-------------|--------|--------|--------|--------|--------|
| Belgium (a) | 3 298  | 2 840  | 2 825  | 3 020  | 2 150  |
| Finland     | 8 171  | 8 582  | 9 173  | 9 645  | 8 962  |
| Norway      | 5 021  | 4 927  | 3 939  | 3 719  | 3 510  |
| EU33 Total  | 16 500 | 16 300 | 15 900 | 16 400 | 14 600 |

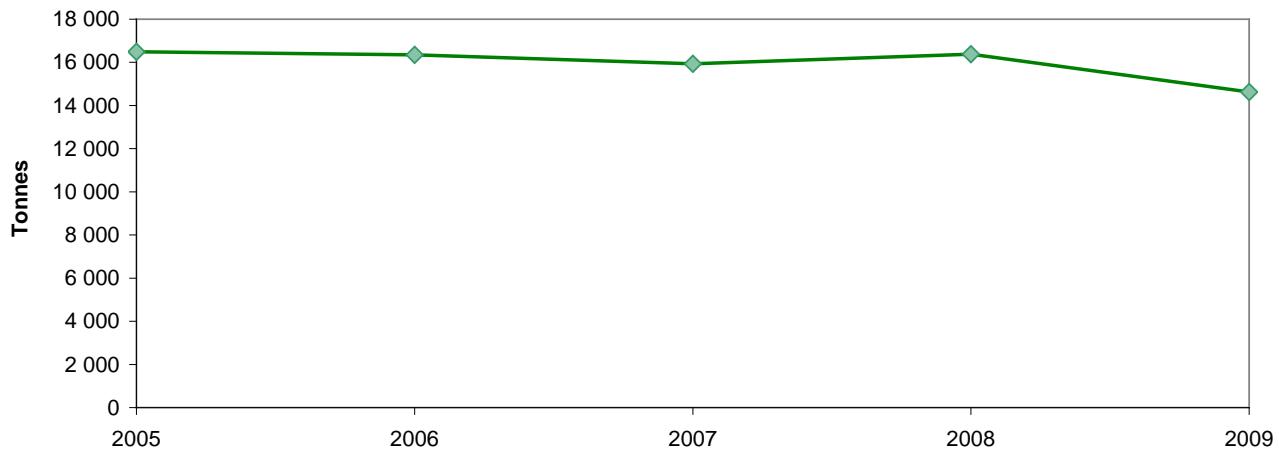
Note(s)

(1) In addition to the production listed above, several countries, including the United Kingdom, Finland and France, are known to produce substantial amounts of cobalt compounds

(a) Some metal production in China is recorded in Belgium

Cobalt

**EU33 Production of cobalt metal 2005 - 09**



**Exports of cobalt**

tonnes

| Country              | 2005       | 2006    | 2007    | 2008    | 2009    |
|----------------------|------------|---------|---------|---------|---------|
| Austria              |            |         |         |         |         |
| Metal                | 5          | 10      | 19      | 31      | 60      |
| Belgium-Luxembourg   |            |         |         |         |         |
| Ore                  | 543        | 197     | 1 204   | 1 112   | 1 227   |
| Metal                | (a)* 3 100 | 4 329   | 5 104   | 4 393   | 2 714   |
| Oxides (a)           | * 5 500    | * 5 800 | * 6 000 | * 7 000 | * 4 600 |
| Finland              |            |         |         |         |         |
| Metal (a)            | * 5 800    | * 5 700 | * 5 700 | * 5 700 | * 4 500 |
| Oxides (a)           | * 1 700    | * 2 200 | * 2 400 | * 2 600 | * 3 100 |
| France               |            |         |         |         |         |
| Metal                | 699        | 709     | 1 006   | 859     | 706     |
| Oxides               | 57         | 68      | 91      | 28      | 50      |
| Germany              |            |         |         |         |         |
| Ore                  | 171        | ...     | 457     | 145     | 103     |
| Metal                | 1 395      | 1 602   | 2 067   | 1 588   | 1 067   |
| Oxides               | 185        | 140     | 158     | 158     | 69      |
| Ireland, Republic of |            |         |         |         |         |
| Metal                | 42         | 43      | 45      | 47      | 145     |
| Oxides               | —          | 38      | 152     | 0       | —       |
| Italy                |            |         |         |         |         |
| Metal                | 97         | 224     | 168     | 220     | 205     |
| Oxides               | 63         | 77      | 223     | 235     | 141     |
| Netherlands          |            |         |         |         |         |
| Metal                | 1 326      | 587     | 1 579   | 1 090   | 353     |
| Oxides               | 1 323      | 112     | 127     | 959     | 65      |
| Norway               |            |         |         |         |         |
| Metal                | 4 997      | 4 990   | 4 030   | 3 731   | 3 550   |
| Poland               |            |         |         |         |         |
| Oxides               | 3          | 3       | 5       | 24      | 64      |
| Slovenia             |            |         |         |         |         |
| Metal                | 42         | 16      | 31      | 24      | 50      |
| Spain                |            |         |         |         |         |
| Oxides               | 59         | 30      | 56      | 7       | 33      |
| Sweden               |            |         |         |         |         |
| Metal                | 127        | 110     | 152     | 67      | 285     |
| Switzerland          |            |         |         |         |         |
| Metal                | 140        | 105     | 94      | 120     | 70      |
| United Kingdom       |            |         |         |         |         |
| Metal                | 1 471      | 1 695   | 2 300   | 2 614   | 2 572   |
| Oxides               | 994        | 750     | 689     | 798     | 891     |

Note(s)

(a) BGS estimates, based on known imports into certain countries

**Imports of cobalt**

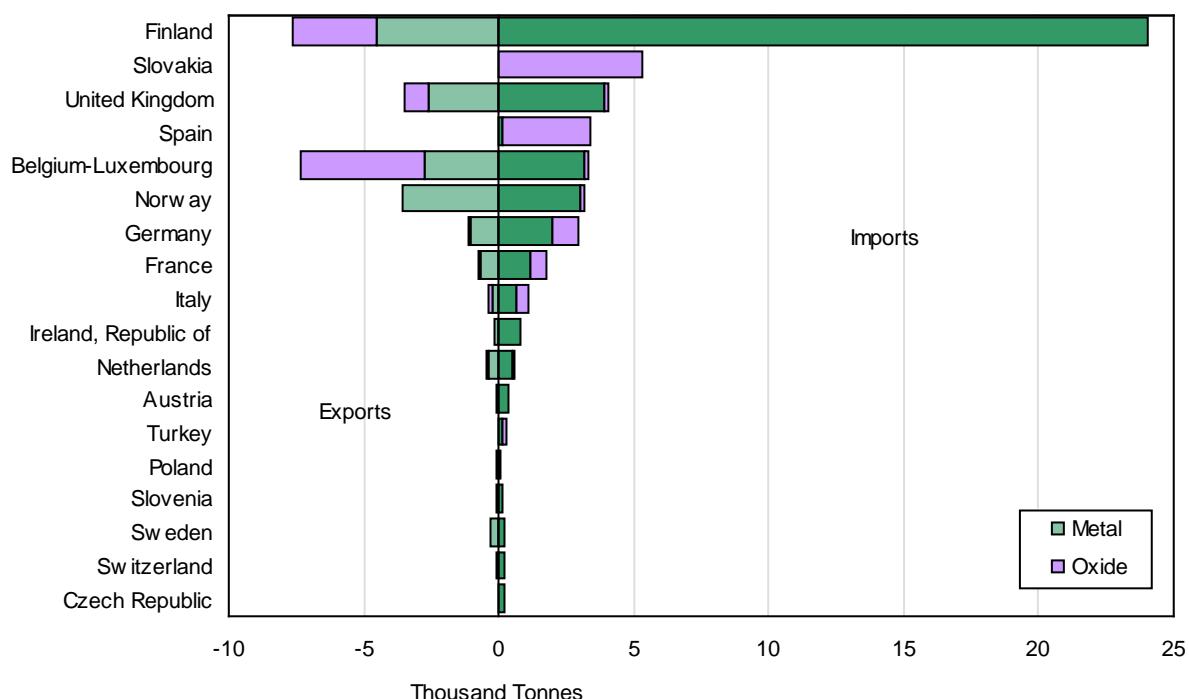
tonnes

| Country              | 2005    | 2006    | 2007    | 2008    | 2009    |
|----------------------|---------|---------|---------|---------|---------|
| Austria              |         |         |         |         |         |
| Metal                | 694     | 438     | 631     | 740     | 331     |
| Oxides               | 5       | 7       | 4       | 40      | 5       |
| Belgium-Luxembourg   |         |         |         |         |         |
| Ore                  | 263     | 107     | 153     | 222     | 274     |
| Metal (a)            | * 4 700 | * 4 300 | * 6 600 | * 4 600 | * 3 200 |
| Oxides (a)           | * 1 300 | * 600   | * 600   | * 600   | * 100   |
| Czech Republic       |         |         |         |         |         |
| Metal                | 75      | 84      | 108     | 199     | 220     |
| Finland              |         |         |         |         |         |
| Ore                  | 54 794  | 31 186  | 26 449  | 26 500  | 15 146  |
| Metal                | 13 611  | 26 928  | 27 590  | 36 405  | 24 002  |
| Oxides               | 336     | 186     | 346     | 167     | 46      |
| France               |         |         |         |         |         |
| Metal                | 2 038   | 2 117   | 3 137   | 2 251   | 1 203   |
| Oxides               | 474     | 562     | 658     | 574     | 578     |
| Germany              |         |         |         |         |         |
| Metal                | 2 990   | 3 532   | 3 150   | 2 921   | 2 017   |
| Oxides               | 542     | 759     | 898     | 1 057   | 902     |
| Greece               |         |         |         |         |         |
| Metal                | 31      | 30      | 42      | 123     | 14      |
| Ireland, Republic of |         |         |         |         |         |
| Ore                  | 28      | 35      | 571     | 36      | 28      |
| Metal                | 390     | 464     | 298     | 622     | 777     |
| Oxides               | 13      | 43      | 7       | 4       | 30      |
| Italy                |         |         |         |         |         |
| Metal                | 468     | 587     | 626     | 703     | 632     |
| Oxides               | 1 128   | 1 161   | 1 682   | 561     | 473     |
| Netherlands          |         |         |         |         |         |
| Metal                | 1 532   | 1 511   | 1 270   | 1 124   | * 491   |
| Oxides               | 351     | 269     | 489     | 244     | 54      |
| Norway               |         |         |         |         |         |
| Metal                | 5 775   | 6 362   | 3 871   | 3 131   | 3 012   |
| Oxides               | 9       | 2       | ...     | ...     | 155     |
| Poland               |         |         |         |         |         |
| Metal                | 35      | 52      | 69      | 51      | 53      |
| Oxides               | 121     | 63      | 18      | 30      | 15      |
| Slovakia             |         |         |         |         |         |
| Metal                | 5       | 13      | 37      | 1 020   | 19      |
| Oxides               | 4       | ...     | 0       | 0       | 5 327   |
| Slovenia             |         |         |         |         |         |
| Metal                | 209     | 209     | 96      | 93      | 149     |
| Spain                |         |         |         |         |         |
| Metal                | 158     | 180     | 121     | 131     | 135     |
| Oxides               | 1 352   | 1 254   | 1 187   | 1 038   | 3 294   |
| Sweden               |         |         |         |         |         |
| Metal                | 660     | 743     | 676     | 698     | 189     |
| Switzerland          |         |         |         |         |         |
| Metal                | 423     | 408     | 454     | 386     | 243     |
| Turkey               |         |         |         |         |         |
| Metal                | 167     | 186     | 176     | 148     | 125     |
| Oxides               | 139     | 165     | 142     | 152     | 150     |
| United Kingdom       |         |         |         |         |         |
| Ore                  | 6       | 74      | 59      | 72      | 200     |
| Metal                | 3 888   | 4 427   | 5 422   | 5 395   | 3 928   |
| Oxides               | 107     | 195     | 180     | 138     | 168     |

## Note(s)

(a) BGS estimates, based on known exports from certain countries

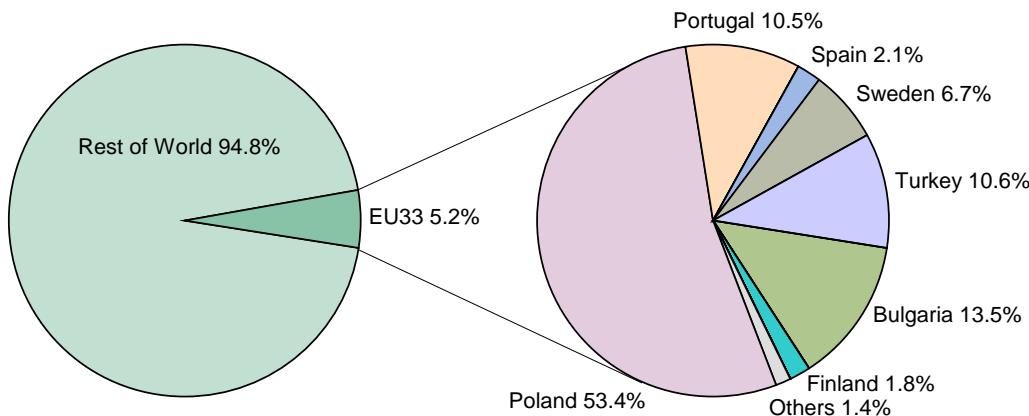
## Cobalt

**Cobalt - EU33 trade in 2009**

## Copper

- Copper is reddish, malleable and ductile metallic element with excellent thermal and electrical conductive qualities. It is a very important industrial material and is used in the electrical, electronics, transportation and construction industries.
- World mine production in 2009 was dominated by Chile (34 per cent) although copper is mined in many countries. Chile (18 per cent of total) was the second largest refined copper producer in the world after China (22 per cent). The EU33 countries contributed 5.2 per cent to the world mined copper total and 14 per cent to world refined copper production. Poland was the largest mine producer in the EU33 and second largest refined metal producer, after Germany where refined copper production is based on imported materials.

**EU33 Mine production of copper 2009**

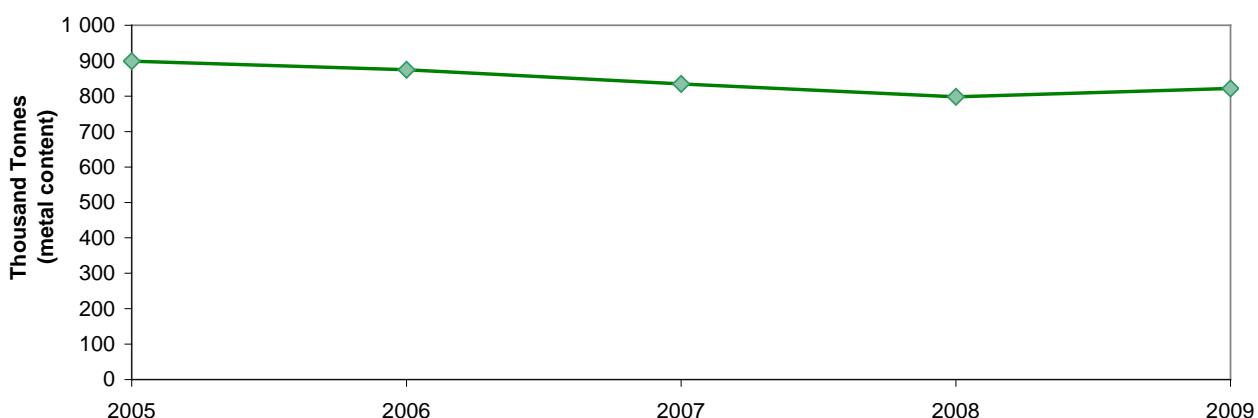


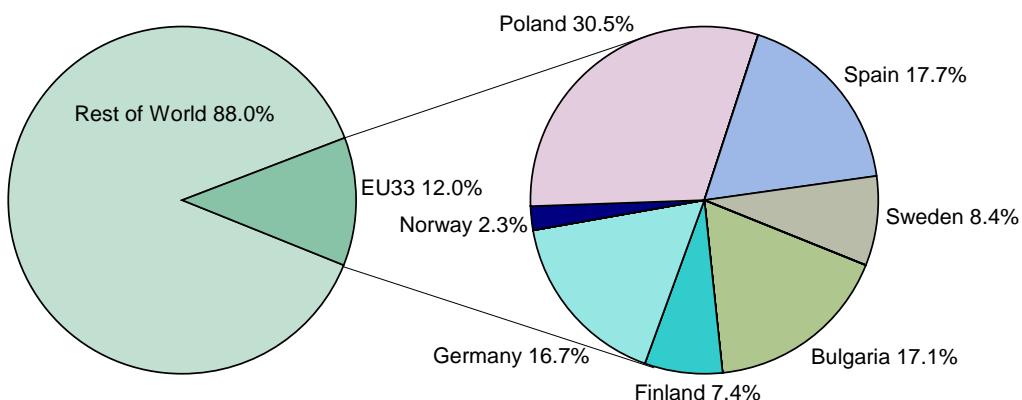
### Mine production of copper

tonnes (metal content)

| Country    | 2005      | 2006      | 2007    | 2008    | 2009    |
|------------|-----------|-----------|---------|---------|---------|
| Bulgaria   | 112 536   | 123 571   | 116 157 | 107 195 | 110 652 |
| Cyprus     | —         | 900       | 2 900   | 3 000   | 2 500   |
| Finland    | 15 000    | 13 000    | 13 600  | 13 300  | 14 600  |
| Macedonia  | 4 799     | 7 054     | 7 029   | 8 051   | 7 440   |
| Poland     | 511 799   | 497 200   | 451 900 | 429 687 | 439 000 |
| Portugal   | 89 541    | 78 576    | 90 182  | 89 026  | 86 462  |
| Romania    | 16 286    | 12 535    | 2 213   | 308     | 1 200   |
| Spain      | 7 358     | 8 700     | 6 281   | 7 071   | 17 663  |
| Sweden     | 87 068    | 86 746    | 62 905  | 57 688  | 55 414  |
| Turkey     | 54 100    | 46 400    | 81 400  | 83 000  | 87 070  |
| EU33 Total | 1 898 000 | 1 875 000 | 835 000 | 798 000 | 822 000 |

**EU33 Mine production of copper 2005 - 09**



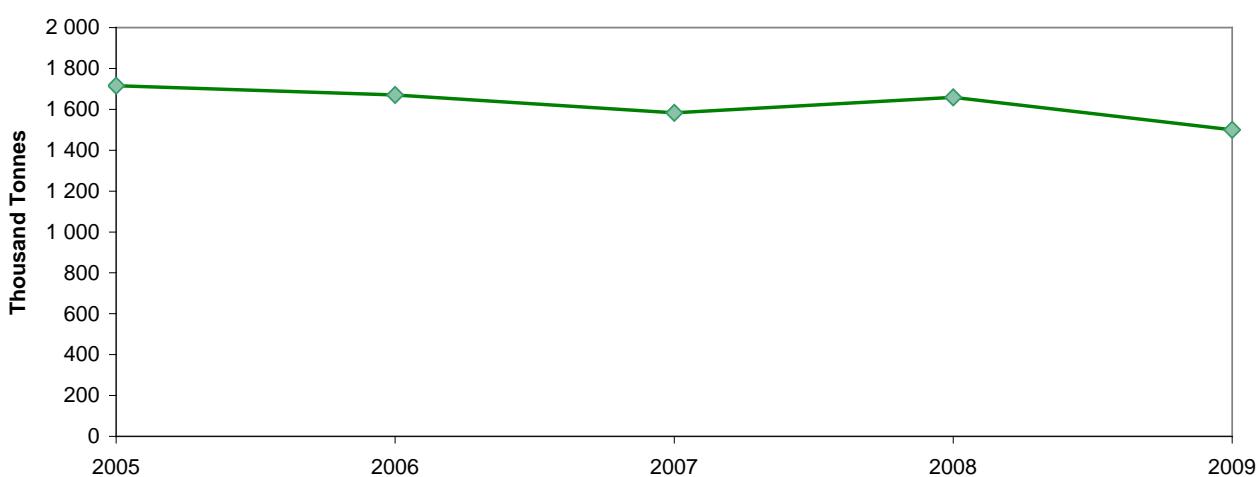
**EU33 Smelter production of copper 2009****Smelter production of copper**

tonnes

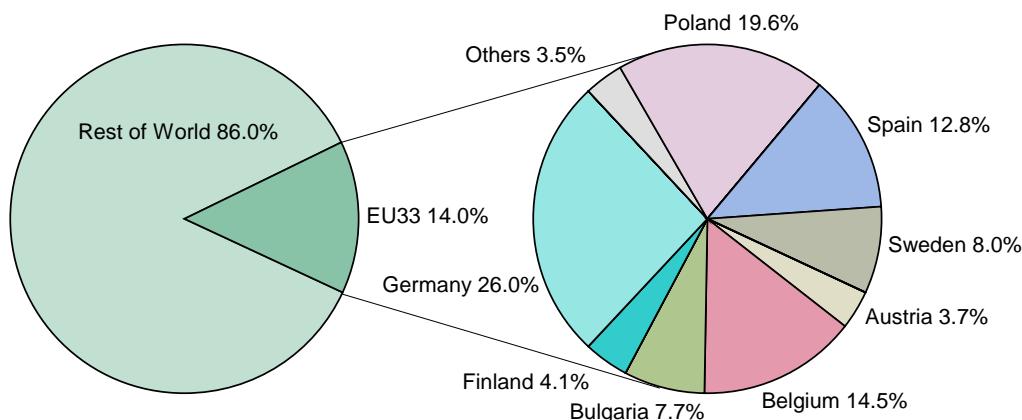
| Country    | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------|-----------|-----------|-----------|-----------|-----------|
| Bulgaria   | 225 000   | 217 000   | 217 600   | 257 100   | 256 200   |
| Finland    | 157 933   | 164 306   | 118 911   | 142 154   | 110 479   |
| Germany    | 257 200   | 273 800   | 270 200   | 295 000   | 251 000   |
| Norway     | 38 681    | 39 700    | 34 200    | 37 000    | 33 900    |
| Poland     | 555 681   | 555 907   | 518 303   | 492 942   | 457 510   |
| Spain      | 284 215   | 263 662   | 257 348   | 259 897   | 264 971   |
| Sweden     | 168 763   | 129 951   | 148 835   | 136 409   | 125 398   |
| Turkey     | 27 700    | 26 300    | 17 900    | 38 000    | —         |
| EU33 Total | 1 715 000 | 1 671 000 | 1 583 000 | 1 659 000 | 1 499 000 |

## Note(s)

- (1) This table shows primary metal in the form of blister and anode produced from concentrates, and may include copper produced from scrap but this is excluded when it can be separately identified

**EU33 Smelter production of copper 2005 - 09**

### EU33 Production of refined copper 2009



### Production of refined copper

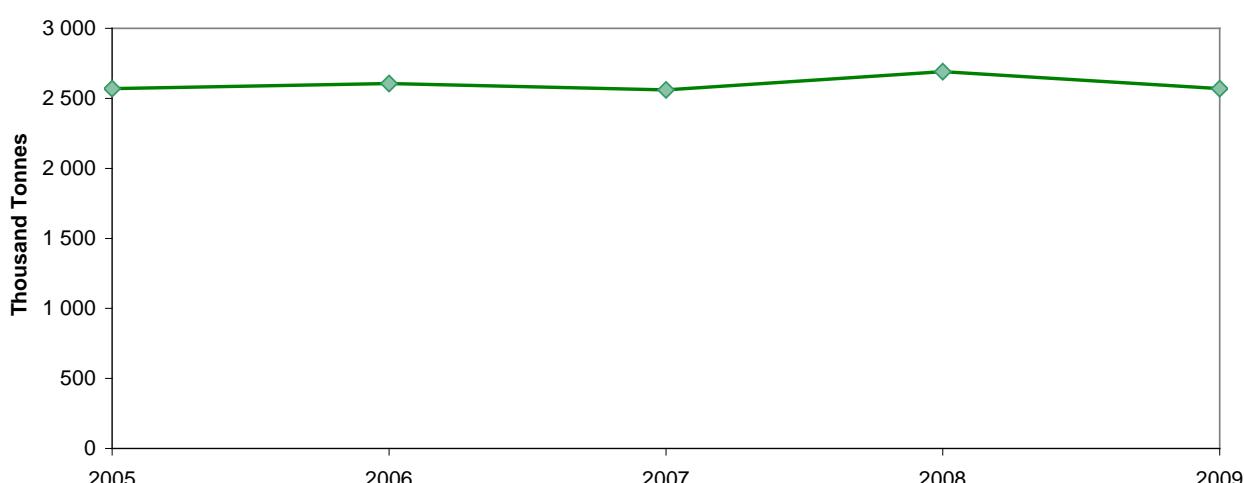
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| Country    | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------|-----------|-----------|-----------|-----------|-----------|
| Austria    | 72 300    | 72 600    | 81 400    | 106 700   | 96 200    |
| Belgium    | 382 900   | 378 600   | 394 000   | 395 800   | 373 700   |
| Bulgaria   | 60 500    | 65 500    | 69 900    | 126 700   | 196 900   |
| Cyprus     | —         | 880       | 3 012     | 2 986     | 2 380     |
| Finland    | 132 126   | 137 961   | 109 870   | 131 249   | 105 549   |
| Germany    | 638 800   | 662 338   | 665 517   | 689 763   | 668 945   |
| Italy      | 32 200    | 36 400    | 28 600    | 24 200    | 6 500     |
| Norway     | 38 681    | 39 700    | 34 200    | 37 000    | 33 900    |
| Poland     | 560 256   | 556 625   | 532 975   | 526 808   | 502 491   |
| Romania    | 20 739    | 21 583    | 18 589    | 15 300    | 14 500    |
| Spain      | 313 105   | 299 146   | 308 372   | 319 050   | 329 356   |
| Sweden     | 223 482   | 229 241   | 213 894   | 227 774   | 205 759   |
| Turkey     | 94 900    | 105 800   | 99 600    | 88 000    | 33 500    |
| EU33 Total | 2 570 000 | 2 606 000 | 2 560 000 | 2 691 000 | 2 570 000 |

#### Note(s)

- (1) Figures relate to both primary and secondary refined copper, whether electrolytic or fire refined. Metal recovered from secondary materials by remelting alone is excluded

### EU33 Production of refined copper 2005 - 09



## Copper

**Exports of copper**

tonnes

| Country              | 2005    | 2006    | 2007    | 2008    | 2009    |
|----------------------|---------|---------|---------|---------|---------|
| Austria              |         |         |         |         |         |
| Matte & cement       | 2 901   | 651     | 2 323   | 719     | 3 109   |
| Unwrought            | 83 750  | 84 104  | 82 985  | 114 978 | 115 697 |
| Unwrought alloys     | 604     | 2 509   | 1 239   | 938     | 1 058   |
| Scrap                | 33 274  | 39 169  | 38 642  | 35 582  | 50 748  |
| Belgium-Luxembourg   |         |         |         |         |         |
| Ores & concentrates  | 1 887   | 1 778   | 1 061   | 2 155   | 4 594   |
| Matte & cement       | 401     | 1 026   | 1 104   | 4 139   | 2 432   |
| Unwrought, unrefined | 4 499   | 8 833   | 10 730  | 10 534  | 11 571  |
| Unwrought, refined   | 241 363 | 236 804 | 199 650 | 257 907 | 248 501 |
| Unwrought alloys     | 14 463  | 13 419  | 15 081  | 12 929  | 9 264   |
| Scrap                | 177 787 | 163 418 | 194 666 | 164 502 | 112 142 |
| Bulgaria             |         |         |         |         |         |
| Ores & concentrates  | 124 717 | 193 389 | 168 155 | 105 889 | 134 910 |
| Matte & cement       | 5 750   | 4 818   | 6 335   | 3 559   | 4 749   |
| Unwrought            | 219 009 | 210 520 | 185 012 | 252 018 | 226 404 |
| Scrap                | 8 244   | 13 163  | 11 590  | 10 547  | 10 717  |
| Croatia              |         |         |         |         |         |
| Scrap                | 10 814  | 12 105  | 12 378  | 10 884  | 10 202  |
| Cyprus               |         |         |         |         |         |
| Unwrought            | ...     | 879     | 3 006   | 2 986   | 2 449   |
| Scrap                | 2 548   | 2 684   | 2 122   | 2 381   | 3 400   |
| Czech Republic       |         |         |         |         |         |
| Unwrought            | 4 251   | 12 651  | 10 301  | 7 829   | 14 645  |
| Scrap                | 53 707  | 57 152  | 58 534  | 63 825  | 105 230 |
| Denmark              |         |         |         |         |         |
| Scrap                | 27 227  | 31 076  | 31 569  | 33 421  | 31 711  |
| Estonia              |         |         |         |         |         |
| Scrap                | 6 660   | 11 801  | 7 784   | 8 185   | 5 633   |
| Finland              |         |         |         |         |         |
| Unwrought, unrefined | 29 685  | 34 962  | 10 490  | 27 525  | 37 084  |
| Unwrought, refined   | 40 170  | 55 239  | 32 956  | 67 908  | 40 864  |
| Unwrought alloys     | 746     | 1 533   | 587     | 423     | 275     |
| Scrap                | 30 577  | 31 182  | 32 872  | 32 585  | 32 762  |
| France               |         |         |         |         |         |
| Matte & cement       | 31      | 79      | 331     | ...     | 720     |
| Unwrought            | 48 050  | 47 839  | 67 765  | 55 405  | 60 428  |
| Unwrought alloys     | 9 851   | 9 680   | 13 140  | 13 049  | 9 455   |
| Scrap                | 262 874 | 290 528 | 284 890 | 266 930 | 235 277 |
| Germany              |         |         |         |         |         |
| Ores & concentrates  | 46 139  | 54 167  | 61 535  | 48 234  | 58 932  |
| Matte & cement       | 536     | 101     | 24      | 2       | 1       |
| Unwrought, unrefined | 232     | 3 244   | 105     | 182     | 88      |
| Unwrought, refined   | 149 083 | 146 137 | 117 596 | 124 980 | 194 016 |
| Unwrought alloys     | 20 232  | 22 941  | 22 436  | 16 485  | 9 781   |
| Scrap                | 439 134 | 465 264 | 480 700 | 478 643 | 449 990 |
| Greece               |         |         |         |         |         |
| Unwrought, refined   | 1 242   | 2 541   | 1 944   | 356     | 2 748   |
| Unwrought alloys     | 365     | 1 142   | 995     | 1 198   | 1 071   |
| Scrap                | 15 126  | 16 889  | 14 669  | 12 314  | 15 742  |
| Hungary              |         |         |         |         |         |
| Unwrought alloys     | ...     | ...     | ...     | 989     | 314     |
| Scrap                | 34 861  | 27 051  | 23 394  | 20 958  | 19 120  |
| Iceland              |         |         |         |         |         |
| Scrap                | 795     | —       | 420     | 199     | 112     |
| Ireland, Republic of |         |         |         |         |         |
| Ores & concentrates  | 3       | 922     | 1 024   | 49      | —       |
| Scrap                | 13 152  | 15 784  | 9 836   | 21 421  | 23 305  |
| Italy                |         |         |         |         |         |
| Matte & cement       | 107     | 1 511   | 2 244   | 911     | 90      |
| Unwrought            | 6 387   | 13 567  | 22 424  | 13 381  | 30 548  |
| Unwrought alloys     | 14 128  | 14 620  | 20 830  | 15 268  | 12 787  |
| Scrap                | 110 711 | 102 463 | 120 231 | 148 923 | 158 062 |
| Latvia               |         |         |         |         |         |
| Unwrought            | 503     | 2 734   | 3 272   | 4 117   | 2 518   |
| Scrap                | 9 207   | 7 116   | 7 309   | 6 900   | 6 138   |

Exports continued

tonnes

| Country              | 2005    | 2006    | 2007    | 2008    | 2009    |
|----------------------|---------|---------|---------|---------|---------|
| Lithuania            |         |         |         |         |         |
| Scrap                | 5 821   | 5 020   | 4 814   | 4 675   | 3 375   |
| Macedonia            |         |         |         |         |         |
| Ores & concentrates  | 21 441  | 31 547  | 32 224  | ...     | ...     |
| Scrap                | 1 926   | 3 190   | 2 277   | 2 302   | 2 029   |
| Malta                |         |         |         |         |         |
| Scrap                | 1 242   | 1 036   | 1 790   | 1 890   | 1 828   |
| Netherlands          |         |         |         |         |         |
| Unwrought            | 39 638  | 31 204  | 49 300  | 65 343  | 29 260  |
| Scrap                | 207 551 | 306 132 | 229 090 | 241 332 | 143 329 |
| Norway               |         |         |         |         |         |
| Unwrought            | 37 430  | 38 232  | 34 007  | 36 734  | 32 927  |
| Unwrought alloys     | 1 707   | 1 141   | 1 161   | 756     | 570     |
| Scrap                | 22 667  | 24 205  | 24 066  | 22 561  | 25 339  |
| Poland               |         |         |         |         |         |
| Matte & cement       | 3 673   | 6 774   | 2 187   | 2 989   | 1 515   |
| Unwrought            | 290 462 | 287 666 | 239 508 | 296 738 | 325 395 |
| Unwrought alloys     | 6 183   | 6 205   | 6 397   | 5 469   | 2 358   |
| Scrap                | 47 463  | 55 285  | 64 377  | 63 779  | 64 606  |
| Portugal             |         |         |         |         |         |
| Ores & concentrates  | 375 312 | 328 296 | 399 589 | 375 755 | 371 881 |
| Unwrought            | 9 356   | 918     | 227     | 600     | 2 098   |
| Scrap                | 33 583  | 29 736  | 24 566  | 22 184  | 20 213  |
| Romania              |         |         |         |         |         |
| Ores & concentrates  | 84 084  | 72 900  | 23 689  | 33 391  | 6 711   |
| Matte & cement       | ...     | 2 818   | 11 569  | 8 494   | 4 502   |
| Scrap                | 22 665  | 41 911  | 35 856  | 39 733  | 42 148  |
| Slovakia             |         |         |         |         |         |
| Unwrought            | 19 130  | 27 178  | 34 232  | 35 141  | 29 972  |
| Scrap                | 14 752  | 18 821  | 23 502  | 21 144  | 15 114  |
| Slovenia             |         |         |         |         |         |
| Unwrought            | 72      | 244     | 163     | 244     | 1 376   |
| Scrap                | 13 054  | 15 922  | 17 810  | 15 606  | 17 991  |
| Spain                |         |         |         |         |         |
| Ores & concentrates  | 14 434  | 5 835   | 905     | 463     | 110 724 |
| Unwrought, unrefined | 62 269  | 45 906  | 37 210  | 41 676  | 38 761  |
| Unwrought, refined   | 44 365  | 38 205  | 48 288  | 85 899  | 108 716 |
| Unwrought alloys     | 9 810   | 10 590  | 12 679  | 12 139  | 12 150  |
| Scrap                | 99 600  | 84 570  | 88 429  | 83 820  | 100 498 |
| Sweden               |         |         |         |         |         |
| Unwrought, refined   | 99 824  | 86 726  | 65 926  | 70 047  | 77 739  |
| Unwrought alloys     | 5 247   | 6 443   | 8 837   | 5 610   | 3 181   |
| Scrap                | 43 816  | 45 456  | 54 673  | 57 245  | 55 603  |
| Switzerland          |         |         |         |         |         |
| Unwrought            | 1 069   | 1 036   | 1 002   | 1 159   | 623     |
| Scrap                | 74 878  | 74 079  | 75 542  | 82 687  | 71 204  |
| Turkey               |         |         |         |         |         |
| Ores & concentrates  | 145 118 | 68 286  | 36 046  | 251 958 | 356 922 |
| Unwrought            | 13 524  | 13 876  | 11 813  | 41 780  | 6 742   |
| Scrap                | 15 083  | 12 630  | 8 920   | 9 670   | 16 426  |
| United Kingdom       |         |         |         |         |         |
| Matte & cement       | 41      | 515     | 16      | 28      | 14      |
| Unwrought, unrefined | 271     | 153     | 786     | 3 066   | 205     |
| Unwrought, refined   | 15 982  | 5 969   | 8 489   | 4 850   | 14 059  |
| Unwrought alloys     | 15 013  | 17 251  | 18 142  | 17 822  | 11 839  |
| Scrap                | 238 557 | 311 058 | 346 361 | 358 981 | 429 467 |

## Note(s)

- (1) In this table the term 'unwrought' copper corresponds to items 7402, 7403, 7405 of the Harmonised System and includes both unrefined (including blister) and refined copper
- (2) The term 'unwrought' as used here includes alloys unless these are separately specified. The term 'scrap' includes scrap alloys

## Copper

**Imports of copper**

tonnes

| Country              | 2005      | 2006      | 2007      | 2008      | 2009      |
|----------------------|-----------|-----------|-----------|-----------|-----------|
| Austria              |           |           |           |           |           |
| Unwrought, unrefined | 20 081    | 26 508    | 26 678    | 39 590    | 24 445    |
| Unwrought, refined   | 21 176    | 29 298    | 20 614    | 8 855     | 4 868     |
| Unwrought alloys     | 2 260     | 2 979     | 2 485     | 1 866     | 1 617     |
| Scrap                | 82 787    | 88 684    | 91 043    | 113 109   | 134 063   |
| Belgium-Luxembourg   |           |           |           |           |           |
| Ores & concentrates  | 5 225     | 17 263    | 21 137    | 12 039    | 17 380    |
| Matte & cement       | 370       | 1 112     | 6 360     | 4 485     | 36 357    |
| Unwrought, unrefined | 237 645   | 267 505   | 224 439   | 206 660   | 212 932   |
| Unwrought, refined   | 9 515     | 21 818    | 28 746    | 54 463    | 79 524    |
| Unwrought alloys     | 1 906     | 1 083     | 3 324     | 1 898     | 2 678     |
| Scrap                | 257 738   | 300 260   | 328 676   | 258 551   | 222 735   |
| Bulgaria             |           |           |           |           |           |
| Ores & concentrates  | 632 255   | 581 055   | 539 325   | 609 258   | 635 039   |
| Matte & cement       | 562       | 5 003     | 10 025    | 34 997    | 15 160    |
| Unwrought            | 18 613    | 19 735    | 28 226    | 30 422    | 8 016     |
| Scrap                | 5 094     | 7 784     | 12 899    | 23 856    | 20 730    |
| Czech Republic       |           |           |           |           |           |
| Unwrought            | 4 196     | 5 412     | 15 156    | 11 474    | 21 475    |
| Unwrought alloys     | 355       | 2 909     | 3 755     | 3 862     | 3 050     |
| Scrap                | 6 114     | 8 104     | 8 966     | 8 677     | 9 639     |
| Denmark              |           |           |           |           |           |
| Unwrought            | 1 702     | 4 081     | 2 901     | 2 818     | 1 413     |
| Scrap                | 13 827    | 14 646    | 9 187     | 11 235    | 10 388    |
| Finland              |           |           |           |           |           |
| Ores & concentrates  | 504 658   | 544 149   | 448 119   | 536 584   | 352 370   |
| Unwrought            | 35        | 21        | 2 777     | 2 490     | 16 298    |
| Unwrought alloys     | 3 229     | 3 996     | 4 178     | 3 542     | 2 415     |
| Scrap                | 2 423     | 1 259     | 2 644     | 4 146     | 7 349     |
| France               |           |           |           |           |           |
| Unwrought, unrefined | 248       | 275       | 328       | 125       | 59        |
| Unwrought, refined   | 516 881   | 506 721   | 431 897   | 435 330   | 265 707   |
| Unwrought alloys     | 10 132    | 11 029    | 14 389    | 8 987     | 7 980     |
| Scrap                | 75 464    | 97 462    | 90 195    | 81 036    | 50 753    |
| Germany              |           |           |           |           |           |
| Ores & concentrates  | 1 149 088 | 1 148 316 | 1 300 491 | 1 088 291 | 1 252 430 |
| Matte & cement       | 25 931    | 30 463    | 14 880    | 10 102    | 4 133     |
| Unwrought, unrefined | 36 671    | 41 589    | 31 830    | 24 706    | 46 840    |
| Unwrought, refined   | 624 688   | 881 427   | 844 747   | 833 354   | 658 703   |
| Unwrought alloys     | 26 657    | 36 770    | 48 261    | 40 073    | 38 538    |
| Scrap                | 432 147   | 552 413   | 595 751   | 563 560   | 454 753   |
| Greece               |           |           |           |           |           |
| Unwrought            | 90 557    | 106 404   | 105 722   | 79 928    | 57 367    |
| Unwrought alloys     | 488       | 4 439     | 6 855     | 9 393     | 305       |
| Scrap                | 930       | 2 141     | 10 148    | 18 628    | 11 245    |
| Hungary              |           |           |           |           |           |
| Unwrought            | 3 269     | 2 175     | 2 492     | 3 016     | 2 168     |
| Scrap                | 399       | 571       | 1 405     | 5 933     | 10 091    |
| Iceland              |           |           |           |           |           |
| Unwrought, refined   | 1 637     | 4 509     | 199       | ...       | ...       |
| Ireland, Republic of |           |           |           |           |           |
| Ores & concentrates  | 72        | ...       | 21        | 30 176    | 42 945    |
| Italy                |           |           |           |           |           |
| Unwrought, unrefined | 955       | 323       | 796       | 370       | 438       |
| Unwrought, refined   | 652 089   | 774 140   | 746 482   | 617 420   | 544 197   |
| Unwrought alloys     | 8 053     | 15 174    | 24 996    | 18 531    | 8 166     |
| Scrap                | 124 737   | 214 289   | 177 546   | 167 212   | 91 519    |
| Latvia               |           |           |           |           |           |
| Unwrought            | 606       | 1 199     | 1 396     | 3 609     | 3 049     |
| Netherlands          |           |           |           |           |           |
| Unwrought, unrefined | 10 485    | 18 333    | 18 130    | 26        | 2 678     |
| Unwrought, refined   | 135 004   | 147 428   | 151 515   | 35 077    | 33 771    |
| Unwrought alloys     | 1 904     | 2 214     | 3 379     | 2 440     | 1 329     |
| Scrap                | 92 927    | 110 753   | 117 259   | 116 503   | —         |
| Norway               |           |           |           |           |           |
| Unwrought            | 3 190     | 3 133     | 3 650     | 3 133     | 1 627     |
| Scrap                | 12 420    | 12 759    | 13 486    | 11 189    | 9 727     |

## Imports continued

tonnes

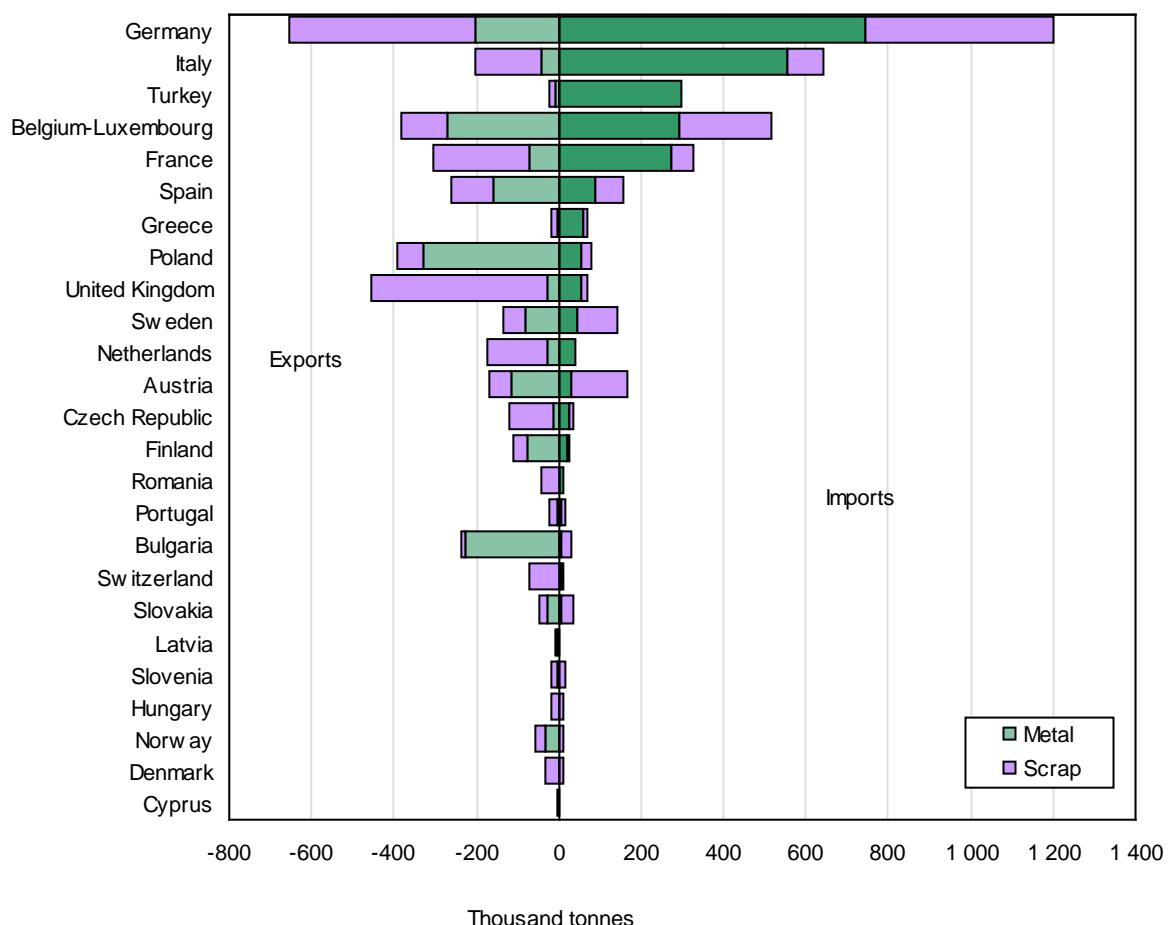
| Country              | 2005      | 2006      | 2007      | 2008      | 2009      |
|----------------------|-----------|-----------|-----------|-----------|-----------|
| Poland               |           |           |           |           |           |
| Ores & concentrates  | 43 504    | 112 708   | 61 319    | 62 443    | 78 027    |
| Matte & cement       | 312       | 5 310     | 10 062    | —         | —         |
| Unwrought, unrefined | 3 363     | 31 609    | 23 880    | 33 376    | 40 030    |
| Unwrought, refined   | 658       | 5 493     | 7 024     | 6 629     | 13 838    |
| Unwrought alloys     | 3 097     | 3 797     | 4 516     | 3 012     | 2 408     |
| Scrap                | 5 855     | 4 885     | 18 596    | 19 269    | 22 153    |
| Portugal             |           |           |           |           |           |
| Unwrought            | 4 572     | 5 752     | 5 309     | 5 534     | 8 480     |
| Scrap                | 3 329     | 5 946     | 8 503     | 10 229    | 7 550     |
| Romania              |           |           |           |           |           |
| Unwrought            | 9 723     | 12 794    | 25 093    | 22 116    | 10 926    |
| Scrap                | 1 528     | 2 946     | 1 710     | 4 197     | 437       |
| Slovakia             |           |           |           |           |           |
| Matte & cement       | 4 342     | 1 071     | ...       | ...       | 3 300     |
| Unwrought            | 1 718     | 2 084     | 1 557     | 4 120     | 4 685     |
| Scrap                | 19 977    | 17 973    | 17 476    | 17 350    | 29 141    |
| Slovenia             |           |           |           |           |           |
| Unwrought            | 2 764     | 3 150     | 2 809     | 2 649     | 2 826     |
| Scrap                | 5 762     | 9 000     | 10 431    | 9 687     | 11 452    |
| Spain                |           |           |           |           |           |
| Ores & concentrates  | 1 040 099 | 1 100 338 | 1 001 284 | 1 122 093 | 1 184 321 |
| Unwrought, unrefined | 312       | 2 631     | 1 032     | 3 733     | 3 133     |
| Unwrought, refined   | 69 039    | 62 982    | 56 237    | 79 125    | 80 898    |
| Unwrought alloys     | 4 458     | 5 898     | 5 417     | 4 352     | 3 473     |
| Scrap                | 84 824    | 89 252    | 56 754    | 65 765    | 68 166    |
| Sweden               |           |           |           |           |           |
| Ores & concentrates  | 311 085   | 267 753   | 420 050   | 393 295   | 362 803   |
| Unwrought, unrefined | 15 452    | 35 496    | 10 495    | 23 539    | 22 072    |
| Unwrought, refined   | 40 106    | 41 036    | 31 535    | 21 123    | 23 107    |
| Unwrought alloys     | 2 926     | 3 944     | 5 867     | 5 239     | 2 040     |
| Scrap                | 50 940    | 54 483    | 81 015    | 91 839    | 96 542    |
| Switzerland          |           |           |           |           |           |
| Unwrought            | 4 734     | 4 843     | 5 960     | 5 903     | 3 473     |
| Unwrought alloys     | 3 897     | 4 695     | 4 089     | 3 925     | 3 276     |
| Scrap                | 9 937     | 7 641     | 7 995     | 5 266     | 2 710     |
| Turkey               |           |           |           |           |           |
| Ores & concentrates  | 44 633    | 18 111    | 32        | 3 884     | —         |
| Unwrought, unrefined | 53 214    | 54 790    | 34 389    | 38 116    | 4 852     |
| Unwrought, refined   | 223 978   | 150 412   | 128 077   | 287 705   | 289 672   |
| Unwrought alloys     | 3 212     | 2 160     | 1 975     | 3 060     | 2 828     |
| Scrap                | 10 104    | 6 602     | 3 013     | 1 263     | 870       |
| United Kingdom       |           |           |           |           |           |
| Unwrought, unrefined | 1 978     | 264       | 7 401     | 5 529     | 3 034     |
| Unwrought, refined   | 181 767   | 183 727   | 46 820    | 47 716    | 45 249    |
| Unwrought alloys     | 6 191     | 6 743     | 6 202     | 5 721     | 4 066     |
| Scrap                | 42 264    | 19 744    | 21 852    | 21 132    | 18 549    |

## Note(s)

- (1) In this table the term 'unwrought' copper corresponds to items 7402, 7403, 7405 of the Harmonised System and includes both unrefined (including blister) and refined copper
- (2) The term 'unwrought' as used here includes alloys unless these are separately specified. The term 'scrap' includes scrap alloys

Copper

**Copper - EU33 trade in 2009**



## Diamond

- Diamond is a polymorph of carbon and is the hardest substance known. It is used mainly in jewellery, abrasives and cutting tools.
- Africa (chiefly Democratic Republic of Congo, Botswana and South Africa) dominates world production with 52 per cent of all carats produced in 2009. However, Russia is the world's largest producing country (29 per cent of world production). Australia and Canada are also significant diamond producers. There is no mine production of diamond in the EU33 but production of synthetic diamonds is important and Europe is a world centre for diamond trading.

### Exports of diamond

carats

| Country            | 2005        | 2006        | 2007        | 2008       | 2009          |
|--------------------|-------------|-------------|-------------|------------|---------------|
| Austria            |             |             |             |            |               |
| Unsorted           | £188 000    | £211 000    | £85 000     | £71 000    | £189 000      |
| Gem, cut           | £2 895 000  | £3 157 000  | £2 792 000  | £5 778 000 | £4 053 000    |
| Dust               | £406 000    | £45 000     | £115 000    | £165 000   | £260 000      |
| Belgium-Luxembourg |             |             |             |            |               |
| Unsorted           | £785 000    | £889 000    | ...         | £503 000   | £2 292 000    |
| Gem, rough         | 147 000 000 | 128 000 000 | 135 000 000 | 99 500 000 | 85 500 000    |
| Gem, cut           | 5 500 000   | 4 500 000   | 8 035 000   | 5 950 000  | 5 178 000     |
| Industrial         | 5 500 000   | 2 000 000   | 5 000 000   | 4 100 000  | 1 600 000     |
| Dust               | 40 000 000  | 35 500 000  | 27 000 000  | 23 000 000 | 18 000 000    |
| Czech Republic     |             |             |             |            |               |
| Gem, cut           | £331 000    | £451 000    | £529 000    | £3 947 000 | £3 046 000    |
| France             |             |             |             |            |               |
| Unsorted           | 14 853      | 40 105      | 22 863      | 9 386      | 8 723         |
| Gem                | 98 712      | 164 433     | 227 372     | 293 420    | 394 845       |
| Dust               | 1 273 515   | 1 069 100   | 430 000     | 838 620    | 45 000        |
| Germany            |             |             |             |            |               |
| Unsorted           | £756 000    | £21 000     | £112 000    | £127 000   | (a) *£776 000 |
| Gem                | 169 535     | 175 658     | 157 055     | 153 893    | 125 735       |
| Dust               | 42 628 300  | 27 074 465  | 3 366 830   | 3 410 935  | 2 560 000     |
| Italy              |             |             |             |            |               |
| Gem, cut           | 119 462     | 105 514     | 131 174     | 1 830 000  | 1 480 000     |
| Dust               | 49 139 151  | 18 028 081  | 65 975 744  | 10 865 000 | 1 370 000     |
| Netherlands        |             |             |             |            |               |
| Unsorted           | £928 000    | £849 000    | £1 000 000  | £442 000   | £494 000      |
| Gem, cut           | £8 690 779  | £8 997 000  | £6 214 000  | £7 567 000 | £3 780 000    |
| Industrial         | £842 000    | £2 250 000  | £1 891 000  | £2 156 000 | £1 415 000    |
| Dust               | £44 000     | £61 000     | £82 000     | £45 000    | £196 000      |
| Portugal           |             |             |             |            |               |
| Gem, cut           | £17 981 000 | £8 000      | £105 000    | £55 000    | £52 000       |
| Spain              |             |             |             |            |               |
| Unsorted           | £673 000    | £531 000    | £346 000    | £503 000   | £266 000      |
| Gem, cut           | £5 275 000  | £61 119 000 | £8 478 000  | £6 631 000 | £5 328 000    |
| Industrial         | £325 000    | £331 000    | £208 000    | £498 000   | £171 000      |
| Dust               | 1 607 384   | 210 000     | 254 600     | 630 000    | 180 000       |
| Switzerland        |             |             |             |            |               |
| Gem, rough         | 195 614     | 119 619     | 4 360       | 5 000      | 1 230         |
| Gem, cut           | 500 591     | 543 079     | 559 591     | 360 000    | 75 000        |
| Industrial         | 13 934      | 76 604      | 12 100      | 15 000     | 7 139         |
| Dust               | 126 190 000 | 128 180 000 | 40 985 000  | 44 105 000 | 30 400 000    |
| Turkey             |             |             |             |            |               |
| Dust               | £29 000     | £15 000     | £28 000     | £146 000   | £128 000      |

Diamond

Exports continued

carats

| Country        | 2005        | 2006        | 2007        | 2008        | 2009        |
|----------------|-------------|-------------|-------------|-------------|-------------|
| United Kingdom |             |             |             |             |             |
| Unsorted       | 16 818 545  | 3 544 216   | 5 307 857   | 3 388 395   | 4 090 534   |
| Gem, rough     | 76 400 064  | 88 991 279  | 84 573 134  | 66 479 817  | 43 775 775  |
| Gem, cut       | 5 330 874   | 2 341 635   | 477 463     | 795 612     | 257 202     |
| Industrial     | 21 647 850  | 13 652 233  | 4 754 029   | 6 121 081   | 8 881 844   |
| Dust           | 124 529 495 | 111 788 350 | 104 552 775 | 122 681 695 | 105 427 132 |

Note(s)

- (1) Carats have been used as the unit in this table except where the only obtainable figure is the value. In these cases the national currency figure has been converted to £ sterling  
(2) See explanatory notes at the front of the volume regarding currency conversion  
(3) In this table the term 'Dust' corresponds to item 7105.10 of the Harmonised System and includes both natural and synthetic diamond dust

(a) BGS estimates, based on known value of imports to certain countries

## Imports of diamond

carats

| Country            | 2005        | 2006        | 2007        | 2008           | 2009          |
|--------------------|-------------|-------------|-------------|----------------|---------------|
| Austria            |             |             |             |                |               |
| Unsorted           | £1 218 000  | £978 000    | £957 000    | £1 648 000     | £543 000      |
| Gem, cut           | £5 743 000  | £5 892 000  | £6 405 000  | £8 881 000     | £9 795 000    |
| Industrial         | £706 000    | £841 000    | £884 000    | £473 000       | £313 000      |
| Dust               | 23 000 000  | 28 000 000  | 26 000 000  | 33 000 000     | 17 000 000    |
| Belgium-Luxembourg |             |             |             |                |               |
| Unsorted           | £37 971 000 | £38 530 000 | £32 612 000 | £27 166 000    | £27 288 000   |
| Gem, rough         | 134 500 000 | 67 500 000  | 63 500 000  | 55 000 000     | 44 000 000    |
| Gem, cut           | 6 500 000   | 6 000 000   | 29 500 000  | 91 500 000     | 109 500 000   |
| Industrial         | £46 159 000 | £44 325 000 | £35 072 000 | £41 557 000    | £24 632 000   |
| Dust               | £8 989 000  | £7 464 000  | £9 606 000  | £13 140 000    | £9 500 000    |
| Bulgaria           |             |             |             |                |               |
| Dust               | ...         | ...         | 14 770 306  | 7 623 860      | 4 940 300     |
| Cyprus             |             |             |             |                |               |
| Gem, cut           | £690 000    | £1 387 000  | £1 311 000  | £1 564 000     | £1 724 000    |
| Industrial         | £750 000    | £1 072 000  | £1 042 000  | £1 311 000     | £587 000      |
| Czech Republic     |             |             |             |                |               |
| Gem, cut           | 2 755       | 18 182      | 5 837       | 116 669        | 7 306         |
| Industrial         | 27 453      | 30 377      | 43 006      | 30 181         | 7 640         |
| Dust               | £ 956 000   | £867 000    | £884 000    | £1 369 000     | £977 000      |
| Denmark            |             |             |             |                |               |
| Unsorted           | £597 000    | £686 000    | £928 000    | £1 168 000     | £40 000       |
| Gem, cut           | £6 506 000  | £7 252 000  | £8 473 000  | £7 424 000     | £4 680 000    |
| Industrial         | £81 000     | £184 000    | £388 000    | £104 000       | £223 000      |
| Dust               | 696 038     | 769 511     | 1 056 203   | 791 502        | 10 000 000    |
| Finland            |             |             |             |                |               |
| Gem, cut           | £3 082 000  | £3 264 000  | £3 004 000  | £3 698 000     | £3 133 000    |
| Dust               | 450 000     | 620 000     | 682 850     | 625 200        | 273 415       |
| France             |             |             |             |                |               |
| Unsorted           | 263 542     | 45 393      | 32 997      | 18 648         | 15 326        |
| Gem, rough         | 3 526       | 729         | 656         | 344            | 1 854         |
| Gem, cut           | 355 505     | 331 348     | 439 204     | 450 568        | 691 852       |
| Industrial         | 33 869      | 44 334      | 81 570      | 73 641         | 40 221        |
| Dust               | 10 013 030  | 10 037 456  | 8 984 745   | 13 938 146     | 9 314 960     |
| Germany            |             |             |             |                |               |
| Gem                | 443 747     | 487 354     | 515 262     | 709 636        | 299 771       |
| Industrial         | 1 572 864   | 1 554 184   | 1 090 991   | 505 400        | 209 539       |
| Dust               | 63 878 900  | 53 291 240  | 45 596 025  | 45 914 930     | 21 374 780    |
| Greece             |             |             |             |                |               |
| Unsorted           | 9 570 000   | 20 035 000  | 7 000 000   | 116 000 000    | 1 000 000     |
| Gem, rough         | 85 000      | 55 000      | 205 000     | 425 000        | 3 365 000     |
| Gem, cut           | 10 375 000  | 10 075 000  | 9 470 000   | 2 815 000      | 6 370 000     |
| Industrial         | 6 770 000   | 9 720 000   | 11 355 000  | 22 810 000     | 43 195 000    |
| Dust               | 19 475 000  | 10 550 000  | 17 573 974  | 17 713 060 000 | 2 803 695 000 |

## Imports continued

carats

| Country              | 2005        | 2006        | 2007        | 2008        | 2009        |
|----------------------|-------------|-------------|-------------|-------------|-------------|
| Hungary              |             |             |             |             |             |
| Gem, cut             | £849 000    | £246 000    | £52 000     | £220 000    | £167 000    |
| Ireland, Republic of |             |             |             |             |             |
| Unsorted             | 39 900 000  | 67 655 000  | 42 460 000  | 17 535 000  | 4 935 000   |
| Gem, rough           | 3 815 000   | 4 140 000   | 4 365 000   | 3 240 000   | 1 885 000   |
| Gem, cut             | 36 975 000  | 44 635 000  | 46 100 000  | 28 020 000  | 18 170 000  |
| Industrial           | 30 680 000  | 70 840 000  | 35 720 000  | 10 560 000  | 2 100 000   |
| Dust                 | 30 924 437  | 200 868 966 | 233 626 080 | 232 059 616 | 86 782 073  |
| Italy                |             |             |             |             |             |
| Unsorted             | 350 000     | 150 000     | 915 000     | 1 905 000   | 355 000     |
| Gem, rough           | 115 000     | 75 000      | 80 000      | 10 000      | 25 000      |
| Gem, cut             | 11 760 000  | 4 855 000   | 14 560 000  | 12 135 000  | 9 875 000   |
| Industrial           | 1 110 000   | 650 000     | 880 000     | 1 145 000   | 675 000     |
| Dust                 | 141 970 000 | 152 680 000 | 161 010 000 | 252 290 000 | 121 055 000 |
| Netherlands          |             |             |             |             |             |
| Unsorted             | £344 000    | £225 000    | £299 000    | £803 000    | £551 000    |
| Gem, rough           | £79 000     | £369 000    | £320 000    | £1 071 000  | £95 000     |
| Gem, cut             | £16 550 000 | £22 397 000 | £13 943 000 | £17 750 000 | £10 757 000 |
| Industrial           | £2 027 000  | £1 850 000  | £859 000    | £1 088 000  | £613 000    |
| Dust                 | 2 919 740   | 3 998 115   | 1 089 105   | 791 805     | 426 830     |
| Poland               |             |             |             |             |             |
| Industrial           | 43 583      | 31 323      | 150 918     | 237 903     | 169 851     |
| Dust                 | 4 042 100   | * 3 200 000 | 3 149 550   | 27 584 081  | 263 119 707 |
| Portugal             |             |             |             |             |             |
| Gem, cut             | £7 015 000  | £2 940 000  | £3 435 000  | £3 949 000  | £1 756 000  |
| Industrial           | £565 000    | £381 000    | £427 000    | £296 000    | £246 000    |
| Dust                 | 3 816 540   | 4 641 090   | 8 473 445   | 5 891 661   | 5 514 973   |
| Slovenia             |             |             |             |             |             |
| Dust                 | 1 136 505   | 1 287 165   | 1 670 815   | 1 395 416   | 722 777     |
| Spain                |             |             |             |             |             |
| Unsorted             | £6 908 000  | £4 616 000  | £3 667 000  | £1 959 000  | £1 591 000  |
| Gem, cut             | £37 408 000 | £47 084 000 | £57 921 000 | £40 012 000 | £30 290 000 |
| Industrial           | £1 421 000  | £2 701 000  | £1 396 000  | £1 485 000  | £917 000    |
| Dust                 | 8 490 229   | 7 000 000   | 67 062 395  | 42 938 192  | 30 861 760  |
| Sweden               |             |             |             |             |             |
| Unsorted             | £220 000    | £143 000    | £141 000    | £100 000    | £23 000     |
| Gem, cut             | 7 132       | 8 573       | 9 465       | 10 938      | 8 709       |
| Industrial           | 198 724     | 188 546     | 224 486     | 217 127     | 6 907       |
| Dust                 | 5 000 000   | 10 000 000  | 11 500 000  | 4 000 000   | 1 500 000   |
| Switzerland          |             |             |             |             |             |
| Gem, rough           | 195 180     | 118 710     | 8 634       | 11 566      | 4 498       |
| Gem, cut             | 1 182 706   | 1 112 264   | 1 209 708   | 1 147 690   | 534 700     |
| Industrial           | 100 219     | 63 939      | 39 174      | 20 205      | 23 178      |
| Dust                 | 142 135 000 | 127 740 000 | 59 930 000  | 54 445 000  | 39 130 000  |
| Turkey               |             |             |             |             |             |
| Gem                  | 124 043     | 112 906     | 135 413     | 141 553     | 51 740      |
| Industrial           | 27 325      | 44 601      | 36 999      | 102 596     | 29 724      |
| Dust                 | 26 765 000  | 13 675 000  | 9 835 000   | 18 430 000  | 19 120 000  |
| United Kingdom       |             |             |             |             |             |
| Unsorted             | 33 441 810  | 14 408 621  | 13 661 786  | 10 283 610  | 8 348 854   |
| Gem, rough           | 78 735 595  | 78 790 692  | 81 195 314  | 59 534 653  | 44 064 081  |
| Gem, cut             | 12 039 040  | 7 370 573   | 973 433     | 1 343 330   | 868 406     |
| Industrial           | 25 367 064  | 11 884 651  | 7 524 168   | 5 127 610   | 6 643 340   |
| Dust                 | 125 510 400 | 199 882 920 | 198 484 150 | 187 268 975 | 88 148 090  |

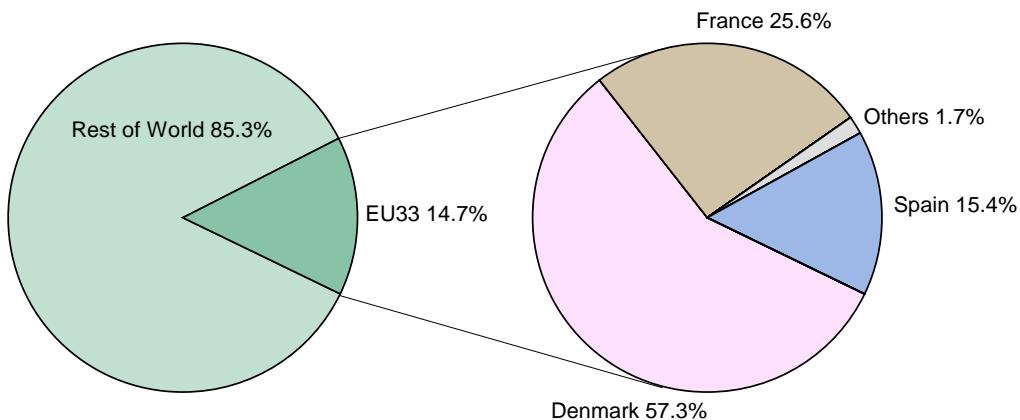
## Note(s)

- (1) Carats have been used as the unit in this table except where the only obtainable figure is the value. In these cases the national figure has been converted to £ sterling
- (2) See explanatory notes at the front of the volume regarding currency conversion
- (3) In this table the term 'Dust' corresponds to item 7105.10 of the Harmonised System and includes both natural and synthetic diamond dust

## Diatomite

- Diatomite is a siliceous sedimentary rock composed of the skeletons of fossilised diatoms (microscopic plants). Clay content of the rock has a strong control on the quality of the diatomite. Diatomite is valued for its high porosity, chemical inertness and ability to absorb liquids. It is used in industry in high-quality filters and as an industrial absorbent.
- The USA is the largest producer of diatomite, with nearly 40 per cent of the world production, followed by China with 22 per cent. EU33 production amounted to 14.7 per cent of world production in 2009. Production in the EU33 countries is dominated by Denmark, which produces 57.3 per cent of EU33 output, although this is moler, an impure diatomite.

**EU33 Production of diatomite 2009**



## Production of diatomite

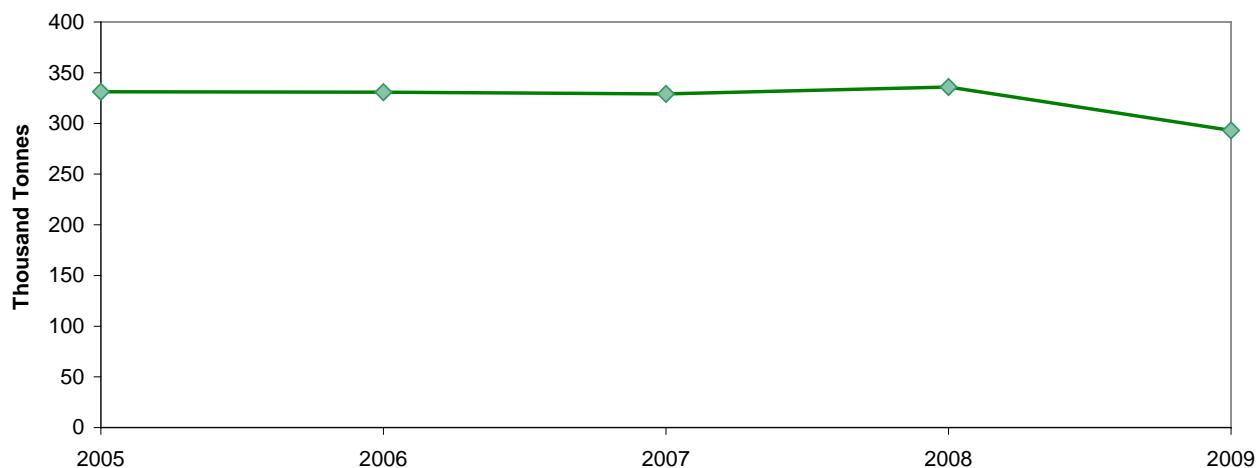
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| Country        | 2005     | 2006     | 2007     | 2008     | 2009     |
|----------------|----------|----------|----------|----------|----------|
| Czech Republic | 4 100    | 4 827    | 3 600    | 4 100    | 3 100    |
| Denmark        |          |          |          |          |          |
| Moler (a)      | 209 000  | 196 000  | 201 000  | 210 000  | 168 000  |
| France         | * 75 000 | * 75 000 | * 75 000 | * 75 000 | * 75 000 |
| Hungary        | 2 190    | 495      | 1 424    | —        | 1 277    |
| Poland         | 500      | 600      | * 600    | 600      | 670      |
| Romania        | 1 402    | 1 719    | 2 057    | —        | —        |
| Spain (b)      | 39 101   | 52 123   | 45 480   | 46 192   | * 45 000 |
| EU33 Total     | 331 000  | 331 000  | 329 000  | 336 000  | 293 000  |

Note(s)

(a) Moler is an impure diatomite containing a large proportion of clay

(b) Including Tripoli

**EU33 Production of diatomite 2005 - 09****Exports of diatomite**

| Country            | 2005     | 2006     | 2007     | 2008     | 2009     |
|--------------------|----------|----------|----------|----------|----------|
| Austria            | 5 375    | 4 171    | 4 455    | 3 043    | 3 286    |
| Belgium-Luxembourg | 1 330    | 1 949    | 1 145    | 2 633    | 1 919    |
| Czech Republic     | 4 247    | 4 566    | 1 094    | 4 128    | 3 789    |
| Denmark (a)        | * 69 300 | * 71 500 | * 63 600 | * 67 800 | * 57 520 |
| France             | 25 379   | 24 866   | 29 607   | 23 239   | 21 713   |
| Germany            | 7 000    | 11 500   | 7 949    | 7 189    | 5 035    |
| Italy              | 1 138    | 1 110    | 3 884    | 9 991    | 10 392   |
| Netherlands        | 804      | 1 395    | 348      | 301      | 1 365    |
| Norway             | 1 362    | 281      | 566      | 770      | 6        |
| Poland             | 455      | 527      | 774      | 277      | 85       |
| Portugal           | 11       | 286      | 943      | 554      | 473      |
| Spain              | 6 694    | 6 118    | 6 399    | 5 306    | 4 678    |
| Sweden             | 4 423    | 568      | 3 497    | 749      | 693      |
| Turkey             | 23 366   | * 32 000 | 34 424   | 40 370   | 39 267   |
| United Kingdom     | 708      | 687      | 1 238    | 903      | 533      |

Note(s)

(a) BGS estimates, based on known imports into certain countries

**Imports of diatomite**

| Country              | 2005   | 2006   | 2007   | 2008   | 2009   |
|----------------------|--------|--------|--------|--------|--------|
| Austria              | 12 892 | 11 693 | 13 710 | 12 561 | 16 327 |
| Belgium-Luxembourg   | 8 192  | 7 450  | 8 633  | 8 506  | 6 708  |
| Bulgaria             | 1 312  | 1 156  | 436    | 587    | 404    |
| Croatia              | 495    | 633    | 610    | 511    | 462    |
| Czech Republic       | 2 263  | 2 288  | 3 318  | 4 768  | 3 173  |
| Denmark              | 6 561  | 4 974  | 4 244  | 5 849  | 3 347  |
| Finland              | 2 700  | 2 339  | 3 510  | 3 344  | 3 015  |
| France               | 11 181 | 12 712 | 14 371 | 14 308 | 15 163 |
| Germany              | 40 224 | 40 197 | 42 882 | 49 237 | 38 258 |
| Greece               | 645    | 757    | 958    | 790    | 482    |
| Hungary              | 1 158  | 1 476  | 2 111  | 1 110  | 796    |
| Ireland, Republic of | 641    | 943    | 859    | 1 458  | 1 243  |
| Italy                | 9 141  | 5 179  | 4 487  | 3 939  | 2 497  |
| Latvia               | 389    | 467    | 545    | 681    | 534    |
| Lithuania            | 520    | 504    | 1 178  | 763    | 836    |
| Netherlands          | 7 967  | 6 799  | 7 214  | 6 275  | 3 794  |
| Norway               | 2 044  | 1 228  | 1 645  | 1 891  | 931    |

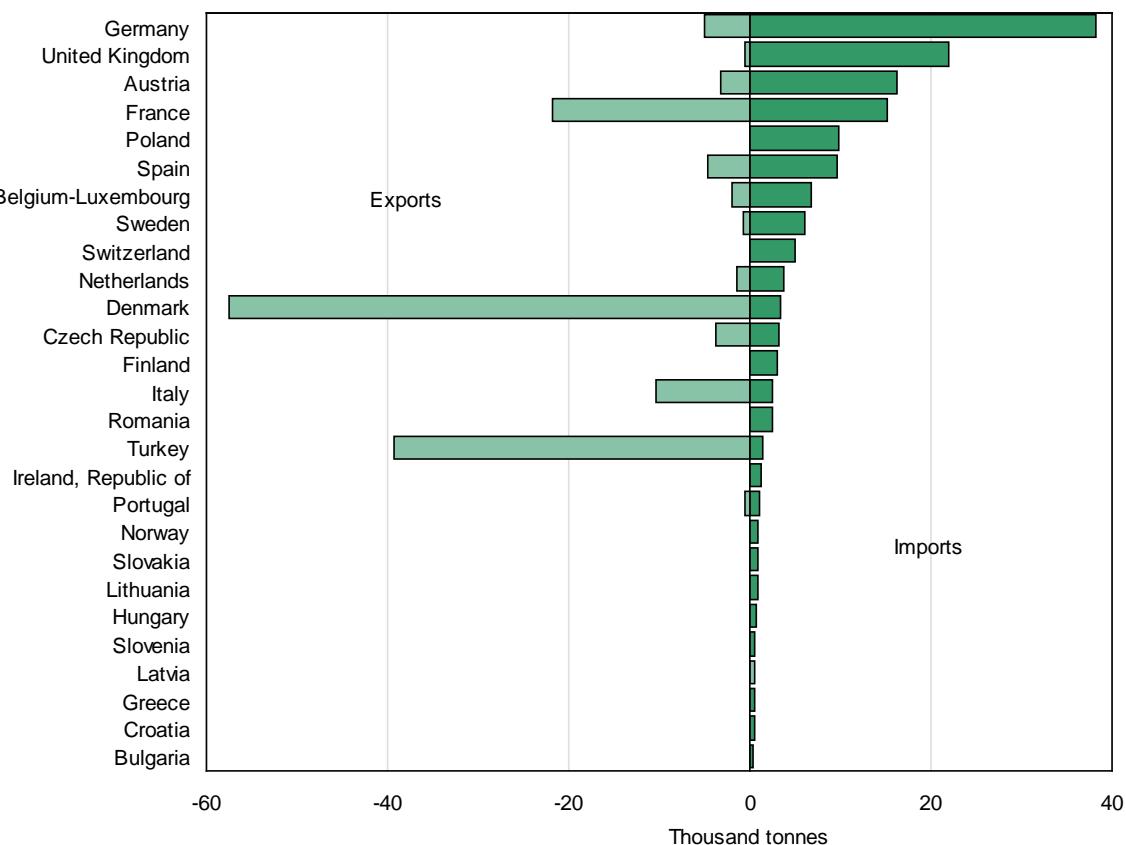
Diatomite

Imports continued

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| Country        | 2005   | 2006   | 2007   | 2008   | 2009   |
|----------------|--------|--------|--------|--------|--------|
| Poland         | 6 465  | 5 997  | 8 235  | 9 504  | 9 790  |
| Portugal       | 3 946  | 3 432  | 1 731  | 1 372  | 1 127  |
| Romania        | 3 183  | 3 707  | 3 254  | 3 798  | 2 477  |
| Slovakia       | 675    | 698    | 549    | 577    | 901    |
| Slovenia       | 846    | 738    | 686    | 644    | 550    |
| Spain          | 5 186  | 7 281  | 9 447  | 8 861  | 9 600  |
| Sweden         | 5 096  | 6 095  | 6 976  | 6 929  | 6 082  |
| Switzerland    | 3 291  | 3 157  | 4 636  | 4 864  | 5 071  |
| Turkey         | 1 460  | 1 619  | 1 385  | 1 491  | 1 392  |
| United Kingdom | 29 208 | 28 290 | 24 224 | 23 084 | 22 014 |

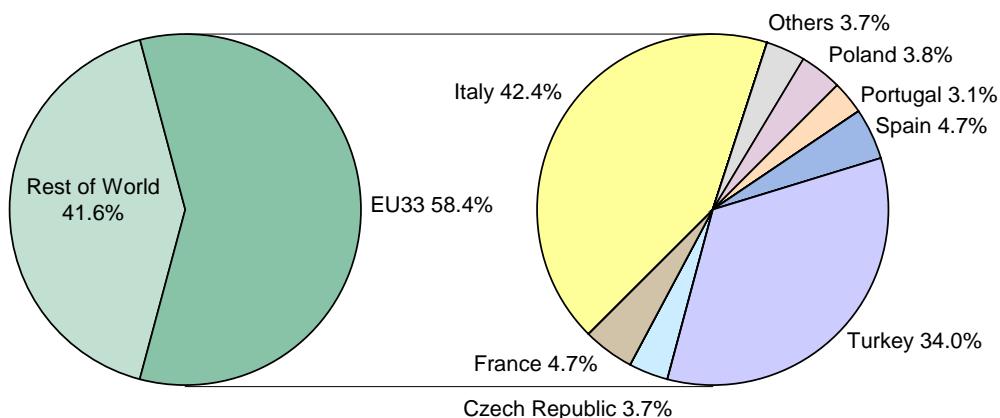
Diatomite - EU33 trade in 2009



## Feldspar

- Feldspar is an abundant rock-forming alumino-silicate mineral. It is an essential component of glass and ceramic manufacture where it behaves as a flux and adds hardness, durability and resistance to corrosion.
- Italy was the largest world producer in 2009 (with an estimated 25 per cent of the world total) overtaking Turkey where production fell by 38 per cent compared to 2008 (to 20 per cent of the world total). Together, the EU33 countries accounted for 58.4 per cent of world feldspar production in 2009.

**EU33 Production of feldspar 2009**



## Production of feldspar

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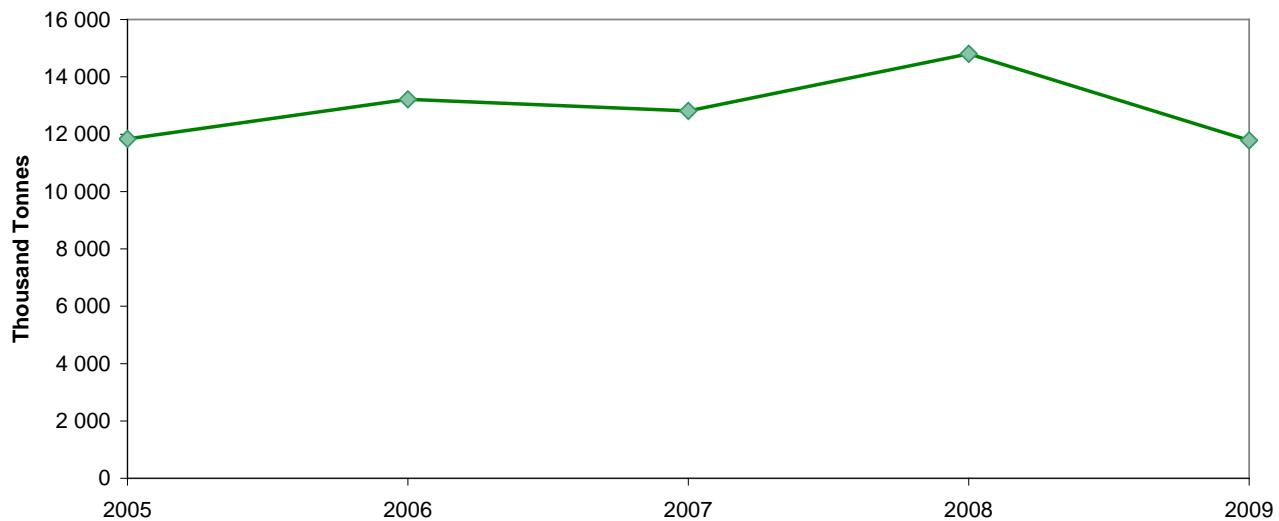
| Country            | 2005       | 2006       | 2007       | 2008        | 2009        |
|--------------------|------------|------------|------------|-------------|-------------|
| Bulgaria           | 72 867     | 93 091     | * 90 000   | * 90 000    | * 90 000    |
| Czech Republic     | 472 000    | 487 000    | 514 000    | 488 000     | 431 000     |
| Finland            | 42 783     | 43 187     | 48 980     | 45 250      | * 45 000    |
| France             | 651 000    | * 650 000  | * 650 000  | * 650 000   | * 550 000   |
| Germany            | 168 640    | 167 332    | 171 303    | 161 416     | * 150 000   |
| Greece             | 100 586    | * 100 000  | 95 000     | 62 000      | 28 617      |
| Italy              | 3 995 233  | 4 600 903  | 3 524 389  | * 5 000 000 | * 5 000 000 |
| Macedonia          | 27 076     | 38 124     | 32 814     | 28 920      | 19 377      |
| Norway             | * 67 000   | 65 000     | 65 000     | 62 000      | 48 000      |
| Poland             | 490 200    | 457 400    | 501 800    | 599 100     | 445 500     |
| Portugal           | 238 843    | 257 570    | 371 952    | * 370 000   | * 370 000   |
| Romania            | 74 927     | 33 100     | 41 477     | 22 995      | * 20 000    |
| Slovakia           | 3 000      | 3 000      | —          | 10 000      | 13 000      |
| Spain              | 650 061    | 696 912    | 683 134    | 690 256     | * 550 000   |
| Sweden             | 30 000     | 24 000     | 25 000     | 22 000      | 18 000      |
| Turkey             | 4 750 000  | 5 500 000  | 6 000 000  | 6 500 000   | 4 000 000   |
| United Kingdom (a) | (b) 1 835  | (b) 1 441  | (b) 1 112  | 430         | * 400       |
| EU33 Total         | 11 836 000 | 13 218 000 | 12 816 000 | 14 802 000  | 11 779 000  |

### Note(s)

(1) In addition to the countries listed, Slovakia is believed to produce feldspar

(a) Including weathered granite feldspar

(b) China stone

**EU33 Production of feldspar 2005 - 09****Exports of feldspar**

tonnes

| Country            | 2005        | 2006        | 2007        | 2008        | 2009        |
|--------------------|-------------|-------------|-------------|-------------|-------------|
| Austria            | 18 998      | 17 977      | 15 058      | 15 194      | 14 025      |
| Belgium-Luxembourg | ...         | ...         | ...         | 994         | 1 137       |
| Bulgaria           | 452         | 6 159       | 22 519      | 16 912      | 15 007      |
| Czech Republic     | 160 469     | 154 672     | 168 259     | 171 596     | 135 533     |
| Finland            | 37 386      | 41 437      | 37 392      | 36 482      | 26 613      |
| France             | 255 836     | 224 062     | 261 112     | 244 785     | 182 575     |
| Germany            | 113 329     | 121 046     | 125 258     | 121 777     | 70 130      |
| Greece             | 4 755       | 5 258       | 6 052       | 5 806       | 718         |
| Italy              | 302 715     | 238 555     | 226 963     | 324 977     | 126 289     |
| Macedonia          | 22 369      | 36 539      | 28 766      | 23 762      | 18 457      |
| Netherlands        | 17          | 552         | 456         | 555         | 1 355       |
| Norway             | 58 821      | 66 838      | 66 484      | 58 211      | 47 711      |
| Poland             | 1 509       | 2 749       | 1 849       | 2 049       | 1 829       |
| Portugal           | 1 546       | 862         | 4 048       | 873         | 1 290       |
| Romania            | 28 859      | 20 563      | 25 102      | 16 438      | 8 375       |
| Spain              | 66 427      | 77 348      | 74 461      | 79 120      | 56 161      |
| Sweden             | 16 515      | 15 880      | 14 383      | 10 670      | 7 646       |
| Turkey (a)         | * 3 800 000 | * 4 300 000 | * 4 300 000 | * 4 600 000 | * 2 500 000 |
| United Kingdom     | 48          | 38          | 40          | 82          | 369         |

## Note(s)

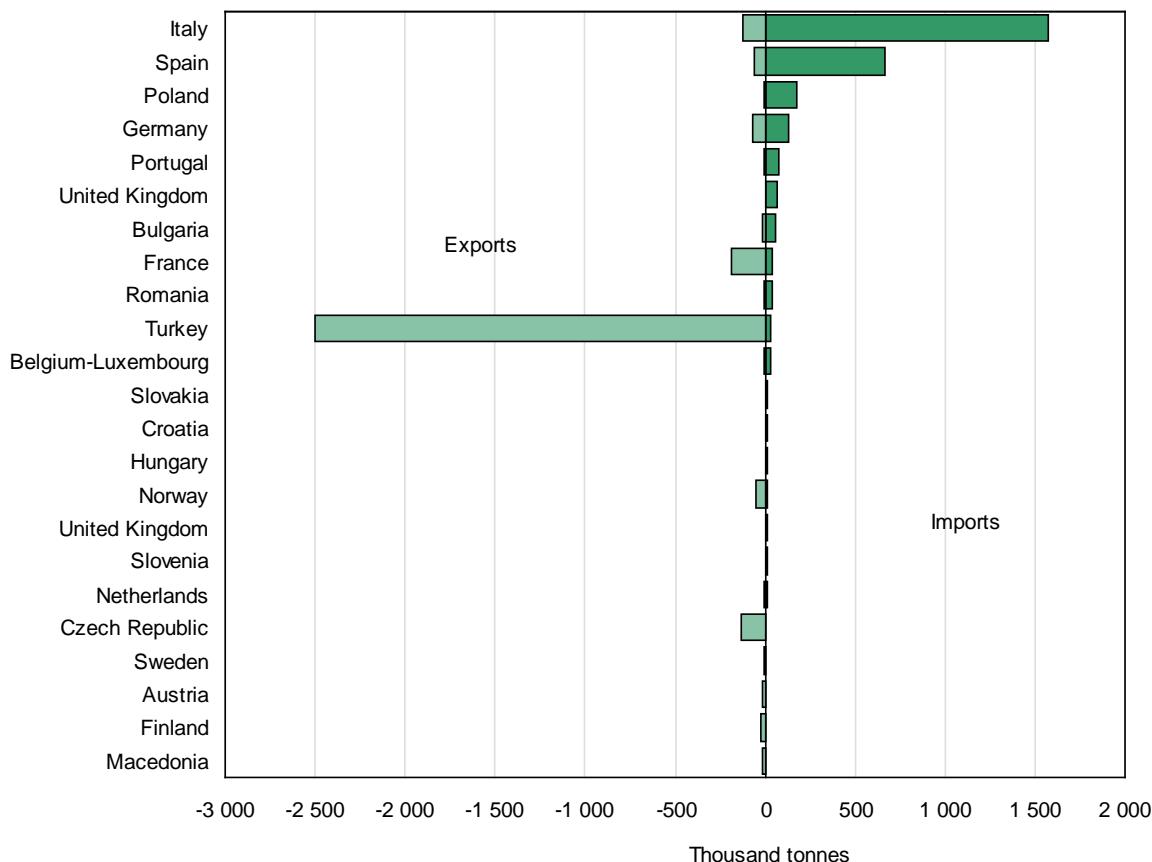
(a) BGS estimates, based on known imports into certain countries

## Imports of feldspar

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| Country            | 2005      | 2006      | 2007      | 2008      | 2009      |
|--------------------|-----------|-----------|-----------|-----------|-----------|
| Austria            | 1 549     | 2 220     | 3 816     | 1 928     | 1 933     |
| Belgium-Luxembourg | 25 876    | 21 483    | 26 151    | 34 988    | 27 237    |
| Bulgaria           | 34 723    | 40 416    | 35 851    | 31 346    | 54 178    |
| Croatia            | 17 011    | 15 986    | 16 212    | 15 983    | 14 603    |
| Czech Republic     | 13 315    | 16 032    | 14 213    | 11 414    | 5 330     |
| Denmark            | 3 868     | 2 590     | 3 145     | 2 678     | 2 666     |
| Finland            | 380       | 796       | 1 023     | 699       | 851       |
| France             | 85 460    | 54 106    | 20 974    | 59 857    | 43 981    |
| Germany            | 101 931   | 126 834   | 143 596   | 143 758   | 130 081   |
| Greece             | 3 032     | 439       | 478       | 2 830     | 5 851     |
| Hungary            | 20 184    | 16 091    | 13 567    | 10 418    | 14 499    |
| Italy              | 2 623 428 | 2 603 981 | 2 573 637 | 2 511 704 | 1 570 345 |
| Lithuania          | 4 166     | 1 933     | 1 693     | 1 516     | 2 958     |
| Netherlands        | 7 721     | 7 505     | 8 529     | 12 633    | 8 849     |
| Norway             | 17 103    | 17 199    | 12 930    | 17 367    | 13 781    |
| Poland             | 215 185   | 219 719   | 237 963   | 243 798   | 176 717   |
| Portugal           | 115 286   | 98 106    | 108 150   | 85 400    | 72 275    |
| Romania            | 39 448    | 31 433    | 48 999    | 49 160    | 37 639    |
| Slovakia           | 36 989    | 30 726    | 27 548    | 24 788    | 16 352    |
| Slovenia           | 5 852     | 5 813     | 6 877     | 6 576     | 8 899     |
| Spain              | 1 231 861 | 1 422 514 | 1 407 350 | 1 410 760 | 664 830   |
| Sweden             | 9 387     | 4 029     | 6 021     | 3 861     | 4 268     |
| Switzerland        | 7 977     | 6 219     | 8 056     | 7 653     | 6 478     |
| Turkey             | 40 739    | 44 159    | 46 323    | 28 594    | 28 166    |
| United Kingdom     | 23 139    | 17 098    | 26 751    | 18 899    | 9 299     |

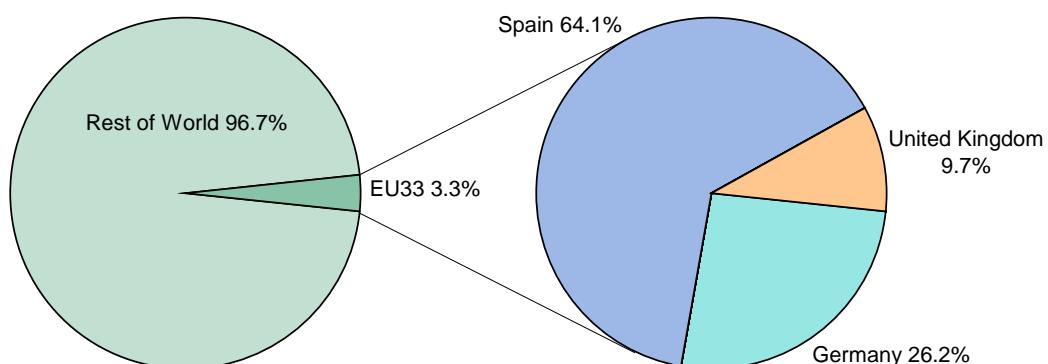
## Feldspar - EU33 trade in 2009



## Fluorspar

- Fluorspar is the commercial name for the mineral fluorite (calcium fluoride) and it is an important raw material source of fluorine. Most fluorspar production is used in the manufacture of hydrofluoric acid which is used primarily in the pharmaceutical and agrichemical industries. Fluorspar is also used in steel and aluminium manufacture.
- China dominated world production, producing 55 per cent of all fluorspar in 2009. The EU33 countries represent just 3.3 per cent of world fluorspar production, with a reduction in output of 47 per cent between 2005 and 2009 due, in part, to the cessation of output from France and Italy. Spain was the largest EU33 producer with 64.1 per cent of EU33 production in 2009, despite a fall in output of nearly two per cent compared to 2008.

**EU33 Production of fluorspar 2009**



### Production of fluorspar

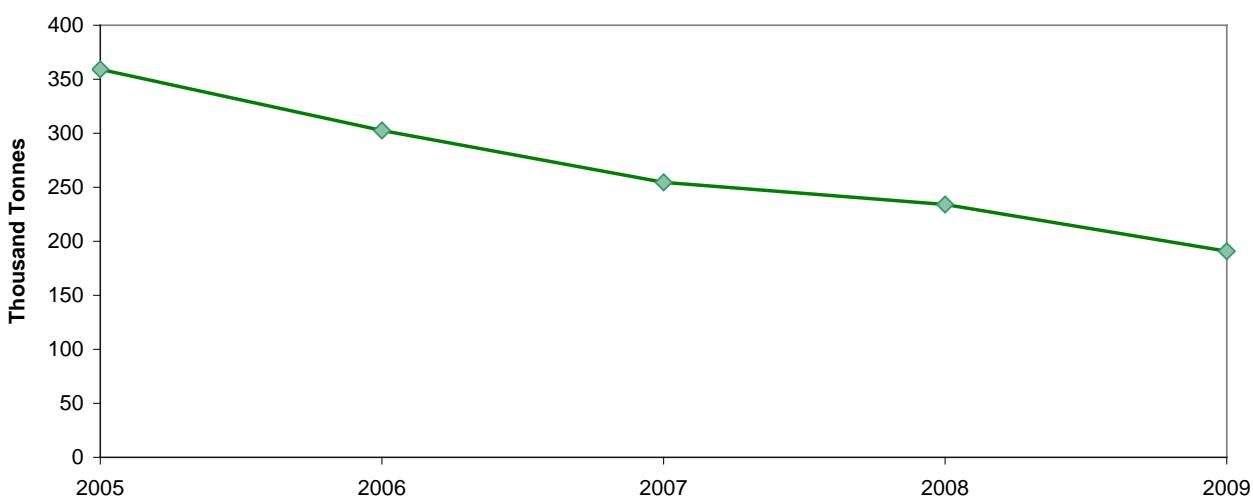
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| Country        | 2005    | 2006     | 2007    | 2008    | 2009    |
|----------------|---------|----------|---------|---------|---------|
| France         | 53 000  | * 40 000 | —       | —       | —       |
| Germany        | 35 364  | 53 009   | 54 359  | 48 519  | 49 962  |
| Italy          | 70 326  | * 15 000 | —       | —       | —       |
| Spain          | 144 126 | 144 845  | 155 197 | 148 736 | 122 408 |
| United Kingdom | 56 417  | 49 676   | 44 936  | 36 801  | 18 536  |
| EU33 Total     | 359 000 | 303 000  | 254 000 | 234 000 | 191 000 |

Note(s)

(1) In addition to the countries listed, Bulgaria is believed to produce fluorspar

**EU33 Production of fluorspar 2005 - 09**



**Exports of fluorspar**

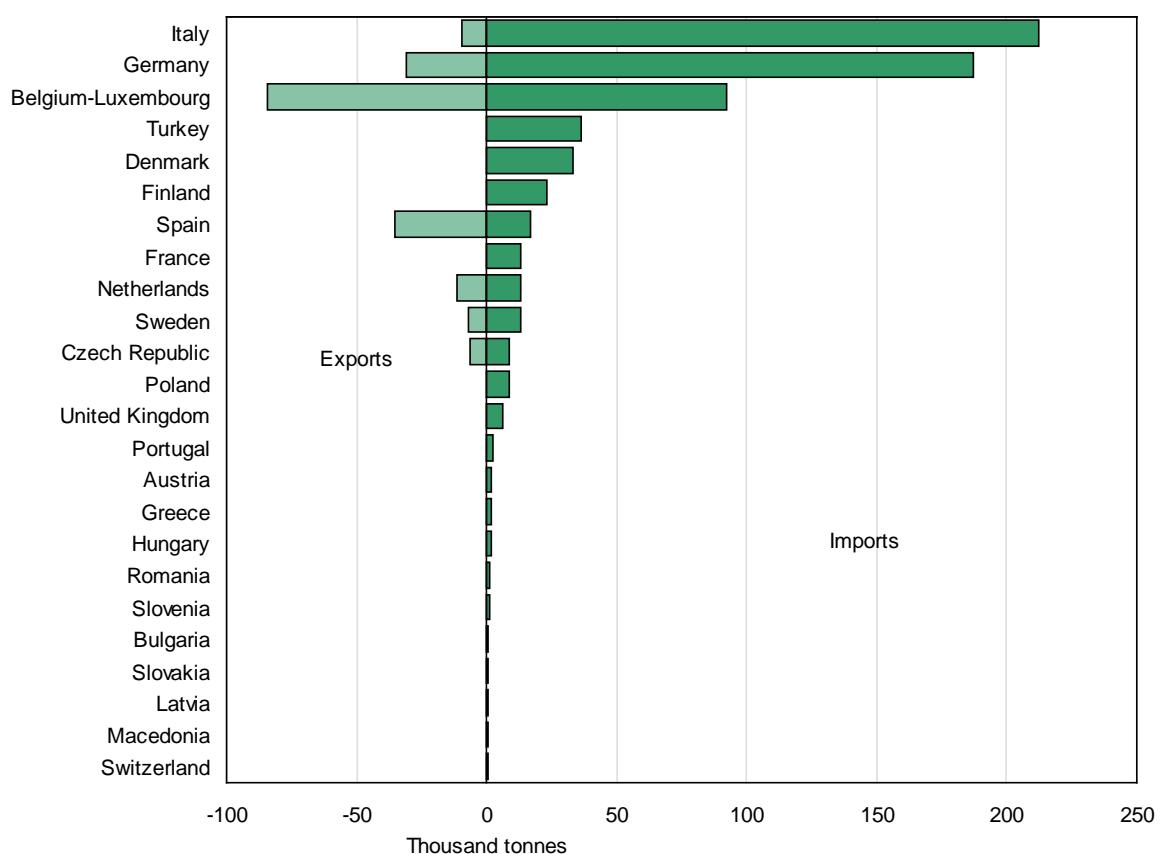
| Country            | 2005   | 2006    | 2007    | 2008    | 2009   |
|--------------------|--------|---------|---------|---------|--------|
| Belgium-Luxembourg | 26 395 | 110 965 | 105 822 | 156 066 | 84 491 |
| Czech Republic     | 8 677  | 9 954   | 8 415   | 4 488   | 6 147  |
| France             | 6 821  | 28      | 3 770   | 58      | 41     |
| Germany            | 24 061 | 35 207  | 56 023  | 50 338  | 31 157 |
| Italy              | 28 699 | 16 710  | 19 281  | 31 271  | 9 518  |
| Netherlands        | 37 113 | 1 587   | 27 213  | 12 665  | 11 333 |
| Spain              | 4 434  | 10 518  | 29 117  | 13 109  | 35 366 |
| Sweden             | 8 206  | 7 450   | 7 764   | 11 538  | 6 745  |
| United Kingdom     | 4 315  | 2 451   | 589     | 187     | 303    |

**Imports of fluorspar**

| Country            | 2005       | 2006    | 2007    | 2008    | 2009       |
|--------------------|------------|---------|---------|---------|------------|
| Austria            | 2 561      | 2 722   | 2 517   | 3 405   | 1 956      |
| Belgium-Luxembourg | 70 149     | 123 392 | 130 437 | 170 562 | 92 546     |
| Bulgaria           | 1 210      | 2 321   | 1 326   | 651     | 778        |
| Croatia            | 143        | 124     | 149     | 289     | 165        |
| Czech Republic     | 24 009     | 24 637  | 24 915  | 3 440   | 8 626      |
| Denmark            | 15 124     | 12 635  | 8 218   | 17 003  | 33 149     |
| Finland            | 16 597     | 15 011  | 15 064  | 12 366  | 23 178     |
| France             | 21 526     | 34 972  | 48 758  | 21 256  | 13 124     |
| Germany            | 264 896    | 293 737 | 346 581 | 357 914 | 187 330    |
| Greece             | 10 681     | 2 855   | 2 232   | 2 281   | 1 954      |
| Hungary            | (a)* 2 900 | 2 801   | 7 460   | 4 512   | (a)* 1 500 |
| Italy              | 249 756    | 237 597 | 236 797 | 238 008 | 212 415    |
| Latvia             | 216        | 204     | 220     | 240     | 468        |
| Macedonia          | 92         | 218     | 380     | 300     | 457        |
| Netherlands        | 45 073     | 7 836   | 48 089  | 13 860  | 13 014     |
| Poland             | 6 290      | 7 834   | 8 682   | 8 691   | 8 562      |
| Portugal           | 1 633      | 2 530   | 2 423   | 1 828   | 2 243      |
| Romania            | 6 285      | 3 915   | 4 738   | 2 526   | 1 481      |
| Slovakia           | 1 615      | 1 543   | 908     | 1 143   | 644        |
| Slovenia           | 1 031      | 1 184   | 1 017   | 1 326   | 1 064      |
| Spain              | 10 859     | 28 908  | 29 560  | 32 016  | 17 148     |
| Sweden             | 15 790     | 16 176  | 12 089  | 14 214  | 12 959     |
| Switzerland        | 714        | 704     | 533     | 571     | 370        |
| Turkey             | 30 446     | 21 750  | 23 139  | 34 073  | 36 114     |
| United Kingdom     | 4 051      | 6 620   | 3 875   | 8 429   | 6 436      |

## Note(s)

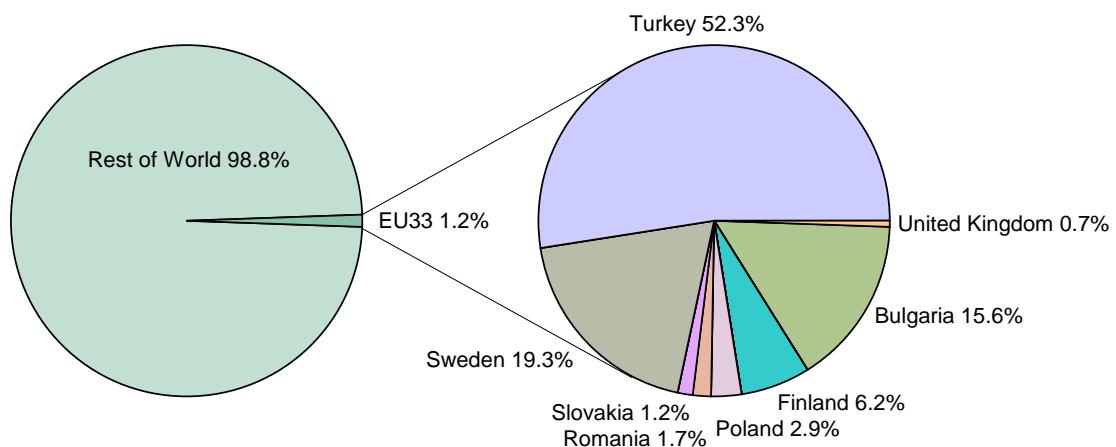
(a) BGS estimates, based on known exports from certain countries

**Fluorspar - EU33 trade in 2009**

## Gold

- Gold is a soft, malleable metallic element unaffected by air or most reagents. It is highly valued as an investment commodity, in jewellery and in specialist electronic applications.
- China, the USA, Australia and Russia were the four largest gold producers in 2009. Together these four countries produced 39 per cent of the total world output. In the EU33 Turkey (52.3 per cent of the EU33 total) and Sweden (19.3 per cent) were the largest producers in 2009, although the EU33 countries produced only 1.2 per cent of world output.

**EU33 Production of gold 2009**



## Mine production of gold

| Country        | 2005   | 2006   | 2007   | 2008   | 2009     |
|----------------|--------|--------|--------|--------|----------|
| Bulgaria       | 3 868  | 3 818  | 3 964  | 4 160  | 4 482    |
| Finland        | 3 747  | 5 292  | 4 621  | 4 148  | * 1 785  |
| Poland (a)     | 713    | 1 700  | 883    | 902    | 823      |
| Romania        | * 500  | * 500  | * 500  | * 500  | * 500    |
| Slovakia       | 109    | 84     | 92     | 198    | 346      |
| Spain          | 2 145  | 1 565  | —      | —      | —        |
| Sweden         | 6 564  | 6 848  | 5 159  | 4 953  | 5 542    |
| Turkey         | 4 170  | 8 040  | 9 920  | 11 120 | * 15 000 |
| United Kingdom | —      | —      | 88     | 163    | 188      |
| EU33 Total     | 22 000 | 28 000 | 25 000 | 26 000 | 29 000   |

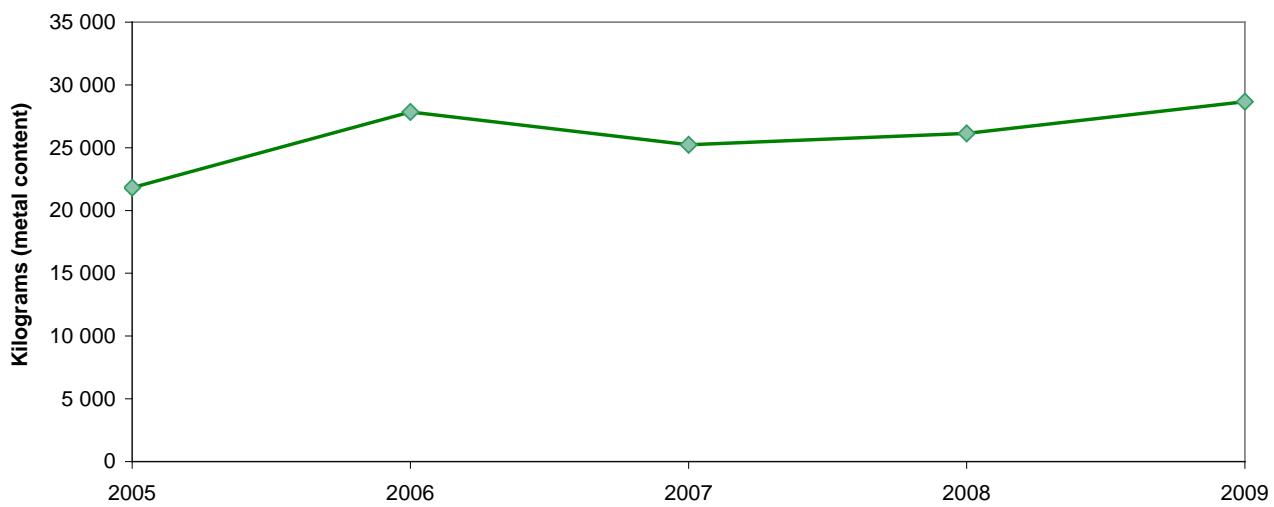
### Note(s)

- (1) In several countries substantial amounts of gold produced in small operations are not recorded in the official statistics used when compiling this table
- (2) Greece and Norway are believed to produce gold

(a) Metal production

Gold

**EU33 Production of gold 2005 - 09**



**Exports of gold**

kilograms

| Country              | 2005       | 2006       | 2007       | 2008       | 2009       |
|----------------------|------------|------------|------------|------------|------------|
| Austria              |            |            |            |            |            |
| Metal                | 8 500      | 11 100     | 14 900     | 18 700     | 18 800     |
| Waste & scrap        | 5 500      | 600        | 17 300     | 2 200      | 2 700      |
| Belgium-Luxembourg   |            |            |            |            |            |
| Metal                | 100        | 300        | 16 200     | 56 100     | 38 000     |
| Waste & scrap        | 458 400    | 438 000    | 128 400    | 134 500    | 29 100     |
| Czech Republic       |            |            |            |            |            |
| Metal                | 1 100      | 4 100      | 3 900      | 4 000      | 9 800      |
| Waste & scrap        | 600        | 700        | 6 100      | 5 200      | 5 600      |
| Denmark              |            |            |            |            |            |
| Metal                | 1 064      | 1 253      | 366        | 397        | 100        |
| Waste & scrap        | 120        | 3 531      | 600        | 600        | 500        |
| Finland              |            |            |            |            |            |
| Waste & scrap        | 778        | 886        | 200        | 466        | 539        |
| France               |            |            |            |            |            |
| Metal                | 20 053     | 24 302     | 20 229     | 22 247     | 22 448     |
| Waste & scrap        | 29 600     | 29 600     | 29 300     | 50 700     | 34 094     |
| Germany              |            |            |            |            |            |
| Metal                | 47 600     | 65 200     | 71 250     | 5 400      | 113 039    |
| Waste & scrap        | 30 600     | 7 500      | 14 800     | 4 800      | 62 603     |
| Greece               |            |            |            |            |            |
| Metal                | 3          | 311        | 900        | 400        | 500        |
| Hungary              |            |            |            |            |            |
| Metal                | 628        | 470        | 871        | 657        | 1 312      |
| Ireland, Republic of |            |            |            |            |            |
| Metal                | £942 000   | £1 400 000 | £1 678 000 | £1 180 000 | £37 000    |
| Waste & scrap        | £1 429 000 | £1 313 000 | £902 000   | £577 000   | £2 056 000 |
| Italy                |            |            |            |            |            |
| Metal                | 60 480     | 55 847     | 56 360     | 51 260     | 106 646    |
| Waste & scrap        | —          | 16         | 160        | 1 376      | 173        |
| Netherlands          |            |            |            |            |            |
| Metal                | 11 603     | 19 634     | 22 468     | 37 439     | 15 515     |
| Waste & scrap        | 72 427     | 98 813     | 4 433      | 45 456     | 1 222      |
| Norway               |            |            |            |            |            |
| Metal                | 2 415      | 2 337      | 2 601      | 3 847      | 3 865      |
| Waste & scrap        | 137        | 182        | 426        | 600        | 1 197      |
| Poland               |            |            |            |            |            |
| Metal                | 100        | 1 100      | 300        | 105 000    | 121 100    |
| Waste & scrap        | 1 100      | 1 600      | 700        | 4 800      | 18 000     |
| Portugal             |            |            |            |            |            |
| Waste & scrap        | 4 800      | 400        | 1 100      | 36 100     | 800        |

Gold

## Exports continued

kilograms

| Country        | 2005      | 2006    | 2007      | 2008      | 2009      |
|----------------|-----------|---------|-----------|-----------|-----------|
| Slovakia       |           |         |           |           |           |
| Metal          | 268       | 569     | 300       | 800       | 100       |
| Waste & scrap  | 986       | 1 000   | 1 600     | 800       | 1 200     |
| Slovenia       |           |         |           |           |           |
| Metal          | 101       | 100     | 1 300     | 3 000     | 129       |
| Waste & scrap  | —         | 3 700   | —         | —         | 200       |
| Spain          |           |         |           |           |           |
| Metal          | 3 520     | 3 679   | 23 667    | 6 966     | 31 466    |
| Waste & scrap  | 38        | 2 636   | 92        | 1 147     | 131 376   |
| Sweden         |           |         |           |           |           |
| Metal          | 18 000    | 19 000  | 17 800    | 19 400    | 14 500    |
| Waste & scrap  | 1 000     | 32 000  | 65 700    | 29 400    | 60 900    |
| Switzerland    |           |         |           |           |           |
| Metal          | 1 340 948 | 965 959 | 1 095 682 | 2 103 919 | 2 201 838 |
| Waste & scrap  | 2 823     | 2 802   | 102 745   | 125 459   | 107 918   |
| Turkey         |           |         |           |           |           |
| Metal          | 29 624    | 13 581  | 12 068    | 142 244   | 162 208   |
| United Kingdom |           |         |           |           |           |
| Metal          | 638 262   | 166 080 | 224 598   | 600 018   | 96 231    |
| Waste & scrap  | 541 399   | 313 712 | 282 298   | 272 339   | 533 182   |

## Note(s)

- (1) In this table the term 'metal' includes both unwrought and partly worked gold and alloys but excludes gold coin
- (2) Kilograms have been used as the unit in this table except where the only obtainable figure is the value. In these cases the national currency figure has been converted to £ sterling
- (3) See explanatory notes at the front of the volume regarding currency conversion

## Imports of gold

kilograms

| Country              | 2005        | 2006       | 2007       | 2008         | 2009         |
|----------------------|-------------|------------|------------|--------------|--------------|
| Austria              |             |            |            |              |              |
| Metal                | 22 100      | 9 300      | 30 900     | 72 300       | 86 500       |
| Waste & scrap        | 1 800       | 300        | 100        | 400          | 1 700        |
| Belgium-Luxembourg   |             |            |            |              |              |
| Metal                | 14 400      | 9 600      | 18 300     | 53 000       | 23 100       |
| Waste & scrap        | (a)* 34 000 | 147 099    | 362 364    | (a)* 124 000 | (a)* 116 000 |
| Croatia              |             |            |            |              |              |
| Metal                | 1 083       | 992        | 1 608      | 693          | 1 221        |
| Czech Republic       |             |            |            |              |              |
| Metal                | 769         | 1 570      | 8 813      | 3 047        | 3 055        |
| Waste & scrap        | 12 931      | 14 953     | 45 718     | 19 140       | 60 440       |
| Denmark              |             |            |            |              |              |
| Metal                | 2 095       | 1 643      | 2 350      | 2 000        | 3 100        |
| Estonia              |             |            |            |              |              |
| Metal                | 234         | 365        | 900        | 1 200        | 300          |
| Finland              |             |            |            |              |              |
| Waste & scrap        | 22 981      | 4          | 1          | —            | 35           |
| France               |             |            |            |              |              |
| Metal                | 28 834      | 23 605     | 23 567     | 20 071       | 16 877       |
| Waste & scrap        | 5 200       | 1 500      | 1 100      | 3 300        | 6 248        |
| Germany              |             |            |            |              |              |
| Metal                | 52 827      | 56 743     | 68 549     | 118 516      | 164 511      |
| Waste & scrap        | 1 923 600   | 1 821 100  | 1 304 700  | 1 390 000    | 1 126 326    |
| Greece               |             |            |            |              |              |
| Metal                | 56 572      | 60 999     | 48 500     | 114 500      | 26 600       |
| Hungary              |             |            |            |              |              |
| Metal                | 1 380       | 235        | 229        | (a)* 400     | 1 076        |
| Ireland, Republic of |             |            |            |              |              |
| Metal                | £7 227 000  | £7 213 000 | £6 260 000 | £5 271 000   | £4 365 000   |
| Waste & scrap        | 2 567       | 904        | 47         | 987          | 790          |
| Italy                |             |            |            |              |              |
| Metal                | 250 938     | 204 012    | 206 914    | 166 506      | 146 721      |
| Waste & scrap        | 904         | 810        | 17 885     | 851          | 864          |

## Gold

Imports continued

kilograms

| Country        | 2005       | 2006        | 2007        | 2008        | 2009        |
|----------------|------------|-------------|-------------|-------------|-------------|
| Lithuania      |            |             |             |             |             |
| Waste & scrap  | 114 600    | 12 470      | 2           | —           | 103         |
| Malta          |            |             |             |             |             |
| Metal          | 7 258      | 7 900       | 9 034       | 6 820       | 5 500       |
| Netherlands    |            |             |             |             |             |
| Metal          | 22 754     | 22 122      | 21 706      | 41 012      | 42 806      |
| Waste & scrap  | 1          | 92 890      | 19 174      | 2 422       | 111         |
| Norway         |            |             |             |             |             |
| Metal          | 2 099      | 1 739       | 1 448       | 1 146       | 670         |
| Waste & scrap  | 1 049      | 1 304       | 1 455       | 3 940       | 3 568       |
| Poland         |            |             |             |             |             |
| Metal          | 100        | 400         | 6 100       | 3 800       | 100         |
| Portugal       |            |             |             |             |             |
| Metal          | 5 488      | 3 224       | 2 003       | 1 535       | 1 077       |
| Slovakia       |            |             |             |             |             |
| Metal          | 42 001     | 13 901      | 92 400      | 74 800      | 208 400     |
| Slovenia       |            |             |             |             |             |
| Metal          | 239        | 445         | 600         | 1 700       | 400         |
| Waste & scrap  | 214        | 1 533       | 100         | 9           | 1 210       |
| Spain          |            |             |             |             |             |
| Metal          | 20 594     | 15 072      | 6 641       | * 72 000    | 68 562      |
| Waste & scrap  | 139        | 233         | 2 352       | 252         | 109         |
| Sweden         |            |             |             |             |             |
| Metal          | £8 625 000 | £10 124 000 | £18 292 000 | £25 583 000 | £26 296 000 |
| Waste & scrap  | £180 000   | £7 000      | £112 000    | £565 000    | £53 000     |
| Switzerland    |            |             |             |             |             |
| Metal          | 1 655 691  | 1 498 693   | 1 667 100   | 2 101 027   | 2 198 967   |
| Waste & scrap  | 72 764     | 104 957     | 57 001      | 214 839     | 319 257     |
| Turkey         |            |             |             |             |             |
| Metal          | 403 415    | 157 792     | 155 471     | 179 606     | 52 654      |
| United Kingdom |            |             |             |             |             |
| Metal          | 351 258    | 781 840     | 649 163     | 914 000     | 1 166 948   |
| Waste & scrap  | 66 198     | 7 925       | 17 046      | 43 143      | 213 440     |

## Note(s)

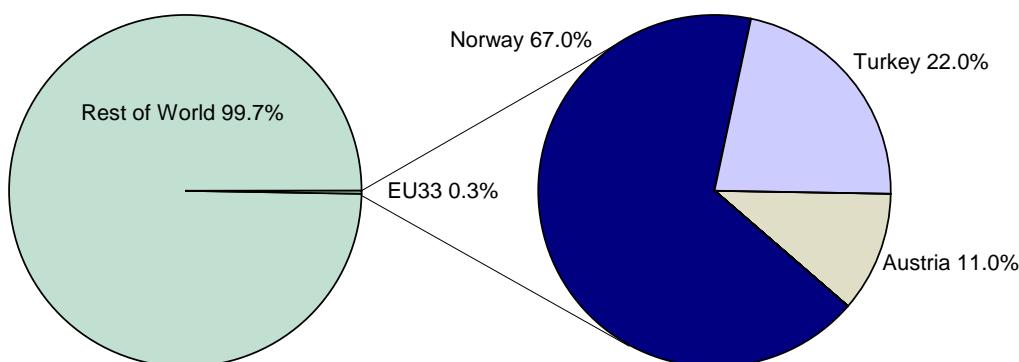
- (1) In this table the term 'metal' includes both unwrought and partly worked gold but excludes gold coin  
 (2) Kilograms have been used as the unit in this table except where the only obtainable figure is the value. In these cases the national currency figure has been converted to £ sterling  
 (3) See explanatory notes at the front of the volume regarding currency conversion

(a) BGS estimates, based on known exports from certain countries

## Graphite

- Graphite is a stable form of pure carbon. It is soft, has low friction and is inert. The major use of graphite is in refractories that can withstand the temperature of molten metals and slags. The graphite imparts high thermal shock resistance, useful in furnace components and crucibles. Other uses include lubricants and in brake linings.
- Production in the EU33 countries has fallen by 58 per cent between 2005 and 2009, and represents only 0.3 per cent of the world total. World output is dominated by China which produced 83 per cent of the total.

**EU33 Production of graphite 2009**



### Production of graphite

tonnes

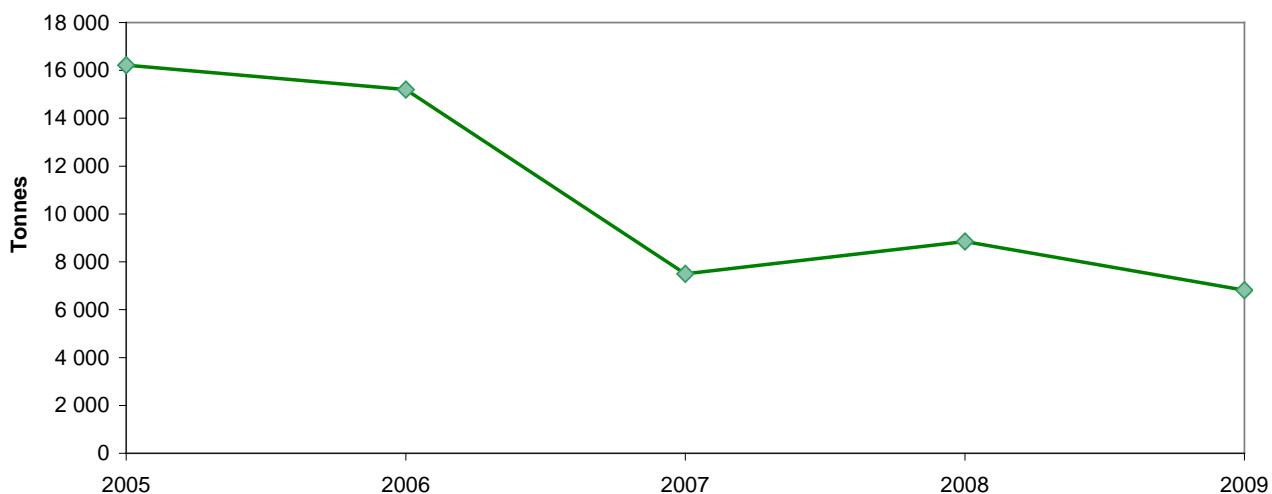
| Country        | 2005    | 2006   | 2007    | 2008    | 2009    |
|----------------|---------|--------|---------|---------|---------|
| Austria        | —       | —      | —       | (a) 250 | (a) 750 |
| Czech Republic | 3 000   | 5 000  | 3 000   | 3 000   | —       |
| Germany        | 2 638   | —      | —       | —       | —       |
| Norway         | 9 000   | 9 000  | 3 000   | 4 100   | 4 562   |
| Romania        | 486     | —      | —       | —       | —       |
| Turkey         | * 1 100 | 1 200  | * 1 500 | * 1 500 | * 1 500 |
| EU33 Total     | 16 000  | 15 000 | 8 000   | 9 000   | 7 000   |

Note(s)

(1) This table includes all forms of amorphous and crystalline graphite but excludes synthetic material

(a) Crude

**EU33 Production of graphite 2005 - 09**



Graphite

### Exports of graphite

tonnes

| Country            | 2005   | 2006   | 2007   | 2008   | 2009   |
|--------------------|--------|--------|--------|--------|--------|
| Austria            | 7 082  | 7 416  | 7 460  | 8 853  | 6 260  |
| Belgium-Luxembourg | 834    | 460    | 438    | 3 815  | 2 634  |
| Czech Republic     | 3 489  | 3 518  | 4 029  | 4 076  | 2 150  |
| Finland            | 0      | 2      | 46 162 | 0      | 5      |
| France             | 225    | 85     | 163    | 269    | 226    |
| Germany            | 14 241 | 20 777 | 23 993 | 18 950 | 12 722 |
| Italy              | 274    | 442    | 401    | 308    | 820    |
| Netherlands        | 3 240  | 2 991  | 4 308  | 1 378  | 1 974  |
| Spain              | 11 972 | 6 356  | 8 728  | 10 499 | 8 160  |
| Sweden             | 195    | 230    | 273    | 252    | 159    |
| Switzerland        | 326    | 225    | 384    | 600    | 355    |
| Turkey             | 72     | 57     | 13     | 390    | 257    |
| United Kingdom     | 2 685  | 2 979  | 3 065  | 3 156  | 2 271  |

Note(s)

(1) This table excludes synthetic graphite

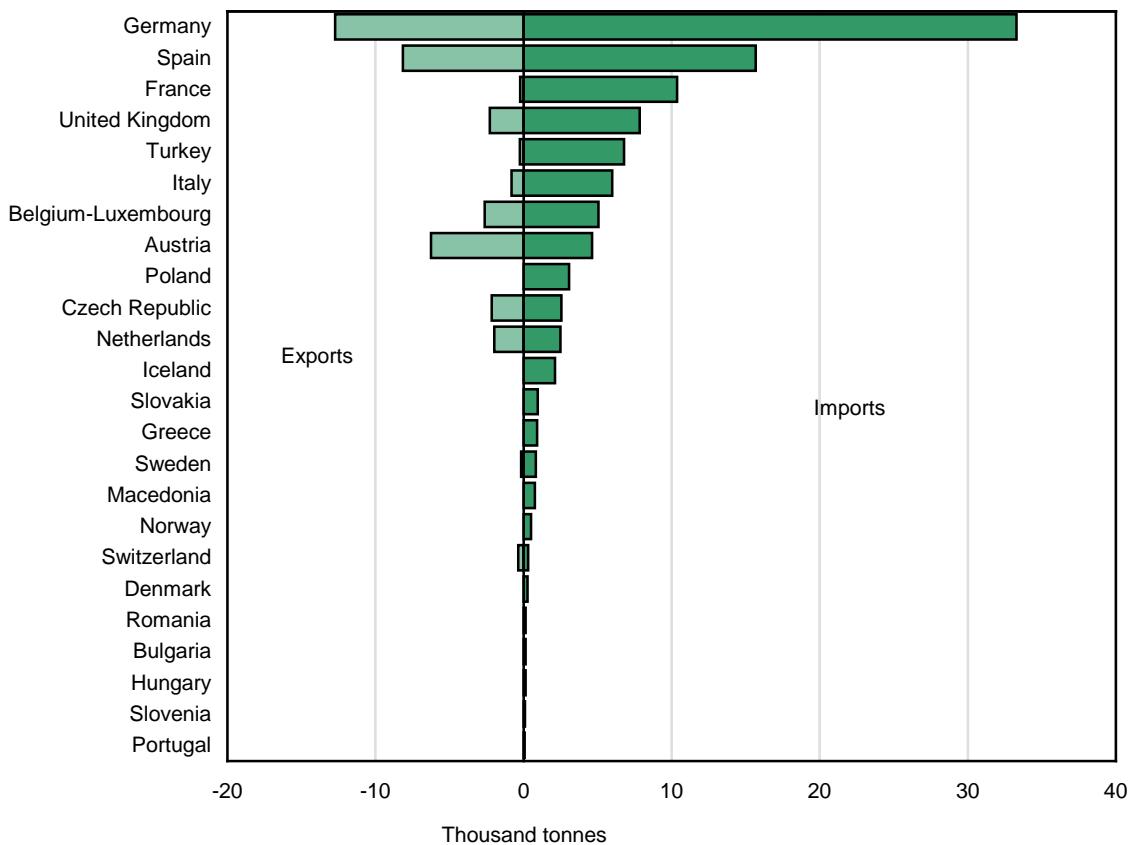
### Imports of graphite

tonnes

| Country              | 2005   | 2006   | 2007   | 2008   | 2009   |
|----------------------|--------|--------|--------|--------|--------|
| Austria              | 13 655 | 10 704 | 17 757 | 30 863 | 4 622  |
| Belgium-Luxembourg   | 3 040  | 1 836  | 2 323  | 3 625  | 5 049  |
| Bulgaria             | 319    | 433    | 250    | 158    | 132    |
| Czech Republic       | 4 787  | 3 485  | 5 301  | 6 233  | 2 554  |
| Denmark              | 288    | 268    | 212    | 185    | 269    |
| France               | 20 449 | 19 430 | 19 250 | 20 618 | 10 376 |
| Germany              | 55 843 | 45 884 | 54 627 | 62 180 | 33 293 |
| Greece               | 91     | 83     | 111    | 142    | 918    |
| Hungary              | 191    | 192    | 178    | 147    | 126    |
| Iceland              | —      | 2      | —      | 11     | 2 132  |
| Ireland, Republic of | 177    | 23     | 73     | 12     | 8      |
| Italy                | 11 102 | 11 548 | 11 362 | 11 832 | 5 995  |
| Macedonia            | 107    | 648    | 1 969  | 1 522  | 761    |
| Netherlands          | 15 205 | 5 362  | 13 463 | 42 612 | 2 487  |
| Norway               | 423    | 296    | 980    | 561    | 508    |
| Poland               | 3 028  | 3 658  | 5 701  | 4 474  | 3 078  |
| Portugal             | 1 722  | 1 954  | 2 210  | 1 493  | 73     |
| Romania              | 548    | 488    | 542    | 304    | 144    |
| Slovakia             | 1 031  | 1 382  | 2 246  | 2 981  | 962    |
| Slovenia             | 112    | 161    | 108    | 141    | 89     |
| Spain                | 8 334  | 10 143 | 15 582 | 24 284 | 15 669 |
| Sweden               | 1 539  | 1 252  | 1 592  | 1 091  | 835    |
| Switzerland          | 652    | 722    | 966    | 931    | 306    |
| Turkey               | 11 956 | 6 300  | 6 095  | 13 230 | 6 788  |
| United Kingdom       | 17 766 | 16 978 | 17 225 | 14 309 | 7 850  |

Note(s)

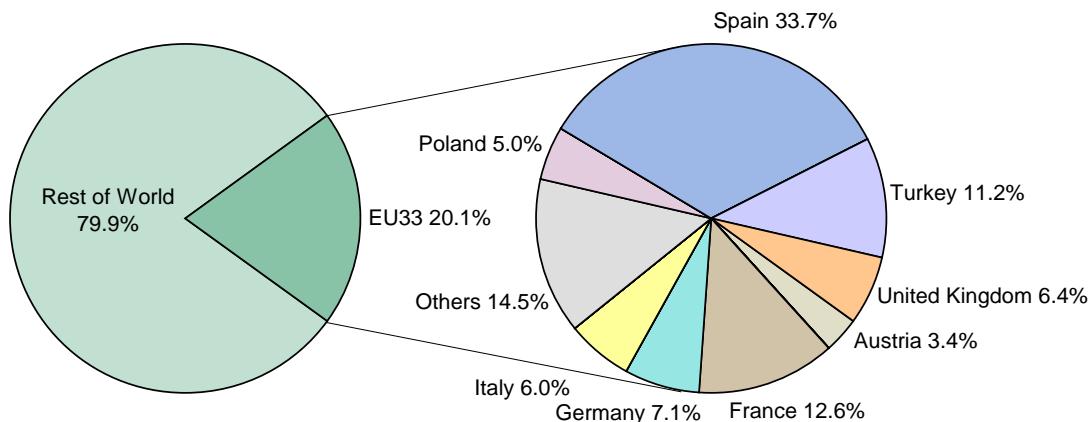
(1) This table excludes synthetic graphite

**Graphite - EU33 trade in 2009**

## Gypsum

- Gypsum (calcium sulphate) is a common mineral that chiefly occurs as beds or seams in sedimentary rocks. Anhydrite is a similar mineral without combined water and is considered in the following tables with gypsum. Calcined gypsum is chiefly used (80 per cent) to make building and decorative plaster. It is used as an additive to cement, in farming as a soil conditioner, as a filler and in the chemical industry.
- The EU33 produced 20.1 per cent of world natural gypsum in 2009. The largest EU33 producer is Spain which accounted for 33.7 per cent of EU33 production (or seven per cent of the world total). China was the largest gypsum producer in the world in 2009 with 25 per cent of the world total.
- The overall trade situation with gypsum is becoming difficult to follow as large quantities of synthetic gypsum are made during the desulphurisation of coal-fired power station fumes and this competes with natural gypsum production.

**EU33 Production of gypsum 2009**



## Production of Gypsum

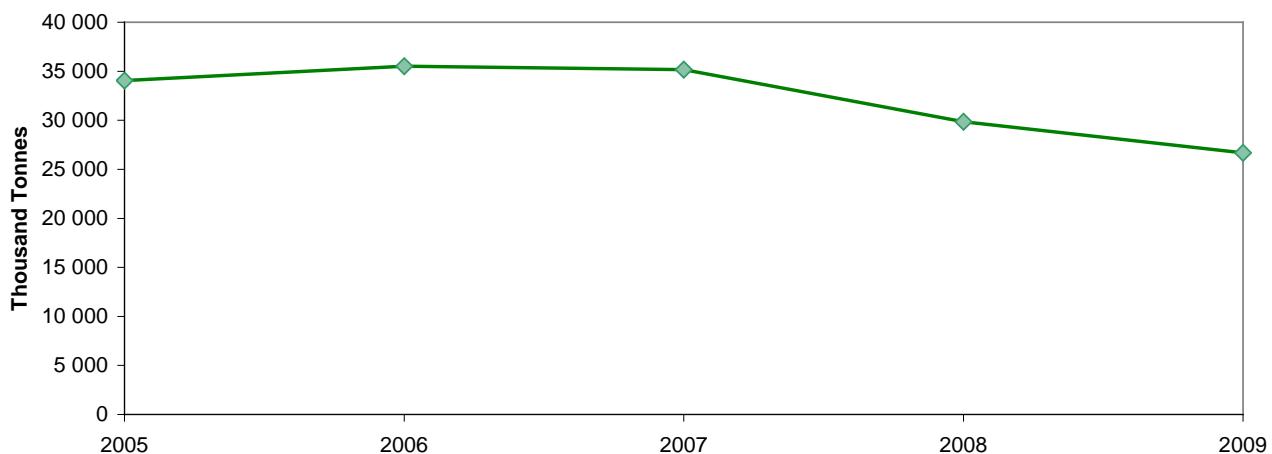
tonnes

| Country              | 2005        | 2006        | 2007        | 2008          | 2009          |
|----------------------|-------------|-------------|-------------|---------------|---------------|
| Austria              |             |             |             |               |               |
| Gypsum               | 911 162     | 936 072     | 1 006 416   | 1 022 983     | (a) 910 945   |
| Anhydrite            | 106 032     | 135 380     | 57 428      | 64 276        | ...           |
| Bulgaria             | 187 700     | 215 800     | 234 300     | 21 200        | 127 600       |
| Croatia              | 196 133     | 170 351     | 170 721     | * 250 000     | 318 139       |
| Cyprus               | 215 500     | 270 000     | 330 000     | 412 000       | 317 000       |
| Czech Republic       | 25 000      | 16 000      | 66 000      | 35 000        | 13 000        |
| France (a)           | 4 902 498   | * 4 800 000 | * 4 800 000 | 2 339 380     | 3 351 339     |
| Germany (a)          | 1 644 000   | 1 771 000   | 1 898 000   | 2 112 000     | 1 898 000     |
| Greece               | 865 216     | * 850 000   | 836 967     | (a) 1 000 000 | (a) 730 000   |
| Hungary (a)          | 19 000      | 30 000      | 26 000      | 15 940        | 19 766        |
| Ireland, Republic of | * 700 000   | * 700 000   | * 700 000   | * 600 000     | * 400 000     |
| Italy                | * 1 600 000 | 1 600 000   | * 1 600 000 | * 1 600 000   | * 1 600 000   |
| Latvia (a)           | 273 000     | 330 000     | 346 000     | 349 000       | 175 000       |
| Macedonia            | 190 232     | 267 760     | 255 500     | 242 400       | 154 550       |
| Poland               |             |             |             |               |               |
| Gypsum               | 1 048 000   | 1 172 000   | 1 298 000   | 1 283 000     | (a) 1 326 928 |
| Anhydrite            | 195 000     | 181 000     | 194 000     | 198 000       | ...           |
| Portugal             | 389 180     | 366 599     | 418 035     | 372 731       | * 400 000     |
| Romania              | 532 867     | 615 072     | 1 004 150   | 832 248       | * 800 000     |
| Slovakia (a)         | 107 500     | 126 200     | 151 000     | 152 000       | 131 000       |
| Spain                | 14 453 053  | 14 596 559  | 14 535 422  | 11 955 753    | * 9 000 000   |
| Switzerland          | * 300 000   | * 300 000   | * 300 000   | * 300 000     | * 300 000     |
| Turkey               | * 3 500 864 | * 4 369 771 | * 3 241 177 | * 3 000 000   | * 3 000 000   |
| United Kingdom       | * 1 700 000 | * 1 700 000 | * 1 700 000 | * 1 700 000   | * 1 700 000   |
| EU33 Total           | 34 100 000  | 35 500 000  | 35 200 000  | 29 900 000    | 26 700 000    |

Note(s)

(1) Some countries produce large quantities of synthetic gypsum. Where possible, this output is excluded from the table.

(a) Including anhydrite

**EU33 Production of gypsum 2005 - 09****Exports of Gypsum**

tonnes

| Country              | 2005    | 2006      | 2007      | 2008      | 2009      |
|----------------------|---------|-----------|-----------|-----------|-----------|
| Austria              |         |           |           |           |           |
| Crude                | 21 433  | 30 002    | 89 128    | 26 402    | 20 694    |
| Calcined             | 94 207  | 99 013    | 121 473   | 89 906    | 78 839    |
| Belgium-Luxembourg   |         |           |           |           |           |
| Crude                | 46 691  | 62 303    | 54 953    | 89 627    | 113 954   |
| Calcined             | 2 709   | 4 707     | 4 271     | 4 369     | 2 484     |
| Bulgaria             |         |           |           |           |           |
| Crude & calcined     | 2 347   | 2 439     | 1 439     | 787       | 11 965    |
| Croatia              |         |           |           |           |           |
| Crude & calcined     | 4 890   | 6 349     | 4 808     | 4 738     | 3 119     |
| Cyprus               |         |           |           |           |           |
| Crude & calcined     | 73 741  | 152 621   | 203 109   | 279 902   | 236 427   |
| Czech Republic       |         |           |           |           |           |
| Crude                | 33 307  | 46 837    | 105 394   | 60 018    | 10 195    |
| Calcined             | 4 272   | 6 249     | 5 973     | 7 881     | 6 430     |
| Denmark              |         |           |           |           |           |
| Crude                | 111 720 | 165 656   | 197 920   | 141 124   | 8 440     |
| Calcined             | 25 474  | 356 443   | 1 740     | 4 173     | 1 455     |
| France               |         |           |           |           |           |
| Crude                | 250 845 | 321 789   | 414 428   | 381 841   | 267 315   |
| Calcined             | 350 955 | 349 703   | 356 716   | 338 682   | 282 254   |
| Germany              |         |           |           |           |           |
| Crude                | 259 631 | 391 494   | 423 152   | 447 140   | 393 691   |
| Calcined             | 991 946 | 1 471 660 | 1 703 212 | 1 775 467 | 1 290 391 |
| Greece               |         |           |           |           |           |
| Crude                | 88 187  | 116 442   | 47 694    | 21 258    | 49 037    |
| Calcined             | 926     | 752       | 1 842     | 937       | 580       |
| Hungary              |         |           |           |           |           |
| Crude & calcined     | 2 648   | 6 408     | 8 626     | 19 259    | 22 019    |
| Ireland, Republic of |         |           |           |           |           |
| Crude                | 1 022   | 1 054     | 1 058     | 1 094     | 10 425    |
| Calcined             | 42 212  | 40 027    | 37 914    | 32 821    | 28 491    |
| Italy                |         |           |           |           |           |
| Crude                | 12 641  | 141       | 17 748    | 24 525    | 17 907    |
| Calcined             | 41 404  | 69 272    | 27 123    | 24 496    | 21 848    |
| Latvia               |         |           |           |           |           |
| Crude & calcined     | 48 896  | 109 404   | 74 627    | 63 732    | 37 352    |
| Macedonia            |         |           |           |           |           |
| Crude & calcined     | 9 779   | 9 488     | 10 167    | 12 496    | 12 604    |
| Netherlands          |         |           |           |           |           |
| Crude                | 53 351  | 32 425    | 49 394    | 37 991    | * 39 600  |
| Calcined             | 61 508  | 70 005    | 17 744    | 15 228    | 5 550     |
| Norway               |         |           |           |           |           |
| Crude & calcined     | 49 511  | 40 811    | 51 212    | 69 976    | 68 140    |

Gypsum

Exports continued

tonnes

| Country          | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------------|-----------|-----------|-----------|-----------|-----------|
| Poland           |           |           |           |           |           |
| Crude & calcined | 33 277    | 40 832    | 56 003    | 58 644    | 40 512    |
| Portugal         |           |           |           |           |           |
| Crude & calcined | 1 332     | 4 349     | 8 362     | 22 707    | 12 394    |
| Romania          |           |           |           |           |           |
| Crude & calcined | 15 089    | 14 283    | 13 507    | 13 069    | 17 966    |
| Slovenia         |           |           |           |           |           |
| Crude & calcined | 993       | 9 502     | 36 039    | 8 575     | 6 575     |
| Spain            |           |           |           |           |           |
| Crude            | 3 228 806 | 3 568 327 | 3 335 273 | 3 458 773 | 2 187 816 |
| Calcined         | 391 274   | 306 791   | 274 781   | 228 060   | 182 982   |
| Sweden           |           |           |           |           |           |
| Crude & calcined | 7 832     | 9 954     | 12 694    | 11 525    | 9 358     |
| Switzerland      |           |           |           |           |           |
| Crude & calcined | 1 095     | 1 158     | 2 754     | 5 207     | 2 454     |
| Turkey           |           |           |           |           |           |
| Crude            | 4 346     | 26 683    | 43 195    | 37 899    | 145 717   |
| Calcined         | 477 710   | 481 313   | 544 954   | 838 314   | 643 873   |
| United Kingdom   |           |           |           |           |           |
| Crude            | 2 299     | 2 679     | 1 248     | 1 493     | 1 978     |
| Calcined         | 54 356    | 63 533    | 57 988    | 48 340    | 32 551    |

Note(s)

(1) In this table the term 'crude' may include some anhydrite

**Imports of Gypsum**

tonnes

| Country            | 2005    | 2006    | 2007      | 2008      | 2009    |
|--------------------|---------|---------|-----------|-----------|---------|
| Austria            |         |         |           |           |         |
| Crude              | 15 280  | 11 057  | 14 651    | 10 118    | 12 098  |
| Calcined           | 66 118  | 61 713  | 97 281    | 67 712    | 73 588  |
| Belgium-Luxembourg |         |         |           |           |         |
| Crude              | 768 702 | 811 923 | 1 118 788 | 1 232 112 | 704 775 |
| Calcined           | 460 067 | 449 433 | 521 942   | 531 049   | 440 258 |
| Bulgaria           |         |         |           |           |         |
| Crude              | 18 684  | 10 088  | 8 240     | 12 223    | 15 830  |
| Calcined           | 49 163  | 56 869  | 58 880    | 70 280    | 42 086  |
| Croatia            |         |         |           |           |         |
| Crude              | 41 665  | 25 095  | 48 775    | 38 120    | 14 470  |
| Calcined           | 33 316  | 37 052  | 37 034    | 34 224    | 22 154  |
| Cyprus             |         |         |           |           |         |
| Crude & calcined   | 3 501   | 9 849   | 12 932    | 15 045    | 10 807  |
| Czech Republic     |         |         |           |           |         |
| Crude              | 19 253  | 38 983  | 70 972    | 76 119    | 83 819  |
| Calcined           | 37 637  | 43 282  | 45 167    | 75 278    | 53 954  |
| Denmark            |         |         |           |           |         |
| Crude              | 317 736 | 330 476 | 388 662   | 379 094   | 106 304 |
| Calcined           | 45 691  | 52 788  | 53 647    | 52 087    | 58 675  |
| Estonia            |         |         |           |           |         |
| Crude & calcined   | 20 957  | 40 876  | 46 336    | 38 062    | 9 141   |
| Finland            |         |         |           |           |         |
| Crude              | 341 680 | 310 245 | 423 355   | 408 509   | 146 141 |
| Calcined           | 7 517   | 9 958   | 8 588     | 6 598     | 5 664   |
| France             |         |         |           |           |         |
| Crude              | 361 820 | 588 367 | 580 341   | 492 072   | 354 086 |
| Calcined           | 60 358  | 68 652  | 111 325   | 116 678   | 101 840 |
| Germany            |         |         |           |           |         |
| Crude              | 66 590  | 79 798  | 80 449    | 54 216    | 28 315  |
| Calcined           | 73 647  | 85 665  | 93 275    | 76 992    | 75 319  |
| Greece             |         |         |           |           |         |
| Crude & calcined   | 6 071   | 14 321  | 4 747     | 3 093     | 2 097   |
| Hungary            |         |         |           |           |         |
| Crude & calcined   | 60 336  | 65 546  | 66 039    | 55 933    | 46 376  |

## Gypsum

Imports continued

tonnes

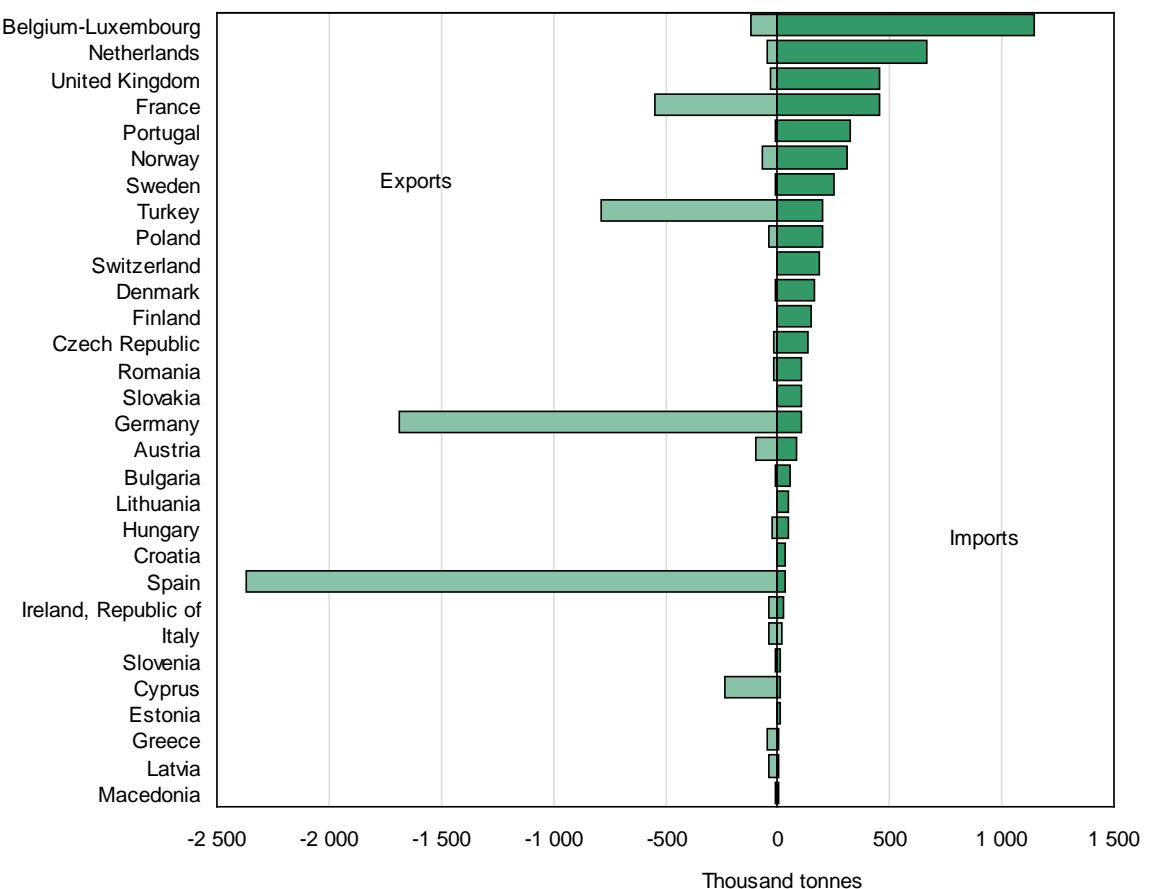
| Country              | 2005    | 2006    | 2007    | 2008    | 2009    |
|----------------------|---------|---------|---------|---------|---------|
| Iceland              |         |         |         |         |         |
| Crude                | 7 353   | 10 061  | 13 279  | 10 533  | 4 724   |
| Calcined             | 928     | 713     | 1 409   | 1 606   | 642     |
| Ireland, Republic of |         |         |         |         |         |
| Crude                | 1 056   | 2 064   | 7 487   | 1 412   | 15 931  |
| Calcined             | 20 024  | 22 500  | 22 676  | 24 877  | 13 930  |
| Italy                |         |         |         |         |         |
| Crude                | 6 134   | 5 285   | 6 814   | 21 411  | 5 754   |
| Calcined             | 22 076  | 20 028  | 21 088  | 19 621  | 16 645  |
| Latvia               |         |         |         |         |         |
| Crude & calcined     | 3 563   | 9 960   | 13 670  | 5 818   | 1 920   |
| Lithuania            |         |         |         |         |         |
| Crude                | 58 859  | 71 649  | 78 185  | 90 320  | 28 754  |
| Calcined             | 20 990  | 36 588  | 47 112  | 43 127  | 19 974  |
| Macedonia            |         |         |         |         |         |
| Crude & calcined     | 1 165   | 1 106   | 1 080   | 976     | 948     |
| Malta                |         |         |         |         |         |
| Crude & calcined     | 5 981   | 7 549   | 6 309   | 5 505   | 2 305   |
| Netherlands          |         |         |         |         |         |
| Crude                | 155 519 | 227 950 | 402 915 | 285 990 | 249 206 |
| Calcined             | 686 085 | 483 249 | 430 550 | 415 623 | 418 481 |
| Norway               |         |         |         |         |         |
| Crude                | 119 962 | 117 892 | 128 045 | 121 440 | 76 435  |
| Calcined             | 274 006 | 287 568 | 328 003 | 298 394 | 234 564 |
| Poland               |         |         |         |         |         |
| Crude                | 150 622 | 175 567 | 283 724 | 154 273 | 118 834 |
| Calcined             | 91 356  | 150 619 | 216 536 | 182 150 | 78 939  |
| Portugal             |         |         |         |         |         |
| Crude                | 79 370  | 96 070  | 75 794  | 89 627  | 81 971  |
| Calcined             | 361 284 | 307 953 | 320 174 | 298 708 | 244 809 |
| Romania              |         |         |         |         |         |
| Crude                | 28 044  | 53 211  | 66 231  | 90 194  | 45 891  |
| Calcined             | 40 983  | 65 441  | 77 900  | 100 471 | 62 134  |
| Slovakia             |         |         |         |         |         |
| Crude                | 76 298  | 85 408  | 88 083  | 111 188 | 53 104  |
| Calcined             | 39 836  | 26 794  | 29 894  | 47 044  | 52 703  |
| Slovenia             |         |         |         |         |         |
| Crude                | 29 388  | 31 312  | 38 588  | 24 660  | 5 565   |
| Calcined             | 7 429   | 8 167   | 7 936   | 8 622   | 9 432   |
| Spain                |         |         |         |         |         |
| Crude                | 47 585  | 59 656  | 53 028  | 43 171  | 25 963  |
| Calcined             | 32 078  | 20 440  | 14 129  | 33 825  | 7 349   |
| Sweden               |         |         |         |         |         |
| Crude                | 206 972 | 263 582 | 244 986 | 178 364 | 94 656  |
| Calcined             | 97 746  | 166 829 | 146 638 | 154 201 | 158 842 |
| Switzerland          |         |         |         |         |         |
| Crude                | 76 460  | 87 964  | 93 365  | 101 731 | 101 228 |
| Calcined             | 88 511  | 92 787  | 95 000  | 97 296  | 87 350  |
| Turkey               |         |         |         |         |         |
| Crude & calcined     | 196 747 | 278 129 | 180 159 | 167 572 | 202 523 |
| United Kingdom       |         |         |         |         |         |
| Crude                | 627 595 | 369 714 | 196 613 | 140 783 | 396 138 |
| Calcined             | 133 522 | 92 069  | 52 678  | 88 766  | 60 337  |

## Note(s)

(1) In this table the term 'crude' may include some anhydrite

Gypsum

**Gypsum - EU33 trade in 2009**



## Iodine

- Iodine is a bluish-black lustrous, solid, non-metal with antiseptic and other medicinal properties, used in sanitation, animal feed and pharmaceutical products. It is also a catalyst.
- World production is dominated by Chile (60 per cent). The EU33 produces no iodine.

### Exports of iodine

| Country              | 2005      | 2006      | 2007      | 2008      | 2009      |
|----------------------|-----------|-----------|-----------|-----------|-----------|
| Austria              | 37        | 600       | 300       | 100       | 300       |
| Belgium-Luxembourg   | 3 460 200 | 3 272 600 | 2 633 100 | 3 560 100 | 2 582 300 |
| Bulgaria             | 1 199     | 781       | 51 610    | 200       | 300       |
| Czech Republic       | 1 000     | 800       | 1 000     | 300       | 500       |
| Denmark              | 3 058     | 6 301     | 100       | 1         | 1 500     |
| France               | 40 900    | 51 300    | 91 100    | 100 500   | 101 909   |
| Germany              | 465 800   | 340 600   | 183 200   | 97 400    | 112 690   |
| Ireland, Republic of | 1 462     | —         | 1 944     | 1 536     | 1 982     |
| Italy                | 14 499    | 7 067     | 2 613     | 2 119     | 86 917    |
| Lithuania            | 33        | 4 800     | 20        | 3         | —         |
| Netherlands          | 59 228    | 76 080    | 517 872   | 773 705   | 386 170   |
| Norway               | —         | 17        | 7 200     | —         | 250       |
| Poland               | 100       | 200       | 1 300     | 5 100     | 5 100     |
| Spain                | 21 089    | 7 356     | 7 689     | 46 873    | 15 376    |
| Sweden               | 4 000     | 40        | 48        | 122       | 300       |
| Switzerland          | 4 179     | 1 342     | 1 205     | 1 605     | 97        |
| Turkey               | 21 250    | 20 213    | 11 098    | 1 212     | 31 908    |
| United Kingdom       | 197 086   | 314 659   | 368 785   | 174 965   | 121 370   |

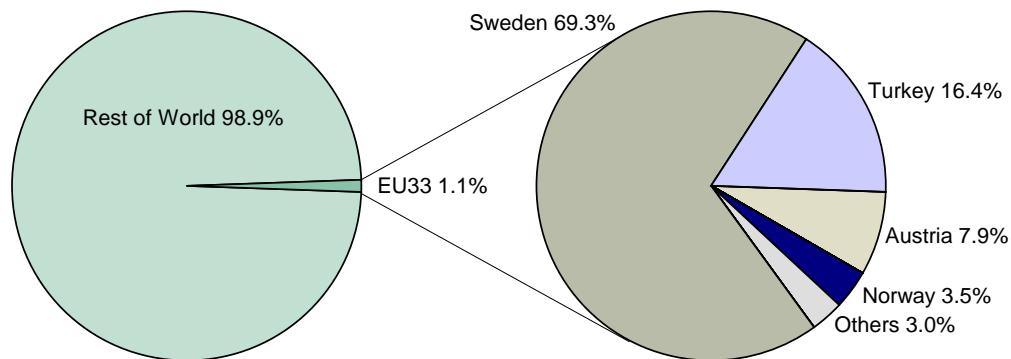
### Imports of iodine

| Country              | 2005      | 2006      | 2007      | 2008      | 2009      |
|----------------------|-----------|-----------|-----------|-----------|-----------|
| Austria              | 92 700    | 173 600   | 145 500   | 139 700   | 204 100   |
| Belgium-Luxembourg   | 3 332 800 | 3 513 200 | 2 774 500 | 3 586 200 | 3 189 200 |
| Bulgaria             | 5 080     | 3 990     | 6 500     | 2 900     | 2 900     |
| Czech Republic       | 28 400    | 31 600    | 32 300    | 25 200    | 31 900    |
| Denmark              | 13 109    | 16 345    | 1 973 090 | 1 122 386 | 6 791     |
| Finland              | 6 209     | 2 066     | 3 400     | 3 400     | 2 901     |
| France               | 1 685 200 | 1 929 100 | 1 687 900 | 1 875 400 | 1 189 569 |
| Germany              | 1 302 300 | 1 205 800 | 1 102 600 | 1 150 600 | 1 168 886 |
| Greece               | 2 247     | 2 153     | 500       | 600       | 800       |
| Hungary              | 6 700     | 1 800     | 4 400     | 7 900     | 2 100     |
| Iceland              | 60 040    | 104       | 12 001    | 12 029    | 9         |
| Ireland, Republic of | 11 921    | 9 705     | 10 318    | 21 515    | 24 358    |
| Italy                | 854 831   | 1 033 737 | 1 231 082 | 1 343 977 | 1 256 232 |
| Lithuania            | 6 929     | 5 023     | 470       | 383       | 4 510     |
| Netherlands          | 21 015    | 158 145   | 1 870     | 800 817   | 23 376    |
| Norway               | 1 748 110 | 1 919 848 | 1 785 526 | 1 668 339 | 1 270 662 |
| Poland               | 10 200    | 18 700    | 18 800    | 24 100    | 10 600    |
| Portugal             | 12 000    | 1 400     | 900       | 100       | 8 000     |
| Romania              | 1 054     | 1 107     | 2 636     | 1 395     | 330       |
| Spain                | 781 787   | 790 641   | 582 029   | 541 706   | 512 821   |
| Sweden               | 2 000     | 2 000     | 5 000     | 600       | 400       |
| Switzerland          | 7 949     | 11 133    | 18 136    | 7 260     | 7 156     |
| Turkey               | 5 634     | 3 219     | 8 594     | 9 498     | 12 133    |
| United Kingdom       | 1 092 633 | 1 019 543 | 1 225 368 | 1 106 864 | 1 075 328 |

## Iron ore

- There are two main commercial ores of iron — magnetite and haematite (both iron oxides). Iron is also recovered from pyrites ( $\text{FeS}_2$ ). Iron ore is mined, processed and smelted chiefly to produce steel in integrated steel plants. Pig iron, for use as iron, is a minor part of production.
- The largest world producer in 2009 was China (39 per cent of the world total) where output has increased by 109 per cent between 2005 and 2009. EU33 iron ore production was only 1.1 per cent of the world total in 2009 and has decreased by 16 per cent between 2005 and 2009. Sweden is the largest EU33 producer (69.3 per cent of EU33 production).

**EU33 Production of iron ore 2009**



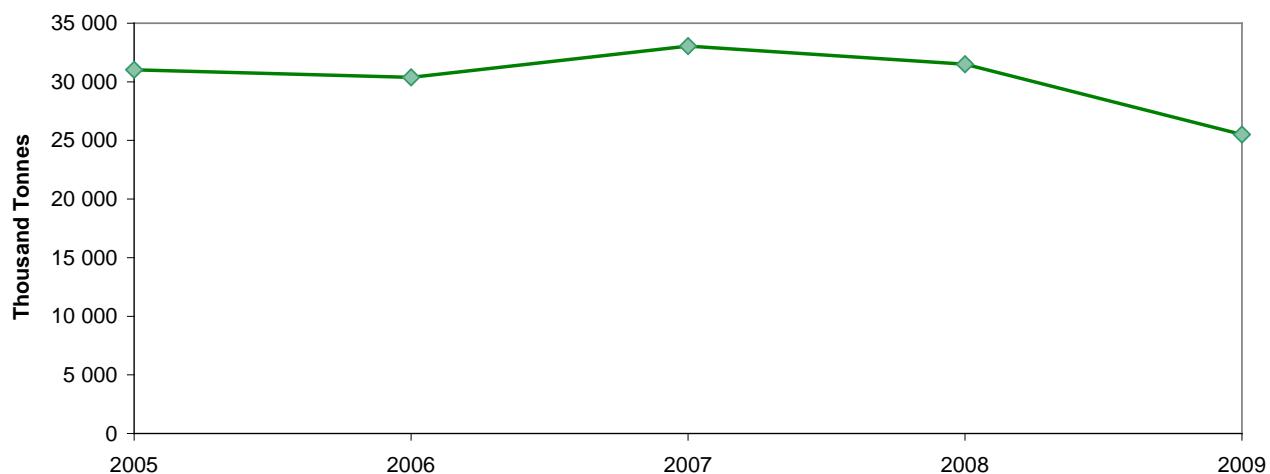
## Production of iron ore

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| Country         | 2005       | 2006       | 2007       | 2008       | 2009       |
|-----------------|------------|------------|------------|------------|------------|
| Austria (a)     | 2 047 950  | 2 092 996  | 2 152 825  | 2 032 671  | 2 002 131  |
| Germany (b) (c) | 362 106    | 416 000    | 421 711    | 455 100    | 363 699    |
| Norway          | 713 000    | 620 000    | 630 000    | 746 000    | 896 000    |
| Romania         | 220 788    | 122 684    | 8 157      | —          | —          |
| Slovakia        | 534 000    | 583 000    | 570 000    | 392 000    | ...        |
| Sweden          | 23 255 000 | 23 302 000 | 24 714 000 | 23 888 000 | 17 677 000 |
| Turkey          | 3 889 934  | 3 251 969  | 4 549 556  | 3 990 110  | 4 169 972  |
| United Kingdom  | 354        | 341        | * 300      | 145        | —          |
| EU33 Total      | 31 023 000 | 30 389 000 | 33 047 000 | 31 504 000 | 25 501 000 |

Note(s)

- (a) Including micaceous iron oxide
- (b) Including manganiferous iron ore
- (c) Used as aggregate in the construction industry

**EU33 Production of iron ore 2005 - 09****Exports of iron ore**

| Country            | 2005       | 2006       | 2007       | 2008       | 2009       |
|--------------------|------------|------------|------------|------------|------------|
| Belgium-Luxembourg | 81 560     | 43 555     | 41 440     | 85 701     | 178 567    |
| Finland            |            |            |            |            |            |
| Burnt pyrites      | 59 433     | 67 503     | 146 844    | 396 064    | 244 225    |
| France             | 107 042    | 76 097     | 69 376     | 57 720     | 124 492    |
| Germany            |            |            |            |            |            |
| Iron ore           | 7 023      | 18 294     | 17 770     | 34 495     | 4 497      |
| Burnt pyrites      | 7 257      | 6 623      | 7 491      | 12 700     | 10 865     |
| Italy              |            |            |            |            |            |
| Iron ore           | 365        | 18 929     | 7 026      | 1 598      | 313        |
| Burnt pyrites      | 9 410      | 4 407      | 1 544      | 101        | 41         |
| Netherlands        | 1 977 965  | 2 491 191  | 2 710 120  | 85 698     | 239 932    |
| Norway             |            |            |            |            |            |
| Iron ore           | 721 975    | 720 582    | 739 731    | 615 296    | 775 828    |
| Burnt pyrites      | 14 730     | 2 658      | ...        | ...        | ...        |
| Poland             | 50         | —          | 27         | 10 198     | 14 893     |
| Romania            |            |            |            |            |            |
| Burnt pyrites      | ...        | 1          | 24 068     | 15 567     | 12 694     |
| Slovakia           | 8 581      | 141 448    | 4 353      | 53 434     | 5 923      |
| Spain (a)          | 231 059    | 120 787    | 75 567     | 62 147     | 17 348     |
| Sweden             | 17 597 351 | 18 409 475 | 19 033 842 | 17 617 162 | 16 104 129 |
| United Kingdom     | 2 107      | 5 229      | 5 396      | 7 731      | 32 579     |

Note(s)

(a) Including burnt pyrites

**Imports of iron ore**

| Country                | 2005      | 2006       | 2007          | 2008          | 2009          |
|------------------------|-----------|------------|---------------|---------------|---------------|
| Austria (a)            | 7 423 189 | 8 412 038  | 9 061 870     | 7 996 632     | 6 095 762     |
| Belgium-Luxembourg (a) | 9 384 885 | 11 387 178 | 9 583 857     | 12 337 572    | 3 279 543     |
| Bulgaria               |           |            |               |               |               |
| Iron ore               | 1 050 925 | 1 305 110  | 919 785       | 208 559       | 3 110         |
| Burnt pyrites          | 437 710   | 450 004    | 464 580       | 188 923       | 15 831        |
| Croatia (a)            | 12 605    | 12 604     | 14 444        | 17 177        | 12 057        |
| Czech Republic         | 6 576 885 | 7 984 718  | (a) 6 578 116 | (a) 6 799 756 | (a) 4 803 009 |
| Denmark                |           |            |               |               |               |
| Iron ore               | 8 450     | 4 318      | 72 806        | 111 302       | 58 894        |
| Burnt pyrites          | 86 399    | 81 341     | 9 231         | —             | —             |
| Finland                | 4 215 633 | 3 481 019  | 3 156 096     | 3 121 303     | 2 204 018     |

Iron Ore

Imports continued

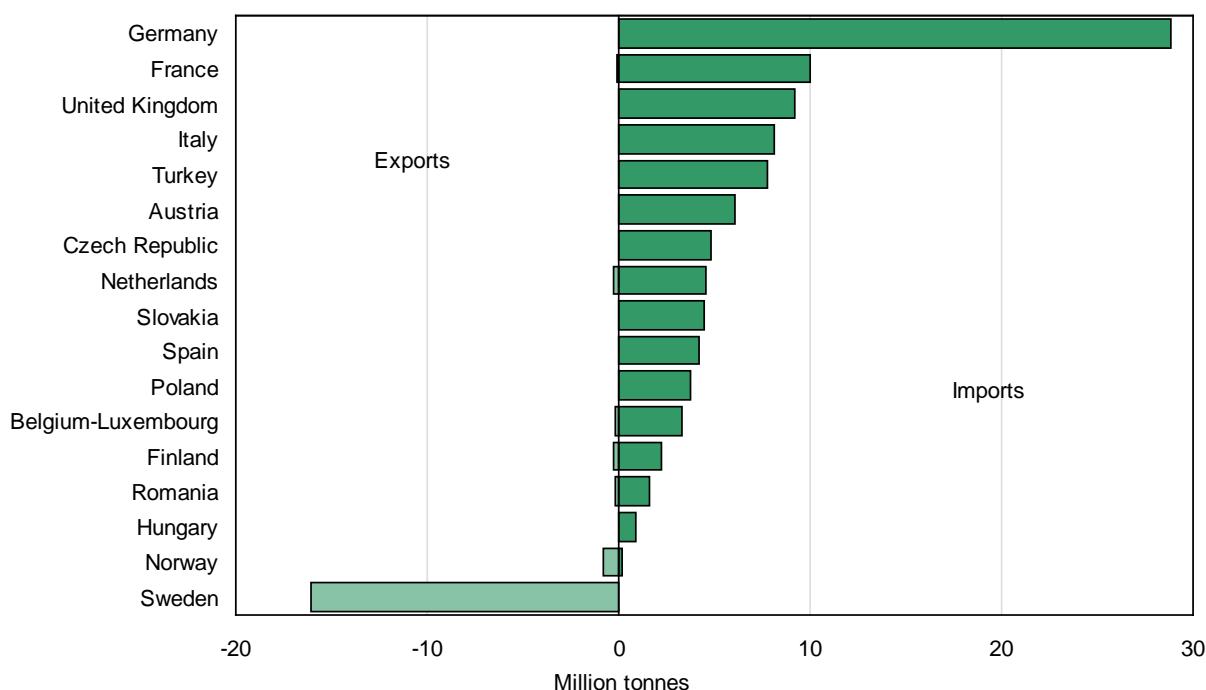
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| Country              | 2005        | 2006           | 2007       | 2008          | 2009          |
|----------------------|-------------|----------------|------------|---------------|---------------|
| France               |             |                |            |               |               |
| Iron ore             | 19 506 894  | 19 463 057     | 20 065 037 | 18 220 893    | 10 014 901    |
| Burnt pyrites        | 160         | 3 451          | 2 107      | 4 948         | 5 375         |
| Germany              |             |                |            |               |               |
| Iron ore             | 39 061 160  | 44 850 286     | 46 194 376 | 44 339 072    | 28 812 155    |
| Burnt pyrites        | 20 496      | 36 299         | 570        | —             | 7 087         |
| Greece               | (a) 55 529  | (a) 9 755      | (a) 2 280  | 74            | (a) 172       |
| Hungary              | 996 277     | 987 543        | 968 033    | 616 684       | 876 109       |
| Iceland              | 38 058      | 38 509         | 43 452     | (a) 44 167    | 34 404        |
| Ireland, Republic of | (a) 580     | 1 161          | (a) 4 594  | (a) 13 478    | (a) 18 151    |
| Italy                | 17 551 785  | (a) 17 776 812 | 17 013 076 | 16 313 184    | 8 159 741     |
| Latvia               | ...         | 3 919          | 46 109     | 44 607        | 2 393         |
| Netherlands          | 12 285 177  | 10 833 565     | 12 693 210 | 10 831 769    | (a) 4 585 303 |
| Norway               | (a) 526 738 | 216 372        | 179 727    | 151 503       | 134 167       |
| Poland               | 6 788 655   | 9 607 629      | 8 746 836  | (a) 7 784 529 | (a) 3 752 010 |
| Romania              |             |                |            |               |               |
| Iron ore             | 6 601 393   | 6 054 765      | 6 259 705  | 5 003 811     | 1 597 033     |
| Burnt pyrites        | ...         | 62 505         | 2 824      | 17 770        | 11 572        |
| Slovakia             | 5 513 902   | 6 406 019      | 5 853 880  | 4 802 516     | 4 499 385     |
| Spain (a)            | 6 248 771   | 5 836 809      | 6 117 047  | 6 479 890     | 4 237 845     |
| Sweden               | 104 570     | 82 211         | (a) 69 937 | (a) 71 441    | (a) 44 006    |
| Switzerland (a)      | 15 145      | 16 019         | 15 626     | 18 704        | 16 490        |
| Turkey               |             |                |            |               |               |
| Iron ore             | 4 621 446   | 7 197 305      | 6 925 163  | 5 004 508     | 7 757 561     |
| Burnt pyrites        | 63 666      | 11 596         | ...        | 17 092        | 14 097        |
| United Kingdom       |             |                |            |               |               |
| Iron ore             | 16 204 615  | 16 370 705     | 17 435 472 | 15 282 786    | 9 185 919     |
| Burnt pyrites        | 1 911       | 1 282          | 131 230    | 693           | 232           |

Note(s)

(a) Including burnt pyrites

Iron ore - EU33 trade in 2009



**Production of pig iron**

tonnes

| Country        | 2005        | 2006        | 2007        | 2008        | 2009       |
|----------------|-------------|-------------|-------------|-------------|------------|
| Austria        | 5 444 000   | 5 547 000   | 5 908 000   | 5 795 000   | 4 353 000  |
| Belgium        | 7 254 000   | 7 516 000   | 6 577 000   | 6 977 000   | 7 407 000  |
| Bulgaria       | 1 115 000   | 1 147 000   | 1 069 000   | 441 000     | ...        |
| Czech Republic | 4 627 000   | 5 192 000   | 5 287 000   | 4 737 000   | 3 483 000  |
| Finland        | 3 056 165   | 3 157 894   | 2 915 130   | 2 942 946   | 2 042 000  |
| France         | 12 595 584  | 12 873 900  | 12 425 703  | 11 371 879  | 8 104 318  |
| Germany        | 29 294 000  | 30 940 000  | 31 700 000  | 29 105 000  | 20 104 000 |
| Hungary        | 1 329 000   | 1 340 000   | 1 393 655   | 1 288 758   | 1 050 000  |
| Italy          | 11 392 000  | 11 500 000  | 11 100 000  | 10 400 000  | 5 670 000  |
| Netherlands    | 6 031 000   | 5 417 000   | 6 412 000   | 6 130 000   | 4 655 000  |
| Norway         | * 100 000   | * 100 000   | * 100 000   | * 100 000   | * 100 000  |
| Poland         | 4 476 831   | 5 332 632   | 5 804 418   | 4 933 781   | 3 095 053  |
| Romania        | 4 097 998   | 3 945 975   | 3 923 244   | 2 957 715   | 1 575 000  |
| Slovakia       | 3 681 000   | 4 145 000   | 4 012 000   | 3 529 000   | 3 019 000  |
| Spain          | 4 160 000   | 3 432 000   | 3 976 000   | 3 995 000   | 2 920 000  |
| Sweden         | 3 844 000   | 3 701 000   | 3 947 000   | 3 708 000   | 1 966 000  |
| Turkey         | 5 398 500   | 5 952 000   | 6 235 537   | 6 697 372   | 6 913 325  |
| United Kingdom | 10 188 800  | 10 695 700  | 10 959 800  | 10 136 800  | 7 674 000  |
| EU33 Total     | 118 080 000 | 121 940 000 | 123 750 000 | 115 250 000 | 84 500 000 |

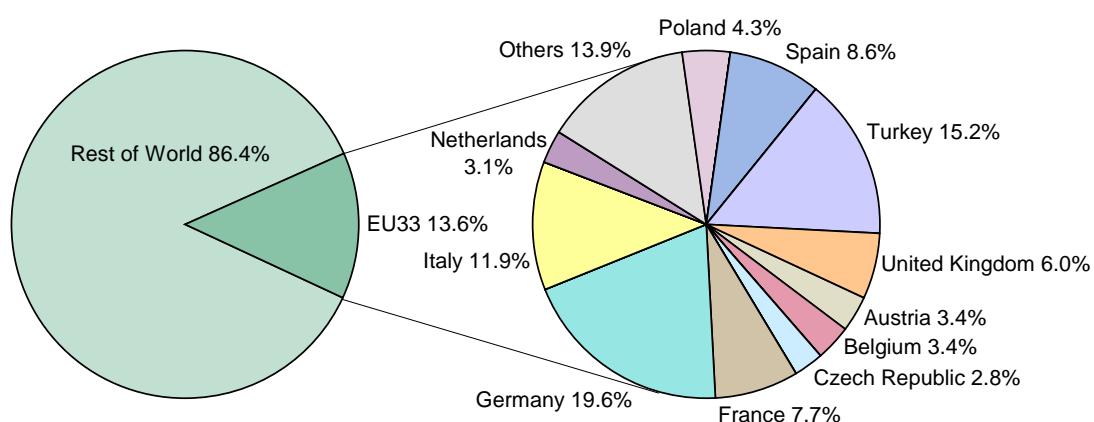
Note(s)

(1) The data in this table include sponge iron and direct reduced iron (DRI), where these have been separately identified

**Crude steel**

- Crude steel is the end product of smelting iron ore. It is produced in a wide variety of forms including slabs, coils, bars, rods and plates — depending on customer requirements. Steel is a ubiquitous product and has a multitude of applications. Alloying with other metals changes the fundamental properties of crude steel to meet specialised requirements. Recycled, or secondary, steel is a significant part of EU33 and world total steel production.
- The majority of industrialised countries produce steel. In 2009 the largest producer was China, with 46 per cent of the world total and with production 61 per cent higher than in 2005. The EU33 countries produced 13.6 per cent of the world total and the largest producer in the EU33 was Germany, which produced nearly 19.6 per cent of EU33 steel output.

EU33 Production of crude steel 2009



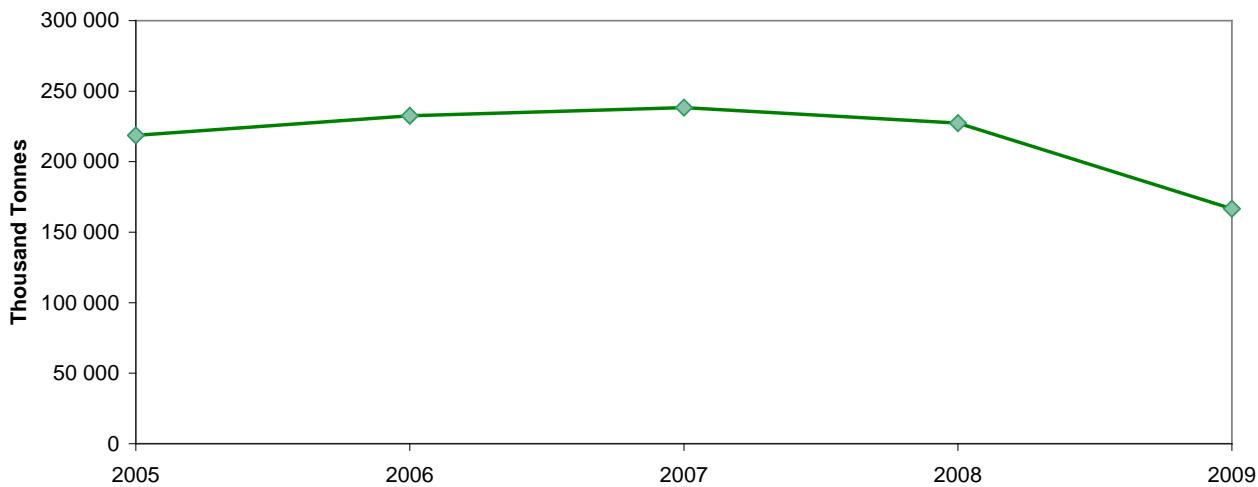
**Production of crude steel**

tonnes

| Country        | 2005        | 2006        | 2007        | 2008        | 2009        |
|----------------|-------------|-------------|-------------|-------------|-------------|
| Austria        | 7 031 000   | 7 129 000   | 7 577 000   | 7 593 000   | 5 662 000   |
| Belgium        | 10 422 000  | 11 631 000  | 10 692 000  | 10 673 000  | 5 635 000   |
| Bulgaria       | 1 969 000   | 2 102 000   | 1 909 000   | 1 330 000   | 726 000     |
| Croatia        | 73 640      | 80 516      | 76 252      | 121 759     | 51 583      |
| Czech Republic | 6 189 000   | 6 862 000   | 7 059 000   | 6 387 000   | 4 594 000   |
| Finland        | 4 738 446   | 5 053 714   | 4 430 726   | 4 416 792   | 3 078 000   |
| France         | 19 480 777  | 19 852 125  | 19 249 862  | 17 879 161  | 12 840 108  |
| Germany        | 44 524 000  | 47 223 000  | 48 550 000  | 45 832 000  | 32 670 000  |
| Greece         | 2 266 000   | 2 416 000   | 2 554 000   | 2 477 000   | 2 000 000   |
| Hungary        | 2 004 250   | 2 084 000   | 2 227 000   | 2 097 000   | 1 401 000   |
| Italy          | 29 349 000  | 31 624 000  | 31 506 000  | 30 589 000  | 19 847 000  |
| Latvia         | 550 000     | * 690 000   | * 696 000   | * 635 000   | * 692 000   |
| Luxembourg     | 2 194 000   | 2 802 000   | 2 858 000   | 2 582 000   | 2 141 000   |
| Macedonia      | 321 170     | 326 484     | 370 317     | 344 866     | 299 332     |
| Netherlands    | 6 919 000   | 6 372 000   | 7 368 000   | 6 853 000   | 5 193 000   |
| Norway         | 705 000     | 684 000     | 708 000     | 560 000     | 591 000     |
| Poland         | 8 335 898   | 9 991 638   | 10 630 716  | 9 727 325   | 7 239 339   |
| Portugal       | 1 338 000   | 1 338 000   | 1 847 000   | 1 630 000   | 1 587 000   |
| Romania        | 6 280 000   | 6 266 036   | 6 269 486   | 5 035 164   | 2 761 000   |
| Slovakia       | 4 485 000   | 5 093 000   | 5 082 000   | 4 489 000   | 3 747 000   |
| Slovenia       | 583 000     | 628 000     | 638 000     | 642 000     | 428 000     |
| Spain          | 17 825 000  | 18 391 000  | 18 998 000  | 18 640 000  | 14 357 000  |
| Sweden         | 5 725 600   | 5 466 100   | 5 672 900   | 5 197 600   | 2 803 700   |
| Switzerland    | 1 158 000   | 1 252 000   | 1 264 000   | 1 312 000   | 934 000     |
| Turkey         | 20 961 240  | 23 307 523  | 25 760 889  | 26 809 050  | 25 303 741  |
| United Kingdom | 13 238 900  | 13 904 600  | 14 392 300  | 13 520 500  | 10 080 000  |
| EU33 Total     | 218 667 000 | 232 570 000 | 238 386 000 | 227 373 000 | 166 662 000 |

## Note(s)

- (1) Unless otherwise indicated, these figures include production from scrap  
(2) Small amounts of steel are believed to be produced in Estonia and Lithuania

**EU33 Production of crude steel 2005 - 09**

## Ferro-alloys

- Ferro-alloys are alloys of iron with a number of metals, such as chromium, silicon or manganese. They are used as additives to steel with the object of modifying its properties. Silicon metal is included within the ferro-alloys table as it is used for the same purpose.
- Ferro-alloy production is usually undertaken close to the mine site or at distant locations where cheap energy supplies are available.
- China is the largest world producer but in the EU33, Norway is the largest producer based on imported metal ores and indigenous resources of silica.

### Production of ferro-alloys

tonnes

| Country                        | 2005      | 2006      | 2007      | 2008      | 2009      |
|--------------------------------|-----------|-----------|-----------|-----------|-----------|
| Austria                        |           |           |           |           |           |
| Ferro-molybdenum               | 5 000     | 5 000     | 5 000     | 4 500     | 4 000     |
| Ferro-nickel                   | 2 500     | 2 500     | 3 000     | 2 000     | 2 500     |
| Ferro-vanadium                 | 6 250     | 6 250     | 6 500     | 6 300     | 6 200     |
| Bulgaria                       |           |           |           |           |           |
| Ferro-silicon                  | * 10 000  | * 10 000  | * 10 000  | * 10 000  | * 10 000  |
| Czech Republic                 |           |           |           |           |           |
| Ferro-vanadium                 | * 2 600   | * 2 800   | * 1 700   | * 2 800   | * 1 900   |
| Finland                        |           |           |           |           |           |
| Ferro-chrome                   | 234 881   | 243 350   | 241 760   | 233 550   | 123 310   |
| France                         |           |           |           |           |           |
| Ferro-manganese & spiegeleisen | 109 111   | 139 533   | 98 066    | * 100 000 | * 100 000 |
| Ferro-silico-manganese         | 52 300    | 63 300    | * 65 000  | * 55 000  | * 55 000  |
| Ferro-silicon                  | * 67 000  | * 67 000  | * 71 000  | * 22 000  | * 20 000  |
| Silicon metal                  | * 100 000 | * 100 000 | * 120 000 | * 100 000 | * 100 000 |
| Germany                        |           |           |           |           |           |
| Ferro-chrome                   | 22 672    | 26 710    | 22 030    | 26 960    | 13 667    |
| Other ferro-alloys             | * 25 400  | * 24 100  | * 5 000   | * 5 000   | * 5 000   |
| Silicon metal                  | 29 349    | 29 865    | 29 379    | 29 092    | 27 620    |
| Greece                         |           |           |           |           |           |
| Ferro-nickel                   | * 96 000  | * 89 000  | 93 300    | 83 200    | 41 300    |
| Iceland                        |           |           |           |           |           |
| Ferro-silicon                  | 114 844   | 113 798   | 114 886   | 107 882   | 135 834   |
| Italy                          |           |           |           |           |           |
| Ferro-manganese                | 32 000    | * 30 000  | * 30 000  | * 30 000  | * 20 000  |
| Ferro-silico-manganese         | 99 000    | 96 600    | 87 000    | 87 000    | 56 000    |
| Macedonia                      |           |           |           |           |           |
| Ferro-nickel                   | 8 141     | 10 942    | 15 321    | 15 026    | 12 000    |
| Ferro-silicon                  | 71 249    | 59 023    | 78 892    | 97 605    | 7 657     |
| Norway                         |           |           |           |           |           |
| Ferro-manganese                | * 130 000 | * 130 000 | * 130 000 | * 130 000 | * 130 000 |
| Ferro-silico-manganese         | 288 137   | 325 708   | 293 699   | 273 485   | * 250 000 |
| Ferro-silicon                  | 329 316   | 123 819   | 170 024   | 185 344   | 233 974   |
| Other ferro-alloys             | * 60 000  | * 60 000  | * 62 000  | * 60 000  | * 60 000  |
| Silicon metal                  | 178 572   | * 150 000 | * 140 000 | * 155 000 | * 150 000 |
| Poland                         |           |           |           |           |           |
| Ferro-manganese                | 7 782     | 4 089     | 2 093     | 8 475     | 1 736     |
| Ferro-silico-manganese         | 10 242    | 3 310     | 15 590    | 25 061    | 72        |
| Ferro-silicon                  | 65 118    | 13 034    | 58 538    | 56 031    | 9 685     |
| Other ferro-alloys             | 3 663     | 4 488     | 6 255     | 2 948     | 4 190     |
| Romania                        |           |           |           |           |           |
| Ferro-chrome                   | —         | —         | —         | 6 179     | ...       |
| Ferro-manganese                | 18 625    | 3 777     | —         | —         | —         |
| Ferro-silico-manganese         | 100 957   | 66 476    | 26 868    | 9 979     | ...       |
| Slovakia                       |           |           |           |           |           |
| Ferro-chrome                   | 867       | 19        | —         | —         | —         |
| Ferro-silico-manganese         | 47 843    | 59 128    | 71 587    | 59 940    | ...       |
| Ferro-silicon                  | 16 512    | 16 155    | 8 583     | 10 844    | ...       |
| Other ferro-alloys             | 48 161    | 65 498    | 74 065    | 61 194    | ...       |
| Slovenia                       |           |           |           |           |           |
| Ferro-silicon                  | 15 529    | 12 550    | * 6 000   | * —       | * —       |

Iron, Steel and Ferro-Alloys

| Production continued   |           |           |           |           |                |
|------------------------|-----------|-----------|-----------|-----------|----------------|
| Country                | 2005      | 2006      | 2007      | 2008      | tonnes<br>2009 |
| Spain                  |           |           |           |           |                |
| Ferro-manganese        | * 35 000  | * 35 000  | * 35 000  | * 35 000  | * 35 000       |
| Ferro-silico-manganese | * 100 000 | * 100 000 | * 100 000 | * 100 000 | * 100 000      |
| Ferro-silicon          | * 60 000  | * 60 000  | * 60 000  | * 60 000  | * 60 000       |
| Silicon metal          | * 25 000  | * 25 000  | * 25 000  | * 25 000  | * 25 000       |
| Sweden                 |           |           |           |           |                |
| Ferro-chrome           | 127 500   | 136 400   | 124 400   | 118 700   | * 50 000       |
| Ferro-silicon          | 9 800     | 4 600     | 4 300     | —         | —              |
| Turkey                 |           |           |           |           |                |
| Ferro-chrome           | 26 043    | 67 975    | 69 730    | 75 840    | 41 028         |
| Ferro-silico-chrome    | 6 695     | 7 310     | 6 624     | 6 094     | 2 903          |

**Exports of iron, steel and ferro-alloys**

| Country                 | 2005      | 2006      | 2007      | 2008      | tonnes<br>2009 |
|-------------------------|-----------|-----------|-----------|-----------|----------------|
| Austria                 |           |           |           |           |                |
| Pig iron                | 6 614     | 5 695     | 6 958     | 7 539     | 2 354          |
| Ferro-alloys            | 9 476     | 10 218    | 9 100     | 7 541     | 5 953          |
| Silicon metal           | 628       | 1 884     | 5 166     | 5 412     | 4 795          |
| Ingots, blooms, billets | 484 431   | 303 284   | 286 765   | 284 063   | 187 410        |
| Scrap                   | 1 024 301 | 1 140 091 | 1 279 775 | 1 351 725 | 1 067 926      |
| Belgium-Luxembourg      |           |           |           |           |                |
| Pig iron                | 201 577   | 230 490   | 275 411   | 283 034   | 106 120        |
| Sponge & powder         | 15 850    | 19 750    | 36 997    | 20 773    | 14 655         |
| Ferro-chrome            | 31 851    | 38 401    | 54 201    | 38 927    | 20 403         |
| Ferro-silico-chrome     | 9 107     | 17 169    | 15 141    | 12 463    | 15 645         |
| Ferro-silico-magnesium  | 11        | 52        | 6 744     | 6 172     | 782            |
| Ferro-manganese         | 11 674    | 11 122    | 16 126    | 24 024    | 9 923          |
| Ferro-silico-manganese  | 29 858    | 41 422    | 52 431    | 40 777    | 31 374         |
| Ferro-molybdenum        | 22 420    | 22 679    | 20 153    | 17 759    | 16 936         |
| Ferro-silicon           | 21 812    | 39 501    | 68 385    | 54 905    | 47 214         |
| Other ferro-alloys      | 6 689     | 6 498     | 1 988     | 5 401     | 1 651          |
| Silicon metal           | 9 095     | 6 765     | 5 869     | 6 673     | 5 954          |
| Ingots, blooms, billets | 639 936   | 859 247   | 1 089 364 | 958 406   | 296 473        |
| Scrap                   | 2 712 683 | 3 052 438 | 3 268 578 | 3 754 867 | 3 360 083      |
| Bulgaria                |           |           |           |           |                |
| Pig iron                | 51        | 44 549    | 62 032    | 23 553    | 1 420          |
| Ferro-silico-manganese  | 1 501     | 3 638     | 6 845     | 288       | ...            |
| Ferro-silicon           | 1 499     | 3 345     | 4 972     | 2 076     | 2 890          |
| Other ferro-alloys      | 72        | 180       | 2 072     | 550       | 9 867          |
| Silicon metal           | 15        | 11        | 2 374     | 46        | ...            |
| Ingots, blooms, billets | 97 757    | 163 020   | 135 710   | 85 466    | 54 115         |
| Scrap                   | 784 778   | 722 261   | 677 347   | 740 414   | 510 997        |
| Croatia                 |           |           |           |           |                |
| Scrap                   | 318 840   | 398 070   | 427 540   | 357 487   | 302 085        |
| Cyprus                  |           |           |           |           |                |
| Scrap                   | 55 240    | 65 998    | 63 662    | 72 106    | 80 349         |
| Czech Republic          |           |           |           |           |                |
| Pig iron                | 15 526    | 17 599    | 31 182    | 30 457    | 24 041         |
| Ferro-silicon           | 5 396     | 6 516     | 8 254     | 8 780     | 4 285          |
| Ferro-vanadium          | 2 613     | 2 763     | 1 685     | 2 830     | 1 868          |
| Other ferro-alloys      | 14 358    | 15 078    | 8 704     | 13 897    | 12 274         |
| Silicon metal           | 512       | 1 040     | 1 118     | 1 375     | 783            |
| Ingots, blooms, billets | 251 513   | 324 619   | 587 296   | 500 423   | 222 780        |
| Scrap                   | 1 351 676 | 1 456 061 | 1 678 565 | 1 792 889 | 1 442 865      |
| Denmark                 |           |           |           |           |                |
| Ferro-silicon           | 23 295    | 14 611    | 64        | 70        | 85             |
| Other ferro-alloys      | 139       | 238       | 701       | 585       | 330            |
| Ingots, blooms, billets | 1 203     | 2 199     | 12 820    | 16 775    | 13 287         |
| Scrap                   | 1 402 982 | 1 414 060 | 1 263 987 | 1 372 424 | 1 335 754      |

Exports continued

tonnes

| Country                                | 2005      | 2006      | 2007       | 2008      | 2009      |
|--|-----------|-----------|------------|-----------|-----------|
| Estonia                                |           |           |            |           |           |
| Pig iron                               | (f)* 200  | ...       | (f)* 1 360 | 1         | (f)* 1    |
| Ferro-alloys                           | 665       | 672       | 159        | 153       | 100       |
| Ingots, blooms, billets                | ...       | 425       | 5 985      | 1 392     | 3 159     |
| Scrap                                  | 440 622   | 592 372   | 572 216    | 650 099   | 384 299   |
| Finland                                |           |           |            |           |           |
| Pig iron                               | 8 040     | 3 045     | 0          | 14 070    | 11 317    |
| Ferro-chrome                           | 39 341    | 37 663    | 100 022    | 37 709    | 61 319    |
| Ingots, blooms, billets                | 436 083   | 284 313   | 185 229    | 281 325   | 253 440   |
| Scrap                                  | 286 494   | 220 124   | 253 732    | 308 047   | 276 010   |
| France                                 |           |           |            |           |           |
| Pig iron                               | 350       | 113 729   | 89 768     | 88 462    | 151 699   |
| Sponge & powder                        | 6 465     | 13 059    | 17 948     | 14 698    | 5 261     |
| Ferro-chrome                           | 857       | 875       | 1 217      | 2 098     | 2 217     |
| Ferro-silico-magnesium                 | 6 829     | 2 165     | 16 377     | 28 255    | 10 787    |
| Ferro-manganese                        | 7 181     | 7 483     | 8 049      | 2 457     | 2 882     |
| Ferro-silico-manganese                 | 76 021    | 53 278    | 41 110     | 42 260    | 41 324    |
| Ferro-molybdenum                       | 547       | 673       | 481        | 374       | 379       |
| Ferro-niobium                          | 240       | 596       | 948        | 984       | 261       |
| Ferro-silicon                          | 69 551    | 63 432    | 50 334     | 73 824    | 51 676    |
| Ferro-titanium & ferro-silico-titanium | 1 542     | 1 992     | 2 292      | 1 493     | 844       |
| Other ferro-alloys                     | 27 432    | 22 699    | 357        | 150       | 10 612    |
| Ingots, blooms, billets                | 3 914 427 | 3 071 836 | 2 650 976  | 2 830 986 | 1 814 051 |
| Scrap                                  | 4 955 474 | 6 019 890 | 6 210 854  | 6 028 712 | 5 402 426 |
| Germany                                |           |           |            |           |           |
| Pig iron                               | 82 834    | 180 939   | 145 453    | 153 917   | 86 491    |
| Sponge & powder                        | 175 291   | 197 636   | 147 303    | 95 846    | 28 183    |
| Ferro-chrome                           | 26 472    | 36 289    | 39 892     | 36 856    | 27 831    |
| Ferro-silico-magnesium                 | 14 254    | 12 142    | 24 051     | 22 191    | 9 323     |
| Ferro-manganese                        | 12 660    | 24 659    | 14 733     | 11 802    | 9 043     |
| Ferro-silico-manganese                 | 2 928     | 9 748     | 8 684      | 10 354    | 4 436     |
| Ferro-molybdenum                       | 3 867     | 3 499     | 3 636      | 3 858     | 3 229     |
| Ferro-nickel                           | 31        | 115       | 2 116      | 1 036     | 1 725     |
| Ferro-niobium                          | 1 448     | 1 130     | 1 149      | 1 057     | 321       |
| Ferro-phosphorus                       | 936       | 977       | 839        | 477       | 475       |
| Ferro-silicon                          | 53 979    | 53 963    | 51 343     | 63 858    | 63 214    |
| Ferro-titanium & ferro-silico-titanium | 5 263     | 4 795     | 6 011      | 4 237     | 1 662     |
| Ferro-tungsten & ferro-silico-tungsten | 176       | 423       | 480        | 460       | 339       |
| Ferro-vanadium                         | 528       | 268       | 558        | 413       | 755       |
| Other ferro-alloys                     | 10 652    | 10 720    | ...        | ...       | ...       |
| Ingots, blooms, billets                | 1 950 158 | 2 171 036 | 2 496 951  | 2 047 223 | 1 655 376 |
| Scrap                                  | 6 692 022 | 7 605 306 | 7 770 479  | 8 268 662 | 7 275 257 |
| Greece                                 |           |           |            |           |           |
| Ferro-alloys                           | 1 044     | 511       | 340        | 3 671     | 377       |
| Ingots, blooms, billets                | 48        | 13 899    | 121 989    | 162 819   | 102 721   |
| Scrap                                  | 37 164    | 126 188   | 34 584     | 36 018    | 34 840    |
| Hungary                                |           |           |            |           |           |
| Ferro-alloys                           | 234       | —         | 829        | 47        | ...       |
| Ingots, blooms, billets                | 24 923    | 14 731    | 36 548     | 90 282    | 4 315     |
| Scrap                                  | 761 464   | 658 499   | 567 923    | 691 805   | 636 805   |
| Iceland                                |           |           |            |           |           |
| Ferro-silicon                          | 125       | 103 572   | 117 230    | 105 868   | 1 129 930 |
| Silicon metal                          | 4         | —         | 15         | —         | 200       |
| Scrap                                  | 36 624    | 28 908    | 68 014     | 60 287    | 38 075    |
| Ireland, Republic of                   |           |           |            |           |           |
| Scrap                                  | 352 028   | 398 587   | 478 562    | 485 387   | 428 416   |

Iron, Steel and Ferro-Alloys

Exports continued

tonnes

| Country                                  | 2005      | 2006      | 2007      | 2008      | 2009        |
|--|-----------|-----------|-----------|-----------|-------------|
| Italy                                    |           |           |           |           |             |
| Pig iron                                 | 15 740    | 22 114    | 50 789    | 36 137    | 61 761      |
| Sponge & powder                          | 163       | 194       | 1 097     | 615       | 452         |
| Ferro-chrome                             | 3 753     | 8 276     | 5 411     | 4 593     | 2 066       |
| Ferro-silico-magnesium                   | 30        | 93        | 2 061     | 1 681     | 673         |
| Ferro-manganese                          | 10 380    | 8 670     | 14 562    | 12 890    | 7 457       |
| Ferro-silico-manganese                   | 3 511     | 4 086     | 7 048     | 6 882     | 4 322       |
| Ferro-molybdenum                         | 90        | 174       | 68        | 277       | 1 266       |
| Ferro-nickel                             | 3 967     | 173       | 239       | 123       | 418         |
| Ferro-silicon                            | 5 035     | 4 457     | 7 113     | 7 094     | 6 395       |
| Other ferro-alloys                       | 996       | 1 986     | 84        | 95        | 68          |
| Silicon metal                            | 3 931     | 3 304     | 4 576     | 6 007     | 3 200       |
| Ingots, blooms, billets                  | 698 402   | 958 626   | 983 369   | 964 245   | 570 380     |
| Scrap                                    | 185 688   | 190 139   | 240 735   | 387 528   | 325 026     |
| Latvia                                   |           |           |           |           |             |
| Ingots, blooms, billets                  | 667       | 2 626     | 4 371     | 4 010     | 2 323       |
| Scrap                                    | 217 361   | 313 455   | 245 958   | 388 456   | 213 766     |
| Lithuania                                |           |           |           |           |             |
| Ferro-alloys                             | 13 293    | 17 952    | 15 437    | 11 188    | 3 093       |
| Scrap                                    | 599 084   | 681 692   | 661 349   | 659 646   | 422 436     |
| Macedonia                                |           |           |           |           |             |
| Ferro-silico-manganese                   | 1 673     | 6 682     | 48 258    | ...       | 10 938      |
| Ferro-nickel                             | 34 419    | 45 058    | 71 189    | ...       | ...         |
| Ferro-silicon                            | 74 450    | 62 794    | 30 139    | ...       | 16 621      |
| Scrap                                    | 85 745    | 98 763    | 124 200   | 104 326   | 59 407      |
| Malta                                    |           |           |           |           |             |
| Scrap                                    | 5 252     | 19 012    | 28 083    | 25 379    | 27 775      |
| Netherlands                              |           |           |           |           |             |
| Pig iron                                 | 40 552    | 28 806    | 134 324   | 170 468   | 89 714      |
| Sponge & powder                          | 46 464    | 22 899    | 543       | 382       | * 140       |
| Ferro-chrome                             | 81 105    | 92 920    | 94 048    | 103 036   | 62 439      |
| Ferro-silico-chrome                      | 508       | 299       | 25        | 15        | ...         |
| Ferro-manganese                          | 49 203    | 28 423    | 42 958    | 65 203    | 33 193      |
| Ferro-silico-manganese                   | 13 994    | 14 118    | 21 432    | 17 571    | 37 593      |
| Ferro-molybdenum                         | 4 304     | 5 652     | 5 579     | 3 150     | 1 894       |
| Ferro-nickel                             | 23 252    | 42 421    | 42 331    | 5 086     | 3 564       |
| Ferro-niobium                            | 126       | 217       | 1 439     | 1 736     | 925         |
| Ferro-silicon                            | 95 845    | 97 120    | 106 764   | 71 762    | 87 348      |
| Ferro-titanium & ferro-silico-titanium   | 6 235     | 4 281     | 3 706     | 3 046     | 2 730       |
| Ferro-tungsten & ferro-silico-tungsten   | 624       | 477       | 2 010     | 1 168     | 476         |
| Ferro-vanadium                           | 22 495    | 5 855     | 7 263     | 2 274     | 926         |
| Other ferro-alloys                       | 9 700     | 5 683     | 7 719     | 22 603    | 5 582       |
| Silicon metal                            | 40 393    | 56 525    | 15 237    | 15 547    | 46 466      |
| Ingots, blooms, billets                  | 152 593   | 378 061   | 1 111 462 | 806 999   | 157 861     |
| Scrap                                    | 4 140 362 | 4 786 987 | 4 500 919 | 4 523 660 | * 2 835 000 |
| Norway                                   |           |           |           |           |             |
| Pig iron (a)                             | * 66 800  | * 149 400 | * 119 800 | * 110 100 | * 75 000    |
| Ferro-chrome                             | (a)* 200  | (a)* 200  | (a)* 100  | (a)* 75   | —           |
| Ferro-manganese (a)                      | * 274 200 | * 287 500 | * 329 400 | * 354 000 | * 203 000   |
| Ferro-silico-manganese                   | 289 497   | 306 932   | 280 028   | 257 804   | 200 279     |
| Ferro-silicon                            | 179 503   | 90 556    | 155 198   | 209 669   | 115 682     |
| Other ferro-alloys                       | 55 564    | 58 033    | ...       | 57 954    | 16 207      |
| Silicon metal                            | 168 790   | 152 514   | 144 607   | 155 385   | 109 254     |
| Ingots, blooms, billets                  | 151 882   | 180 500   | 176 755   | 62 625    | 106 505     |
| Scrap                                    | 267 051   | 337 088   | 290 644   | 269 370   | 228 138     |
| Poland                                   |           |           |           |           |             |
| Pig iron                                 | 4 917     | 19 286    | 7 481     | 5 189     | 10 543      |
| Ferro-manganese & ferro-silico-manganese | 22 713    | 11 954    | 20 412    | 37 978    | 21 640      |
| Ferro-silicon                            | 64 974    | 16 023    | 46 923    | 52 976    | 16 401      |
| Other ferro-alloys                       | 915       | 1 630     | 2 364     | 2 752     | 2 440       |
| Ingots, blooms, billets                  | 1 249 618 | 964 361   | 1 575 099 | 1 580 450 | 664 035     |
| Scrap                                    | 1 426 831 | 1 197 827 | 1 199 620 | 1 368 952 | 978 862     |
| Portugal                                 |           |           |           |           |             |
| Ingots, blooms, billets                  | 159 868   | 79 697    | 138 692   | 164 425   | 136 284     |
| Scrap                                    | 330 536   | 479 017   | 378 043   | 172 133   | 216 037     |

Exports continued

tonnes

| Country                                  | 2005      | 2006      | 2007      | 2008      | 2009      |
|--|-----------|-----------|-----------|-----------|-----------|
| Romania                                  |           |           |           |           |           |
| Pig iron                                 | ...       | ...       | ...       | ...       | —         |
| Sponge & powder                          | 12 522    | 12 851    | 17 832    | 18 697    | 18 807    |
| Ferro-silico-manganese                   | 142 617   | 41 000    | 33 529    | 5 793     | 8 120     |
| Other ferro-alloys                       | 8 657     | 3 561     | 872       | 1 493     | 6 273     |
| Ingots, blooms, billets                  | 100 515   | 87 685    | 183 551   | 220 136   | 51 644    |
| Scrap                                    | 1 661 747 | 1 862 498 | 1 963 213 | 1 985 977 | 2 565 443 |
| Slovakia                                 |           |           |           |           |           |
| Pig iron                                 | 31 261    | 50 497    | 10 588    | 20 676    | 29 779    |
| Ferro-manganese                          | 41 918    | 59 475    | 49 723    | 48 747    | 19 204    |
| Ferro-silico-manganese                   | 51 623    | 73 050    | 62 898    | 55 873    | 37 792    |
| Ferro-silicon                            | 29 130    | 25 240    | 16 437    | 21 352    | 15 823    |
| Other ferro-alloys                       | 10 741    | 8 033     | 13 604    | 15 436    | 5 277     |
| Ingots, blooms, billets                  | 289 090   | 654 743   | 508 620   | 241 811   | 255 917   |
| Scrap                                    | 390 620   | 524 597   | 404 401   | 525 777   | 318 290   |
| Slovenia                                 |           |           |           |           |           |
| Pig iron                                 | 752       | 3 511     | 14 942    | 24 639    | 4 412     |
| Ferro-silicon                            | 24 290    | 26 859    | 15 277    | 20 826    | 6 628     |
| Other ferro-alloys                       | 27 120    | 22 497    | 24 205    | 12 516    | 9 989     |
| Silicon metal                            | 252       | 3 006     | 1 875     | 1 149     | 3 049     |
| Ingots, blooms, billets                  | 12 647    | 12 273    | 31 849    | 21 006    | 12 296    |
| Scrap                                    | 225 627   | 222 403   | 245 869   | 199 016   | 284 958   |
| Spain                                    |           |           |           |           |           |
| Pig iron                                 | 12 709    | 4 202     | 12 491    | 9 747     | 4 772     |
| Sponge & powder                          | 4 397     | 4 030     | 6 404     | 4 763     | 2 566     |
| Ferro-chrome                             | 775       | 1 024     | 2 461     | 4 768     | 367       |
| Ferro-manganese                          | 101 850   | 91 018    | 71 345    | 65 330    | 29 403    |
| Ferro-silico-manganese                   | 42 916    | 32 806    | 33 636    | 34 307    | 25 859    |
| Ferro-molybdenum                         | 331       | 317       | 70        | 45        | 242       |
| Ferro-silicon                            | 11 843    | 7 759     | 18 323    | 9 562     | 5 939     |
| Other ferro-alloys                       | 992       | 493       | 1 170     | 1 285     | 1 178     |
| Silicon metal                            | 16 742    | 16 566    | 16 175    | 16 008    | 5 571     |
| Ingots, blooms, billets                  | 118 414   | 114 897   | 91 085    | 310 671   | 261 758   |
| Scrap                                    | 140 200   | 137 273   | 162 371   | 214 913   | 302 465   |
| Sweden                                   |           |           |           |           |           |
| Pig iron                                 | 99 496    | 145 733   | 152 911   | 62 588    | 141 261   |
| Sponge & powder                          | 9 064     | 15 238    | 26 666    | 19 844    | 6 558     |
| Ferro-chrome                             | 1 801     | 1 973     | 2 247     | 3 534     | 3 368     |
| Ferro-silico-magnesium                   | 60        | 739       | 1 260     | ...       | 50        |
| Ferro-manganese & ferro-silico-manganese | 3 456     | 2 584     | 3 859     | 3 620     | 2 423     |
| Ferro-molybdenum                         | 158       | 157       | 304       | 301       | 193       |
| Ferro-phosphorus                         | 294       | 706       | 1 128     | 1 370     | 364       |
| Ferro-silicon                            | 731       | 1 968     | 2 892     | 2 616     | 3 004     |
| Ferro-vanadium                           | 249       | 61        | 135       | 112       | 250       |
| Other ferro-alloys                       | 1 171     | 1 289     | 216       | 895       | 280       |
| Silicon metal                            | 6 049     | 2 321     | 1 474     | 2 458     | 968       |
| Ingots, blooms, billets                  | 232 958   | 116 880   | 134 568   | 102 086   | 58 631    |
| Scrap                                    | 863 474   | 847 179   | 1 069 335 | 1 449 311 | 1 439 126 |
| Switzerland                              |           |           |           |           |           |
| Sponge & powder                          | 2 222     | 2 233     | 2 537     | 2 126     | 1 564     |
| Ferro-alloys                             | 867       | 616       | 653       | 642       | 943       |
| Ingots, blooms, billets                  | 83 219    | 88 289    | 104 433   | 65 257    | 48 349    |
| Scrap                                    | 561 972   | 582 567   | 585 342   | 636 462   | 565 415   |
| Turkey                                   |           |           |           |           |           |
| Pig iron                                 | 9 358     | 1 150     | —         | 10 372    | 10 616    |
| Ferro-chrome                             | 39 038    | 60 952    | 63 209    | 39 324    | 75 236    |
| Other ferro-alloys                       | 1 356     | 1 747     | 7 122     | 5 682     | 6 199     |
| Ingots, blooms, billets                  | 2 174 257 | 1 630 209 | 1 660 642 | 2 501 135 | 2 431 211 |
| Scrap                                    | 64 281    | 44 474    | 29 237    | 77 654    | 66 673    |

## Iron, Steel and Ferro-Alloys

Exports continued

| Country                                | 2005      | 2006      | 2007      | 2008      | 2009      |
|--|-----------|-----------|-----------|-----------|-----------|
| United Kingdom                         |           |           |           |           |           |
| Pig iron                               | 1 387     | 5 407     | 15 892    | 2 523     | 27 765    |
| Sponge & powder                        | 3 605     | 2 346     | 4 969     | 2 794     | 3 103     |
| Ferro-chrome & ferro-silico-chrome     | 6 238     | 4 066     | 2 973     | 1 385     | 1 525     |
| Ferro-silico-magnesium                 | 542       | 653       | 917       | 976       | 1 373     |
| Ferro-manganese                        | 661       | 946       | 1 136     | 1 210     | 963       |
| Ferro-silico-manganese                 | 5 003     | 60        | 7         | 49        | 129       |
| Ferro-molybdenum                       | 11 501    | 12 004    | 11 823    | 11 283    | 7 634     |
| Ferro-nickel                           | 55        | 329       | 52        | 81        | 18        |
| Ferro-niobium                          | 79        | 74        | 49        | 58        | 52        |
| Ferro-phosphorus                       | 189       | 36        | 33        | 45        | 312       |
| Ferro-silicon                          | 2 652     | 2 733     | 2 314     | 3 250     | 3 338     |
| Ferro-titanium & ferro-silico-titanium | 17 361    | 17 645    | 19 515    | 18 557    | 13 098    |
| Ferro-tungsten & ferro-silico-tungsten | 37        | 17        | 8         | 31        | 1         |
| Ferro-vanadium                         | 157       | 151       | 96        | 79        | 64        |
| Other ferro-alloys                     | 6 167     | 4 327     | 3 867     | 5 002     | 2 142     |
| Silicon metal                          | 2 466     | 6 963     | 11 325    | 151 132   | 7 753     |
| Ingots, blooms, billets                | 2 246 377 | 2 692 654 | 3 514 850 | 3 348 794 | 2 118 701 |
| Scrap                                  | 6 105 955 | 7 407 174 | 6 013 907 | 6 616 708 | 6 007 656 |

### Note(s)

(1) In this table the term 'ingots, blooms, billets' corresponds to items 7206, 7207, 7218 and 7224 of the Harmonised System which includes those of alloy and high carbon steel

(a) BGS estimates, based on known imports into certain countries

## Imports of iron, steel and ferro-alloys

tonnes

| Country                                | 2005      | 2006      | 2007      | 2008      | 2009      |
|--|-----------|-----------|-----------|-----------|-----------|
| Austria                                |           |           |           |           |           |
| Pig iron                               | 51 982    | 40 133    | 69 614    | 43 663    | 30 084    |
| Sponge & powder                        | 25 214    | 20 542    | 31 775    | 56 471    | 13 980    |
| Ferro-chrome                           | 41 046    | 34 196    | 49 977    | 47 748    | 20 400    |
| Ferro-silico-magnesium                 | 678       | 522       | 1 746     | 2 021     | 1 843     |
| Ferro-manganese                        | 37 865    | 29 385    | 38 857    | 36 491    | 18 962    |
| Ferro-silico-manganese                 | 26 572    | 22 456    | 30 340    | 22 322    | 17 927    |
| Ferro-molybdenum                       | 617       | 1 632     | 1 370     | 1 552     | 801       |
| Ferro-niobium                          | 899       | 955       | 956       | 1 125     | 665       |
| Ferro-phosphorus                       | 1 749     | 1 520     | 1 692     | 2 011     | 1 095     |
| Ferro-silicon                          | 32 445    | 25 609    | 26 180    | 27 850    | 12 825    |
| Ferro-titanium & ferro-silico-titanium | 1 121     | 1 081     | 793       | 879       | 388       |
| Ferro-tungsten & ferro-silico-tungsten | 535       | 677       | 796       | 1 277     | 208       |
| Ferro-vanadium                         | 256       | 100       | 186       | 289       | 32        |
| Other ferro-alloys                     | 1 554     | 1 611     | 7         | 61        | 1         |
| Silicon metal                          | 11 698    | 12 937    | 16 581    | 15 601    | 7 288     |
| Ingots, blooms, billets                | 108 004   | 132 901   | 208 910   | 191 426   | 46 762    |
| Scrap                                  | 1 113 082 | 1 089 942 | 1 371 393 | 1 629 170 | 1 196 327 |

## Imports continued

tonnes

| Country                                | 2005      | 2006      | 2007      | 2008      | 2009      |
|--|-----------|-----------|-----------|-----------|-----------|
| <b>Belgium-Luxembourg</b>              |           |           |           |           |           |
| Pig iron                               | 330 709   | 560 116   | 552 212   | 548 129   | 282 010   |
| Sponge & powder                        | 48 915    | 102 543   | 33 539    | 22 021    | 19 441    |
| Ferro-chrome                           | 220 896   | 342 280   | 452 118   | 378 018   | 185 436   |
| Ferro-silico-chrome                    | 9 587     | 19 190    | 17 149    | 15 483    | 0         |
| Ferro-silico-magnesium                 | 1 656     | 2 040     | 12 168    | 10 433    | 5 000     |
| Ferro-manganese                        | 60 564    | 54 402    | 65 987    | 89 088    | 22 459    |
| Ferro-silico-manganese                 | 60 454    | 69 526    | 149 121   | 92 194    | 62 548    |
| Ferro-molybdenum                       | 5 199     | 5 929     | 5 405     | 2 339     | 2 225     |
| Ferro-nickel                           | 61 454    | 73 384    | 90 808    | 89 430    | 46 248    |
| Ferro-niobium                          | 849       | 936       | 3 252     | 2 003     | 1 225     |
| Ferro-phosphorus                       | 1 700     | 1 607     | 2 185     | 10 421    | 3 124     |
| Ferro-silicon                          | 79 901    | 109 389   | 150 254   | 126 700   | 65 734    |
| Ferro-titanium & ferro-silico-titanium | 2 141     | 3 016     | 3 553     | 5 595     | 2 182     |
| Ferro-vanadium                         | 650       | 338       | 615       | 693       | 396       |
| Other ferro-alloys                     | 7 499     | 6 887     | —         | —         | 160       |
| Silicon metal                          | 18 563    | 20 117    | 17 307    | 20 098    | 19 002    |
| Ingots, blooms, billets                | 3 452 850 | 2 876 977 | 3 500 081 | 3 540 429 | 2 331 000 |
| Scrap                                  | 3 761 788 | 4 297 928 | 7 416 312 | 8 095 587 | 5 508 621 |
| <b>Bulgaria</b>                        |           |           |           |           |           |
| Pig iron                               | 19 624    | 15 278    | 26 932    | 27 941    | 6 736     |
| Sponge & powder                        | 384       | 542       | 31 306    | 1 282     | 14 572    |
| Ferro-chrome                           | 836       | 1 088     | 916       | 656       | 182       |
| Ferro-manganese                        | 5 540     | 6 133     | 7 981     | 4 206     | 3 137     |
| Ferro-silico-manganese                 | 666       | 1 885     | 3 336     | 4 325     | 3 479     |
| Ferro-silicon                          | 3 897     | 4 410     | 2 977     | 3 331     | 1 152     |
| Other ferro-alloys                     | 1 140     | 1 789     | 2 390     | 1 906     | 1 033     |
| Silicon metal                          | 585       | 9 733     | 873       | 763       | 247       |
| Ingots, blooms, billets                | 275 001   | 417 485   | 462 348   | 567 381   | 306 020   |
| Scrap                                  | 108 450   | 188 698   | 295 555   | 237 055   | 202 276   |
| <b>Croatia</b>                         |           |           |           |           |           |
| Pig iron                               | 15 270    | 16 994    | 17 011    | 15 031    | 8 420     |
| Ferro-alloys                           | 2 893     | 3 031     | 3 027     | 4 790     | 2 239     |
| Ingots, blooms, billets                | 12 421    | 27 291    | 20 953    | 20 077    | 19 396    |
| Scrap                                  | 18 407    | 17 563    | 29 553    | 19 400    | 10 628    |
| <b>Czech Republic</b>                  |           |           |           |           |           |
| Pig iron                               | 88 549    | 150 032   | 108 715   | 111 872   | 47 666    |
| Sponge & powder                        | 6 130     | 10 136    | 20 580    | 24 791    | 10 006    |
| Ferro-chrome                           | 16 772    | 20 492    | 34 123    | 26 043    | 14 715    |
| Ferro-silico-magnesium                 | 941       | 1 236     | 6 297     | 5 778     | 3 192     |
| Ferro-manganese                        | 30 921    | 32 355    | 35 500    | 33 704    | 23 630    |
| Ferro-silico-manganese                 | 53 258    | 57 857    | 52 153    | 48 962    | 34 418    |
| Ferro-molybdenum                       | 1 744     | 1 889     | 2 025     | 2 049     | 949       |
| Ferro-silicon                          | 34 114    | 36 361    | 41 482    | 37 230    | 23 936    |
| Ferro-vanadium                         | 564       | 429       | 440       | 578       | 299       |
| Other ferro-alloys                     | 10 018    | 9 080     | 1 697     | 1 644     | 836       |
| Silicon metal                          | 2 589     | 4 986     | 6 584     | 5 826     | 4 408     |
| Ingots, blooms, billets                | 484 450   | 409 753   | 445 181   | 525 598   | 220 524   |
| Scrap                                  | 392 135   | 560 676   | 521 779   | 502 256   | 377 942   |
| <b>Denmark</b>                         |           |           |           |           |           |
| Pig iron                               | 12 720    | 18 128    | 18 349    | 14 064    | 10 299    |
| Sponge & powder                        | 29 188    | 80 148    | 61 079    | 3 602     | 1 742     |
| Ferro-silico-magnesium                 | —         | 1 322     | 1 795     | 1 465     | 348       |
| Ferro-silicon                          | 2 548     | 4 069     | 1 887     | 1 702     | 569       |
| Other ferro-alloys                     | 1 345     | 1 771     | 595       | 1 080     | 217       |
| Silicon metal                          | 659       | 1 586     | 741       | 263       | 65        |
| Ingots, blooms, billets                | 551 407   | 588 053   | 780 837   | 672 439   | 328 893   |
| Scrap                                  | 313 558   | 238 142   | 213 776   | 392 453   | 269 841   |
| <b>Estonia</b>                         |           |           |           |           |           |
| Ferro-alloys                           | 2 125     | 1 815     | 1 240     | 1 114     | 305       |
| Scrap                                  | 111 930   | 64 110    | 53 155    | 37 774    | 9 267     |

## Iron, Steel and Ferro-Alloys

Imports continued

tonnes

| Country                                | 2005      | 2006      | 2007      | 2008      | 2009      |
|--|-----------|-----------|-----------|-----------|-----------|
| <b>Finland</b>                         |           |           |           |           |           |
| Pig iron                               | 27 160    | 45 364    | 53 901    | 42 681    | 18 097    |
| Sponge & powder                        | 969       | 779 146   | 880 575   | 942 664   | 493 087   |
| Ferro-chrome                           | 7 404     | 17 926    | 9 650     | 11 182    | 5 094     |
| Ferro-manganese                        | 14 728    | 14 828    | 18 138    | 15 709    | 5 985     |
| Ferro-silico-manganese                 | 38 375    | 38 440    | 34 994    | 34 139    | 20 642    |
| Ferro-molybdenum                       | 2 293     | 1 948     | 1 892     | 1 730     | 584       |
| Ferro-nickel                           | 47 531    | 53 741    | 54 106    | 50 294    | 17 098    |
| Ferro-niobium                          | 478       | 493       | 570       | 757       | 318       |
| Ferro-phosphorus                       | 489       | 550       | 560       | 380       | 285       |
| Ferro-silicon                          | 25 723    | 36 659    | 31 814    | 29 740    | 21 437    |
| Ferro-titanium & ferro-silico-titanium | 1 912     | 1 558     | 1 707     | 1 857     | 710       |
| Other ferro-alloys                     | 4 849     | 4 252     | 4 300     | 4 193     | 1 428     |
| Silicon metal                          | 1 306     | 1 402     | 1 318     | 1 638     | 548       |
| Ingots, blooms, billets                | 51 678    | 5 138     | 7 649     | 11 114    | 30 206    |
| Scrap                                  | 756 267   | 1 013 675 | 687 887   | 596 792   | 467 642   |
| <b>France</b>                          |           |           |           |           |           |
| Pig iron                               | 249 585   | 183 755   | 195 466   | 202 077   | 115 722   |
| Sponge & powder                        | 184 661   | 219 813   | 147 662   | 89 809    | 26 695    |
| Ferro-chrome                           | 192 129   | 159 940   | 106 513   | 111 584   | 71 570    |
| Ferro-silico-chrome                    | 122       | 677       | 8         | 69        | 20        |
| Ferro-silico-magnesium                 | 25 046    | 18 536    | 26 899    | 26 786    | 12 067    |
| Ferro-manganese                        | 55 239    | 57 240    | 63 487    | 69 464    | 33 948    |
| Ferro-silico-manganese                 | 58 403    | 49 287    | 45 827    | 54 004    | 34 758    |
| Ferro-molybdenum                       | 5 235     | 5 223     | 5 650     | 5 637     | 3 263     |
| Ferro-nickel                           | 9 229     | 4 487     | 6 373     | 5 887     | 12 709    |
| Ferro-niobium                          | 2 722     | 2 597     | 2 785     | 3 266     | 1 183     |
| Ferro-phosphorus                       | 2 536     | 2 360     | 2 528     | 2 698     | 1 670     |
| Ferro-silicon                          | 71 269    | 64 727    | 52 945    | 61 740    | 30 913    |
| Ferro-titanium & ferro-silico-titanium | 6 448     | 9 037     | 10 009    | 8 293     | 2 647     |
| Ferro-tungsten & ferro-silico-tungsten | 523       | 839       | 597       | 666       | 247       |
| Ferro-vanadium                         | 1 351     | 1 396     | 1 432     | 1 575     | 819       |
| Silicon metal                          | 25 257    | 21 813    | 19 659    | 23 885    | 15 243    |
| Ingots, blooms, billets                | 1 621 219 | 1 557 219 | 1 998 943 | 1 747 005 | 1 113 710 |
| Scrap                                  | 2 819 160 | 3 319 269 | 3 197 843 | 3 241 199 | 2 407 619 |
| <b>Germany</b>                         |           |           |           |           |           |
| Pig iron                               | 320 481   | 422 525   | 655 022   | 713 470   | 402 132   |
| Sponge & powder                        | 156 048   | 193 503   | 249 673   | 90 069    | 294 393   |
| Ferro-chrome                           | 454 703   | 458 070   | 484 276   | 544 619   | 305 008   |
| Ferro-silico-chrome                    | 1 429     | 12 867    | 14 426    | 12 886    | 8 648     |
| Ferro-silico-magnesium                 | 6 831     | 23 761    | 25 758    | 23 645    | 12 238    |
| Ferro-manganese                        | 170 967   | 195 387   | 217 428   | 209 083   | 122 063   |
| Ferro-silico-manganese                 | 172 967   | 181 726   | 210 703   | 156 484   | 111 008   |
| Ferro-molybdenum                       | 15 594    | 17 473    | 18 423    | 17 434    | 12 484    |
| Ferro-nickel                           | 157 091   | 150 789   | 169 677   | 177 851   | 127 087   |
| Ferro-niobium                          | 4 361     | 6 063     | 6 176     | 6 269     | 4 047     |
| Ferro-phosphorus                       | 4 985     | 5 575     | 6 519     | 4 801     | 1 332     |
| Ferro-silicon                          | 238 120   | 214 736   | 274 783   | 215 374   | 146 127   |
| Ferro-titanium & ferro-silico-titanium | 10 302    | 13 492    | 15 339    | 13 824    | 5 461     |
| Ferro-tungsten & ferro-silico-tungsten | 600       | 990       | 1 512     | 2 182     | 1 366     |
| Ferro-vanadium                         | 4 843     | 5 171     | 5 711     | 5 333     | 3 421     |
| Other ferro-alloys                     | 13 323    | 13 698    | —         | —         | 13 571    |
| Silicon metal                          | 156 690   | 184 499   | 190 933   | 225 185   | 183 516   |
| Ingots, blooms, billets                | 2 331 264 | 2 578 298 | 3 095 162 | 2 970 042 | 1 171 865 |
| Scrap                                  | 5 026 286 | 5 592 745 | 5 920 061 | 5 675 167 | 3 865 110 |
| <b>Greece</b>                          |           |           |           |           |           |
| Pig iron                               | 6 415     | 9 172     | 10 461    | 9 185     | 9 107     |
| Sponge & powder                        | 3 374     | 492       | 6 741     | 7 709     | 9 685     |
| Ferro-chrome                           | 674       | 871       | 1 016     | 1 146     | 916       |
| Ferro-manganese                        | 1 293     | 640       | 2 654     | 1 753     | 1 216     |
| Ferro-silico-manganese                 | 31 657    | 31 524    | 38 321    | 24 943    | 8 023     |
| Ferro-silicon                          | 6 339     | 4 694     | 18 783    | 8 170     | 4 569     |
| Other ferro-alloys                     | 474       | 444       | 546       | 504       | 170       |
| Silicon metal                          | 1 126     | 1 408     | 1 383     | 2 312     | 906       |
| Ingots, blooms, billets                | 90 412    | 120 241   | 250 572   | 171 231   | 159 350   |
| Scrap                                  | 1 545 912 | 1 517 545 | 1 637 437 | 1 485 316 | 1 159 166 |

## Imports continued

tonnes

| Country                                | 2005      | 2006      | 2007      | 2008      | 2009      |
|--|-----------|-----------|-----------|-----------|-----------|
| Hungary                                |           |           |           |           |           |
| Pig iron                               | 8 808     | 14 821    | 13 285    | 12 951    | 3 403     |
| Ferro-manganese                        | 2 898     | 15 611    | 4 311     | 4 318     | 2 037     |
| Ferro-silico-manganese                 | 1 368     | 3 303     | 4 168     | 4 661     | 922       |
| Ferro-silicon                          | 5 013     | 4 821     | 5 907     | 5 232     | 3 100     |
| Other ferro-alloys                     | 4 049     | 1 677     | 1 535     | 13 393    | 15 780    |
| Silicon metal                          | 2 260     | 4 847     | 2 982     | 2 184     | 2 589     |
| Ingots, blooms, billets                | 102 861   | 38 956    | 29 820    | 273 585   | 104 855   |
| Scrap                                  | 45 860    | 65 136    | 87 369    | 146 494   | 34 357    |
| Iceland                                |           |           |           |           |           |
| Pig iron                               | 1 195     | 956       | 502       | 1 128     | 1 333     |
| Ferro-alloys                           | 13        | 43        | 63        | 113       | 5 641     |
| Silicon metal                          | 220       | 364       | 466       | 1 614     | 237       |
| Ingots, blooms, billets                | 2 569     | 1 647     | 4 352     | 1 361     | 1 528     |
| Ireland, Republic of                   |           |           |           |           |           |
| Pig iron                               | 3 215     | 2 710     | 939       | 2 359     | 1 202     |
| Ferro-alloys                           | 475       | 401       | 464       | 370       | 737       |
| Ingots, blooms, billets                | 1 637     | 7 928     | 8 319     | 5 459     | 5 373     |
| Scrap                                  | 1 137     | 3 650     | 4 179     | 4 206     | 4 388     |
| Italy                                  |           |           |           |           |           |
| Pig iron                               | 1 729 086 | 1 791 165 | 2 235 376 | 2 238 037 | 895 818   |
| Sponge & powder                        | 424 810   | 468 825   | 465 834   | 396 660   | 174 364   |
| Ferro-chrome                           | 428 716   | 464 364   | 419 392   | 389 002   | 296 813   |
| Ferro-silico-magnesium                 | 5 409     | 6 809     | 16 751    | 15 716    | 6 026     |
| Ferro-manganese                        | 84 920    | 95 010    | 108 976   | 96 771    | 46 537    |
| Ferro-silico-manganese                 | 174 391   | 216 632   | 229 755   | 186 135   | 119 670   |
| Ferro-molybdenum                       | 7 294     | 7 469     | 7 433     | 8 318     | 3 998     |
| Ferro-nickel                           | 141 603   | 129 870   | 91 651    | 104 198   | 78 383    |
| Ferro-niobium                          | 2 457     | 2 194     | 2 783     | 2 733     | 1 395     |
| Ferro-phosphorus                       | 987       | 547       | 721       | 488       | 550       |
| Ferro-silicon                          | 141 789   | 147 121   | 154 797   | 122 236   | 89 909    |
| Ferro-titanium & ferro-silico-titanium | 3 978     | 3 922     | 4 230     | 3 861     | 4 462     |
| Ferro-tungsten & ferro-silico-tungsten | 208       | 307       | 385       | 578       | 300       |
| Ferro-vanadium                         | 1 945     | 1 839     | 2 521     | 2 445     | 1 158     |
| Other ferro-alloys                     | 11 799    | 9 727     | 1         | 243       | —         |
| Silicon metal                          | 49 129    | 51 696    | 57 854    | 57 493    | 27 402    |
| Ingots, blooms, billets                | 4 310 404 | 5 792 203 | 5 991 974 | 5 311 325 | 2 655 726 |
| Scrap                                  | 5 367 259 | 5 668 405 | 5 242 020 | 5 705 462 | 3 321 387 |
| Latvia                                 |           |           |           |           |           |
| Pig iron                               | 54 639    | 57 696    | 65 437    | 56 964    | 38 140    |
| Sponge & powder                        | 350       | 112       | 131       | 19        | 14 931    |
| Ferro-chrome (a)                       | * 3       | * 3       | * 20      | * 130     | * 9 050   |
| Ferro-manganese                        | 3 119     | 3 281     | 3 021     | 10 334    | 2 345     |
| Ferro-silico-manganese                 | 5 024     | 5 628     | 14 947    | 23 477    | 14 722    |
| Ferro-silicon                          | 3 876     | 2 550     | 3 086     | 18 466    | 15 085    |
| Other ferro-alloys                     | 201       | 416       | 372       | 132       | 415       |
| Silicon metal                          | 1 711     | 1 409     | 656       | 467       | 783       |
| Ingots, blooms, billets                | 206 550   | 145 037   | 158 649   | 146 505   | 226 967   |
| Scrap                                  | 161 538   | 266 616   | 294 904   | 412 240   | 214 564   |
| Lithuania                              |           |           |           |           |           |
| Ferro-chrome                           | 5 210     | 6 140     | 9 705     | 9 634     | 2 842     |
| Ferro-silico-manganese                 | 3 153     | 6 864     | 5 983     | ...       | ...       |
| Other ferro-alloys                     | 3 047     | 1 413     | 437       | 457       | 114       |
| Ingots, blooms, billets                | 4 279     | 5 260     | 6 011     | 9 661     | 1 229     |
| Scrap                                  | 74 816    | 103 878   | 64 661    | 64 462    | 29 805    |
| Macedonia                              |           |           |           |           |           |
| Pig iron                               | 1 970     | 3 781     | 2 467     | 2 609     | 1 732     |
| Ferro-alloys                           | 2 786     | 2 860     | 3 737     | 3 402     | 1 618     |
| Ingots, blooms, billets                | 226 286   | 359 029   | 501 134   | 482 294   | 157 566   |
| Scrap                                  | 264 067   | 277 360   | 310 410   | 255 543   | 7 375     |

Iron, Steel and Ferro-Alloys

Imports continued

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| Country                                | 2005      | 2006      | 2007      | 2008      | 2009        |
|--|-----------|-----------|-----------|-----------|-------------|
| Netherlands                            |           |           |           |           |             |
| Pig iron                               | 107 828   | 122 097   | 158 199   | 292 867   | 122 185     |
| Sponge & powder                        | 131 170   | 251 304   | 244 874   | 253 882   | 109 768     |
| Ferro-chrome                           | 170 806   | 204 637   | 325 741   | 275 995   | 40 931      |
| Ferro-silico-chrome                    | 621       | 1 125     | 674       | 1         | 1 394       |
| Ferro-manganese                        | 115 972   | 102 493   | 105 789   | 96 135    | 39 045      |
| Ferro-silico-manganese                 | 30 114    | 47 986    | 81 034    | 70 108    | 29 335      |
| Ferro-molybdenum                       | 5 100     | 7 554     | 11 826    | 8 566     | 2 868       |
| Ferro-nickel                           | 39 305    | 17 866    | 16 878    | 17 602    | 4 274       |
| Ferro-niobium                          | 51        | 159       | 465       | 2 074     | 949         |
| Ferro-silicon                          | 145 459   | 122 016   | 160 792   | 114 290   | 79 461      |
| Ferro-titanium & ferro-silico-titanium | 11 496    | 11 005    | 10 730    | 6 781     | 1 860       |
| Ferro-tungsten & ferro-silico-tungsten | 1 148     | 965       | 1 186     | 1 572     | 554         |
| Ferro-vanadium                         | 5 100     | 4 409     | 4 132     | 2 042     | 519         |
| Other ferro-alloys                     | 7 412     | 25 282    | 12 829    | 30 407    | 6 951       |
| Silicon metal                          | 52 931    | 69 104    | 68 719    | 57 446    | 41 740      |
| Ingots, blooms, billets                | 322 908   | 390 652   | 269 481   | 283 834   | 110 561     |
| Scrap                                  | 2 030 115 | 2 321 144 | 1 669 159 | 1 842 597 | * 1 135 000 |
| Norway                                 |           |           |           |           |             |
| Pig iron                               | 10 841    | 12 813    | 11 335    | 11 198    | 10 639      |
| Sponge & powder                        | 13 729    | 320       | 2 355     | 1 589     | 292         |
| Ferro-chrome                           | 1 251     | 1 440     | 1 303     | 929       | 1 162       |
| Ferro-manganese                        | 6 154     | 5 328     | 10 639    | 7 448     | 6 608       |
| Ferro-silico-manganese                 | 1 071     | 2 729     | 1 034     | 1 960     | 1 186       |
| Ferro-silicon                          | 25 663    | 26 931    | 43 350    | 13 502    | 9 097       |
| Other ferro-alloys                     | 1 877     | 3 392     | 3 681     | 2 471     | 926         |
| Silicon metal                          | 26 714    | 37 439    | 39 961    | 40 878    | 29 810      |
| Ingots, blooms, billets                | 142 986   | 161 778   | 195 928   | 167 309   | 59 344      |
| Scrap                                  | 345 634   | 313 184   | 267 085   | 96 427    | 91 114      |
| Poland                                 |           |           |           |           |             |
| Pig iron                               | 239 240   | 220 163   | 228 445   | 236 682   | 156 970     |
| Sponge & powder                        | 24 490    | 12 448    | 10 282    | 8 390     | 4 677       |
| Ferro-chrome                           | 10 863    | 12 318    | 14 113    | 13 713    | 6 064       |
| Ferro-silico-magnesium                 | 3 410     | 4 035     | 9 102     | 8 194     | 5 379       |
| Ferro-manganese                        | 29 230    | 35 508    | 42 352    | 31 876    | 32 935      |
| Ferro-silico-manganese                 | 51 197    | 63 332    | 79 942    | 47 964    | 71 585      |
| Ferro-molybdenum                       | 1 178     | 1 168     | 1 527     | 1 554     | 711         |
| Ferro-phosphorus                       | 1 056     | 1 195     | 1 492     | 1 386     | 675         |
| Ferro-silicon                          | 22 769    | 24 986    | 24 846    | 20 424    | 16 132      |
| Ferro-vanadium                         | 313       | 480       | 445       | 418       | 313         |
| Other ferro-alloys                     | 7 405     | 10 291    | 639       | 599       | 444         |
| Silicon metal                          | 9 243     | 11 935    | 13 946    | 11 652    | 11 839      |
| Ingots, blooms, billets                | 298 314   | 569 057   | 679 404   | 584 305   | 157 799     |
| Scrap                                  | 238 113   | 289 956   | 313 907   | 465 978   | 596 733     |
| Portugal                               |           |           |           |           |             |
| Pig iron                               | 19 713    | 15 149    | 17 468    | 13 824    | 7 507       |
| Sponge & powder                        | 844       | 866       | 1 498     | 740       | 38 849      |
| Ferro-chrome                           | 884       | 1 160     | 1 050     | 1 093     | 245         |
| Ferro-silico-magnesium                 | 1 028     | 1 005     | 6 070     | 6 228     | 4 551       |
| Ferro-manganese                        | 885       | 816       | 1 281     | 908       | 762         |
| Ferro-silico-manganese                 | 10 021    | 12 779    | 9 835     | 10 063    | 9 921       |
| Ferro-silicon                          | 3 028     | 3 341     | 3 355     | 3 479     | 3 707       |
| Other ferro-alloys                     | 5 389     | 7 270     | 187       | 393       | 69          |
| Silicon metal                          | 128       | 548       | 425       | 187       | 410         |
| Ingots, blooms, billets                | 10 538    | 14 494    | 84 769    | 26 532    | 53 089      |
| Scrap                                  | 653 988   | 1 056 949 | 1 075 517 | 1 128 391 | 887 110     |
| Romania                                |           |           |           |           |             |
| Pig iron                               | 19 339    | 9 872     | 53 779    | 37 889    | 61 027      |
| Sponge & powder                        | 1 231     | 1 415     | 2 446     | 3 203     | 1 518       |
| Ferro-chrome                           | 5 286     | 3 022     | 2 838     | 3 423     | 984         |
| Ferro-manganese                        | 38 323    | 36 872    | 34 126    | 28 773    | 9 063       |
| Ferro-silico-manganese                 | 18 752    | 18 432    | 37 558    | 17 919    | 11 461      |
| Ferro-silicon                          | 17 170    | 17 152    | 21 156    | 13 190    | 4 998       |
| Other ferro-alloys                     | 3 048     | 3 167     | 3 191     | 2 412     | 1 508       |
| Silicon metal                          | 2 813     | 8 947     | 1 192     | 3 155     | 1 104       |
| Ingots, blooms, billets                | 448 454   | 633 196   | 922 499   | 757 551   | 109 046     |
| Scrap                                  | 545       | 9 867     | 15 771    | 17 886    | 4 204       |

## Imports continued

tonnes

| Country                                | 2005      | 2006      | 2007      | 2008      | 2009      |
|--|-----------|-----------|-----------|-----------|-----------|
| Slovakia                               |           |           |           |           |           |
| Pig iron                               | 39 400    | 59 145    | 59 778    | 70 034    | 19 468    |
| Sponge & powder                        | 13 852    | 25 064    | 52 697    | * 144 000 | 4 090     |
| Ferro-chrome                           | 2 630     | 2 597     | 9 818     | 7 539     | 2 635     |
| Ferro-manganese                        | 14 245    | 23 409    | 20 410    | 19 503    | 16 912    |
| Ferro-silico-manganese                 | 1 480     | 3 016     | 977       | 2 776     | 2 720     |
| Ferro-niobium                          | 393       | 849       | 906       | 897       | 154       |
| Ferro-silicon                          | 21 742    | 19 395    | 26 142    | 23 747    | 14 970    |
| Other ferro-alloys                     | 4 044     | 5 216     | 3 874     | 5 408     | 1 747     |
| Silicon metal                          | 6 279     | 5 416     | 6 004     | 6 391     | 4 460     |
| Ingots, blooms, billets                | 10 753    | 17 086    | 20 708    | 18 953    | 54 781    |
| Scrap                                  | 197 550   | 243 822   | 257 815   | 217 558   | 164 985   |
| Slovenia                               |           |           |           |           |           |
| Pig iron                               | 32 217    | 70 254    | 102 973   | 68 153    | 24 031    |
| Ferro-chrome                           | 23 308    | 26 992    | 23 645    | 25 665    | 15 951    |
| Ferro-manganese                        | 4 410     | 4 467     | 6 061     | 5 663     | 4 157     |
| Ferro-silico-manganese                 | 2 443     | 3 691     | 4 789     | 3 373     | 3 467     |
| Ferro-molybdenum                       | 550       | 539       | 569       | 540       | 410       |
| Ferro-nickel                           | 2 321     | 2 457     | 2 364     | 538       | ...       |
| Ferro-silicon                          | 13 486    | 17 937    | 14 017    | 24 651    | 11 335    |
| Other ferro-alloys                     | 8 111     | 10 027    | 4 914     | 5 402     | 2 581     |
| Silicon metal                          | 6 393     | 9 945     | 7 654     | 6 536     | 4 929     |
| Ingots, blooms, billets                | 3 505     | 3 444     | 11 479    | 12 930    | 1 568     |
| Scrap                                  | 434 585   | 434 330   | 363 362   | 367 968   | 281 950   |
| Spain                                  |           |           |           |           |           |
| Pig iron                               | 806 327   | 793 050   | 652 786   | 688 421   | 380 731   |
| Sponge & powder                        | 516 423   | 641 804   | 611 893   | 621 627   | 295 665   |
| Ferro-chrome                           | 200 543   | 253 172   | 1 123 216 | 203 518   | 113 275   |
| Ferro-silico-magnesium                 | 5 256     | 2 891     | 7 289     | 9 890     | 5 818     |
| Ferro-manganese                        | 16 489    | 14 406    | 24 599    | 17 126    | 13 357    |
| Ferro-silico-manganese                 | 66 531    | 42 326    | 48 205    | 74 962    | 50 683    |
| Ferro-molybdenum                       | 6 327     | 10 473    | 5 863     | 3 777     | 3 756     |
| Ferro-nickel                           | 59 113    | 92 147    | 75 625    | 68 355    | 43 936    |
| Ferro-niobium                          | 906       | 515       | 8 283     | 685       | 553       |
| Ferro-phosphorus                       | 2 036     | 1 771     | 2 554     | 1 488     | 193       |
| Ferro-silicon                          | 39 623    | 52 215    | 71 487    | 46 445    | 27 140    |
| Ferro-titanium & ferro-silico-titanium | 1 880     | 796       | 1 276     | 1 006     | 611       |
| Ferro-vanadium                         | 824       | 515       | 1 189     | 1 122     | 809       |
| Other ferro-alloys                     | 6 546     | 4 586     | 82        | 4 378     | 360       |
| Silicon metal                          | 4 160     | 2 837     | 3 640     | 8 856     | 9 523     |
| Ingots, blooms, billets                | 1 219 342 | 1 601 769 | 1 733 247 | 1 587 605 | 1 007 820 |
| Scrap                                  | 6 975 101 | 7 437 224 | 6 316 516 | 7 408 237 | 4 674 099 |
| Sweden                                 |           |           |           |           |           |
| Pig iron                               | 38 223    | 43 492    | 59 661    | 80 450    | 40 076    |
| Sponge & powder                        | 2 091     | 7 346     | 16 799    | 11 861    | 2 691     |
| Ferro-chrome                           | 86 040    | 86 160    | 125 057   | 114 712   | 78 244    |
| Ferro-silico-chrome                    | 2 030     | 1 370     | 3 104     | 3 873     | 1 215     |
| Ferro-manganese                        | 43 005    | 49 295    | 75 409    | 68 246    | 27 869    |
| Ferro-silico-manganese                 | 18 995    | 20 566    | 17 085    | 10 677    | 5 754     |
| Ferro-molybdenum                       | 5 364     | 4 976     | 4 377     | 5 693     | 2 652     |
| Ferro-nickel                           | 7 431     | 8 076     | 9 162     | 6 803     | 3 286     |
| Ferro-niobium                          | 1 156     | 1 504     | 1 242     | 1 264     | 604       |
| Ferro-phosphorus                       | 314       | 433       | 1 331     | 386       | 430       |
| Ferro-silicon                          | 48 950    | 37 095    | 42 315    | 34 249    | 25 880    |
| Ferro-titanium & ferro-silico-titanium | 3 212     | 1 681     | 691       | 1 370     | 653       |
| Ferro-tungsten & ferro-silico-tungsten | 195       | 119       | 105       | 153       | 30        |
| Ferro-vanadium                         | 1 316     | 1 202     | 1 005     | 956       | 547       |
| Other ferro-alloys                     | 5 574     | 5 860     | 5 986     | 8 916     | 2 154     |
| Silicon metal                          | 10 832    | 7 531     | 6 756     | 7 631     | 4 404     |
| Ingots, blooms, billets                | 294 616   | 108 821   | 137 032   | 264 782   | 119 549   |
| Scrap                                  | 254 358   | 279 956   | 242 167   | 193 207   | 174 279   |

Iron, Steel and Ferro-Alloys

Imports continued

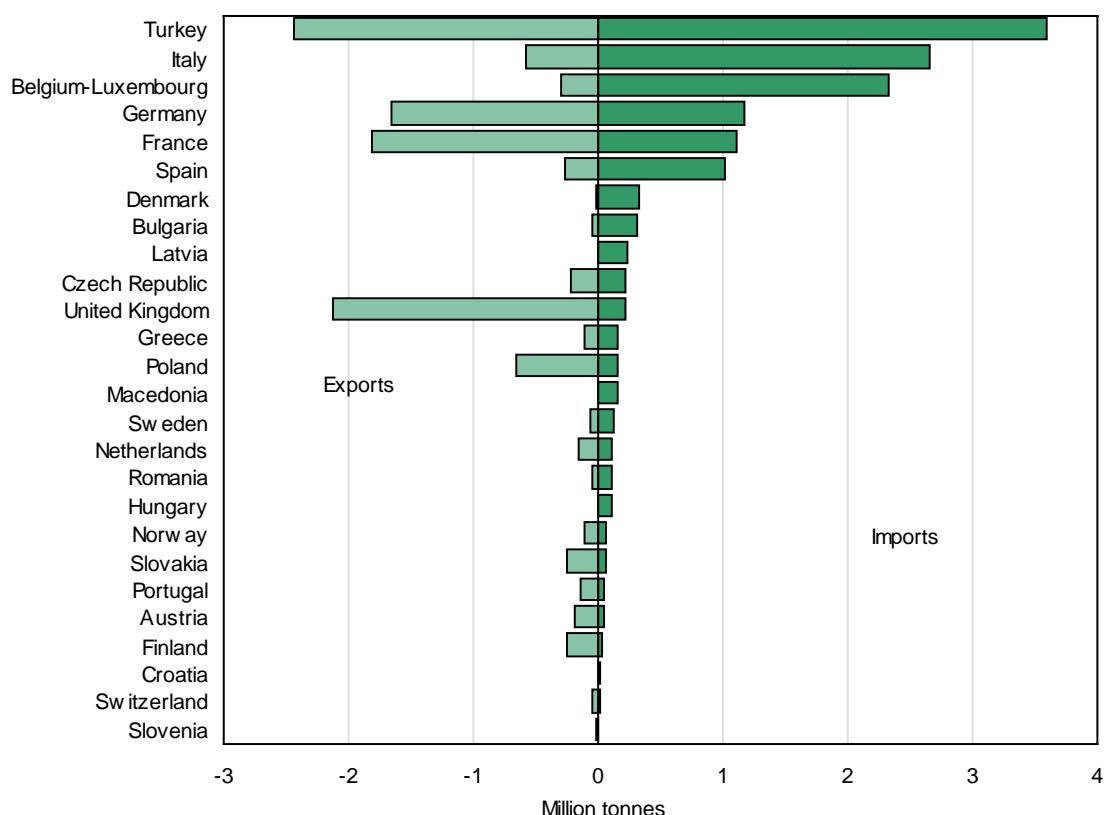
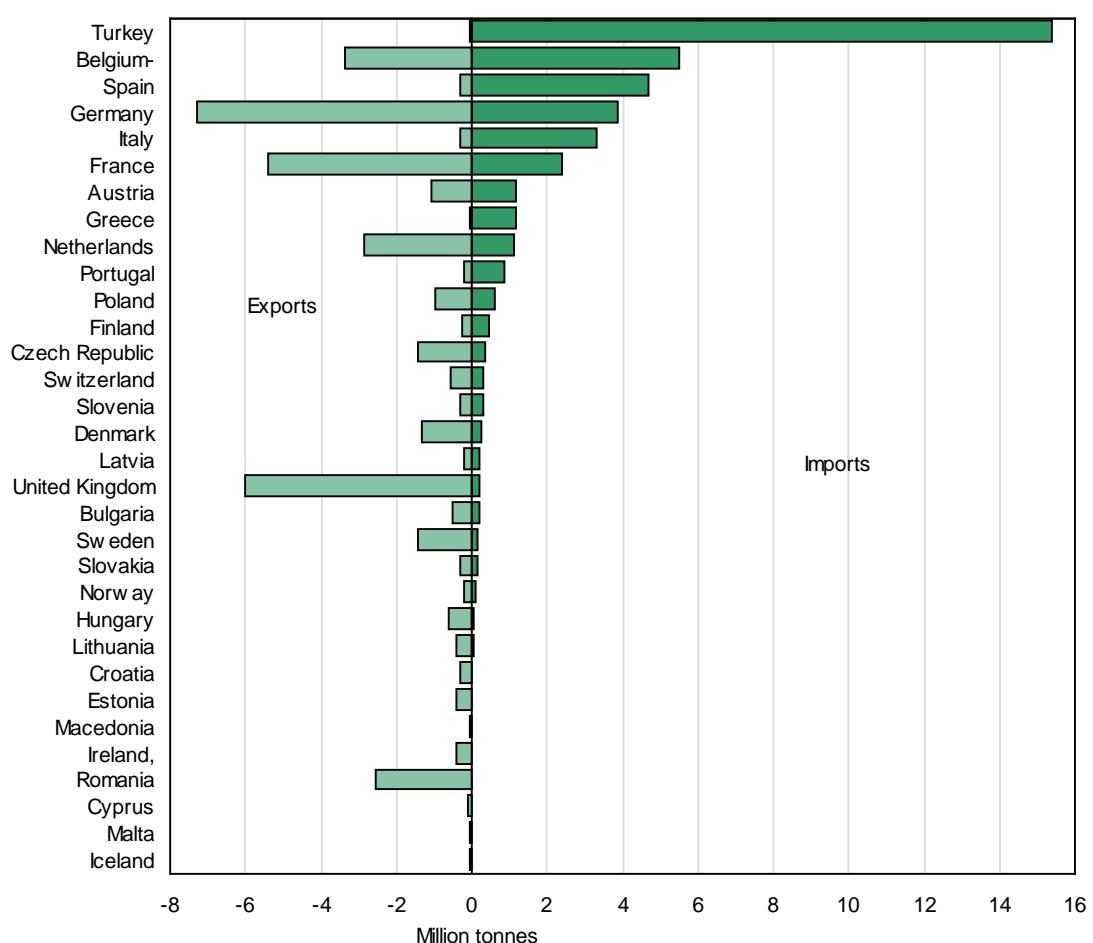
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| Country                                | 2005       | 2006       | 2007       | 2008       | 2009       |
|--|------------|------------|------------|------------|------------|
| <b>Switzerland</b>                     |            |            |            |            |            |
| Pig iron                               | 24 628     | 24 497     | 28 095     | 28 630     | 12 256     |
| Sponge & powder                        | 9 035      | 8 900      | 9 685      | 8 873      | 5 931      |
| Ferro-chrome                           | 1 203      | 1 306      | 1 834      | 1 803      | 288        |
| Ferro-manganese                        | 9 033      | 10 423     | 9 922      | 11 696     | 8 003      |
| Ferro-silico-manganese                 | 4 341      | 3 717      | 5 992      | 5 011      | 1 595      |
| Ferro-silicon                          | 4 630      | 7 122      | 5 287      | 5 264      | 4 287      |
| Other ferro-alloys                     | 1 602      | 1 435      | 1 478      | 1 086      | 611        |
| Silicon metal                          | 1 135      | 1 164      | 1 508      | 1 255      | 1 256      |
| Ingots, blooms, billets                | 38 694     | 47 524     | 50 301     | 29 911     | 9 188      |
| Scrap                                  | 390 607    | 499 914    | 475 542    | 505 597    | 313 055    |
| <b>Turkey</b>                          |            |            |            |            |            |
| Pig iron                               | 396 658    | 333 981    | 338 641    | 802 741    | 770 160    |
| Sponge & powder                        | 68 952     | 34 440     | 19 801     | 96 393     | 81 008     |
| Ferro-chrome                           | 5 443      | 4 610      | 11 138     | 11 321     | 2 787      |
| Ferro-manganese                        | 43 743     | 60 213     | 56 619     | 73 319     | 46 760     |
| Ferro-silico-manganese                 | 159 496    | 216 036    | 236 039    | 195 623    | 191 605    |
| Ferro-molybdenum                       | 1 253      | 1 020      | 1 628      | 1 645      | 1 173      |
| Ferro-niobium                          | 433        | 435        | 446        | 609        | 338        |
| Ferro-phosphorus                       | 1 710      | 919        | 246        | 1 731      | 412        |
| Ferro-silicon                          | 58 007     | 72 599     | 100 758    | 90 477     | 60 164     |
| Ferro-titanium & ferro-silico-titanium | 447        | 649        | 616        | 634        | 651        |
| Ferro-vanadium                         | 426        | 483        | 472        | 529        | 323        |
| Other ferro-alloys                     | 5 983      | 7 357      | 9 642      | 12 345     | 6 060      |
| Silicon metal                          | 4 794      | 5 233      | 2 530      | 6 207      | 5 852      |
| Ingots, blooms, billets                | 1 816 973  | 1 504 374  | 1 930 627  | 3 849 141  | 3 590 665  |
| Scrap                                  | 13 010 728 | 12 860 533 | 13 335 810 | 17 414 983 | 15 372 727 |
| <b>United Kingdom</b>                  |            |            |            |            |            |
| Pig iron                               | 102 531    | 81 689     | 89 863     | 61 657     | 19 703     |
| Sponge & powder                        | 21 914     | 34 768     | 11 766     | 27 003     | 17 483     |
| Ferro-chrome                           | 63 478     | 52 494     | 46 975     | 79 692     | 34 884     |
| Ferro-silico-chrome                    | 728        | 350        | 1 242      | 128        | 26         |
| Ferro-silico-magnesium                 | 5 448      | 3 810      | 2 303      | 1 614      | 1 535      |
| Ferro-manganese                        | 79 045     | 86 598     | 100 694    | 96 461     | 49 700     |
| Ferro-silico-manganese                 | 57 136     | 59 985     | 56 036     | 52 966     | 74 227     |
| Ferro-molybdenum                       | 861        | 640        | 515        | 369        | 327        |
| Ferro-nickel                           | 11 325     | 13 169     | 14 960     | 16 520     | 2 777      |
| Ferro-niobium                          | 1 175      | 1 098      | 1 490      | 1 189      | 686        |
| Ferro-phosphorus                       | 3 261      | 386        | 2 070      | 2 473      | 282        |
| Ferro-silicon                          | 116 450    | 64 610     | 66 838     | 59 438     | 31 091     |
| Ferro-titanium & ferro-silico-titanium | 1 883      | 1 087      | 1 677      | 1 290      | 396        |
| Ferro-vanadium                         | 609        | 1 623      | 755        | 543        | 209        |
| Other ferro-alloys                     | 2 499      | 2 399      | 3 281      | 2 264      | 3 090      |
| Silicon metal                          | 77 103     | 29 512     | 25 787     | 56 807     | 67 882     |
| Ingots, blooms, billets                | 722 452    | 1 053 176  | 849 803    | 679 019    | 212 829    |
| Scrap                                  | 180 261    | 154 967    | 204 100    | 228 294    | 213 818    |

Note(s)

(1) In this table the term 'ingots, blooms, billets' corresponds to items 7206, 7207, 7218 and 7224 of the Harmonised System which includes those of alloy and high carbon steel

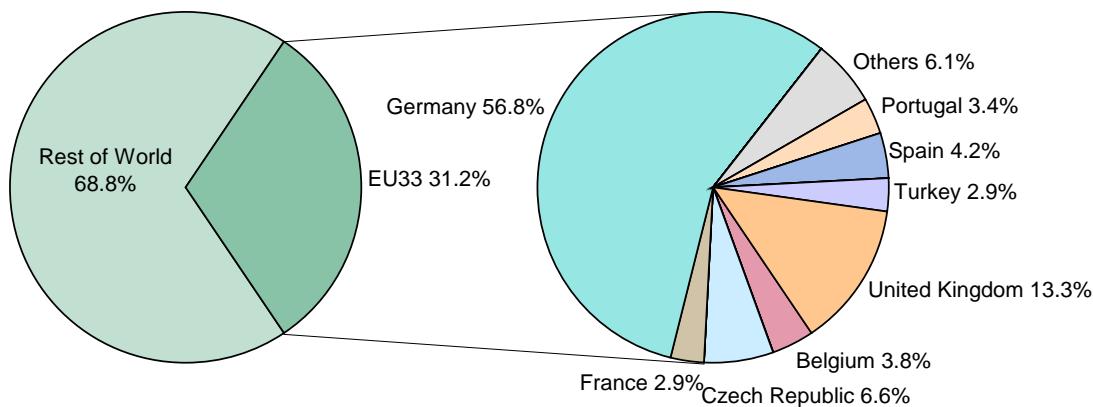
(a) BGS estimates, based on known exports from certain countries

**Iron and steel ingots, blooms and billets - EU33 trade in 2009****Iron and steel scrap - EU33 trade in 2009**

## Kaolin

- Kaolin is the market name for the clay mineral kaolinite. Unlike ceramic and refractory clays, kaolinite is usually processed to eliminate impurities and to tailor the product for end-use. Kaolin has many industrial applications: the main ones are in the manufacture of paper, ceramics, rubber, plastics, paint, cement and glass-fibres. Paper manufacture is the largest end-use of kaolin, with up to 30 per cent of printing paper can be kaolin.
- Kaolin production is fairly stable in the EU33 countries, which in 2009 produced 31.2 per cent of world kaolin. Germany and the UK are the two largest producers in the EU33 and are the second and sixth biggest producers in the world, respectively. The USA was the world's largest producer in 2009, with 20 per cent of the total.

**EU33 Production of kaolin 2009**



## Production of kaolin

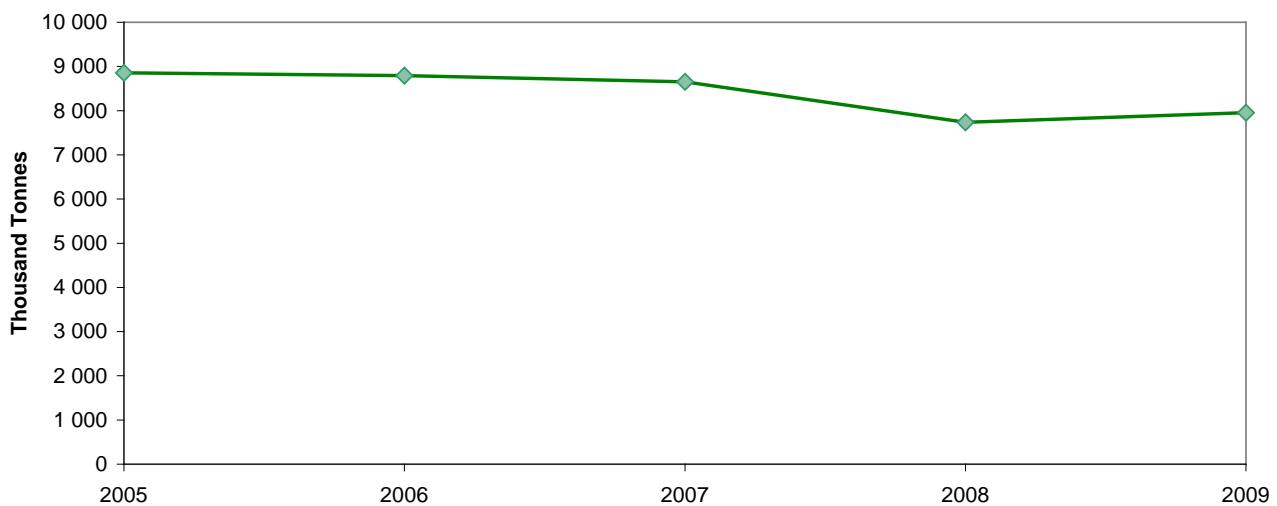
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| Country                | 2005      | 2006      | 2007        | 2008        | 2009        |
|------------------------|-----------|-----------|-------------|-------------|-------------|
| Austria                | 16 410    | 17 431    | 16 929      | 16 460      | 18 148      |
| Belgium                | * 300 000 | * 300 000 | * 300 000   | * 300 000   | * 300 000   |
| Bulgaria               | * 200 000 | * 240 000 | * 240 000   | * 220 000   | * 140 000   |
| Czech Republic (a)     | 649 000   | 673 000   | 682 000     | 672 000     | 525 000     |
| France                 | 319 464   | * 300 000 | (c) 350 742 | (c) 335 520 | (c) 227 342 |
| Germany (b)            | 3 767 662 | 3 815 173 | 3 842 514   | 3 622 159   | 4 513 753   |
| Greece                 | 49 912    | * 40 000  | 30 000      | 4 360       | —           |
| Hungary                | 1 300     | 1 350     | 2 136       | —           | —           |
| Italy                  | 183 804   | * 180 000 | * 180 000   | * 180 000   | * 180 000   |
| Poland (d)             | 159 207   | 148 579   | 153 670     | 165 615     | 136 561     |
| Portugal               | 164 072   | 167 792   | 183 598     | 231 346     | 270 450     |
| Romania                | 26 772    | 11 063    | 7 576       | 3 060       | ...         |
| Slovakia               | 31 000    | 58 000    | 46 000      | 44 000      | 10 000      |
| Spain (d)              | 463 398   | 476 327   | 489 428     | 355 739     | 337 900     |
| Turkey                 | 615 271   | * 600 000 | 456 238     | 232 746     | 234 614     |
| United Kingdom (d) (e) | 1 910 874 | 1 762 328 | 1 671 426   | 1 355 365   | 1 059 848   |
| EU33 Total             | 8 900 000 | 8 800 000 | 8 700 000   | 7 700 000   | 8 000 000   |

### Note(s)

(1) In addition to the countries listed Denmark is believed to produce kaolin

- (a) Beneficiated
- (b) Washed and dried
- (c) Sales
- (d) Washed
- (e) Dry weight

**EU33 Production of kaolin 2005 - 09****Exports of kaolin**

tonnes

| Country            | 2005      | 2006      | 2007      | 2008      | 2009    |
|--------------------|-----------|-----------|-----------|-----------|---------|
| Austria            | 3 019     | 3 649     | 2 292     | 2 445     | 8 954   |
| Belgium-Luxembourg | 777 451   | 628 479   | 612 062   | 1 030 344 | 783 924 |
| Bulgaria           | 124 899   | 149 559   | 160 372   | 139 069   | 119 736 |
| Czech Republic     | 268 850   | 261 019   | 173 251   | 233 819   | 174 814 |
| Denmark            | 637       | 443       | 351       | 486       | 352     |
| Finland            | 7 378     | 8 373     | 10 597    | 8 587     | 13 832  |
| France             | 421 927   | 968 538   | 412 284   | 319 301   | 268 674 |
| Germany            | 301 870   | 463 804   | 507 867   | 498 165   | 374 313 |
| Greece             | 129       | 472       | 276       | 384       | 225     |
| Hungary            | 6 252     | 3 781     | 3 762     | 3 110     | 2 847   |
| Italy              | 40 800    | 17 287    | 16 265    | 13 627    | 21 392  |
| Netherlands        | 441 248   | 431 027   | 416 108   | 72 264    | 33 563  |
| Norway             | 768       | 132       | 47        | 47        | 271     |
| Poland             | 6 194     | 7 177     | 10 401    | 8 936     | 11 515  |
| Portugal           | 31 484    | 46 494    | 70 580    | 47 562    | 51 014  |
| Slovakia           | 2 332     | 10 946    | 12 546    | 593       | 1 425   |
| Spain              | 192 735   | 213 955   | 199 541   | 155 563   | 156 915 |
| Sweden             | 18 473    | 15 735    | 18 229    | 30 495    | 31 122  |
| Switzerland        | 246       | 433       | 786       | 128       | 203     |
| Turkey             | 177 881   | 192 298   | 132 834   | 130 923   | 61 828  |
| United Kingdom (a) | 1 698 747 | 1 566 025 | 1 490 416 | 1 188 267 | 932 180 |

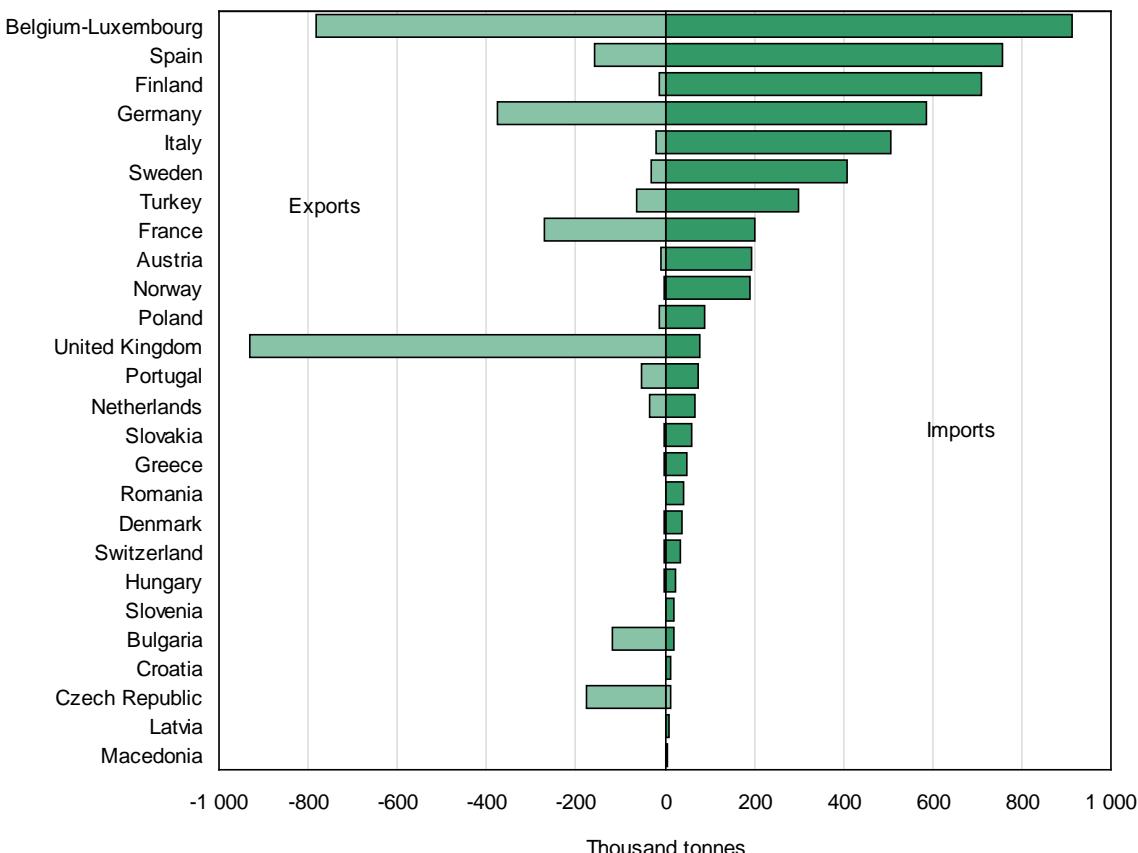
Note(s)

(a) Dry weight

**Imports of kaolin**

tonnes

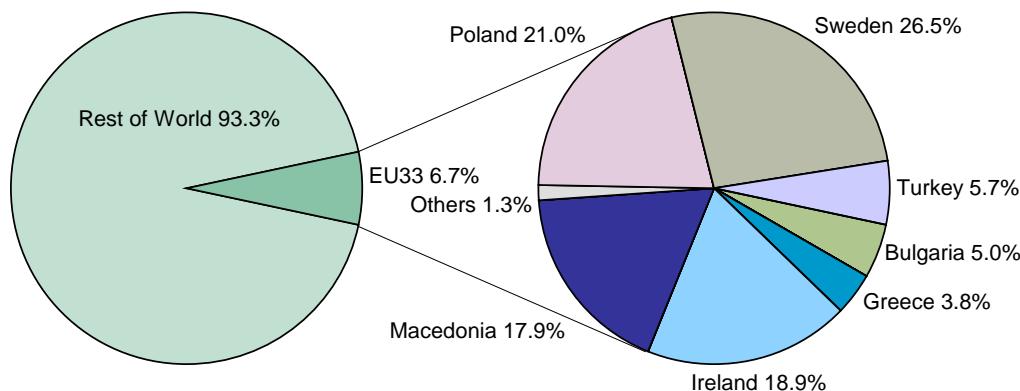
| Country              | 2005      | 2006      | 2007      | 2008      | 2009    |
|----------------------|-----------|-----------|-----------|-----------|---------|
| Austria              | 234 906   | 222 007   | 218 813   | 226 682   | 192 860 |
| Belgium-Luxembourg   | 962 536   | 868 255   | 862 714   | 1 476 705 | 912 100 |
| Bulgaria             | 76 231    | 91 831    | 29 717    | 28 748    | 20 623  |
| Croatia              | 7 941     | 16 423    | 21 845    | 24 009    | 14 486  |
| Czech Republic       | 16 895    | 22 962    | 23 461    | 20 662    | 13 228  |
| Denmark              | 14 117    | 19 572    | 35 288    | 47 525    | 37 738  |
| Estonia              | 1 058     | 1 090     | 3 214     | 3 902     | 1 588   |
| Finland              | 1 144 335 | 1 261 699 | 1 155 041 | 1 147 687 | 708 210 |
| France               | 338 848   | 320 425   | 311 060   | 263 449   | 200 203 |
| Germany              | 803 001   | 809 329   | 717 102   | 647 278   | 585 675 |
| Greece               | 54 293    | 68 083    | 40 298    | 62 415    | 49 509  |
| Hungary              | 33 075    | 25 282    | 25 168    | 29 089    | 25 094  |
| Ireland, Republic of | 22 764    | 19 647    | 19 322    | 18 766    | 3 155   |
| Italy                | 956 948   | 978 378   | 881 968   | 810 560   | 505 593 |
| Latvia               | 5 016     | 5 422     | 11 071    | 11 173    | 7 476   |
| Lithuania            | 802       | 1 399     | 568       | 607       | 159     |
| Macedonia            | 19 414    | 9 797     | 16 849    | 12 259    | 4 879   |
| Netherlands          | 564 518   | 627 768   | 612 720   | 352 122   | 68 072  |
| Norway               | 250 879   | 241 976   | 208 709   | 253 361   | 190 562 |
| Poland               | 90 931    | 94 257    | 122 245   | 126 426   | 90 183  |
| Portugal             | 143 943   | 137 656   | 154 891   | 114 041   | 73 081  |
| Romania              | 55 653    | 54 862    | 51 347    | 48 422    | 40 326  |
| Slovakia             | 94 705    | 100 551   | 87 956    | 95 911    | 58 509  |
| Slovenia             | 25 928    | 24 389    | 28 363    | 25 682    | 20 776  |
| Spain                | 1 366 226 | 1 506 142 | 1 571 143 | 1 470 440 | 757 859 |
| Sweden               | 480 358   | 451 919   | 448 129   | 468 491   | 408 564 |
| Switzerland          | 37 368    | 41 481    | 45 629    | 39 932    | 33 555  |
| Turkey               | 265 530   | 190 924   | 163 015   | 402 812   | 301 086 |
| United Kingdom       | 84 617    | 99 262    | 73 014    | 79 546    | 77 504  |

**Kaolin - EU33 trade in 2009**

## Lead

- Lead is a very soft, highly malleable, ductile metallic element with low electrical conductivity. It is also very dense and strongly resistant to corrosion, although it tarnishes rapidly in air. The main use is in lead-acid batteries, although lead is also widely used in architecture, plumbing, ordinance, solder, radiation shielding and insecticides.
- China was the world's largest mine producer in 2009 (with 41 per cent of the total) and refiner of lead (with 42 per cent of the total). In the EU33 the largest mine producer of lead was Sweden (26.5 per cent of the EU33 total), followed by Poland (21 per cent), the Republic of Ireland (18.9 per cent) and Macedonia (17.9 per cent). The largest producers of refined lead, based on imported materials and recycling, were Germany (25.8 per cent) and the UK (19.9 per cent). It is estimated that worldwide more than 50 per cent of refined lead produced is from recycled material.

**EU33 Mine production of lead 2009**



## Mine production of lead

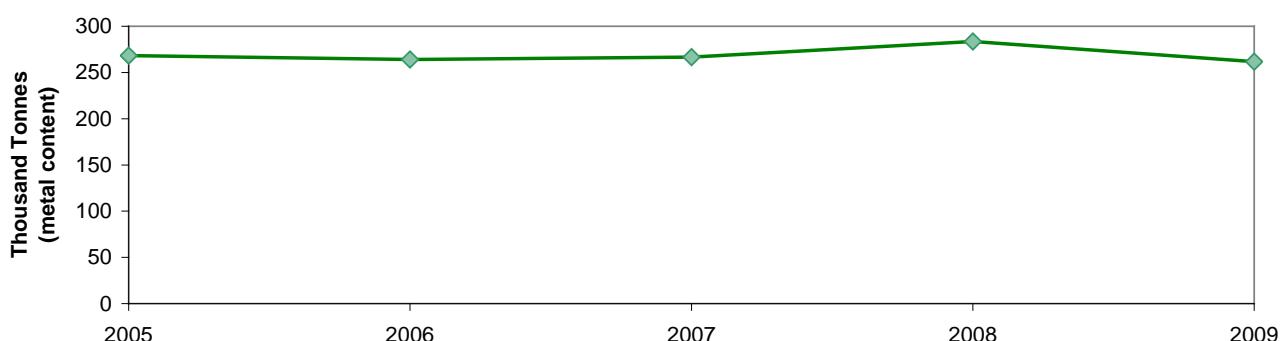
tonnes (metal content)

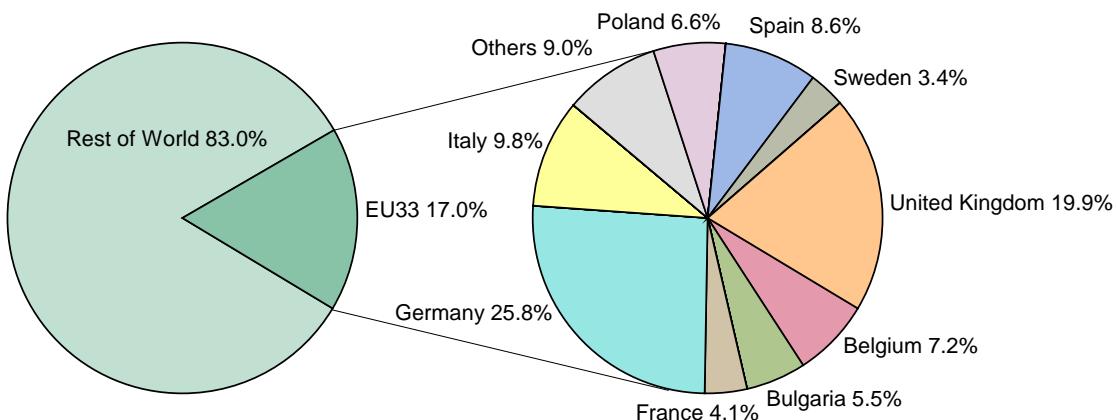
| Country              | 2005    | 2006    | 2007    | 2008    | 2009    |
|----------------------|---------|---------|---------|---------|---------|
| Bulgaria (a)         | 24 354  | 19 571  | 17 768  | 14 577  | 12 981  |
| Greece               | 2 900   | 11 400  | 13 400  | 14 000  | 10 000  |
| Ireland, Republic of | 72 200  | 61 800  | 56 800  | 50 200  | 49 500  |
| Italy                | * 6 000 | * 6 000 | * 3 000 | * 3 000 | * 3 000 |
| Macedonia            | —       | 11 531  | 36 039  | 49 877  | 46 788  |
| Poland               | 78 980  | 77 450  | 61 330  | 67 070  | 54 900  |
| Romania              | 11 610  | 6 269   | 784     | —       | —       |
| Sweden               | 60 445  | 55 644  | 63 224  | 63 489  | 69 293  |
| Turkey               | 11 341  | 14 000  | 14 000  | 21 000  | 15 000  |
| United Kingdom       | * 400   | * 400   | * 300   | * 300   | * 300   |
| EU33 Total           | 268 200 | 264 100 | 266 600 | 283 500 | 261 800 |

Note(s)

(a) Metal content of ore

**EU33 Mine production of lead 2005 - 09**



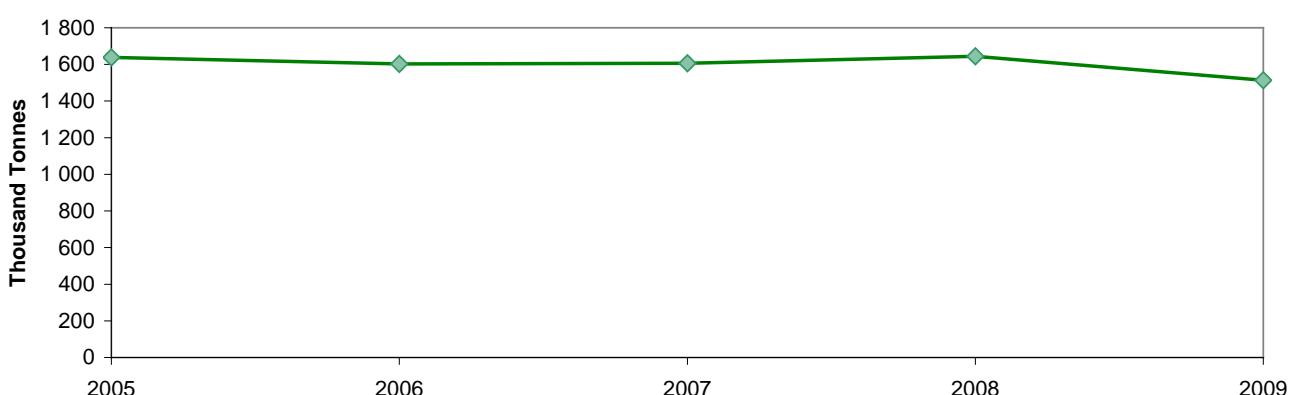
**EU33 Production of refined lead 2009****Production of refined lead**

tonnes

| Country              | 2005      | 2006      | 2007      | 2008      | 2009      |
|----------------------|-----------|-----------|-----------|-----------|-----------|
| Austria              | * 24 000  | * 22 000  | * 22 000  | * 22 000  | * 22 000  |
| Belgium              | 103 000   | 101 000   | 117 000   | 104 000   | 109 000   |
| Bulgaria             | 81 000    | 76 000    | 87 000    | 90 900    | 83 100    |
| Czech Republic       | 26 000    | 26 000    | 26 000    | 26 000    | 26 000    |
| Estonia              | 7 000     | 9 000     | 10 000    | 10 000    | 10 000    |
| France               | * 90 000  | * 88 000  | * 88 000  | 82 100    | 62 000    |
| Germany              | 417 700   | 379 000   | 355 000   | 415 100   | 390 600   |
| Greece               | * —       | * 6 000   | * 11 000  | * 11 000  | * 11 000  |
| Ireland, Republic of | 22 500    | 21 700    | 22 500    | 20 000    | 19 000    |
| Italy                | 211 000   | 190 500   | 211 800   | 199 900   | 149 000   |
| Netherlands          | * 17 000  | * 16 000  | * 16 000  | * 16 000  | * 17 000  |
| Poland               | 81 000    | 82 200    | 104 200   | 108 300   | 100 400   |
| Portugal             | 3 000     | 3 000     | 5 000     | 5 000     | 4 000     |
| Romania              | 37 900    | 34 133    | 39 369    | 39 596    | 6 000     |
| Slovenia             | 15 000    | 15 000    | 15 000    | 15 000    | 14 000    |
| Spain                | 110 000   | 129 000   | 128 000   | 125 000   | 130 000   |
| Sweden               | 72 760    | 70 239    | 69 730    | 56 812    | 51 574    |
| Switzerland          | 9 600     | * 9 000   | * 9 000   | * 8 000   | 800       |
| Turkey               | * 6 000   | * 6 000   | * 6 000   | * 6 000   | * 6 000   |
| United Kingdom       | 304 350   | 318 703   | 263 391   | 283 000   | 301 865   |
| EU33 Total           | 1 615 000 | 1 580 000 | 1 584 000 | 1 622 000 | 1 491 000 |

## Note(s)

- (1) Figures relate to both primary and secondary refined lead and include the lead content of antimonial lead. Metal recovered from materials by remelting alone is excluded

**EU33 Production of refined lead 2005 - 09**

## Exports of lead

tonnes

| Country              | 2005    | 2006    | 2007    | 2008    | 2009    |
|----------------------|---------|---------|---------|---------|---------|
| Austria              |         |         |         |         |         |
| Unwrought            | 10 746  | 13 129  | 13 629  | 13 844  | 12 512  |
| Scrap                | 1 514   | 1 027   | 1 018   | 600     | 2 173   |
| Belgium-Luxembourg   |         |         |         |         |         |
| Ores & concentrates  | 96 610  | 113 576 | 96 059  | 114 105 | 148 562 |
| Unwrought            | 110 372 | 98 077  | 111 344 | 95 883  | 108 442 |
| Scrap                | 9 142   | 15 071  | 20 780  | 18 639  | 22 085  |
| Bulgaria             |         |         |         |         |         |
| Ores & concentrates  | 6 165   | 10 900  | 23 417  | 9 555   | 4 188   |
| Unwrought            | 69 825  | 65 400  | 66 384  | 80 972  | 77 713  |
| Croatia              |         |         |         |         |         |
| Scrap                | 794     | 1 057   | 3 590   | 1 872   | 1 025   |
| Cyprus               |         |         |         |         |         |
| Scrap                | 1 212   | 129     | 488     | —       | 188     |
| Czech Republic       |         |         |         |         |         |
| Unwrought            | 8 665   | 10 359  | 16 707  | 18 713  | 23 617  |
| Scrap                | 4 948   | 6 648   | 6 855   | 8 136   | 4 832   |
| Denmark              |         |         |         |         |         |
| Unwrought            | 1 312   | 1 071   | 721     | 78      | 615     |
| Scrap                | 3 067   | 2 954   | 1 685   | 1 159   | 4 057   |
| Estonia              |         |         |         |         |         |
| Unwrought            | 7 774   | 6 054   | 10 091  | 10 473  | 8 861   |
| Finland              |         |         |         |         |         |
| Scrap                | 3 589   | 2 421   | 605     | 588     | 357     |
| France               |         |         |         |         |         |
| Unwrought            | 6 920   | 25 933  | 14 936  | 17 630  | 14 554  |
| Scrap                | 24 683  | 21 854  | 29 544  | 15 888  | 20 815  |
| Germany              |         |         |         |         |         |
| Ores & concentrates  | 102     | 475     | 467     | —       | 1 000   |
| Unwrought            | 122 120 | 126 790 | 136 609 | 177 129 | 204 075 |
| Scrap                | 11 064  | 8 390   | 17 799  | 13 133  | 13 100  |
| Greece               |         |         |         |         |         |
| Unwrought            | 4 017   | 3 292   | 9 913   | 5 792   | 2 360   |
| Scrap                | 848     | 1 256   | 769     | 1 390   | 913     |
| Hungary              |         |         |         |         |         |
| Scrap                | 2 987   | 3 286   | 2 369   | 4 052   | 4 001   |
| Ireland, Republic of |         |         |         |         |         |
| Ores & concentrates  | 92 813  | 129 748 | 108 645 | 91 728  | 109 877 |
| Italy                |         |         |         |         |         |
| Unwrought            | 18 244  | 8 143   | 8 008   | 34 904  | 23 006  |
| Scrap                | 2 477   | 3 806   | 7 661   | 6 897   | 7 594   |
| Lithuania            |         |         |         |         |         |
| Scrap                | 7 848   | 6 118   | 11 776  | 9 730   | 4 210   |
| Macedonia            |         |         |         |         |         |
| Ores & concentrates  | 233     | 16 371  | 47 209  | ...     | ...     |
| Unwrought            | 54      | —       | 70      | 184     | 1 271   |
| Scrap                | 935     | 2 511   | 2 622   | 2 209   | 226     |
| Netherlands          |         |         |         |         |         |
| Ores & concentrates  | 17 161  | 27 068  | 2 897   | 55 980  | 74 725  |
| Unwrought            | 24 382  | 11 133  | 14 824  | 7 725   | 11 061  |
| Scrap                | 11 950  | 16 067  | 21 822  | 12 278  | 13 807  |
| Norway               |         |         |         |         |         |
| Scrap                | 1 013   | 892     | 974     | 695     | 504     |
| Poland               |         |         |         |         |         |
| Ores & concentrates  | 92 226  | 73 902  | 70 970  | 69 852  | 59 790  |
| Unwrought            | 44 008  | 68 635  | 34 455  | 40 017  | 48 599  |
| Scrap                | 1 652   | 2 168   | 3 120   | 1 110   | 1 525   |
| Portugal             |         |         |         |         |         |
| Unwrought            | 1 269   | 2 018   | 3 092   | 4 950   | 6 647   |
| Scrap                | 4 127   | 9 471   | 9 961   | 3 105   | 2 222   |
| Romania              |         |         |         |         |         |
| Ores & concentrates  | 25 012  | 18 104  | 10 501  | 17 396  | 15 759  |
| Unwrought            | 22 120  | 18 786  | 23 289  | 22 752  | 9 049   |
| Scrap                | 3 295   | 4 389   | 4 659   | 2 997   | 2 526   |
| Slovakia             |         |         |         |         |         |
| Unwrought            | 1 662   | 98      | 221     | 94      | 247     |

Lead

Exports continued

tonnes

| Country                 | 2005   | 2006   | 2007   | 2008   | 2009    |
|-------------------------|--------|--------|--------|--------|---------|
| Slovenia                |        |        |        |        |         |
| Unwrought               | 5 818  | 6 524  | 8 860  | 6 960  | 6 891   |
| Scrap                   | 572    | 843    | 1 415  | 391    | 325     |
| Spain                   |        |        |        |        |         |
| Ores & concentrates     | 2      | 29     | 130    | 1 015  | 14 147  |
| Unwrought               | 9 805  | 7 830  | 9 242  | 14 771 | 13 434  |
| Scrap                   | 9 128  | 6 460  | 7 023  | 6 616  | 3 862   |
| Sweden                  |        |        |        |        |         |
| Ores & concentrates     | 62 155 | 50 854 | 56 581 | 61 439 | 72 220  |
| Unwrought               | 70 042 | 76 777 | 65 733 | 53 715 | 46 795  |
| Scrap                   | 307    | 703    | 734    | 816    | 1 044   |
| Switzerland             |        |        |        |        |         |
| Unwrought               | 4 657  | 7 966  | 7 383  | 7 387  | 1 765   |
| Scrap                   | 2 932  | 3 124  | 4 860  | 3 236  | 4 748   |
| Turkey                  |        |        |        |        |         |
| Ores & concentrates (a) | 30 226 | 18 415 | 34 715 | 52 988 | 35 973  |
| Unwrought               | 2 875  | 4 271  | 930    | 832    | 361     |
| United Kingdom          |        |        |        |        |         |
| Unwrought               | 52 593 | 89 271 | 68 152 | 57 466 | 181 248 |
| Unwrought alloys        | 38 806 | 48 589 | 39 246 | 79 520 | 54 505  |
| Scrap                   | 27 248 | 1 859  | 31 942 | 47 660 | 56 055  |

Note(s)

- (1) In this table the term 'unwrought' lead corresponds to item 7801 of the Harmonised System and comprises base bullion, pigs, unwrought bars, etc.
- (2) The term 'unwrought' as used here includes alloys unless these are separately specified

(a) Complex lead-zinc ore

Imports of lead

tonnes

| Country             | 2005    | 2006    | 2007    | 2008    | 2009    |
|---------------------|---------|---------|---------|---------|---------|
| Austria             |         |         |         |         |         |
| Unwrought           | 23 062  | 29 184  | 27 015  | 27 475  | 21 580  |
| Scrap               | 1 068   | 890     | 661     | 263     | 826     |
| Belgium-Luxembourg  |         |         |         |         |         |
| Ores & concentrates | 134 300 | 120 136 | 108 165 | 97 474  | 192 496 |
| Unwrought           | 18 807  | 15 081  | 36 620  | 30 543  | 18 267  |
| Scrap               | 26 699  | 41 070  | 55 153  | 25 873  | 34 096  |
| Bulgaria            |         |         |         |         |         |
| Ores & concentrates | 83 398  | 100 736 | 92 929  | 119 522 | 63 185  |
| Unwrought           | 10 723  | 11 305  | 15 854  | 15 529  | 10 182  |
| Scrap               | 1 227   | 1 346   | 3 338   | 5 830   | 12 145  |
| Croatia             |         |         |         |         |         |
| Unwrought           | 1 492   | 1 415   | 911     | 680     | 376     |
| Czech Republic      |         |         |         |         |         |
| Unwrought           | 69 135  | 67 850  | 66 060  | 59 318  | 65 896  |
| Scrap               | 4 147   | 4 411   | 6 519   | 4 672   | 4 150   |
| Denmark             |         |         |         |         |         |
| Unwrought           | 2 135   | 2 322   | 1 033   | 192     | 107     |
| Scrap               | 2 288   | 2 209   | 2 228   | 1 984   | 2 583   |
| Finland             |         |         |         |         |         |
| Unwrought           | 2 854   | 1 571   | 2 283   | 3 195   | 2 346   |
| France              |         |         |         |         |         |
| Unwrought           | 109 426 | 121 930 | 118 384 | 103 535 | 42 187  |
| Scrap               | 33 818  | 32 705  | 34 169  | 22 490  | 13 579  |
| Germany             |         |         |         |         |         |
| Ores & concentrates | 171 533 | 161 113 | 211 132 | 212 602 | 234 102 |
| Unwrought           | 108 533 | 134 805 | 138 978 | 118 779 | 103 642 |
| Scrap               | 15 419  | 18 141  | 30 313  | 28 231  | 40 547  |
| Greece              |         |         |         |         |         |
| Unwrought           | 5 112   | 5 401   | 11 792  | 6 875   | 10 644  |
| Scrap               | 85      | 138     | 2 071   | 2 800   | 1 753   |

Lead

## Imports continued

tonnes

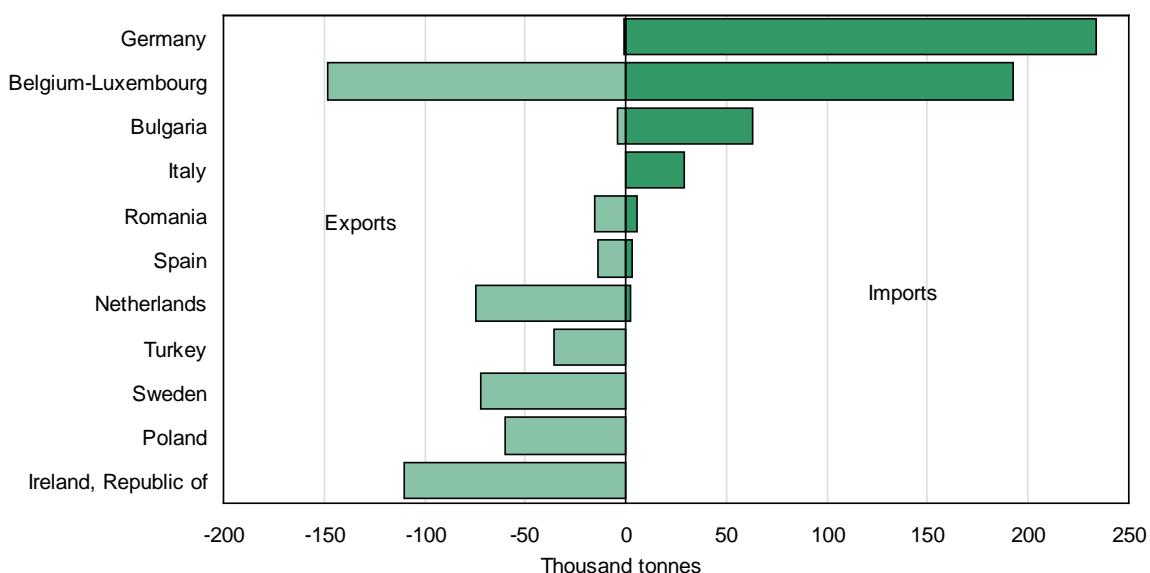
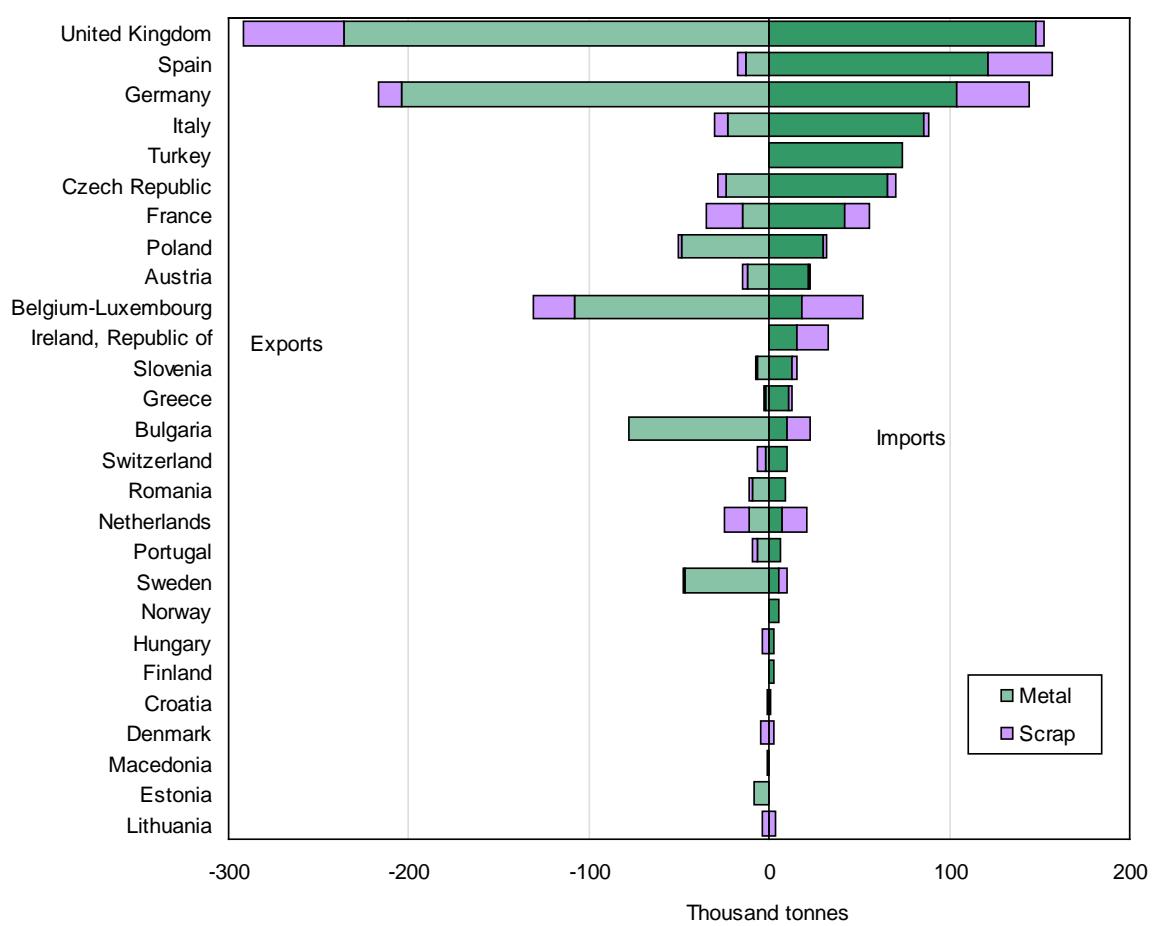
| Country                     | 2005    | 2006    | 2007    | 2008    | 2009    |
|-----------------------------|---------|---------|---------|---------|---------|
| Hungary                     |         |         |         |         |         |
| Unwrought                   | 5 028   | 4 063   | 5 802   | 2 711   | 2 663   |
| Ireland, Republic of        |         |         |         |         |         |
| Unwrought                   | 30 999  | 28 386  | 35 675  | 23 480  | 15 784  |
| Scrap                       | 28 530  | 31 794  | 25 828  | 17 702  | 16 689  |
| Italy                       |         |         |         |         |         |
| Ores & concentrates         | 107 685 | 65 610  | 111 999 | 85 760  | 29 210  |
| Unwrought                   | 72 181  | 112 069 | 114 471 | 99 015  | 86 054  |
| Scrap                       | 3 333   | 4 097   | 7 107   | 2 972   | 2 031   |
| Lithuania                   |         |         |         |         |         |
| Scrap                       | ...     | 119     | 368     | 162     | 3 301   |
| Macedonia                   |         |         |         |         |         |
| Unwrought                   | 1 146   | 857     | 331     | 19      | 38      |
| Netherlands                 |         |         |         |         |         |
| Ores & concentrates         | 9 268   | 13 186  | 22 303  | 5 307   | 1 935   |
| Unwrought                   | 36 051  | 24 272  | 22 419  | 9 373   | 7 195   |
| Scrap                       | 9 700   | 17 508  | 22 006  | 11 325  | 13 593  |
| Norway                      |         |         |         |         |         |
| Unwrought                   | 4 882   | 4 749   | 7 055   | 6 473   | 5 026   |
| Poland                      |         |         |         |         |         |
| Unwrought                   | 53 095  | 56 504  | 44 235  | 35 465  | 29 861  |
| Scrap                       | 794     | 1 633   | 1 256   | 2 467   | 2 293   |
| Portugal                    |         |         |         |         |         |
| Unwrought                   | 21 198  | 17 523  | 14 704  | 12 014  | 6 642   |
| Romania                     |         |         |         |         |         |
| Ores & concentrates         | 31 085  | 13 288  | 17 064  | 27 055  | 5 889   |
| Unwrought                   | 1 620   | 1 400   | 835     | 872     | 9 245   |
| Slovenia                    |         |         |         |         |         |
| Unwrought                   | 10 262  | 8 897   | 12 761  | 14 103  | 13 036  |
| Scrap                       | 1 382   | 2 946   | 5 191   | 1 556   | 1 985   |
| Spain                       |         |         |         |         |         |
| Ores & concentrates         | 1 526   | 2 299   | 8 188   | 7 107   | 3 199   |
| Unwrought                   | 174 618 | 147 423 | 157 485 | 116 492 | 121 522 |
| Scrap                       | 30 499  | 30 625  | 42 629  | 35 506  | 35 703  |
| Sweden                      |         |         |         |         |         |
| Ores & concentrates         | 5 085   | 10 476  | —       | 275     | —       |
| Unwrought                   | 6 098   | 17 679  | 6 554   | 6 922   | 5 028   |
| Scrap                       | 3 538   | 3 101   | 3 771   | 2 089   | 5 176   |
| Switzerland                 |         |         |         |         |         |
| Unwrought                   | 8 067   | 9 185   | 7 087   | 9 915   | 9 446   |
| Turkey                      |         |         |         |         |         |
| Unwrought                   | 71 680  | 56 792  | 46 966  | 79 460  | 73 520  |
| United Kingdom              |         |         |         |         |         |
| Unwrought, base bullion (a) | 173 910 | 120 871 | 119 726 | 194 113 | 130 312 |
| Unwrought, other            | 31 347  | 53 892  | 31 187  | 39 493  | 17 277  |
| Scrap                       | 3 898   | 5 914   | 17 685  | 4 621   | 4 962   |

## Note(s)

(1) In this table the term 'unwrought' lead corresponds to item 7801 of the Harmonised System and comprises base bullion, pigs, unwrought bars, etc.

(2) The term 'unwrought' as used here includes alloys unless these are separately specified

(a) Includes a substantial precious metal content, mainly silver

**Lead ore - EU33 trade in 2009****Lead - EU33 trade in 2009**

## Lithium minerals

- Lithium is a very light metallic element. It is mainly used in lithium compounds that act as fluxes in the ceramics and glass industries, and in lubricants. The metal is an important alloying agent with primary aluminium. Lithium is increasingly being used in rechargeable batteries.
- Lithium is produced in only a few countries of which Australia was the largest lithium mineral producer in 2009 (approximately 55 per cent of world production of lithium minerals), despite output falling by 17.5 per cent compared to 2008. Chile was the largest producer by lithium content (45 per cent of world production). In the EU33 Portugal and Spain are the only countries producing lithium minerals.

### Production of lithium minerals

| Country    | 2005   | 2006   | 2007   | 2008   | 2009    |
|------------|--------|--------|--------|--------|---------|
| Portugal   |        |        |        |        |         |
| Lepidolite | 26 185 | 28 497 | 34 755 | 34 888 | 38 500  |
| Spain      |        |        |        |        |         |
| Lepidolite | 6 751  | 8 339  | 10 326 | 9 342  | * 7 000 |

### Exports of lithium

| Country            | 2005  | 2006  | 2007  | 2008  | 2009  |
|--------------------|-------|-------|-------|-------|-------|
| Belgium-Luxembourg |       |       |       |       |       |
| Oxides             | 1 545 | 1 236 | 1 370 | 1 281 | 781   |
| Carbonate          | 4 999 | 5 107 | 4 915 | 3 567 | 3 042 |
| France             |       |       |       |       |       |
| Carbonate          | 462   | 12    | 2     | 3     | 1     |
| Germany            |       |       |       |       |       |
| Carbonate          | 2 991 | 2 907 | 2 705 | 2 290 | 1 880 |
| Italy              |       |       |       |       |       |
| Carbonate          | 269   | 347   | 225   | 193   | 145   |
| Netherlands        |       |       |       |       |       |
| Oxides             | 115   | 154   | 331   | 511   | 205   |
| Carbonate          | 224   | 405   | 318   | 299   | 227   |
| Slovenia           |       |       |       |       |       |
| Carbonate          | 96    | 96    | 110   | 122   | 128   |
| Spain              |       |       |       |       |       |
| Carbonate          | 1 123 | 554   | 192   | 128   | 228   |
| Switzerland        |       |       |       |       |       |
| Oxides             | 78    | 69    | 75    | 88    | 2 041 |
| United Kingdom     |       |       |       |       |       |
| Oxides             | 125   | 94    | 92    | 232   | 569   |
|                    | 203   | 271   | 158   | 216   | 193   |

## Lithium

**Imports of lithium**

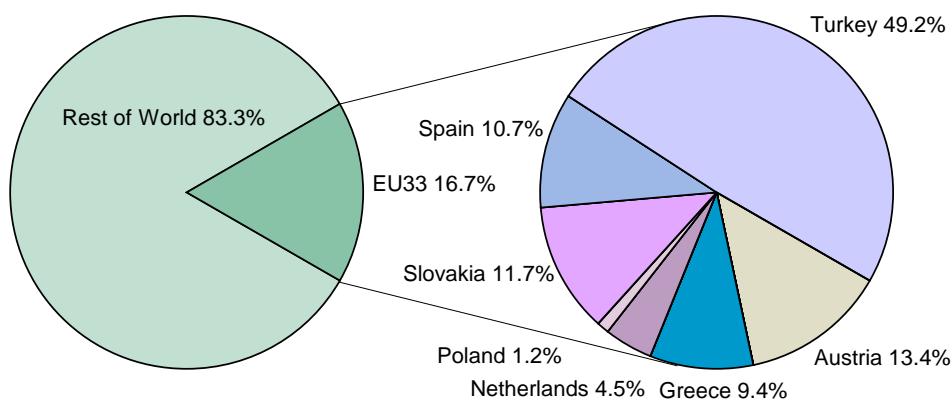
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| Country            | 2005  | 2006  | 2007  | 2008  | 2009  |
|--------------------|-------|-------|-------|-------|-------|
| Austria            |       |       |       |       |       |
| Carbonate          | 182   | 199   | 248   | 333   | 327   |
| Belgium-Luxembourg |       |       |       |       |       |
| Oxides             | 2 014 | 1 201 | 1 784 | 1 851 | 1 179 |
| Carbonate          | 6 205 | 5 357 | 5 895 | 4 414 | 3 410 |
| Czech Republic     |       |       |       |       |       |
| Carbonate          | 71    | 118   | 146   | 64    | 35    |
| Denmark            |       |       |       |       |       |
| Carbonate          | 81    | 164   | 155   | 311   | 402   |
| Finland            |       |       |       |       |       |
| Carbonate          | 77    | 85    | 73    | 84    | 41    |
| France             |       |       |       |       |       |
| Oxides             | 482   | 369   | 314   | 256   | 362   |
| Carbonate          | 1 392 | 1 186 | 1 289 | 1 251 | 1 172 |
| Germany            |       |       |       |       |       |
| Oxides             | 4 209 | 4 260 | 5 163 | 5 420 | ...   |
| Carbonate          | 8 101 | 7 948 | 8 131 | 7 098 | 4 433 |
| Italy              |       |       |       |       |       |
| Oxides             | 223   | 159   | 160   | 246   | 96    |
| Carbonate          | 2 263 | 1 646 | 1 303 | 1 519 | 1 185 |
| Netherlands        |       |       |       |       |       |
| Oxides             | 178   | 359   | 428   | 537   | 228   |
| Carbonate          | 1 171 | 1 356 | 1 459 | 729   | 316   |
| Poland             |       |       |       |       |       |
| Oxides             | 136   | 266   | 245   | 61    | 86    |
| Carbonate          | 128   | 252   | 184   | 162   | 137   |
| Slovenia           |       |       |       |       |       |
| Oxides             | 116   | 115   | 144   | 186   | 139   |
| Spain              |       |       |       |       |       |
| Oxides             | 480   | 573   | 600   | 501   | 521   |
| Carbonate          | 1 553 | 828   | 1 811 | 3 908 | 2 825 |
| Sweden             |       |       |       |       |       |
| Oxides             | 176   | 186   | 107   | 146   | 149   |
| Carbonate          | 259   | 215   | 236   | 278   | 191   |
| Switzerland        |       |       |       |       |       |
| Oxides             | 81    | 112   | 142   | 143   | 110   |
| Turkey             |       |       |       |       |       |
| Oxides             | 183   | 248   | 245   | 257   | 208   |
| Carbonate          | 433   | 491   | 683   | 617   | 613   |
| United Kingdom     |       |       |       |       |       |
| Oxides             | 446   | 385   | 614   | 466   | 914   |
| Carbonate          | 657   | 650   | 779   | 536   | 622   |

## Magnesite

- Magnesite is the commonly used name for magnesium carbonate rock. Magnesite has excellent thermal resistance and is most commonly used as refractory bricks in furnaces. It is also used in fertilisers.
- Economic deposits of magnesite are rare. China was the largest world producer in 2009, with an estimated 62 per cent of world production. The largest EU33 producer was Turkey with 49.2 per cent of EU33 production (and eight per cent of the world total).

**EU33 Production of magnesite 2009**



## Production of magnesite

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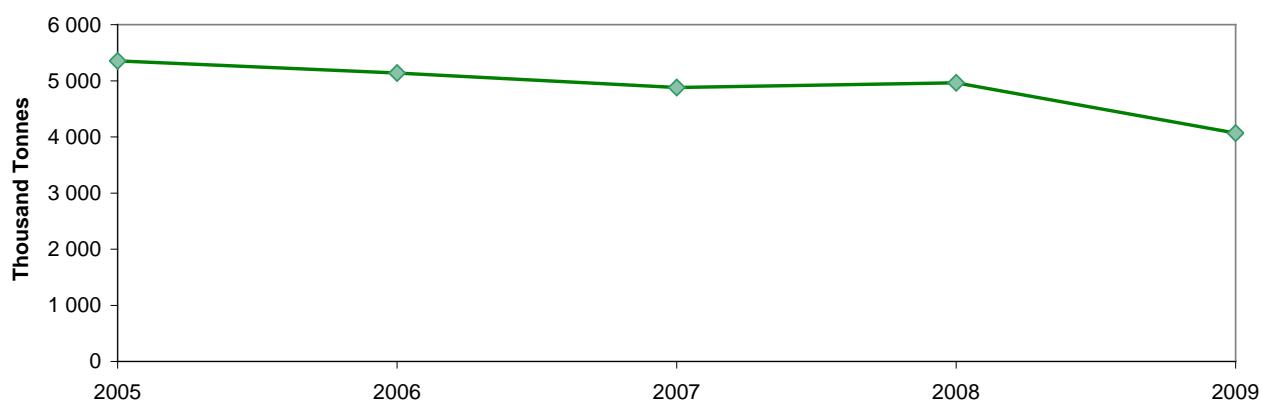
| Country         | 2005      | 2006      | 2007      | 2008      | 2009        |
|-----------------|-----------|-----------|-----------|-----------|-------------|
| Austria         | 693 754   | 769 188   | 811 556   | 837 476   | 544 716     |
| Greece          | 471 000   | 463 277   | 351 414   | 361 165   | 380 834     |
| Netherlands (a) | 285 336   | 293 006   | * 245 000 | 316 264   | 183 256     |
| Poland          | 55 300    | 63 000    | 65 000    | 60 000    | 47 000      |
| Slovakia        | 920 100   | 941 100   | 957 000   | 806 500   | 477 600     |
| Spain           | 556 129   | 520 646   | 463 850   | * 440 700 | * 434 000   |
| Turkey          | 2 372 206 | 2 088 033 | 1 984 908 | 2 143 047 | * 2 000 000 |
| EU33 Total      | 5 354 000 | 5 138 000 | 4 879 000 | 4 965 000 | 4 067 000   |

Note(s)

(1) In addition to the countries listed, Bulgaria is believed to produce magnesite

(a) Chloride produced from solution mining

**EU33 Production of magnesite 2005 - 09**



**Exports of magnesite and magnesia**

tonnes

| Country              | 2005    | 2006    | 2007    | 2008    | 2009    |
|----------------------|---------|---------|---------|---------|---------|
| Austria              |         |         |         |         |         |
| Magnesite            | 1 338   | 1 231   | 760     | 602     | 1 746   |
| Magnesia             | 59 283  | 45 311  | 57 964  | 28 779  | 26 716  |
| Belgium-Luxembourg   |         |         |         |         |         |
| Magnesite            | 575     | 1 520   | 1 958   | 2 392   | 1 467   |
| Magnesia             | 52 665  | 75 011  | 64 293  | 81 186  | 59 644  |
| Czech Republic       | 6 273   | 4 099   | 3 988   | 4 540   | 3 728   |
| Denmark              | 232     | 307     | 451     | 461     | 518     |
| France               |         |         |         |         |         |
| Magnesite            | 230     | 241     | 373     | 310     | 576     |
| Magnesia             | 45 661  | 47 832  | 48 852  | 57 342  | 35 523  |
| Germany              |         |         |         |         |         |
| Magnesite            | 61      | 132     | 463     | 22      | 140     |
| Magnesia             | 81 021  | 93 286  | 87 264  | 72 684  | 58 604  |
| Greece               |         |         |         |         |         |
| Magnesia             | 140 083 | 125 783 | 132 083 | 126 496 | 84 399  |
| Ireland, Republic of |         |         |         |         |         |
| Magnesite            | —       | 5 991   | 5 487   | 5 006   | 9 133   |
| Magnesia             | 82 417  | 46 656  | 3 981   | 9 912   | 8 595   |
| Italy                |         |         |         |         |         |
| Magnesite            | 3 489   | 3 003   | 3 878   | 2 337   | 1 945   |
| Magnesia             | 12 130  | 12 174  | 9 036   | 8 172   | 5 873   |
| Lithuania            |         |         |         |         |         |
| Magnesia             | ...     | 8       | 26      | ...     | 537     |
| Netherlands          |         |         |         |         |         |
| Magnesite            | 1 452   | 4 750   | 582     | 494     | 180     |
| Magnesia             | 492 077 | 465 555 | 128 060 | 344 675 | 160 337 |
| Poland               | 1 208   | 654     | 2 632   | 1 921   | 734     |
| Romania              |         |         |         |         |         |
| Magnesia             | 231     | 277     | 351     | 440     | 381     |
| Slovakia             |         |         |         |         |         |
| Magnesite (a)        | * 8 000 | * 3 000 | * 6 000 | * 9 300 | * 7 400 |
| Magnesia             | 385 312 | 394 826 | 444 539 | 409 295 | 261 876 |
| Slovenia             |         |         |         |         |         |
| Magnesia             | ...     | 206     | 257     | ...     | 344     |
| Spain                |         |         |         |         |         |
| Magnesite            | 901     | 19 635  | 607     | 725     | 2 167   |
| Magnesia             | 189 005 | 179 046 | 185 364 | 175 307 | 156 027 |
| Sweden               |         |         |         |         |         |
| Magnesia             | 1 421   | 2 277   | 1 593   | 235     | 380     |
| Turkey               |         |         |         |         |         |
| Magnesite            | 41 353  | 28 937  | 40 414  | 68 054  | 35 097  |
| Magnesia             | 198 654 | 205 989 | 181 870 | 175 441 | 162 651 |
| United Kingdom       |         |         |         |         |         |
| Magnesite            | 87      | 26      | 51      | 316     | 518     |
| Magnesia             | 20 077  | 19 036  | 16 371  | 13 647  | 9 662   |

## Note(s)

(1) The term 'magnesia', as used here, includes dead-burned, sintered and caustic-burned (caustic calcined) material

(a) BGS estimates, based on known imports into certain countries

**Imports of magnesite and magnesia**

tonnes

| Country              | 2005    | 2006    | 2007    | 2008    | 2009    |
|----------------------|---------|---------|---------|---------|---------|
| Austria              |         |         |         |         |         |
| Magnesite            | 17 019  | 1 653   | 933     | 2 319   | 937     |
| Magnesia             | 188 449 | 213 760 | 317 952 | 248 037 | 21 708  |
| Belgium-Luxembourg   |         |         |         |         |         |
| Magnesite            | 767     | 3 872   | 4 326   | 4 064   | 4 514   |
| Magnesia             | 84 730  | 152 330 | 101 911 | 141 283 | 104 627 |
| Bulgaria             | 8 500   | 6 551   | 4 670   | 6 296   | 3 180   |
| Croatia              | 1 647   | 1 564   | 1 872   | 1 682   | 1 289   |
| Czech Republic       |         |         |         |         |         |
| Magnesite            | 6 860   | 5 320   | 6 527   | 4 193   | 3 460   |
| Magnesia             | 43 277  | 51 674  | 52 330  | 54 246  | 38 048  |
| Denmark              |         |         |         |         |         |
| Magnesite            | 2 002   | 444     | 512     | 456     | 2 680   |
| Magnesia             | 4 560   | 4 478   | 3 327   | 4 149   | 5 472   |
| Finland              |         |         |         |         |         |
| Magnesia             | 16 476  | 9 540   | 15 989  | 8 692   | 6 439   |
| France               |         |         |         |         |         |
| Magnesite            | 3 427   | 2 509   | 2 355   | 2 378   | 1 209   |
| Magnesia             | 161 488 | 161 029 | 163 908 | 164 235 | 117 821 |
| Germany              |         |         |         |         |         |
| Magnesite            | 6 353   | 13 794  | 17 029  | 8 420   | 6 731   |
| Magnesia             | 515 089 | 519 576 | 568 508 | 562 618 | 276 674 |
| Greece               |         |         |         |         |         |
| Magnesite            | 14 250  | 15 645  | 12 611  | 44 397  | 19 803  |
| Magnesia             | 17 232  | 22 763  | 20 682  | 7 328   | 1 729   |
| Hungary              | 6 251   | 5 435   | 9 760   | 14 754  | 2 644   |
| Ireland, Republic of |         |         |         |         |         |
| Magnesite            | 12 653  | 1 967   | 5 971   | 4 385   | 4 191   |
| Magnesia             | 49 466  | 35 800  | 48 088  | 42 999  | 22 523  |
| Italy                |         |         |         |         |         |
| Magnesite            | 23 536  | 10 862  | 10 240  | 18 347  | 9 375   |
| Magnesia             | 161 432 | 174 000 | 131 140 | 150 098 | 93 262  |
| Latvia               |         |         |         |         |         |
| Magnesia             | 3 343   | 4 092   | 4 678   | 5 355   | 2 827   |
| Lithuania            |         |         |         |         |         |
| Magnesia             | 5 398   | 5 513   | 6 501   | 5 196   | 855     |
| Macedonia            | 1 384   | 5 047   | 18 863  | 13 956  | 10 113  |
| Netherlands          |         |         |         |         |         |
| Magnesite            | 3 057   | 3 007   | 1 390   | 3 609   | 3 259   |
| Magnesia             | 558 764 | 454 271 | 437 684 | 314 860 | 80 478  |
| Norway               |         |         |         |         |         |
| Magnesite            | 2 125   | 4 265   | 126     | 69      | 17      |
| Magnesia             | 500     | 1 784   | 4 298   | 5 989   | 4 904   |
| Poland               |         |         |         |         |         |
| Magnesite            | 244     | 288     | 1 536   | 216     | 2 658   |
| Magnesia             | 71 550  | 103 092 | 109 810 | 109 646 | 81 304  |
| Portugal             |         |         |         |         |         |
| Magnesite            | 1 012   | 1 269   | 924     | 1 521   | 697     |
| Magnesia             | 5 998   | 6 544   | 7 119   | 5 863   | 8 538   |
| Romania              |         |         |         |         |         |
| Magnesite            | 155     | 516     | 187     | 139     | 1       |
| Magnesia             | 27 088  | 27 447  | 19 666  | 13 003  | 7 427   |
| Slovakia             |         |         |         |         |         |
| Magnesite            | 1 440   | 3 947   | 3 520   | 3 401   | 2 906   |
| Magnesia             | 21 927  | 27 280  | 36 768  | 40 675  | 12 731  |
| Slovenia             |         |         |         |         |         |
| Magnesite            | 391     | 166     | 123     | 113     | 79      |
| Magnesia             | 9 500   | 8 312   | 7 994   | 8 159   | 4 267   |
| Spain                |         |         |         |         |         |
| Magnesite            | 2 348   | 3 937   | 4 092   | 2 839   | 10 029  |
| Magnesia             | 103 747 | 88 898  | 117 867 | 143 849 | 42 980  |
| Sweden               |         |         |         |         |         |
| Magnesite            | 41      | 39      | 477     | 38      | 2       |
| Magnesia             | 21 293  | 24 610  | 17 556  | 14 701  | 15 832  |
| Switzerland          |         |         |         |         |         |
| Magnesite            | 168     | 394     | 1 024   | 69      | 502     |
| Magnesia             | 6 708   | 7 506   | 7 144   | 7 772   | 4 762   |

## Magnesite and Magnesia

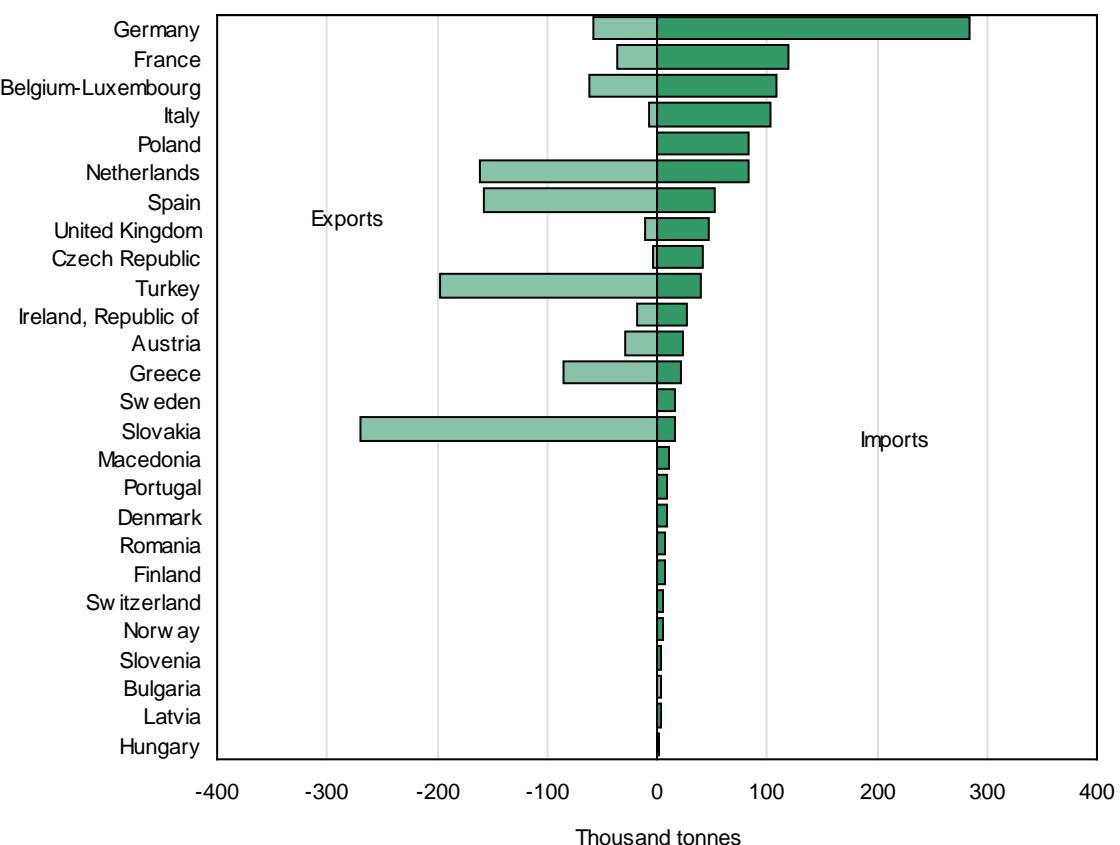
### Imports continued

| Country        | 2005   | 2006   | 2007   | 2008   | 2009   |
|----------------|--------|--------|--------|--------|--------|
| Turkey         |        |        |        |        |        |
| Magnesia       | 52 432 | 29 148 | 43 360 | 61 519 | 40 595 |
| United Kingdom |        |        |        |        |        |
| Magnesite      | 13 896 | 10 644 | 10 194 | 7 016  | 3 567  |
| Magnesia       | 78 843 | 64 896 | 57 905 | 59 300 | 43 873 |

### Note(s)

(1) The term 'magnesia', as used here, includes dead-burned, sintered and caustic-burned (caustic calcined) material

## Magnesite and magnesia - EU33 trade in 2009



## Manganese ore

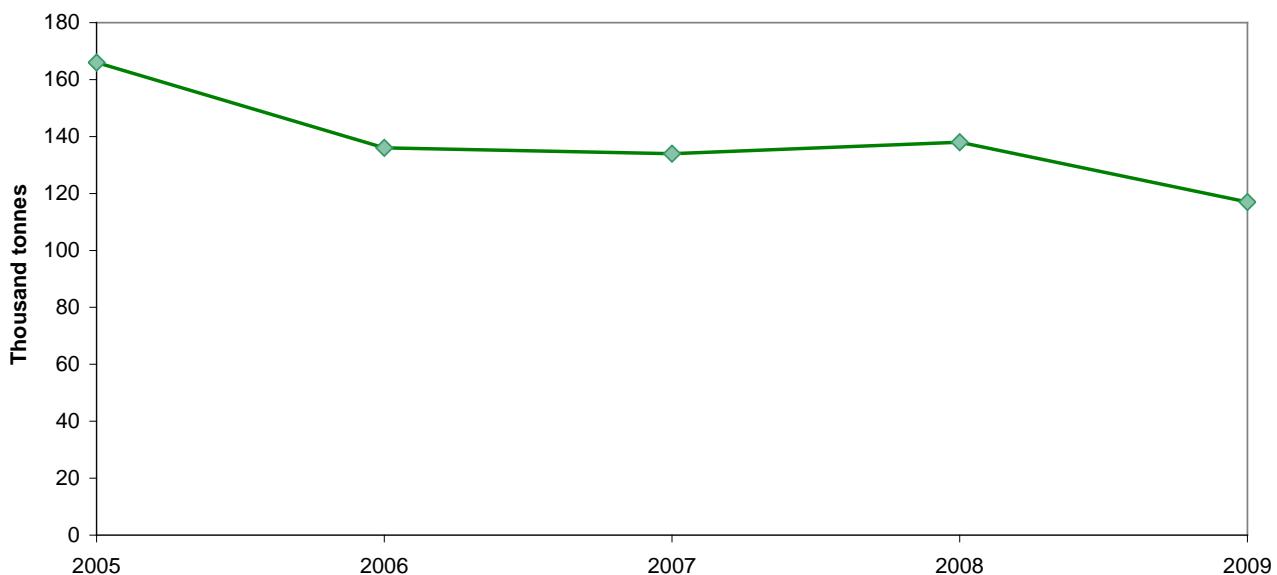
- Manganese is a hard, brittle metal. The chief ores are pyrolusite and other manganese dioxides. The principal use is in the steel industry as a desulphuriser and an alloying agent, where it imparts hardness and wear resistance. Manganese is also an important constituent of many aluminium alloys. Manganese dioxide is a component of dry-cell batteries; other compounds are used in the chemical industry.
- Economic concentrations of manganese are relatively rare. China was the largest producer in 2009 with an estimated 36 per cent of world production. Production of manganese in the EU33 is limited, with Hungary (39 per cent of EU33 production) the largest producer. Manganese ore, ferro-manganese, electrolytic manganese dioxide and manganese metal are the chief forms in international trade.

### Production of manganese ore

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| Country    | 2005    | 2006    | 2007    | 2008    | 2009     |
|------------|---------|---------|---------|---------|----------|
| Bulgaria   | 38 500  | 20 500  | 27 900  | 39 100  | 28 300   |
| Hungary    | 50 000  | 50 000  | 51 000  | 49 579  | 43 000   |
| Italy      | 632     | ...     | ...     | ...     | ...      |
| Romania    | 72 000  | 60 107  | 49 350  | 43 590  | * 40 000 |
| Turkey     | 4 751   | ...     | ...     | ...     | ...      |
| EU33 Total | 166 000 | 136 000 | 134 000 | 138 000 | 117 000  |

EU33 Production of manganese ore 2005 - 09



## Manganese

**Exports of manganese**

tonnes

| Country                 | 2005    | 2006    | 2007    | 2008    | 2009    |
|-------------------------|---------|---------|---------|---------|---------|
| Austria                 |         |         |         |         |         |
| Metal                   | 5 470   | 306     | 116     | 130     | 225     |
| Belgium-Luxembourg      |         |         |         |         |         |
| Ores & concentrates     | 10 648  | 5 138   | 15 819  | 8 578   | 5 192   |
| Metal                   | 1 826   | 7 045   | 4 060   | 1 947   | 837     |
| Bulgaria                |         |         |         |         |         |
| Ores & concentrates     | 53 559  | 25 595  | 19 335  | 17 369  | 29 715  |
| Estonia                 |         |         |         |         |         |
| Metal                   | 663     | 222     | 464     | 226     | 137     |
| Finland                 |         |         |         |         |         |
| Metal                   | ...     | 0       | 31      | 98      | 341     |
| France                  |         |         |         |         |         |
| Ores & concentrates (a) | 139 723 | 303 881 | 333 747 | 321 638 | 138 787 |
| Metal                   | 324     | 415     | 327     | 488     | 631     |
| Germany                 |         |         |         |         |         |
| Ores & concentrates     | 3 249   | 3 046   | 5 761   | 3 321   | 3 710   |
| Metal                   | 17 824  | 19 757  | 15 414  | 12 921  | 6 727   |
| Italy                   |         |         |         |         |         |
| Metal                   | 241     | 298     | 309     | 494     | 326     |
| Macedonia               |         |         |         |         |         |
| Ores & concentrates     | ...     | 5 117   | ...     | 6 314   | ...     |
| Netherlands             |         |         |         |         |         |
| Ores & concentrates     | 14 903  | 33 386  | 8 223   | 19 103  | 28 701  |
| Metal                   | 13 585  | 16 739  | 19 767  | 19 144  | 15 642  |
| Norway                  |         |         |         |         |         |
| Ores & concentrates     | 1 410   | 7 880   | 56 939  | 10 266  | 9 214   |
| Metal                   | 131     | 203     | 2 373   | 1 363   | 59      |
| Poland                  |         |         |         |         |         |
| Ores & concentrates     | 43 186  | 1 309   | 151     | 18      | 20      |
| Metal                   | 67      | 52      | 460     | 35      | 603     |
| Romania                 |         |         |         |         |         |
| Metal                   | ...     | 1       | 3 024   | 6 666   | —       |
| Slovenia                |         |         |         |         |         |
| Metal                   | 2 584   | 228     | 236     | 58      | 21      |
| Spain                   |         |         |         |         |         |
| Ores & concentrates     | 776     | 1 336   | 1 299   | 518     | 21 456  |
| Metal                   | 6 651   | 5 827   | 5 783   | 4 562   | 3 386   |
| Turkey                  |         |         |         |         |         |
| Ores & concentrates     | 955     | 2 466   | 13 007  | 81 280  | 59 183  |
| Metal                   | —       | 4       | 20      | 401     | 81      |
| United Kingdom          |         |         |         |         |         |
| Metal (e)               | * 3 100 | * 2 000 | * 2 100 | * 3 100 | * 1 800 |

## Note(s)

(1) Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys

(a) Including manganiferous iron ore

(b) BGS estimates, based on known imports into certain countries

**Imports of manganese**

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| Country                 | 2005      | 2006    | 2007      | 2008      | 2009    |
|-------------------------|-----------|---------|-----------|-----------|---------|
| Austria                 |           |         |           |           |         |
| Ores & concentrates     | 110       | 368     | 383       | 215       | 184     |
| Metal                   | 8 707     | 12 059  | 17 543    | 14 275    | 11 512  |
| Belgium-Luxembourg      |           |         |           |           |         |
| Ores & concentrates     | 66 840    | 65 462  | 79 022    | 83 909    | 61 980  |
| Metal                   | 4 150     | 10 114  | 6 403     | 4 425     | 3 093   |
| Bulgaria                |           |         |           |           |         |
| Ores & concentrates     | 13 631    | 17 367  | 27 602    | —         | 20      |
| Croatia                 |           |         |           |           |         |
| Metal                   | 93        | 89      | 586       | 64        | 53      |
| Czech Republic          |           |         |           |           |         |
| Ores & concentrates     | 13 820    | 14 335  | 16 079    | 15 715    | 16 063  |
| Metal                   | 619       | 674     | 757       | 2 542     | 2 219   |
| Denmark                 |           |         |           |           |         |
| Ores & concentrates     | 111       | 788     | 775       | 698       | 1 158   |
| Metal                   | 157       | 161     | 317       | 233       | 136     |
| Estonia                 |           |         |           |           |         |
| Metal                   | 552       | 909     | 836       | 478       | 168     |
| Finland                 |           |         |           |           |         |
| Ores & concentrates     | 28 335    | 10 433  | 27 251    | 24 926    | 12 224  |
| Metal                   | 753       | 2 182   | 2 379     | 2 649     | 912     |
| France                  |           |         |           |           |         |
| Ores & concentrates (b) | 615 884   | 611 043 | 678 369   | 876 961   | 193 684 |
| Metal                   | 11 039    | 11 131  | 15 198    | 19 115    | 8 905   |
| Germany                 |           |         |           |           |         |
| Ores & concentrates (b) | 7 645     | 11 327  | 15 997    | 14 916    | 14 645  |
| Metal                   | 29 449    | 45 937  | 42 368    | 47 581    | 33 989  |
| Greece                  |           |         |           |           |         |
| Ores & concentrates     | 22 001    | 46 164  | —         | 51 425    | 31 776  |
| Metal                   | 905       | 730     | 291       | 271       | 162     |
| Hungary                 |           |         |           |           |         |
| Ores & concentrates     | ...       | 20      | 254       | 293       | 220     |
| Metal                   | 889       | 1 180   | 332       | 1 185     | 280     |
| Ireland, Republic of    |           |         |           |           |         |
| Ores & concentrates (b) | 285       | 368     | 286       | 75        | 65      |
| Metal                   | 5         | 15      | 118       | 7         | 6       |
| Italy                   |           |         |           |           |         |
| Ores & concentrates (b) | 76 278    | 72 465  | 113 300   | 114 289   | 77 075  |
| Metal                   | 8 494     | 35 391  | 7 100     | 5 839     | 3 709   |
| Macedonia               |           |         |           |           |         |
| Ores & concentrates     | 28 977    | 44 040  | 143 556   | 170 455   | ...     |
| Netherlands             |           |         |           |           |         |
| Ores & concentrates     | 35 936    | 22 495  | 11 749    | 10 664    | 9 398   |
| Metal                   | 61 240    | 22 162  | 31 236    | 35 573    | 19 083  |
| Norway                  |           |         |           |           |         |
| Ores & concentrates     | 1 172 711 | 849 729 | 1 083 361 | 1 232 799 | 525 674 |
| Metal                   | 2 976     | 3 531   | 2 953     | 2 595     | 1 297   |
| Poland                  |           |         |           |           |         |
| Ores & concentrates     | 38 845    | 6 017   | 32 984    | 54 087    | 1 930   |
| Metal                   | 499       | 1 155   | 1 167     | 716       | 507     |
| Portugal                |           |         |           |           |         |
| Ores & concentrates     | 28        | 63      | 51        | 765       | 13      |
| Romania                 |           |         |           |           |         |
| Ores & concentrates     | 357 327   | 3 134   | 79        | 16 432    | 16      |
| Metal                   | 427       | 1 000   | 3 030     | 646       | 527     |
| Slovakia                |           |         |           |           |         |
| Ores & concentrates     | 273 270   | 308 417 | 253 048   | 211 653   | 74 712  |
| Metal                   | 146       | 445     | 313       | 350       | 395     |
| Slovenia                |           |         |           |           |         |
| Ores & concentrates     | 6         | 4       | 187       | 10        | 9       |
| Metal                   | 294       | 435     | 388       | 438       | 264     |
| Spain                   |           |         |           |           |         |
| Ores & concentrates     | 415 959   | 393 476 | 349 131   | 640 677   | 54 606  |
| Metal                   | 10 537    | 9 165   | 9 563     | 10 033    | 3 994   |
| Sweden                  |           |         |           |           |         |
| Ores & concentrates     | 119       | 72      | 130       | 388       | 854     |
| Metal                   | 2 632     | 2 380   | 3 012     | 3 287     | 1 880   |

Manganese

Imports continued

tonnes

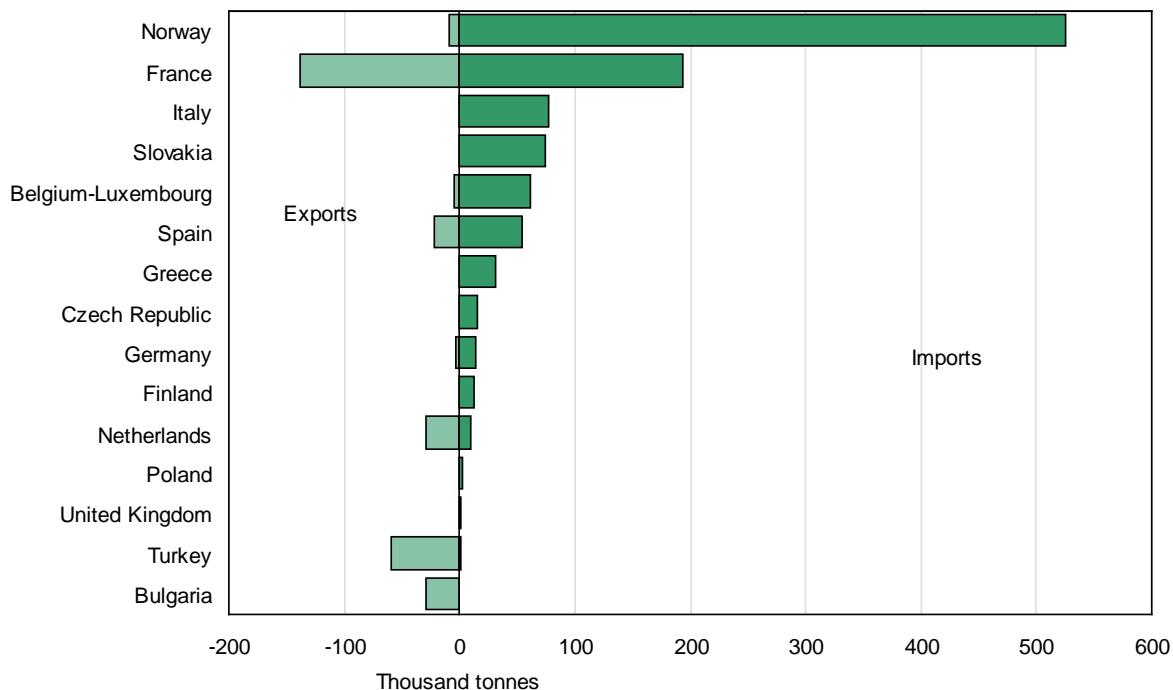
| Country                 | 2005  | 2006  | 2007  | 2008  | 2009  |
|-------------------------|-------|-------|-------|-------|-------|
| Switzerland             |       |       |       |       |       |
| Ores & concentrates     | 469   | 453   | 415   | 472   | 340   |
| Metal                   | 486   | 444   | 778   | 472   | 282   |
| Turkey                  |       |       |       |       |       |
| Ores & concentrates     | 259   | 383   | 428   | 2 531 | 540   |
| Metal                   | 300   | 509   | 719   | 874   | 583   |
| United Kingdom          |       |       |       |       |       |
| Ores & concentrates (a) | 698   | 8 458 | 1 569 | 4 133 | 941   |
| Metal                   | 8 223 | 8 563 | 7 021 | 8 773 | 4 123 |

Note(s)

(1) Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys

(a) Including manganiferous iron ore

**Manganese ores and concentrates - EU33 trade in 2009**



## Mercury

- Mercury is the only metallic element that is liquid at room temperature. The chief economic sources are deposits of the mineral cinnabar but mercury is also recovered from base metal refining. Mercury's main uses are in electrical switches and other control apparatus, and in dental amalgam. Large amounts remain in use in chlor-alkali plants and in batteries but these applications are being phased out.
- Only nine countries commercially extracted mercury in 2009. China and Kyrgyzstan are the world's two largest producers and are together responsible for more than 90 per cent of total world output. Chile and Russia are estimated to produce nearly three per cent each. Finland is the only producer in the EU33 countries but its output represents less than one per cent of the world total.

### EU33 Production of mercury 2009

Rest of World 99.6%

Finland 0.4%

### Production of mercury

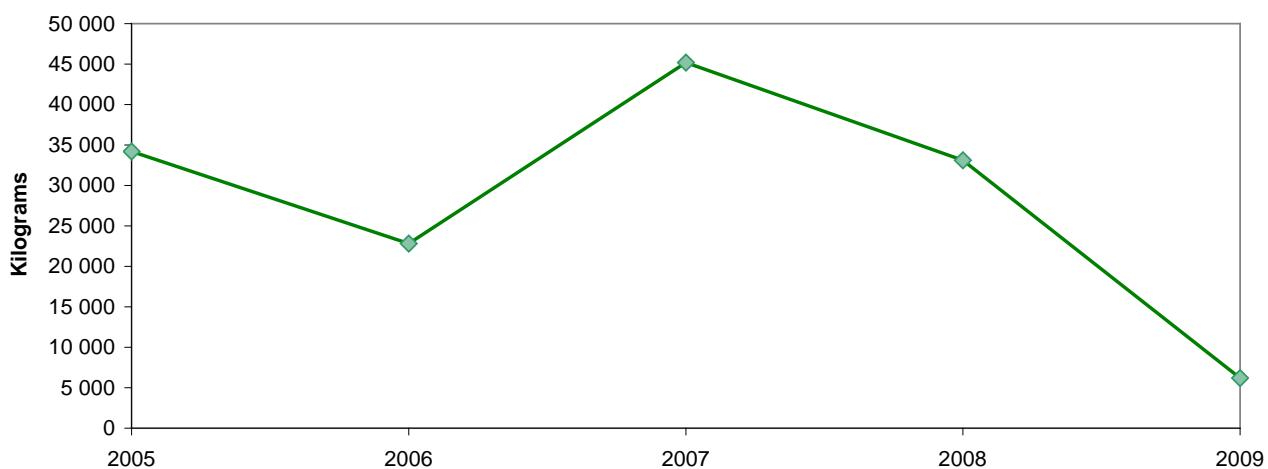
kilograms

| Country | 2005   | 2006   | 2007   | 2008   | 2009  |
|---------|--------|--------|--------|--------|-------|
| Finland | 34 200 | 22 820 | 45 195 | 33 120 | 6 210 |

Note(s)

(1) Several countries are believed to have unrecorded production of mercury from copper electrowinning processes

### EU33 Production of mercury 2005 - 09



## Mercury

**Exports of mercury**

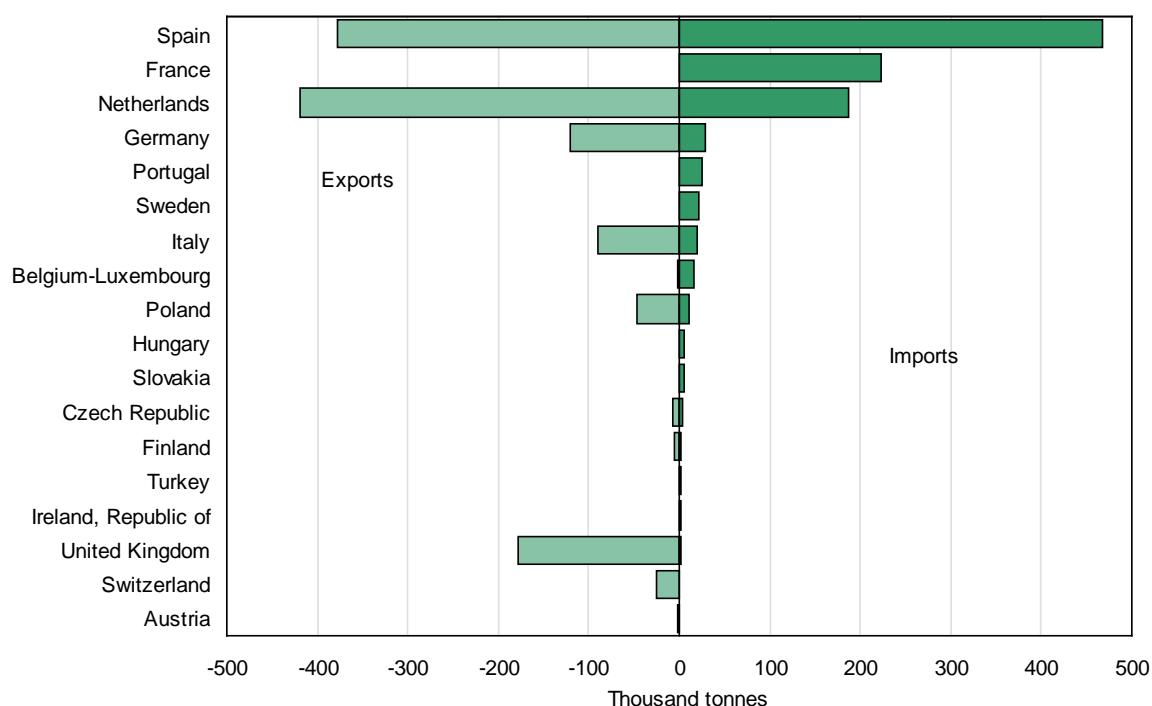
kilograms

| Country            | 2005    | 2006    | 2007    | 2008    | 2009    |
|--------------------|---------|---------|---------|---------|---------|
| Austria            | 4 100   | 214     | 5 000   | 200     | 2 000   |
| Belgium-Luxembourg | 8 800   | 42 300  | 3 300   | 110 800 | 1 400   |
| Czech Republic     | 8 200   | 1 700   | 3 600   | 6 300   | 6 400   |
| Estonia            | 3 400   | —       | —       | —       | —       |
| Finland            | 32 090  | 24 859  | 45 600  | 35 000  | 6 211   |
| France             | 15 400  | 27 300  | 9 100   | 1 700   | 718     |
| Germany            | 36 200  | 40 000  | 42 300  | 111 100 | 120 587 |
| Italy              | 18 244  | 14 820  | 125 946 | 84 247  | 89 228  |
| Netherlands        | 188 220 | 176 670 | 196 039 | 192 605 | 419 480 |
| Poland             | 3 000   | 33 900  | 61 600  | 17 700  | 46 200  |
| Spain              | 581 653 | 463 954 | 779 110 | 639 203 | 376 885 |
| Switzerland        | 171 790 | 87 136  | 140 336 | 11 592  | 25 372  |
| United Kingdom     | 191 193 | 78 514  | 4 311   | 6 369   | 178 571 |

**Imports of mercury**

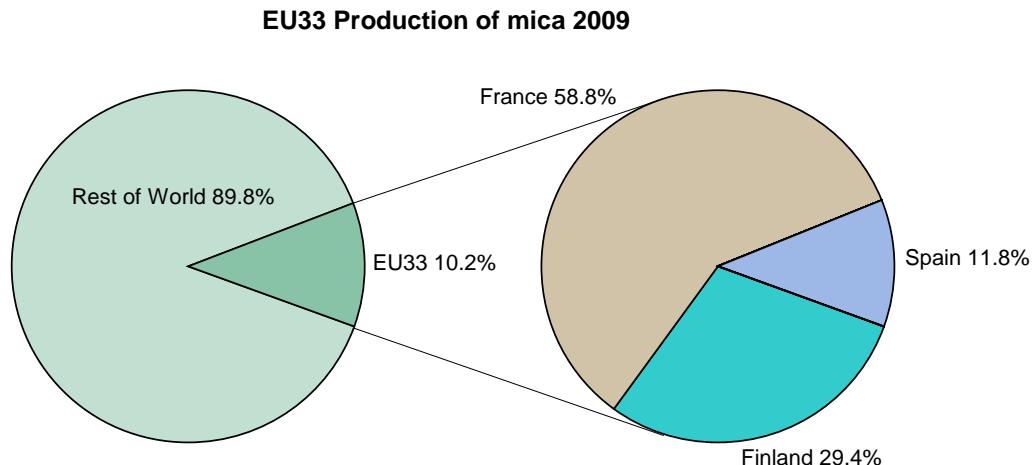
kilograms

| Country              | 2005    | 2006    | 2007    | 2008    | 2009      |
|----------------------|---------|---------|---------|---------|-----------|
| Austria              | 1 600   | 2 000   | 4 400   | 200     | —         |
| Belgium-Luxembourg   | 18 658  | 44 852  | 8 369   | 133 278 | 16 212    |
| Czech Republic       | 1 100   | 4 000   | 3 200   | 3 700   | 4 400     |
| Denmark              | 2 901   | 129     | 300     | 400     | 100       |
| Finland              | 28      | 38      | 200     | 209     | 2 136     |
| France               | 202 600 | 138 100 | 190 000 | 105 300 | 222 224   |
| Germany              | 36 200  | 70 600  | 84 100  | 19 700  | 28 678    |
| Greece               | 954     | 933     | 100     | 2 500   | 600       |
| Hungary              | 4 607   | 3 529   | 3 300   | 4 293   | 4 800     |
| Ireland, Republic of | 72      | 11 804  | 1 019   | 979     | 1 182     |
| Italy                | 32 471  | 49 335  | 9 491   | 21 754  | 19 992    |
| Netherlands          | 665 865 | 888 164 | 674 888 | 293 481 | * 186 300 |
| Poland               | 15 700  | 9 200   | 15 700  | 13 300  | 10 900    |
| Portugal             | —       | —       | —       | 7 500   | 25 100    |
| Romania              | 20 288  | 49 623  | 80 000  | 2 300   | 400       |
| Slovakia             | 3 457   | 3 100   | 3 400   | 5 200   | 4 500     |
| Spain                | 572 872 | 628 737 | 906 297 | 337 117 | 467 614   |
| Sweden               | 3 000   | 6 000   | 10 600  | 13 800  | 21 300    |
| Switzerland          | 5 846   | 5 333   | 6 687   | 3 557   | 801       |
| Turkey               | 1 440   | 2 052   | 9       | 3 069   | 1 635     |
| United Kingdom       | 32 306  | 2 128   | 2 668   | 2 387   | 1 121     |

**Mercury - EU33 trade in 2009**

## Mica

- Micas are a group of chemically complex rock-forming minerals recognisable by a perfect cleavage (i.e. they are naturally flaky). Sheet mica is used predominantly in electrical insulation and ground mica has a very wide variety of uses including filler, dusting agent, absorbent, fire insulator, strength enhancer in plastics and decorative material.
- Although a very common mineral, commercial concentrations of mica are relatively rare. China was the largest world producer in 2009 with 30 per cent of the world total. Mica is produced in three EU33 countries, of which the largest producer is France (58.8 per cent of EU33 total). Altogether, output from the EU33 countries represent 10.2 per cent of the world total.



## Production of mica

tonnes

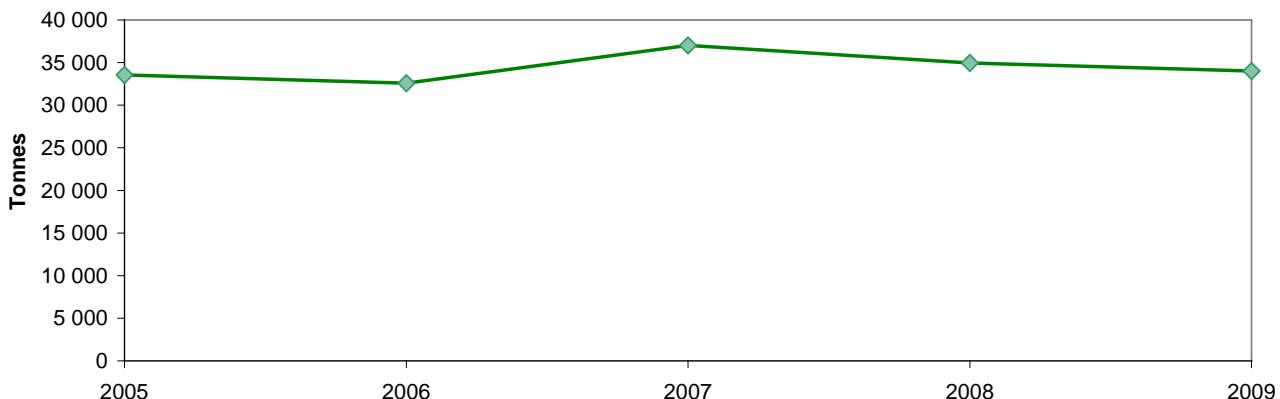
| Country    | 2005     | 2006     | 2007     | 2008     | 2009     |
|------------|----------|----------|----------|----------|----------|
| Finland    | 9 500    | 8 097    | 11 449   | 10 706   | * 10 000 |
| France (a) | * 20 000 | * 20 000 | * 20 000 | * 20 000 | * 20 000 |
| Spain (a)  | 4 043    | 4 496    | 5 569    | 4 254    | * 4 000  |
| EU33 Total | 34 000   | 33 000   | 37 000   | 35 000   | 34 000   |

## Note(s)

(1) In addition to the countries listed, Romania is believed to produce mica

(a) Including mica recovered from mica schists and/or kaolin beneficiation

## EU33 Production of mica 2005 - 09



**Exports of mica**

tonnes

| Country            | 2005   | 2006   | 2007   | 2008   | 2009   |
|--------------------|--------|--------|--------|--------|--------|
| Austria            | 4 915  | 4 102  | 4 234  | 4 274  | 3 328  |
| Belgium-Luxembourg | 3 226  | 3 225  | 3 226  | 2 127  | 1 562  |
| Finland            |        |        |        |        |        |
| Ground             | 5 745  | 6 603  | 8 956  | 7 138  | 6 125  |
| France             |        |        |        |        |        |
| Ground             | 13 406 | 12 794 | 13 490 | 13 881 | 10 758 |
| Waste              | 39     | 20     | 422    | ...    | ...    |
| Germany            | 3 656  | 4 039  | 4 957  | 4 713  | 2 888  |
| Greece             | 5 653  | 9 613  | 3      | 59     | 59     |
| Italy              | 738    | 1 159  | 1 429  | 3 211  | 857    |
| Netherlands        | 2 912  | 2 735  | 6 842  | 1 341  | 3 214  |
| Norway             | 2 003  | 2 157  | 2 168  | 2 640  | 1 835  |
| Spain              |        |        |        |        |        |
| Unmanufactured     | 2 771  | 3 994  | 2 473  | 1 259  | 563    |
| Ground             | 312    | 462    | 1 089  | 1 368  | 1 521  |
| United Kingdom     | 4 052  | 4 593  | 3 820  | 4 749  | 3 944  |

## Note(s)

- (1) This table shows unmanufactured mica and includes sheet, block, splittings, ground and waste, unless these are separately specified.  
Mica powder is included under the term 'ground'

**Imports of mica**

tonnes

| Country              | 2005   | 2006   | 2007   | 2008   | 2009   |
|----------------------|--------|--------|--------|--------|--------|
| Austria              | 512    | 615    | 722    | 857    | 492    |
| Belgium-Luxembourg   |        |        |        |        |        |
| Unmanufactured       | 913    | 470    | 1 204  | 2 155  | 3 454  |
| Ground               | 2 996  | 2 646  | 3 461  | 5 410  | 3 507  |
| Waste                | ...    | ...    | 4 364  | 2 107  | 45     |
| Czech Republic       | 819    | 1 629  | 2 262  | 1 958  | 981    |
| Denmark              | 413    | 1 596  | 366    | 276    | 242    |
| Finland              | 2 998  | 2 874  | 4 098  | 4 383  | 1 988  |
| France               |        |        |        |        |        |
| Ground (a)           | 1 534  | 2 674  | 2 532  | 3 175  | 2 214  |
| Waste                | 1 423  | —      | —      | ...    | 13     |
| Germany              |        |        |        |        |        |
| Unmanufactured       | 89     | 12     | 16     | 386    | 221    |
| Ground               | 30 820 | 33 101 | 36 345 | 33 175 | 25 682 |
| Waste                | 1 101  | 980    | 782    | 966    | 316    |
| Greece               | 131    | 111    | 123    | 218    | 317    |
| Ireland, Republic of | 889    | 650    | 508    | 291    | 43     |
| Italy                |        |        |        |        |        |
| Unmanufactured       | 118    | 158    | 189    | 106    | 417    |
| Ground               | 3 405  | 3 657  | 4 803  | 3 980  | 2 597  |
| Lithuania            | 124    | 122    | 53     | 92     | 43     |
| Malta                | 33     | 61     | 39     | 48     | 196    |
| Netherlands          |        |        |        |        |        |
| Unmanufactured       | 143    | 176    | 400    | 751    | 523    |
| Ground               | 7 381  | 7 251  | 9 933  | 2 618  | 3 490  |
| Norway               |        |        |        |        |        |
| Unmanufactured       | 80     | 648    | 912    | 1 174  | 1 021  |
| Ground               | 893    | 373    | 337    | 1 243  | 1 140  |
| Waste                | 28     | 120    | 18     | 9      | ...    |
| Poland               | 547    | 918    | 1 118  | 880    | 1 134  |
| Portugal             | 193    | 630    | 284    | 125    | 139    |
| Romania              | 886    | 912    | 478    | 488    | 441    |
| Spain                | 1 917  | 1 484  | 1 871  | 952    | 1 467  |
| Sweden               | 592    | 515    | 584    | 755    | 721    |
| Switzerland          | 601    | 1 151  | 3 021  | 1 088  | 669    |
| Turkey               | 266    | 413    | 293    | 385    | 477    |

## Mica

## Imports continued

tonnes

| Country        | 2005  | 2006  | 2007  | 2008  | 2009  |
|----------------|-------|-------|-------|-------|-------|
| United Kingdom |       |       |       |       |       |
| Unmanufactured | 296   | 251   | 289   | 377   | 328   |
| Ground         | 6 684 | 5 856 | 6 705 | 7 061 | 6 396 |
| Waste          | 4 485 | 3 474 | 3 433 | 2 030 | 49    |

## Note(s)

(1) This table shows unmanufactured mica and includes sheet, block, splittings, ground and waste, unless these are separately specified.  
Mica powder is included under the term 'ground'

(a) Including unmanufactured

## Molybdenum

- Molybdenum is a hard metal. It is an important component of high tensile steel where it imparts hardness, tolerance of high temperatures and resistance to corrosion. Molybdenum disulphide is used as a dry lubricant.
- Molybdenum is generally produced as a by-product of copper mining. Production in 2009 was confined to only 14 countries, of which the three largest producers, China, the USA and Chile, together produced 77 per cent of the world total. There is no production in the EU33 countries.

### Exports of molybdenum

tonnes

| Country             | 2005    | 2006    | 2007    | 2008    | 2009    |
|---------------------|---------|---------|---------|---------|---------|
| Austria             |         |         |         |         |         |
| Metal (a)           | * 4 700 | * 3 000 | * 3 500 | * 3 000 | * 1 800 |
| Belgium-Luxembourg  |         |         |         |         |         |
| Ores & concentrates | 17 683  | 24 320  | 22 340  | 11 314  | 15 581  |
| Metal               | 342     | 194     | 556     | 243     | 105     |
| Oxides              | 687     | 905     | 829     | 379     | 91      |
| Bulgaria            |         |         |         |         |         |
| Metal               | 105     | 87      | 99      | 123     | 132     |
| France              |         |         |         |         |         |
| Ores & concentrates | 365     | 512     | 485     | 55      | 75      |
| Germany             |         |         |         |         |         |
| Ores & concentrates | 2 770   | 3 812   | 2 723   | 3 575   | 2 502   |
| Metal               | 2 241   | 2 958   | 346     | 2 857   | 725     |
| Italy               |         |         |         |         |         |
| Ores & concentrates | 246     | 29      | 311     | 159     | 205     |
| Metal               | 132     | 639     | 221     | 873     | 488     |
| Oxides              | 47      | 107     | 185     | 604     | 982     |
| Lithuania           |         |         |         |         |         |
| Ores & concentrates | 310     | ...     | 173     | 186     | ...     |
| Netherlands         |         |         |         |         |         |
| Ores & concentrates | 47 395  | 27 264  | 26 613  | 16 284  | 4 408   |
| Metal               | 59      | 190     | 409     | 282     | 46      |
| Oxides              | 2 708   | 2 110   | 3 059   | 4 253   | 1 805   |
| United Kingdom      |         |         |         |         |         |
| Ores & concentrates | 179     | 166     | 78      | 64      | 35      |
| Metal               | 807     | 318     | 237     | 241     | 433     |

#### Note(s)

(1) Metal traded in ferro-alloy form is included under iron, steel and ferro-alloys

(a) BGS estimates, based on known imports into certain countries

## Molybdenum

**Imports of molybdenum**

tonnes

| Country             | 2005   | 2006   | 2007   | 2008   | 2009   |
|---------------------|--------|--------|--------|--------|--------|
| Austria             |        |        |        |        |        |
| Metal               | 599    | 1 342  | 1 243  | 1 502  | 430    |
| Belgium-Luxembourg  |        |        |        |        |        |
| Ores & concentrates | 54 452 | 47 122 | 43 932 | 37 964 | 37 101 |
| Metal               | 383    | 490    | 752    | 360    | 344    |
| Oxides              | 2 072  | 2 618  | 2 796  | 2 075  | 968    |
| Bulgaria            |        |        |        |        |        |
| Metal               | 108    | 73     | 47     | 15     | 47     |
| Czech Republic      |        |        |        |        |        |
| Ores & concentrates | 189    | 139    | 213    | 284    | 1 040  |
| Metal               | 89     | 175    | 130    | 560    | 127    |
| Denmark             |        |        |        |        |        |
| Oxides              | 247    | 196    | 432    | 361    | 388    |
| Finland             |        |        |        |        |        |
| Ores & concentrates | 28 469 | 9 270  | 5 789  | 3 498  | 40     |
| France              |        |        |        |        |        |
| Ores & concentrates | 1 783  | 1 896  | 1 511  | 1 933  | 769    |
| Metal               | 993    | 1 075  | 830    | 1 094  | 541    |
| Oxides              | 678    | 579    | 670    | 1 191  | 1 018  |
| Germany             |        |        |        |        |        |
| Ores & concentrates | 11 537 | 14 059 | 10 721 | 9 645  | 6 953  |
| Metal               | 2 569  | 3 894  | 4 238  | 4 132  | 1 726  |
| Oxides              | 725    | 2 049  | 1 776  | 1 905  | 1 661  |
| Greece              |        |        |        |        |        |
| Metal               | 2      | 47     | 34     | 60     | 58     |
| Hungary             |        |        |        |        |        |
| Metal               | 129    | 145    | 112    | 102    | 69     |
| Italy               |        |        |        |        |        |
| Ores & concentrates | 5 109  | 5 552  | 5 901  | 6 220  | 6 703  |
| Metal               | 203    | 189    | 215    | 254    | 171    |
| Oxides              | 117    | 229    | 183    | 125    | 176    |
| Netherlands         |        |        |        |        |        |
| Ores & concentrates | 31 781 | 34 891 | 30 403 | 36 305 | 9 555  |
| Metal               | 287    | 801    | 1 060  | 572    | 84     |
| Oxides              | 1 509  | 1 441  | 1 341  | 859    | 230    |
| Poland              |        |        |        |        |        |
| Metal               | 102    | 208    | 616    | 843    | 281    |
| Slovakia            |        |        |        |        |        |
| Metal               | 37     | 3      | 5      | 24     | 106    |
| Slovenia            |        |        |        |        |        |
| Ores & concentrates | 5 674  | 700    | 876    | 690    | 292    |
| Spain               |        |        |        |        |        |
| Ores & concentrates | 3 317  | 4 584  | 4 622  | 3 787  | 1 724  |
| Metal               | 31     | 163    | 113    | 189    | 236    |
| Sweden              |        |        |        |        |        |
| Ores & concentrates | 5 690  | 6 863  | 7 003  | 4 645  | 2 514  |
| Metal               | 280    | 139    | 281    | 442    | 470    |
| Oxides              | 392    | 1 133  | 780    | 711    | 219    |
| Turkey              |        |        |        |        |        |
| Ores & concentrates | 1      | 2      | 4      | 3      | 291    |
| Metal               | 4      | 6      | 8      | 89     | 16     |
| Oxides              | 82     | 80     | 69     | 167    | 54     |
| United Kingdom      |        |        |        |        |        |
| Ores & concentrates | 18 600 | 19 032 | 18 381 | 15 130 | 9 007  |
| Metal               | 2 877  | 3 445  | 1 390  | 2 102  | 707    |
| Oxides              | 630    | 635    | 513    | 1 433  | 510    |

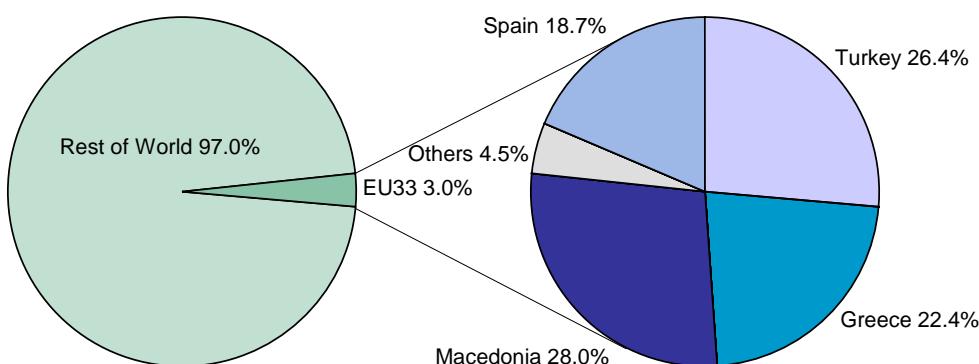
## Note(s)

(1) Metal traded in ferro-alloy form is included under iron, steel and ferro-alloys

## Nickel

- Nickel is a hard, strong, corrosion-resistant, malleable and ductile metal that is a good conductor of heat and electricity. Its most important use is in steel alloys where it imparts strength and toughness. It is also widely used in plating, both metals and plastics, and combined with copper in cupro-nickel alloys.
- Russia was the world's largest producer of mined nickel in 2009 with 18.5 per cent of the total, followed by Indonesia (14 per cent) and Australia (11.8 per cent). Canada is normally one of the top producers of mined nickel but its output in 2009 fell by 47 per cent compared to 2008, dropping it below the Philippines into fifth place. Macedonia is the largest mine producer in the EU33 with 28 per cent of the EU33 total followed by Turkey (26.4 per cent) and Greece (22.4 per cent).
- Russia is also the largest refined nickel producer in the world, closely followed by China. In 2009 Australia overtook Japan to become the third largest producer, while Canada dropped to fifth. Together these five countries produced 68 per cent of the world total in 2009. Norway was the largest refined nickel producer in the EU33 in 2009 with 48.7 per cent of the EU33 total (and just over six per cent of the world total).

**EU33 Mine production of nickel 2009**

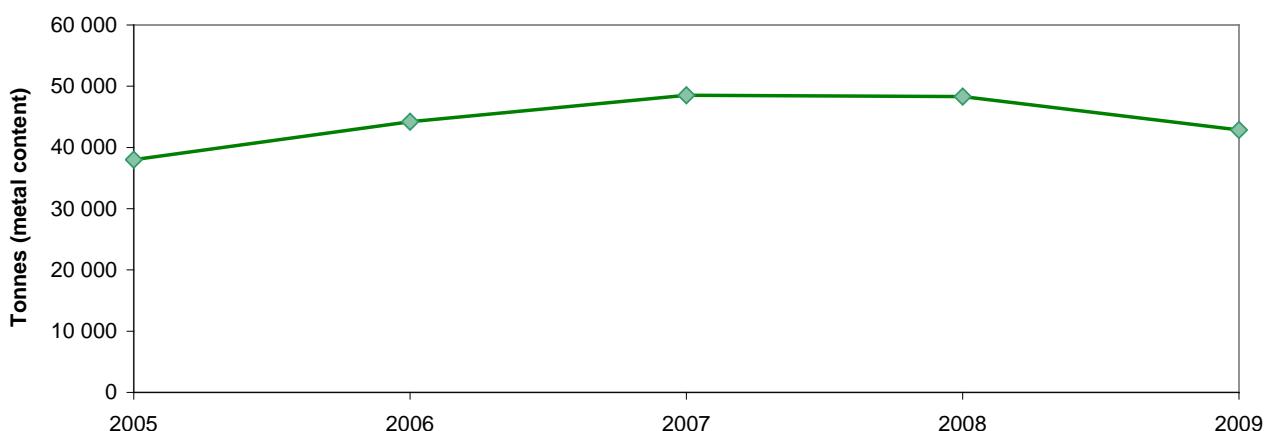


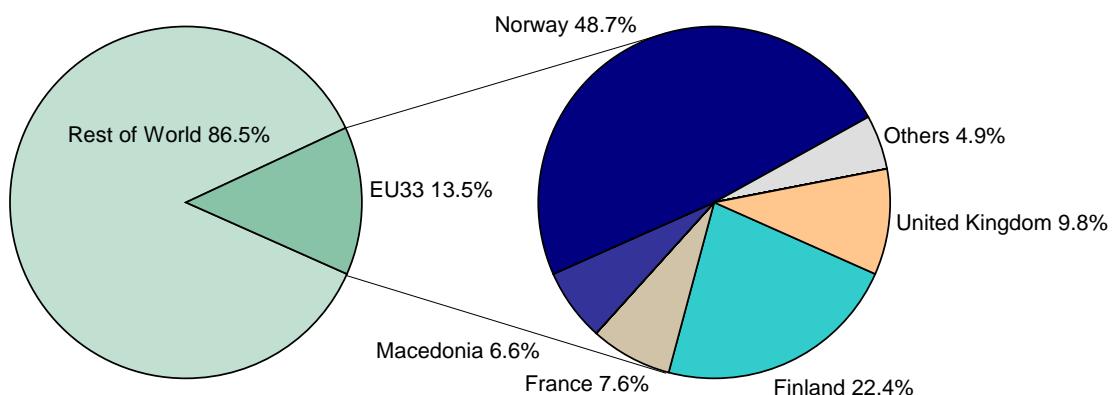
### Mine production of nickel

tonnes (metal content)

| Country    | 2005   | 2006   | 2007   | 2008   | 2009   |
|------------|--------|--------|--------|--------|--------|
| Finland    | 3 400  | 3 000  | 3 600  | 6 200  | 1 600  |
| Greece     | 20 400 | 21 700 | 21 200 | 18 600 | 9 600  |
| Macedonia  | 7 800  | 10 900 | 15 000 | 15 000 | 12 000 |
| Norway     | 342    | 320    | 378    | 377    | 336    |
| Spain      | 5 380  | 6 398  | 6 630  | 8 136  | 8 029  |
| Turkey     | 700    | 1 900  | 1 700  | —      | 11 300 |
| EU33 Total | 38 000 | 44 200 | 48 500 | 48 300 | 42 900 |

**EU33 Mine production of nickel 2005 - 09**



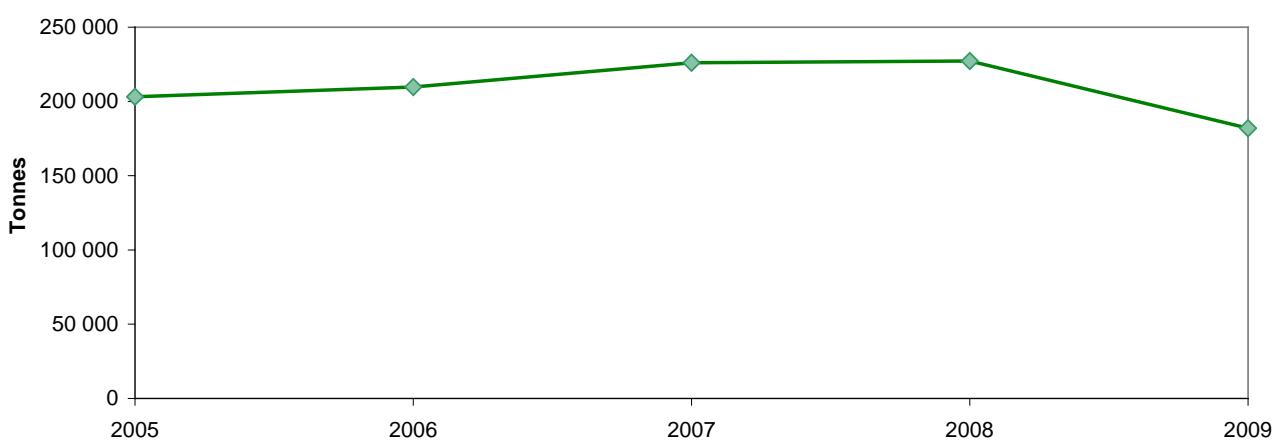
**EU33 Smelter/refinery production of nickel 2009****Smelter/refinery production of nickel**

tonnes

| Country        | 2005    | 2006    | 2007    | 2008    | 2009    |
|----------------|---------|---------|---------|---------|---------|
| Austria        | 1 000   | 900     | 900     | 500     | 700     |
| Finland        | 39 159  | 47 469  | 55 000  | 51 963  | 40 800  |
| France         | 12 684  | 13 700  | 14 800  | 13 700  | 13 900  |
| Greece         | 19 235  | 17 700  | 18 668  | 16 640  | 8 269   |
| Macedonia      | 8 141   | 10 942  | 15 000  | 15 000  | 12 000  |
| Norway         | 85 374  | 82 257  | 87 600  | 88 700  | 88 577  |
| United Kingdom | 37 600  | 36 750  | 34 050  | 40 800  | 17 800  |
| EU33 Total     | 203 200 | 209 700 | 226 000 | 227 300 | 182 000 |

## Note(s)

(1) Data relate to refined nickel plus the nickel content of ferro-nickel, nickel oxide and nickel salts

**EU33 Smelter/refinery production of nickel 2005 - 09**

**Exports of nickel**

tonnes

| Country                 | 2005     | 2006     | 2007    | 2008    | 2009    |
|-------------------------|----------|----------|---------|---------|---------|
| Austria                 |          |          |         |         |         |
| Unwrought (a)           | 226      | 197      | 333     | 225     | 265     |
| Scrap                   | 1 927    | 2 337    | 2 208   | 1 910   | 1 775   |
| Belgium-Luxembourg      |          |          |         |         |         |
| Ores & concentrates     | 853      | 877      | 1 423   | 2 750   | 6 883   |
| Mattes, sinters etc     | 209      | 559      | 68      | 115     | 921     |
| Unwrought               | 13 376   | 14 324   | 15 642  | 13 298  | 11 883  |
| Unwrought alloys        | 2 510    | 1 994    | 2 401   | 2 152   | 2 479   |
| Scrap                   | 1 008    | 3 656    | 4 954   | 2 872   | 1 212   |
| Oxides                  | 702      | 685      | 476     | 1 196   | 843     |
| Bulgaria                |          |          |         |         |         |
| Scrap                   | 12       | 4        | 20      | 48      | 364     |
| Czech Republic          |          |          |         |         |         |
| Scrap                   | 843      | 1 036    | 1 245   | 601     | 2 420   |
| Unwrought (a)           | 57       | 690      | 171     | 758     | 228     |
| Oxides                  | 658      | 602      | 617     | 643     | 275     |
| Denmark                 |          |          |         |         |         |
| Scrap                   | 676      | 585      | 482     | 642     | 1 063   |
| Estonia                 |          |          |         |         |         |
| Scrap                   | 34       | 713      | 1 260   | 840     | 89      |
| Finland                 |          |          |         |         |         |
| Ores & concentrates     | ...      | —        | —       | 14 069  | —       |
| Unwrought               | 30 628   | 37 747   | 43 427  | 40 108  | 37 202  |
| Scrap                   | 28       | 47       | 441     | 27      | 1 511   |
| Oxides (b)              | * 300    | * 600    | * 600   | * 500   | * 200   |
| France                  |          |          |         |         |         |
| Unwrought               | 10 148   | 11 761   | 12 308  | 10 754  | 12 095  |
| Unwrought alloys        | 1 762    | 999      | 1 475   | 2 475   | 1 377   |
| Scrap                   | 6 373    | 7 826    | 7 578   | 7 558   | 11 435  |
| Germany                 |          |          |         |         |         |
| Ores & concentrates     | 7 822    | 8 901    | 2 520   | 316     | 1 619   |
| Mattes, sinters etc     | 5 604    | 9 285    | 18 473  | 20 202  | 8 687   |
| Unwrought               | 8 988    | 5 287    | 4 256   | 5 200   | 2 617   |
| Unwrought alloys        | 9 376    | 9 970    | 9 664   | 8 988   | 3 083   |
| Scrap                   | 9 342    | 6 224    | 7 383   | 5 646   | 8 227   |
| Greece                  |          |          |         |         |         |
| Ores & concentrates     | ...      | 52 169   | 150     | 231     | 144 529 |
| Hungary                 |          |          |         |         |         |
| Scrap                   | 60       | ...      | 40      | 81      | 203     |
| Ireland, Republic of    |          |          |         |         |         |
| Scrap                   | 641      | 1 015    | 556     | 236     | 220     |
| Italy                   |          |          |         |         |         |
| Unwrought (a)           | 1 720    | 799      | 1 272   | 972     | 1 293   |
| Scrap                   | 1 923    | 448      | 724     | 658     | 541     |
| Latvia                  |          |          |         |         |         |
| Unwrought alloys        | ...      | ...      | ...     | 2       | 165     |
| Scrap                   | 538      | 116      | 49      | 199     | 3 301   |
| Lithuania               |          |          |         |         |         |
| Scrap                   | 411      | 674      | 232     | 131     | 85      |
| Netherlands             |          |          |         |         |         |
| Mattes, sinters etc (b) | * 11 800 | * 11 700 | * 6 500 | * 2 400 | * 2 900 |
| Unwrought (a)           | 21 895   | 77 742   | 80      | 117     | 105     |
| Scrap                   | 2 009    | 1 740    | 4 456   | 4 614   | 1 711   |
| Oxides                  | 6 017    | 1 757    | ...     | ...     | ...     |
| Norway                  |          |          |         |         |         |
| Ores & concentrates     | 7 581    | 7 860    | 5 379   | 8 093   | ...     |
| Unwrought               | 84 012   | 81 440   | 88 628  | 88 940  | 88 080  |
| Scrap                   | 897      | 641      | 1 185   | 394     | 274     |
| Poland                  |          |          |         |         |         |
| Mattes, sinters etc     | ...      | ...      | ...     | ...     | 1 443   |
| Unwrought               | (a) 480  | 312      | (a) 466 | (a) 334 | (a) 172 |
| Scrap                   | 642      | 290      | 268     | 647     | 260     |
| Oxides                  | 529      | 577      | 558     | 759     | 260     |
| Romania                 |          |          |         |         |         |
| Scrap                   | 61       | 72       | 90      | 1 397   | 1 089   |

Nickel

Exports continued

tonnes

| Country             | 2005   | 2006   | 2007    | 2008    | 2009    |
|---------------------|--------|--------|---------|---------|---------|
| Slovakia            |        |        |         |         |         |
| Unwrought           | ...    | 128    | 72      | 259     | 201     |
| Scrap               | ...    | 134    | 116     | 1 061   | 140     |
| Slovenia            |        |        |         |         |         |
| Unwrought (a)       | 117    | 118    | 232     | 268     | 117     |
| Spain               |        |        |         |         |         |
| Ores & concentrates | 85 203 | 95 377 | 65 853  | 127 812 | 102 105 |
| Unwrought (a)       | 572    | 795    | 767     | 600     | 573     |
| Scrap               | 528    | 910    | 227     | 226     | 875     |
| Sweden              |        |        |         |         |         |
| Unwrought (a)       | 112    | 516    | 390     | 288     | 522     |
| Scrap               | 4 369  | 5 743  | 5 344   | 1 513   | 1 376   |
| Oxides              | 291    | 349    | 457     | 511     | 363     |
| Switzerland         |        |        |         |         |         |
| Unwrought (a)       | 73     | 154    | 113     | 94      | 53      |
| Scrap               | 1 403  | 1 669  | 1 750   | 1 603   | 1 519   |
| Turkey              |        |        |         |         |         |
| Ores & concentrates | 52 062 | 91 828 | 175 712 | 130 179 | 99 700  |
| Unwrought (a)       | 48     | 9      | —       | 232     | 141     |
| Scrap               | 300    | 102    | 79      | 734     | 470     |
| United Kingdom      |        |        |         |         |         |
| Unwrought           | 38 524 | 31 610 | 24 147  | 26 235  | 15 834  |
| Unwrought alloys    | 6 141  | 6 486  | 4 375   | 4 378   | 4 753   |
| Scrap               | 14 119 | 15 555 | 16 872  | 18 229  | 12 693  |

Note(s)

- (1) In this table the term 'unwrought' nickel corresponds to item 7502 of the Harmonised System which excludes all electro-plating anodes  
(2) Metal traded in ferro-alloy form is included under iron, steel and ferro-alloys

- (a) Including alloys  
(b) BGS estimates, based on known imports into certain countries

Imports of nickel

tonnes

| Country             | 2005    | 2006    | 2007    | 2008    | 2009    |
|---------------------|---------|---------|---------|---------|---------|
| Austria             |         |         |         |         |         |
| Mattes, sinters etc | 460     | 684     | 443     | 476     | 216     |
| Unwrought (a)       | 6 903   | 7 599   | 7 874   | 10 511  | 4 142   |
| Scrap               | 447     | 670     | 605     | 1 164   | 367     |
| Oxides              | 312     | 195     | 78      | 82      | 11      |
| Belgium-Luxembourg  |         |         |         |         |         |
| Mattes, sinters etc | 214     | 203     | 1 194   | 1 250   | 499     |
| Unwrought           | 41 364  | 51 130  | 37 554  | 29 492  | 12 037  |
| Unwrought alloys    | 822     | 483     | 427     | 734     | 734     |
| Scrap               | 1 221   | 271     | 9 946   | 566     | 288     |
| Oxides              | 324     | 349     | 241     | 618     | 565     |
| Bulgaria            |         |         |         |         |         |
| Unwrought (a)       | 202     | 205     | 195     | 204     | 90      |
| Czech Republic      |         |         |         |         |         |
| Unwrought (a)       | 2 520   | 3 531   | 4 429   | 3 728   | 2 179   |
| Scrap               | 69      | 152     | 294     | 473     | 1 468   |
| Oxides              | 785     | 844     | 919     | 838     | 319     |
| Denmark             |         |         |         |         |         |
| Scrap               | 317     | 403     | 529     | 100     | 122     |
| Estonia             |         |         |         |         |         |
| Unwrought (a)       | 548     | 1 378   | 350     | 34      | 15      |
| Scrap               | 125     | 562     | 803     | 129     | —       |
| Finland             |         |         |         |         |         |
| Ores & concentrates | 104 983 | 190 233 | 256 932 | 290 914 | 185 202 |
| Mattes, sinters etc | 50 194  | 45 851  | 50 856  | 33 247  | 22 715  |
| Unwrought (a)       | 23 801  | 27 939  | 15 457  | 18 201  | 9 984   |
| Scrap               | 860     | 757     | 299     | 481     | 149     |

## Imports continued

tonnes

| Country              | 2005    | 2006    | 2007    | 2008    | 2009    |
|----------------------|---------|---------|---------|---------|---------|
| France               |         |         |         |         |         |
| Ores & concentrates  | 76      | 149     | 1 131   | 413     | 1 783   |
| Mattes, sinters etc  | 15 399  | 19 818  | 19 864  | 18 952  | 20 015  |
| Unwrought            | 22 656  | 26 631  | 25 752  | 23 368  | 10 909  |
| Unwrought alloys     | 6 104   | 5 500   | 7 702   | 9 386   | 5 364   |
| Scrap                | 1 554   | 2 393   | 1 341   | 2 166   | 1 265   |
| Oxides               | 228     | 297     | 542     | 560     | 310     |
| Germany              |         |         |         |         |         |
| Ores & concentrates  | 57      | 293     | 1 532   | 1 310   | 1 087   |
| Mattes, sinters etc  | 6 902   | 6 459   | 1 911   | 797     | 561     |
| Unwrought            | 87 939  | 70 947  | 74 083  | 68 767  | 42 201  |
| Unwrought alloys     | 2 182   | 2 908   | 2 531   | 6 102   | 3 839   |
| Scrap                | 11 672  | 15 116  | 19 799  | 18 316  | 8 259   |
| Oxides               | 502     | 445     | 593     | 617     | 463     |
| Greece               |         |         |         |         |         |
| Ores & concentrates  | 29 153  | 6 657   | 36      | —       | 15      |
| Unwrought (a)        | 58      | 40      | 46      | 101     | 118     |
| Hungary              |         |         |         |         |         |
| Unwrought (a)        | 115     | 141     | 116     | 69      | 219     |
| Ireland, Republic of |         |         |         |         |         |
| Unwrought (a)        | 1 775   | 1 256   | 97      | 1 118   | 626     |
| Italy                |         |         |         |         |         |
| Mattes, sinters etc  | 32      | 1 550   | 1       | 1       | 93      |
| Unwrought            | 37 708  | 48 178  | 41 802  | 42 339  | 25 833  |
| Unwrought alloys     | 1 455   | 3 918   | 1 613   | 2 164   | 2 841   |
| Scrap                | 5 119   | 1 606   | 1 372   | 892     | 763     |
| Macedonia            |         |         |         |         |         |
| Ores & concentrates  | 236 025 | 466 623 | 863 999 | 789 929 | ...     |
| Netherlands          |         |         |         |         |         |
| Unwrought alloys     | 343     | 139     | 204     | 1 227   | 227     |
| Scrap                | 6 738   | 9 870   | 14 008  | 12 647  | 4 666   |
| Oxides (b)           | * 40    | * 130   | * 20    | * 30    | * 70    |
| Norway               |         |         |         |         |         |
| Mattes, sinters etc  | 176 657 | 158 274 | 165 628 | 178 502 | 153 437 |
| Unwrought (a)        | 80      | 60      | 215     | 201     | 199     |
| Poland               |         |         |         |         |         |
| Mattes, sinters etc  | ...     | 4       | 38      | ...     | 1 468   |
| Unwrought (a)        | 1 683   | 2 573   | 2 344   | 3 398   | 1 353   |
| Scrap                | 3       | 116     | 4 897   | 3 683   | 2 122   |
| Portugal             |         |         |         |         |         |
| Unwrought            | (a) 602 | (a) 739 | (a) 450 | 524     | 316     |
| Romania              |         |         |         |         |         |
| Unwrought (a)        | 745     | 747     | 528     | 338     | 288     |
| Slovakia             |         |         |         |         |         |
| Unwrought (a)        | 274     | 221     | 139     | 190     | 120     |
| Slovenia             |         |         |         |         |         |
| Unwrought (a)        | 929     | 874     | 967     | 2 686   | 2 020   |
| Spain                |         |         |         |         |         |
| Unwrought            | 27 452  | 28 171  | 21 202  | 22 668  | 12 290  |
| Unwrought alloys     | 1 188   | 1 174   | 1 426   | 1 547   | 821     |
| Oxides               | 176     | 127     | 94      | 151     | 50      |
| Sweden               |         |         |         |         |         |
| Mattes, sinters etc  | 4 346   | 4 215   | 4 252   | 1 490   | 1 607   |
| Unwrought            | 26 931  | 28 101  | 25 303  | 25 474  | 16 544  |
| Unwrought alloys     | 1 324   | 1 414   | 356     | 1 317   | 661     |
| Scrap                | 8 946   | 9 158   | 9 118   | 12 215  | 8 709   |
| Switzerland          |         |         |         |         |         |
| Unwrought (a)        | 1 401   | 1 706   | 1 787   | 2 054   | 1 202   |
| Turkey               |         |         |         |         |         |
| Unwrought (a)        | 3 333   | 3 417   | 3 710   | 4 038   | 2 711   |
| Oxides               | 128     | 150     | 140     | 142     | 148     |

## Nickel

### Imports continued

tonnes

| Country             | 2005   | 2006   | 2007   | 2008   | 2009   |
|---------------------|--------|--------|--------|--------|--------|
| United Kingdom      |        |        |        |        |        |
| Mattes, sinters etc | 57 492 | 56 336 | 62 637 | 63 553 | 25 929 |
| Unwrought           | 24 019 | 17 414 | 21 044 | 16 888 | 8 003  |
| Unwrought alloys    | 1 629  | 2 883  | 2 947  | 3 210  | 3 596  |
| Scrap               | 10 927 | 7 975  | 10 376 | 10 291 | 9 593  |
| Oxides              | 277    | 59     | 49     | 13     | 1      |

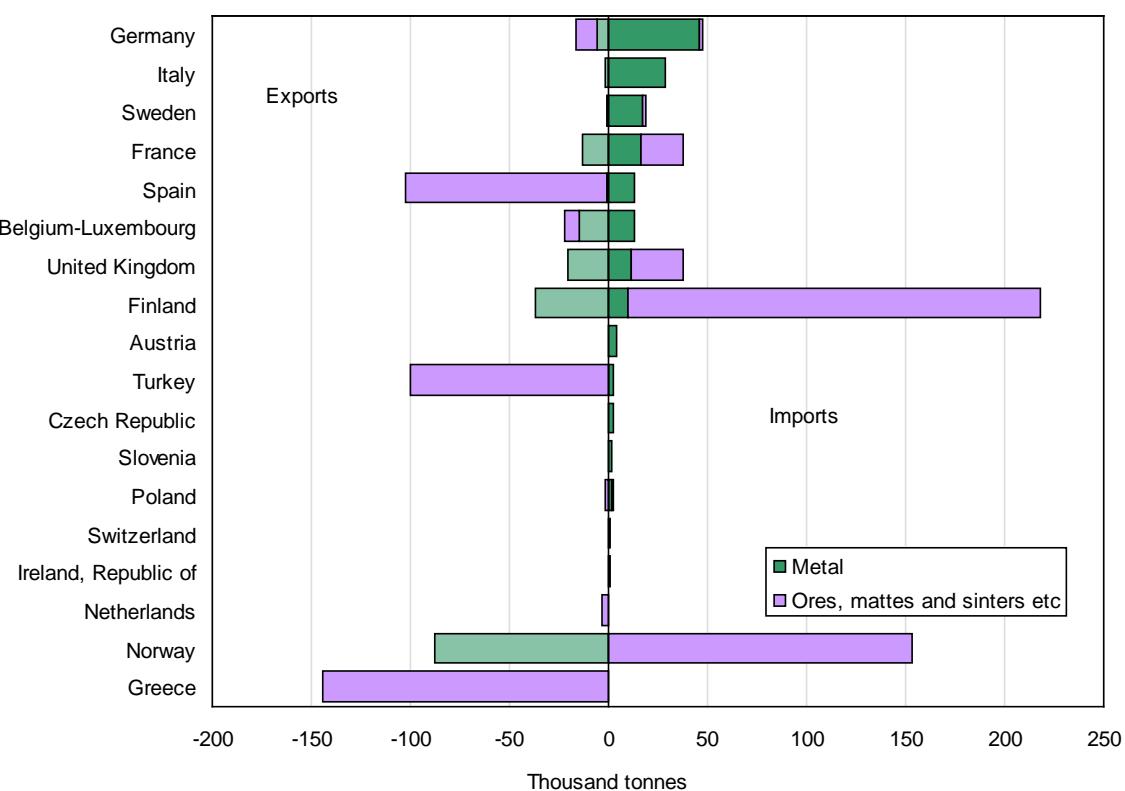
### Note(s)

- (1) In this table the term 'unwrought' nickel corresponds to item 7502 of the Harmonised System which excludes all electro-plating anodes
- (2) Metal traded in ferro-alloy form is included under iron, steel and ferro-alloys

(a) Including alloys

(b) BGS estimates, based on known exports from certain countries

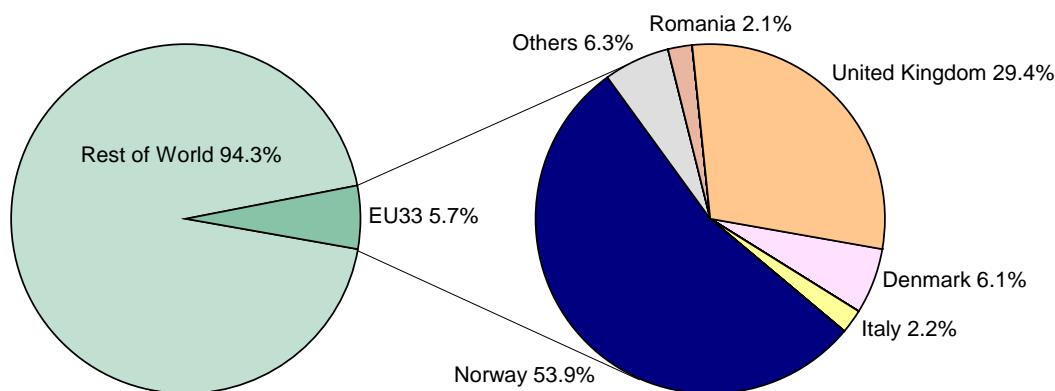
### Nickel - EU33 trade in 2009



## Crude petroleum

- Petroleum ('oil') is a fundamental energy resource and raw material for lubricants, olefins, polymers (plastics) and other synthetic materials.
- In 2009 a world total of 3714 million tonnes of crude petroleum was produced, down nearly five per cent compared to 2008. Russia overtook Saudi Arabia to become the largest producing country for the first time, with 13.3 per cent of the world total. Saudi Arabia produced 12.4 per cent and was followed by the USA with nine per cent. The EU33 countries produced just 5.7 per cent of the world total with 53.9 per cent of this coming from Norway and 29.4 per cent from the UK.

**EU33 Production of crude petroleum 2009**



## Production of crude petroleum

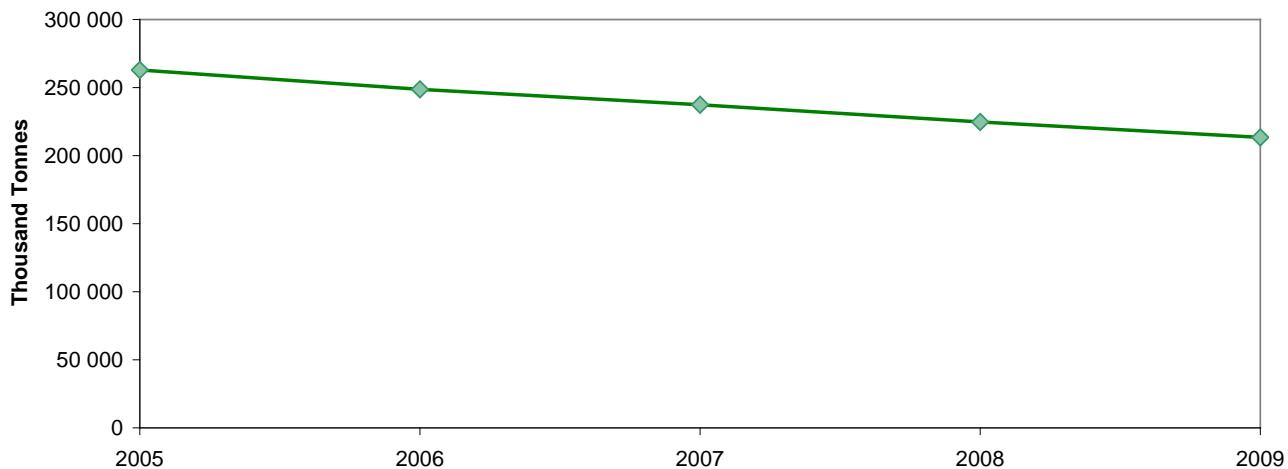
tonnes

| Country        | 2005        | 2006        | 2007        | 2008        | 2009        |
|----------------|-------------|-------------|-------------|-------------|-------------|
| Austria        | 933 040     | 856 270     | 853 549     | 861 639     | 905 031     |
| Bulgaria       | 30 000      | 27 500      | 25 700      | 23 000      | 23 800      |
| Croatia        | 980 486     | 950 859     | 911 207     | 867 027     | * 900 000   |
| Czech Republic | 306 000     | 259 000     | 240 000     | 236 000     | 217 000     |
| Denmark        | 18 822 000  | 17 068 000  | 15 552 000  | 14 338 000  | 13 045 000  |
| Estonia (a)    | 1 690 000   | 1 624 000   | 1 901 600   | 1 869 500   | 1 733 000   |
| France         | 1 179 000   | 1 100 000   | 1 013 000   | 975 000     | 899 000     |
| Germany        | 3 815 173   | 3 515 401   | 3 415 374   | 3 053 998   | 2 800 063   |
| Greece         | 135 000     | 93 000      | 80 000      | 66 000      | 87 000      |
| Hungary        | 947 542     | 886 000     | 838 672     | 774 590     | 842 191     |
| Italy          | 6 100 000   | 5 800 000   | 5 800 000   | 5 200 000   | 4 600 000   |
| Lithuania      | 216 634     | 180 894     | 154 449     | 127 658     | 114 956     |
| Netherlands    | 2 268 746   | 2 022 475   | 2 576 222   | 2 163 000   | 1 704 000   |
| Norway         | 139 802 000 | 136 695 000 | 125 763 000 | 121 101 700 | 115 000 000 |
| Poland         | 847 844     | 795 742     | 720 603     | 754 907     | 686 992     |
| Romania        | 5 215 000   | 4 777 000   | 4 837 000   | 4 528 000   | 4 494 000   |
| Slovakia       | 35 000      | 30 520      | 23 000      | 21 000      | 19 000      |
| Spain          | 166 014     | 143 432     | 142 879     | 127 542     | 106 817     |
| Turkey         | 2 280 764   | 2 175 353   | 2 131 288   | 2 222 594   | 2 489 914   |
| United Kingdom | 77 179 000  | 69 665 000  | 70 357 000  | 65 497 000  | 62 820 000  |
| EU33 Total     | 262 000 000 | 247 800 000 | 236 500 000 | 223 900 000 | 212 600 000 |

### Note(s)

(1) The figures shown in this table include natural gas liquids

(a) From oil shale

**EU33 Production of crude petroleum 2005 - 09****Exports of crude petroleum**

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| Country              | 2005        | 2006        | 2007        | 2008        | 2009        |
|----------------------|-------------|-------------|-------------|-------------|-------------|
| Belgium-Luxembourg   | 2 616 977   | 2 833 897   | 2 422 211   | 2 496 349   | 2 390 390   |
| Czech Republic       | 57 522      | 41 794      | 16 573      | 18 130      | 21 600      |
| Denmark              | 13 567 566  | 11 456 257  | 9 493 573   | 8 593 198   | 8 520 980   |
| France               | 20 374      | 2 675       | 190         | 65          | 1 689       |
| Germany              | 1 257 658   | 344 965     | 196 926     | 40 011      | 265 799     |
| Ireland, Republic of | 7           | 11          | 55 635      | —           | 11          |
| Italy                | 986 121     | 937 813     | 1 442 498   | 1 195 500   | 619 630     |
| Latvia               | 6 085       | 12 099      | —           | ...         | 93          |
| Lithuania            | 148 031     | 115 075     | 155 416     | 128 838     | 113 172     |
| Netherlands          | 145 541     | 309 456     | 207 858     | 328 795     | 184 860     |
| Norway               | 119 119 538 | 105 110 521 | 99 245 180  | 90 343 623  | 87 847 502  |
| Poland               | 216 256     | 243 699     | 287 684     | 34 871      | 17 227      |
| Slovakia             | 30 887      | 27 686      | 22 172      | 18 159      | 14 932      |
| Spain (a)            | * 28 000    | * 53 000    | * 2 000     | * 24 000    | * 400       |
| Turkey (a)           | * 75 000    | * 545 000   | * 3 584 000 | * 4 115 000 | * 2 956 000 |
| United Kingdom       | 50 619 044  | 47 864 601  | 47 058 702  | 43 354 245  | 43 550 953  |

Note(s)

(a) BGS estimates, based on known imports into certain countries

**Imports of crude petroleum**

tonnes

| Country              | 2005           | 2006           | 2007        | 2008           | 2009           |
|----------------------|----------------|----------------|-------------|----------------|----------------|
| Austria              | 7 836 688      | 7 698 169      | 7 645 010   | 7 945 639      | 7 428 183      |
| Belgium-Luxembourg   | 32 376 844     | 33 843 960     | 34 847 067  | 35 556 838     | 32 376 844     |
| Bulgaria             | (a)* 3 752 000 | (a)* 4 866 000 | 7 162 499   | 7 262 658      | 5 770 397      |
| Croatia              | 3 855 070      | 3 778 918      | 4 285 565   | 3 476 266      | 4 044 874      |
| Czech Republic       | 7 674 771      | 7 752 356      | 7 179 766   | 8 141 759      | 7 451 765      |
| Denmark              | 2 666 384      | 2 576 191      | 2 136 643   | 2 240 240      | 3 320 486      |
| Finland              | 10 603 534     | 12 176 669     | 12 221 330  | 11 908 304     | 11 516 562     |
| France               | 84 951 337     | 83 411 036     | 81 011 061  | 81 854 226     | 70 343 956     |
| Germany              | 113 067 864    | 113 960 654    | 105 162 534 | 105 835 665    | 97 648 203     |
| Greece               | 18 926 138     | 18 370 720     | 16 938 841  | 6 422 841      | 2 437 424      |
| Hungary              | 6 320 762      | (a)* 7 667 000 | 6 064 641   | (a)* 6 959 000 | (a)* 6 241 000 |
| Ireland, Republic of | 3 226 383      | 3 082 372      | 3 595 537   | 2 878 397      | 2 792 968      |
| Italy                | 89 007 151     | 86 807 240     | 89 130 022  | 82 998 642     | 76 301 866     |
| Lithuania            | 9 746 806      | 7 994 367      | 4 869 858   | 9 325 904      | 8 413 067      |
| Macedonia            | 950 742        | 1 081 738      | 1 063 614   | 1 057 671      | ...            |
| Netherlands          | 62 152 486     | 61 548 064     | 57 027 374  | 58 484 561     | 35 086 584     |

## Imports continued

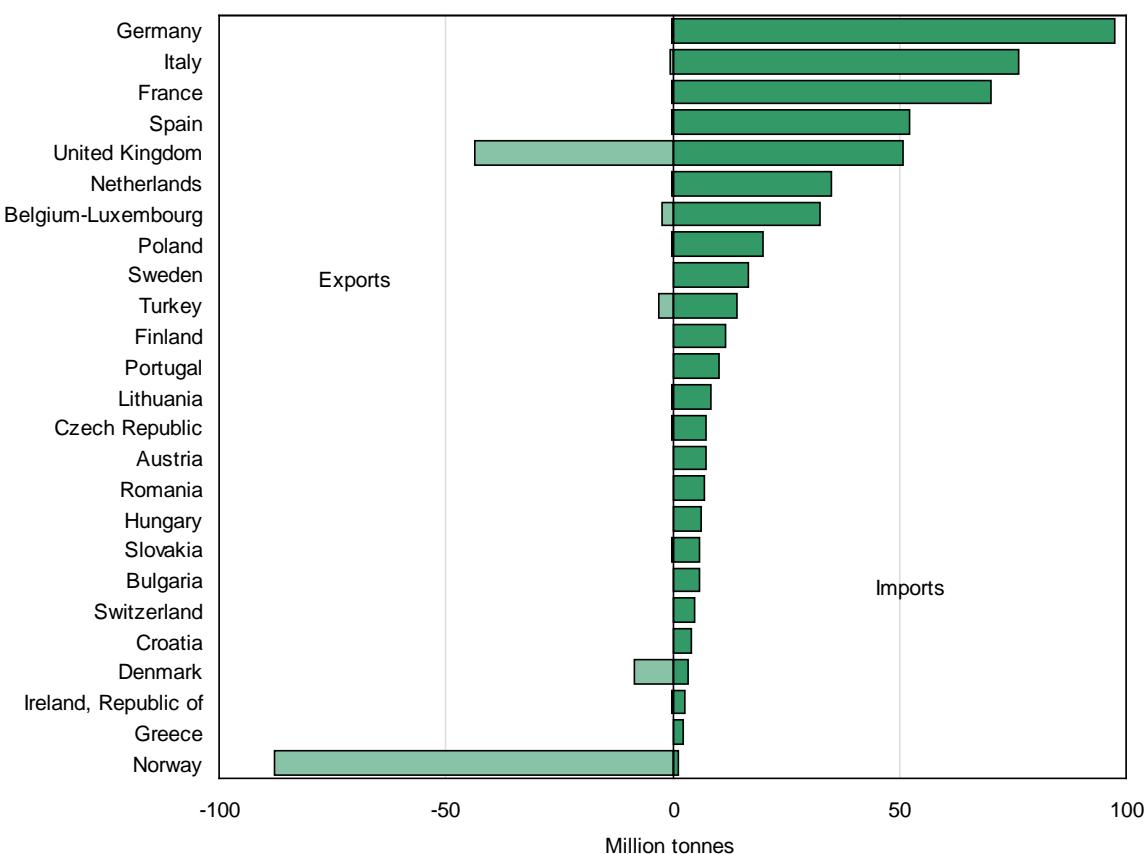
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| Country        | 2005       | 2006       | 2007       | 2008       | 2009       |
|----------------|------------|------------|------------|------------|------------|
| Norway         | 983 848    | 440 374    | 1 446 918  | 752 400    | 1 192 549  |
| Poland         | 17 639 489 | 19 479 284 | 20 778 118 | 20 949 949 | 19 959 321 |
| Portugal       | 12 941 851 | 13 479 579 | 12 386 104 | 12 050 226 | 10 193 366 |
| Romania        | 8 688 818  | 8 678 466  | 8 533 821  | 8 419 364  | 6 893 956  |
| Slovakia       | 5 421 866  | 5 878 819  | 6 141 203  | 5 778 688  | 5 787 725  |
| Spain          | 59 510 408 | 59 203 359 | 57 773 847 | 59 444 410 | 52 331 324 |
| Sweden         | 19 770 639 | 19 170 472 | 17 719 046 | 19 184 387 | 16 818 080 |
| Switzerland    | 4 744 965  | 5 413 010  | 4 595 181  | 5 141 634  | 4 755 189  |
| Turkey         | 23 389 647 | 23 786 875 | 23 445 764 | 21 833 471 | 14 219 427 |
| United Kingdom | 54 067 943 | 55 735 570 | 44 129 689 | 52 103 843 | 50 656 965 |

## Note(s)

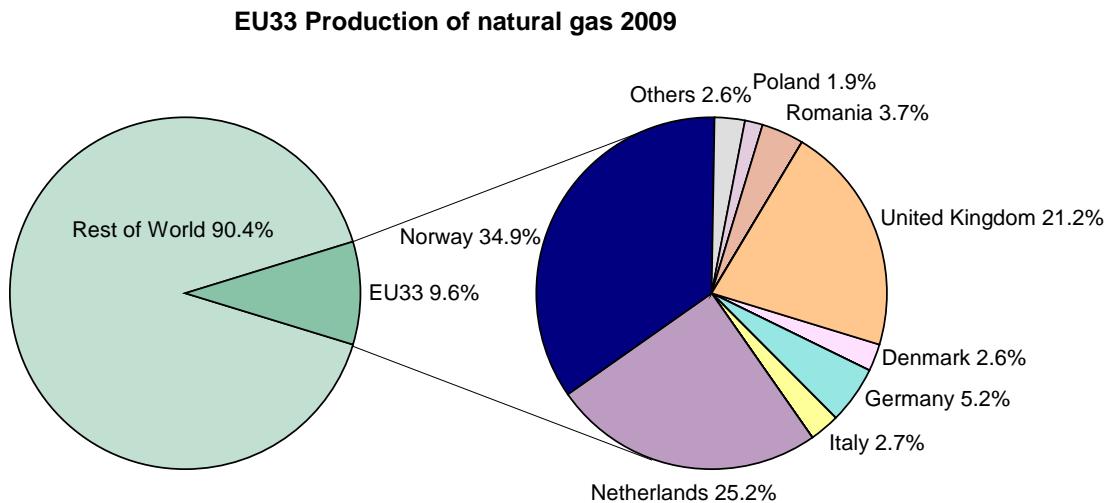
(a) BGS estimates, based on known exports from certain countries

## Crude petroleum - EU33 trade in 2009



## Natural gas

- Natural gas is an increasingly important fundamental energy resource. It is used chiefly as a fuel but also a basic feedstock for chemicals such as propane and butane, and in the manufacture of ammonia and fertilisers. It is transported either by pipeline, often over transcontinental distances, or by ships in the form of liquefied natural gas (LNG).
- In 2009 a total of 3 093 000 million cubic metres of gas was produced in the world. The USA (19.2 per cent of the world total) overtook Russia (18.9 per cent) to become the world's largest producer. The EU33 countries contributed 9.6 per cent to the world total, with 34.9 per cent of this coming from Norway, 25.2 per cent from the Netherlands and 21.2 per cent from the UK.



## Production of natural gas

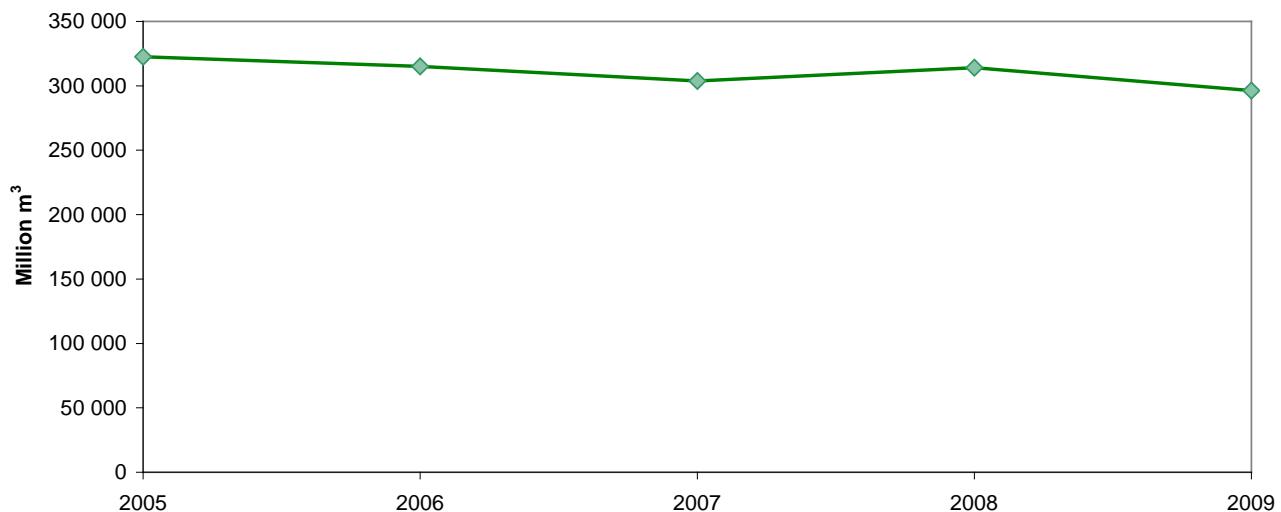
million m<sup>3</sup>

| Country                  | 2005        | 2006        | 2007        | 2008        | 2009        |
|--------------------------|-------------|-------------|-------------|-------------|-------------|
| Austria                  | 1 654       | 1 765       | 1 835       | 1 544       | 1 559       |
| Bulgaria                 | 573         | 519         | 295         | 218         | 15          |
| Croatia                  | 2 384       | 2 714       | 2 892       | 1 229       | 1 238       |
| Czech Republic           | 356         | 148         | 148         | 167         | 180         |
| Denmark                  | 9 909       | 9 861       | 8 760       | 9 564       | 7 590       |
| France                   | 1 089       | 1 167       | 1 023       | 925         | 877         |
| Germany                  | 19 143      | 19 798      | 18 075      | 16 547      | 15 554      |
| Greece                   | 16          | * 16        | 21          | 14          | 11          |
| Hungary                  | 3 041       | 3 254       | 2 653       | 2 703       | 2 748       |
| Ireland, Republic of (a) | 570         | 500         | 519         | 506         | 414         |
| Italy                    | 11 977      | 11 000      | 9 700       | 9 300       | 7 900       |
| Netherlands              | 74 460      | 73 300      | 72 431      | 79 325      | 74 659      |
| Norway                   | 84 702      | 87 600      | 89 700      | 99 200      | 103 500     |
| Poland                   | 5 742       | 5 651       | 5 653       | 5 382       | 5 537       |
| Romania                  | 12 637      | 12 422      | 11 981      | 11 520      | 10 900      |
| Slovakia                 | 211         | 135         | 195         | 111         | 114         |
| Slovenia                 | 6           | 4           | 3           | 3           | 3           |
| Spain                    | 174         | 118         | 42          | 46          | 20          |
| Turkey                   | 484         | 307         | 839         | 894         | 660         |
| United Kingdom           | 93 505      | 84 748      | 76 970      | 74 936      | 62 890      |
| EU33 Total               | 175 321 000 | 169 313 300 | 162 301 900 | 163 312 600 | 145 294 800 |

## Note(s)

(1) So far as possible the figures in this table exclude flared or reinjected gas

(a) Sales

**EU33 Production of natural gas 2005 - 09****Exports of Natural Gas**

tonnes

| Country              | 2005       | 2006       | 2007       | 2008       | 2009       |
|----------------------|------------|------------|------------|------------|------------|
| Austria              | 1 082 286  | 1 645 995  | 2 688 210  | 2 812 303  | 2 164 960  |
| Belgium-Luxembourg   | 17 889 507 | 39 448 874 | 20 807 227 | 59 248 950 | 7 659 170  |
| Croatia              | 601 267    | 871 768    | 540 782    | 457 192    | 570 296    |
| Czech Republic       | 58 767     | —          | —          | —          | 834 462    |
| Denmark              | 3 466 835  | 3 818 822  | 3 786 580  | 4 023 305  | 2 906 339  |
| Finland              | 328        | —          | 1 218      | 1 420      | 4 557      |
| France               | 9 107 475  | 11 501 866 | 10 247 611 | 22 087 224 | 3 469 724  |
| Germany              | ...        | ...        | ...        | ...        | 8 592 523  |
| Hungary              | 11 560     | —          | 127 853    | —          | 323 537    |
| Ireland, Republic of | —          | 642 980    | 5 447      | —          | 383        |
| Italy                | 649 706    | 331 234    | 585 818    | 1 749 247  | 1 620 776  |
| Norway               | 61 351 894 | 63 323 422 | 63 999 250 | 71 394 708 | 74 357 298 |
| Poland               | 26 501     | —          | —          | —          | —          |
| Portugal             | —          | —          | —          | 890 688    | 254 997    |
| Slovakia             | 257 026    | 221 885    | 124 820    | 112 328    | 334 205    |
| Slovenia             | 72 043     | 54 579     | 34 212     | 24 368     | 3          |
| Spain                | 778 037    | 1 546      | 31 159     | —          | 61 433     |
| Switzerland          | 3 244      | 1          | 4          | 2          | 4          |
| Turkey               | —          | 2 974      | 5 392      | 412 655    | 665 247    |
| United Kingdom       | 1 373 020  | 60 124     | 30 814     | 7 641      | 1 416      |

## Note(s)

- (1) This table includes both liquified natural gas (HS code: 271111) in tonnes and natural gas in gaseous state (HS code 271121) in tonnes of oil equivalent
- (2) To convert figures from million tonnes (of oil equivalent) to billion m³, multiply by 1.11

**Imports of Natural Gas**

tonnes

| Country              | 2005       | 2006       | 2007       | 2008       | 2009       |
|----------------------|------------|------------|------------|------------|------------|
| Austria              | 6 922 117  | 7 593 331  | 6 988 269  | 7 136 000  | 7 566 509  |
| Belgium-Luxembourg   | 31 896 566 | 32 123 464 | 29 397 014 | 29 615 925 | 32 320 773 |
| Croatia              | 1 088 406  | 1 085 554  | 700 955    | 855 326    | 738 109    |
| Czech Republic       | 6 733 431  | 5 489 325  | 5 478 515  | 6 264 909  | 7 080 247  |
| Denmark              | 242 936    | —          | —          | —          | —          |
| Estonia              | 155 659    | 154 926    | 726 823    | 717 831    | 477 844    |
| Finland              | 3 068 411  | 3 312 381  | 3 172 117  | 3 269 068  | —          |
| France               | 48 574 413 | 62 023 544 | 75 216 254 | 79 101 617 | 32 440 935 |
| Germany              | 78 310 541 | 83 475 456 | 75 980 087 | 78 201 702 | 78 990 573 |
| Greece               | 2 634 247  | 3 029 778  | 3 789 666  | 4 186 746  | 3 086 243  |
| Hungary              | 8 238 371  | 8 013 603  | 7 366 053  | 8 574 143  | 6 238 749  |
| Ireland, Republic of | 2 383 218  | 1 946 640  | 3 838 104  | 4 364 595  | 4 192 236  |
| Italy                | 39 034 000 | 42 870 000 | 71 491 000 | 36 489 000 | 52 879 546 |
| Latvia               | 1 153 086  | 1 201 960  | 1 158 965  | 1 138 776  | 1 047 240  |
| Lithuania            | 2 071 091  | 2 129 513  | 2 414 798  | 2 246 642  | 1 761 529  |
| Macedonia            | 52 416     | 56 876     | 63 225     | 86 823     | 53 192     |
| Netherlands          | 14 229 445 | 29 784 906 | 10 072 000 | 16 136 000 | 7 506 000  |
| Norway               | —          | —          | 118 063    | 442        | 231        |
| Poland               | 7 118 539  | —          | —          | ...        | ...        |
| Portugal             | 3 588 097  | 3 356 949  | 3 758 075  | 4 188 706  | 3 770 943  |
| Romania              | 4 140 078  | 4 048 749  | 8 877 219  | 7 757 273  | 1 451 767  |
| Slovakia             | 5 177 312  | 5 157 793  | 4 249 360  | 4 640 012  | 4 820 301  |
| Slovenia             | 851 258    | 811 065    | 807 877    | 750 581    | 748 930    |
| Spain                | 24 439 892 | 26 548 202 | 27 048 984 | 32 044 466 | 28 024 572 |
| Sweden               | 618 697    | 372 627    | 749 162    | 647 510    | 860 497    |
| Switzerland          | 2 539 454  | 2 560 801  | 2 402 267  | 2 596 153  | 2 450 414  |
| United Kingdom       | 7 309 558  | 7 881 575  | 15 277 213 | 18 133 087 | 25 002 507 |

## Note(s)

- (1) This table includes both liquified natural gas (HS code: 271111) in tonnes and natural gas in gaseous state (HS code 271121) in tonnes of oil equivalent  
(2) To convert figures from million tonnes (of oil equivalent) to billion m<sup>3</sup>, multiply by 1.11

## Phosphate rock

- Phosphate rock is the term given to a range of phosphorus-bearing minerals that are commercially exploited. Over 90 per cent of phosphate rock is used to produce fertilisers. The remainder is used in the manufacture of detergents, animal feedstock and many other minor applications.
- China, the USA and Morocco are the world's largest producers and together the output from these countries represents 66 per cent of the world's phosphate rock. Finland is the only producer in the EU33, which is otherwise dependent on imports.

### Production of phosphate rock

| Country | 2005    | 2006    | 2007    | 2008    | 2009    |
|---------|---------|---------|---------|---------|---------|
| Finland | 822 987 | 857 922 | 830 989 | 780 000 | 660 405 |

### Exports of phosphate rock

| Country            | 2005    | 2006    | 2007    | 2008    | 2009   |
|--------------------|---------|---------|---------|---------|--------|
| Austria            | 1       | 942     | —       | ...     | 621    |
| Belgium-Luxembourg | 108 238 | 82 232  | 115 628 | 84 619  | 15 794 |
| Cyprus             | ...     | ...     | ...     | 2 960   | ...    |
| Czech Republic     | 545     | 726     | 732     | 1 091   | 817    |
| Finland            | 996     | 1 141   | 6 942   | 3 248   | 3 796  |
| France             | 4 463   | 10 147  | 15 919  | 96 127  | —      |
| Germany            | 5 048   | 700     | 168     | 314     | 137    |
| Italy              | 4 883   | 6 789   | 7 800   | 7 661   | 6 416  |
| Lithuania          | 150     | 1 406   | 2 011   | 140     | —      |
| Macedonia          | 3 388   | 1 944   | 2 050   | 1 685   | 1 233  |
| Netherlands        | 91 592  | 98 687  | 106 235 | 120 214 | 11 807 |
| Poland             | ...     | ...     | —       | ...     | ...    |
| Slovakia           | 438     | 2 603   | —       | ...     | 48     |
| Slovenia           | 189 207 | 140 281 | 109 350 | 164 848 | 56 973 |
| Spain              | 42      | 7 259   | 7 840   | 4 754   | 1 565  |
| Sweden             | 392     | 969     | 1 623   | 4 897   | 1 228  |
| United Kingdom     | 1 548   | 335     | 504     | 759     | 514    |

### Imports of phosphate rock

| Country              | 2005      | 2006      | 2007      | 2008         | 2009        |
|----------------------|-----------|-----------|-----------|--------------|-------------|
| Austria              | 67 853    | 94 630    | 106 018   | (a)* 158 000 | (a)* 58 000 |
| Belgium-Luxembourg   | 1 688 029 | 1 299 125 | 1 512 076 | 1 458 336    | 579 427     |
| Bulgaria             | 543 637   | 449 874   | 462 247   | 534 734      | 309 564     |
| Croatia              | 272 005   | 317 571   | 327 936   | 328 599      | 117 441     |
| Czech Republic       | 22 633    | 28 141    | 33 954    | 20 928       | 543         |
| Finland              | 56 117    | 86 734    | 113 286   | 118 749      | —           |
| France               | 427 194   | 387 794   | 442 826   | 374 792      | 130 323     |
| Germany              | 104 335   | 117 711   | 115 109   | 145 905      | 28 863      |
| Greece               | 378 931   | 197 629   | 237 577   | 251 845      | 192 135     |
| Ireland, Republic of | 219       | 154       | 6 028     | 3 425        | 85          |
| Italy                | 279 693   | 242 633   | 249 847   | 248 005      | 89 245      |
| Lithuania            | 1 178 816 | 1 193 093 | 1 202 196 | 1 209 385    | 1 162 070   |
| Netherlands          | 776 661   | 815 692   | 847 776   | 1 108 711    | 192 355     |
| Norway               | 710 528   | 672 546   | 673 331   | 682 369      | 403 098     |
| Poland               | 1 558 007 | 1 658 266 | 1 689 120 | 1 448 780    | 458 923     |
| Portugal             | 137 423   | 91 912    | 114 826   | 90 667       | 44 189      |
| Romania              | 283 192   | 148 110   | 193 276   | 225 581      | 103 500     |
| Slovakia             | 5 415     | 494       | 267       | 251          | 258         |
| Slovenia             | ...       | 140 455   | 109 768   | 164 872      | 56 969      |
| Spain                | 1 768 425 | 1 556 734 | 1 653 874 | 1 611 494    | 438 755     |

Phosphates

Imports continued

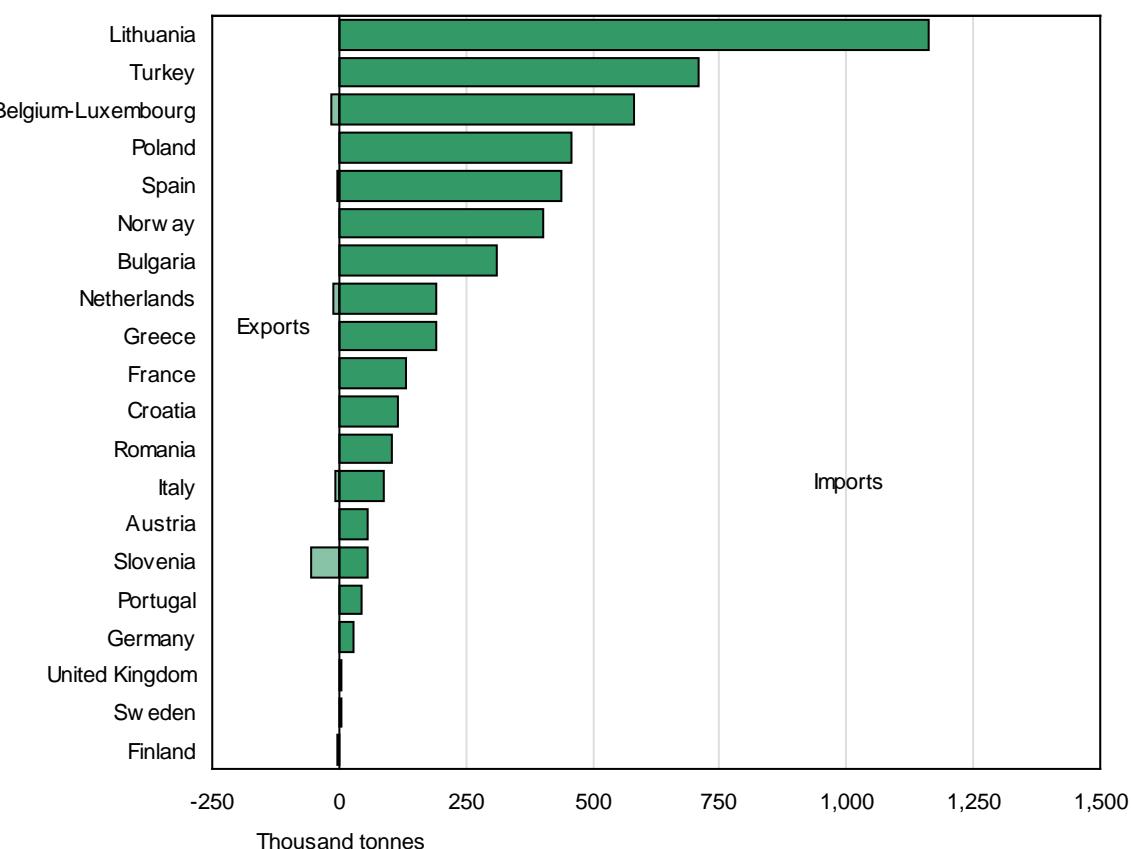
tonnes

| Country        | 2005    | 2006    | 2007    | 2008    | 2009    |
|----------------|---------|---------|---------|---------|---------|
| Sweden         | 1 626   | 4 283   | 2 369   | 922     | 2 918   |
| Switzerland    | 3 516   | 1 612   | 4 645   | 358     | 585     |
| Turkey         | 496 738 | 744 504 | 782 996 | 741 190 | 707 595 |
| United Kingdom | 30 177  | 7 803   | 23 052  | 28 971  | 5 600   |

Note(s)

(a) BGS estimates, based on known exports from certain countries

Phosphate rock - EU33 trade in 2009



## Platinum group metals

- The platinum group metals (PGMs) are platinum, palladium, rhodium, ruthenium, osmium and iridium. Of these, platinum and palladium are the most commercially significant. Platinum and palladium have important applications in electronics, jewellery and as catalysts (in catalytic converters for vehicles and in many industrial processes). They are also investment commodities.
- Mine production is confined to a handful of countries. The largest producers in 2009 were South Africa (63 per cent - chiefly platinum) and Russia (26 per cent - mainly palladium). There is no EU33 mine production.

### Exports of platinum group metals

kilograms

| Country                    | 2005        | 2006        | 2007        | 2008        | 2009        |
|----------------------------|-------------|-------------|-------------|-------------|-------------|
| Austria                    |             |             |             |             |             |
| Platinum & platinum metals | £12 253 000 | £14 817 000 | £30 801 000 | £52 298 000 | £38 485 000 |
| Waste & scrap              | £397 000    | £281 000    | £621 000    | £621 000    | £295 000    |
| Belgium-Luxembourg         |             |             |             |             |             |
| Platinum                   | 700         | 2 600       | 4 100       | 7 800       | 2 200       |
| Platinum metals            | 2 100       | 3 000       | 6 400       | 6 400       | 3 500       |
| Waste & scrap              | 305 700     | 934 000     | 592 300     | 649 800     | 339 900     |
| Bulgaria                   |             |             |             |             |             |
| Waste & scrap (a)          | * 31 400    | * 73 200    | * 94 700    | * 1 400     | * 44 000    |
| Croatia                    |             |             |             |             |             |
| Waste & scrap              | 76 039      | 27 719      | 18 314      | 27 018      | 27 959      |
| Czech Republic             |             |             |             |             |             |
| Platinum & platinum metals | (a)* 3 300  | (a)* 500    | (a)* 800    | 3 400       | 5 200       |
| Waste & scrap              | 4 500       | 4 700       | 1 900       | 700         | —           |
| Denmark                    |             |             |             |             |             |
| Platinum & platinum metals | 1 435       | 32          | 48          | 1           | 7 000       |
| Finland                    |             |             |             |             |             |
| Platinum & platinum metals | 5           | 23          | 19          | 30          | 34 126      |
| Waste & scrap              | 75 669      | 713         | 463         | 218         | 267         |
| France                     |             |             |             |             |             |
| Platinum                   | 3 324       | 5 283       | 4 758       | 2 033       | 1 140       |
| Platinum metals            | 4 075       | 3 565       | 2 800       | 2 120       | 1 396       |
| Waste & scrap              | 184 400     | 383 300     | 190 100     | 282 400     | 609 699     |
| Germany                    |             |             |             |             |             |
| Platinum                   | 43 300      | 40 600      | 28 100      | 27 700      | 36 204      |
| Palladium                  | 20 800      | 24 400      | 27 800      | 28 600      | 43 329      |
| Other platinum metals      | 11 100      | 16 000      | 22 300      | 24 700      | 65 029      |
| Waste & scrap              | 1 648 800   | 2 797 600   | 3 399 700   | 3 238 800   | 3 352 271   |
| Hungary                    |             |             |             |             |             |
| Waste & scrap              | ...         | ...         | 89 200      | ...         | ...         |
| Ireland, Republic of       |             |             |             |             |             |
| Waste & scrap              | 7 900       | 6 523       | 7 179       | 16 854      | 8 544       |
| Italy                      |             |             |             |             |             |
| Platinum                   | 6 555       | 9 542       | 11 783      | 13 350      | 10 043      |
| Platinum metals            | 6 039       | 6 951       | 5 828       | 8 295       | 8 898       |
| Waste & scrap              | 206         | 1 065       | 94 988      | 257         | 311         |
| Latvia                     |             |             |             |             |             |
| Waste & scrap              | 1 002       | 468         | 219         | 181         | —           |
| Lithuania                  |             |             |             |             |             |
| Waste & scrap              | ...         | 16          | 404         | 62 710      | 101 900     |
| Netherlands                |             |             |             |             |             |
| Platinum                   | £9 061 000  | £8 718 000  | £8 190 000  | £18 207 000 | £59 804 000 |
| Platinum metals            | £8 211 000  | £3 971 000  | £3 766 000  | £10 385 000 | £10 383 000 |
| Waste & scrap              | 876         | 16 569      | 25 850      | 352 175     | * 163 160   |
| Norway                     |             |             |             |             |             |
| Platinum & platinum metals | 11 871      | 11 885      | 14 611      | 15 393      | 12 341      |
| Waste & scrap              | 342         | 29 817      | 66 193      | 5 119       | 35 829      |
| Poland                     |             |             |             |             |             |
| Platinum & platinum metals | 903         | 350         | 156         | 7 275       | 47 400      |
| Waste & scrap              | 60          | 4 312       | 139         | 7 399       | 1 600       |
| Portugal                   |             |             |             |             |             |
| Waste & scrap              | ...         | ...         | 33 500      | ...         | —           |
| Slovenia                   |             |             |             |             |             |
| Platinum & platinum metals | 47          | 248         | 84          | 110         | 400         |

## Platinum Metals

### Exports continued

| Country                    | 2005      | 2006       | 2007      | 2008      | kilograms<br>2009 |
|----------------------------|-----------|------------|-----------|-----------|-------------------|
| Spain                      |           |            |           |           |                   |
| Platinum & platinum metals | 152       | 363        | 434       | 3 104     | 1 672             |
| Waste & scrap              | 2 892     | 290        | 44        | 88 069    | 225 411           |
| Sweden                     |           |            |           |           |                   |
| Platinum & platinum metals | £663 000  | £1 514 000 | £900 000  | £851 000  | £177 000          |
| Waste & scrap              | 25 000    | 280 000    | 242 500   | 575 300   | 40 400            |
| Switzerland                |           |            |           |           |                   |
| Platinum                   | 42 102    | 62 243     | 57 569    | 69 404    | 61 433            |
| Palladium                  | 75 105    | 46 578     | 52 880    | 86 503    | 57 571            |
| Other platinum metals      | 2 047     | 292        | 636       | 717       | 192               |
| Waste & scrap              | 235 630   | 200 470    | 393 326   | 616 867   | 362 419           |
| United Kingdom             |           |            |           |           |                   |
| Platinum                   | 41 500    | 42 843     | 52 789    | 40 630    | 43 177            |
| Palladium                  | 51 807    | 48 688     | 56 994    | 47 142    | 53 091            |
| Other platinum metals      | 17 852    | 23 353     | 23 731    | 22 548    | 20 044            |
| Waste & scrap              | 2 881 226 | 3 507 381  | 3 793 637 | 4 278 682 | 4 273 222         |

### Note(s)

- (1) In this table the term 'Platinum' and/or 'Platinum metals' includes unwrought, partly worked and alloys  
 (2) Kilograms have been used as the unit in this table except where the only obtainable figure is the value. In these cases the national currency figure has been converted to £ sterling.  
 (3) See explanatory notes at the front of the volume regarding currency conversions.

(a) BGS estimates, based on known imports into certain countries

## Imports of platinum group metals

kilograms

| Country                    | 2005      | 2006      | 2007       | 2008       | 2009      |
|----------------------------|-----------|-----------|------------|------------|-----------|
| Austria                    |           |           |            |            |           |
| Platinum & platinum metals | 7 200     | 8 400     | 1 100      | 700        | 1 600     |
| Belgium-Luxembourg         |           |           |            |            |           |
| Platinum                   | 88 976    | 6 421     | 13 300     | 28 600     | 5 900     |
| Platinum metals            | 2 873     | 4 061     | 2 000      | 100        | 200       |
| Bulgaria                   |           |           |            |            |           |
| Platinum & platinum metals | 366       | 31        | 82 367     | 613        | 16        |
| Croatia                    |           |           |            |            |           |
| Platinum & platinum metals | 12 320    | 107       | 171        | 152        | 76        |
| Cyprus                     |           |           |            |            |           |
| Platinum & platinum metals | 97        | 73        | 70         | 528        | 1 900     |
| Czech Republic             |           |           |            |            |           |
| Platinum & platinum metals | 1 289     | 4 599     | 576        | 90 290     | 82 291    |
| Waste & scrap              | 55        | 86        | 913        | 4 300      | 700       |
| Denmark                    |           |           |            |            |           |
| Platinum & platinum metals | 2 076     | 2 962     | 6 952      | 6 448      | 4 699     |
| Finland                    |           |           |            |            |           |
| Platinum & platinum metals | 495       | 309       | 198        | 365        | 284       |
| France                     |           |           |            |            |           |
| Platinum                   | 5 390     | 4 455     | 6 263      | 8 471      | 3 633     |
| Platinum metals            | 3 500     | 3 711     | 3 631      | 4 404      | 5 348     |
| Waste & scrap              | 55 600    | 370 600   | 114 300    | 241 200    | 359 138   |
| Germany                    |           |           |            |            |           |
| Platinum                   | 58 400    | 46 900    | 51 500     | 47 100     | 42 452    |
| Palladium                  | 56 000    | 42 000    | 54 700     | 55 100     | 47 092    |
| Other platinum metals      | 9 100     | 8 700     | 9 700      | 6 400      | 12 120    |
| Waste & scrap              | 6 574 600 | 9 332 700 | 11 442 800 | 10 983 600 | 6 224 314 |
| Greece                     |           |           |            |            |           |
| Platinum & platinum metals | 181       | 248       | 7 400      | 300        | 100       |
| Hungary                    |           |           |            |            |           |
| Platinum & platinum metals | 985       | 91        | 126        | 453        | 26        |
| Iceland                    |           |           |            |            |           |
| Platinum & platinum metals | 371       | 70        | 960        | 162        | 158       |
| Ireland, Republic of       |           |           |            |            |           |
| Platinum & platinum metals | 4 934     | 3 999     | 10 425     | 2 185      | 121 428   |

## Imports continued

kilograms

| Country                        | 2005        | 2006        | 2007        | 2008        | 2009        |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|
| Italy                          |             |             |             |             |             |
| Platinum                       | 15 586      | 17 279      | 20 491      | 16 570      | 13 627      |
| Palladium                      | 16 178      | 15 943      | 18 880      | 20 593      | 13 047      |
| Other platinum metals          | 3 005       | 3 077       | 1 811       | 2 426       | 1 909       |
| Waste & scrap                  | 2 085       | 431         | 447         | 7 646       | 8 178       |
| Latvia                         |             |             |             |             |             |
| Waste & scrap                  | ...         | ...         | 1 900       | 2 900       | 12 000      |
| Lithuania                      |             |             |             |             |             |
| Waste & scrap                  | 5 403       | 26 700      | 65 900      | 40 800      | 22 700      |
| Netherlands                    |             |             |             |             |             |
| Platinum                       | £12 517 000 | £21 771 000 | £22 785 000 | £89 137 000 | £78 613 000 |
| Platinum metals                | £3 682 000  | £7 066 000  | £7 722 000  | £8 219 000  | £11 659 000 |
| Norway                         |             |             |             |             |             |
| Platinum & platinum metals     | 1 076       | 922         | 1 057       | 1 072       | 1 005       |
| Waste & scrap                  | 998         | 1 102       | 846         | 1 093       | 930         |
| Poland                         |             |             |             |             |             |
| Platinum & platinum metals     | 3 560       | 15 500      | 16 400      | 16 900      | 31 300      |
| Slovakia                       |             |             |             |             |             |
| Platinum                       | 60          | 23 016      | 348 975     | 1 573 410   | 1 075 100   |
| Slovenia                       |             |             |             |             |             |
| Platinum & platinum metals     | 120         | 449         | 177         | 177         | 132         |
| Spain                          |             |             |             |             |             |
| Platinum & platinum metals (a) | * 6 000     | * 5 600     | * 4 500     | * 3 900     | * 3 000     |
| Waste & scrap                  | 122         | 526         | 4 111       | 8 947       | 29 448      |
| Sweden                         |             |             |             |             |             |
| Platinum & platinum metals     | £6 513 000  | £4 509 000  | £6 109 000  | £8 722 000  | £5 934 000  |
| Waste & scrap                  | 577 000     | 618 000     | 731 700     | 13 800      | 80 200      |
| Switzerland                    |             |             |             |             |             |
| Platinum                       | 51 377      | 76 842      | 43 113      | 67 022      | 91 048      |
| Palladium                      | 46 565      | 126 416     | 46 744      | 60 666      | 50 258      |
| Other platinum metals          | 780         | 1 078       | 913         | 1 255       | 1 319       |
| Waste & scrap                  | 156 229     | 172 679     | 267 258     | 494 962     | 688 973     |
| Turkey                         |             |             |             |             |             |
| Platinum & platinum metals     | 188         | 212         | 316         | 463         | 235         |
| United Kingdom                 |             |             |             |             |             |
| Platinum                       | 51 553      | 23 472      | 26 015      | 29 943      | 30 339      |
| Palladium                      | 30 576      | 37 226      | 42 395      | 32 806      | 36 652      |
| Other platinum metals          | 7 134       | 9 127       | 6 507       | 5 409       | 6 713       |
| Waste & scrap                  | 1 271 315   | 1 148 802   | 1 456 413   | 1 416 905   | 1 100 117   |

## Note(s)

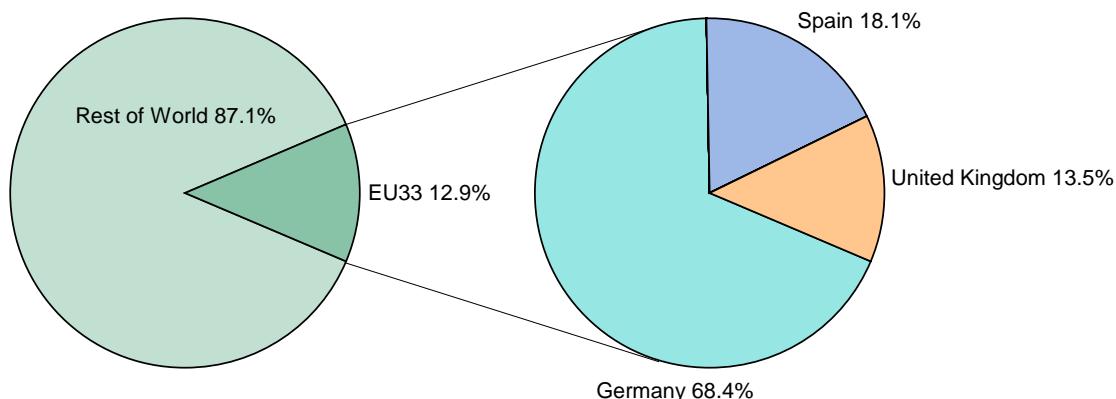
- (1) In this table the term 'Platinum' and/or 'Platinum metals' includes unwrought, partly worked and alloys  
 (2) Kilograms have been used as the unit in this table except where the only obtainable figure is the value. In these cases the national currency figure has been converted to £ sterling.  
 (3) See explanatory notes at the front of the volume regarding currency conversions

(a) BGS estimates, based on known exports from certain countries

## Potash

- Potash is the name for a range of potassium-bearing minerals and processed chemical products. Potassium is essential in fertilisers and is widely used in the chemicals industry and in explosives.
- Economic potash deposits are rare, with only 13 countries producing potash in 2009. The world's total output fell by nearly 37 per cent in 2009 compared to 2008 as production in all of the top three producers declined significantly. Despite this, Canada, Russia and Belarus together still generated 51 per cent of world production. The EU33 is a significant producer of potash, producing 12.9 per cent of world production in 2009. Most of this was from Germany (68.4 per cent of EU33 total and nine per cent of the world total).

**EU33 Production of potash 2009**

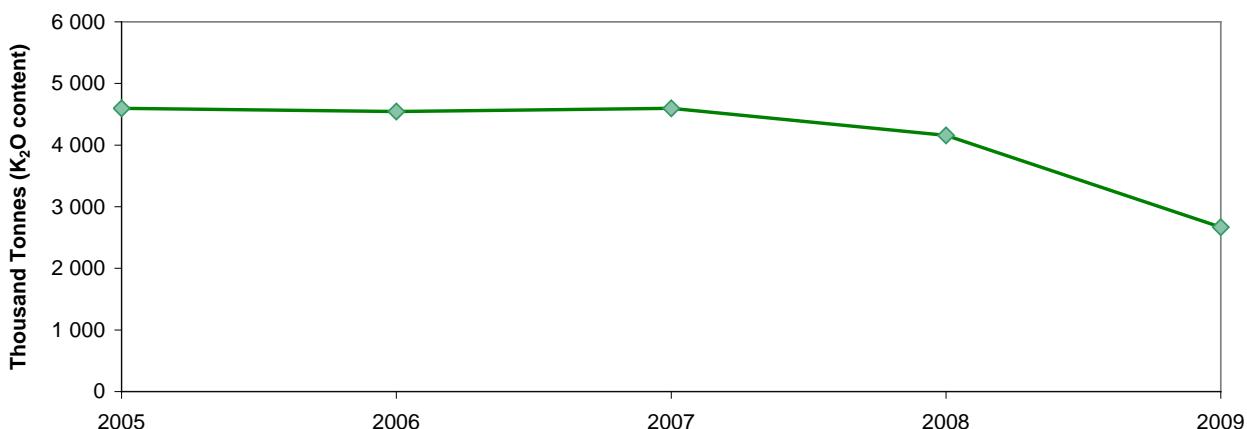


## Production of potash

tonnes (K<sub>2</sub>O content)

| Country        | 2005      | 2006      | 2007      | 2008      | 2009      |
|----------------|-----------|-----------|-----------|-----------|-----------|
| Germany        |           |           |           |           |           |
| Potassic salts | 3 663 829 | 3 624 977 | 3 636 504 | 3 280 467 | 1 825 139 |
| Spain          |           |           |           |           |           |
| Chloride       | 494 594   | 493 189   | 531 739   | 472 952   | 481 455   |
| United Kingdom |           |           |           |           |           |
| Chloride       | 439 200   | 427 000   | 430 000   | 403 800   | 360 000   |
| EU33 Total     | 4 598 000 | 4 545 000 | 4 598 000 | 4 157 000 | 2 667 000 |

**EU33 Production of potash 2005 - 09**



## Exports of potash

tonnes

| Country                      | 2005      | 2006       | 2007      | 2008      | 2009      |
|------------------------------|-----------|------------|-----------|-----------|-----------|
| Austria                      |           |            |           |           |           |
| Potassic fertilisers         | 4 713     | 8 584      | 13 595    | 14 613    | 13 843    |
| Belgium-Luxembourg           |           |            |           |           |           |
| Fertiliser salts             | 127       | ...        | ...       | ...       | ...       |
| Sulphate (a)                 | * 628 000 | * 424 000  | * 433 000 | * 311 000 | * 135 000 |
| Chloride                     | 116 930   | 102 641    | 137 689   | 84 791    | 58 882    |
| Other potassic fertilisers   | 9 819     | 10 560     | 6 043     | 7 034     | 175       |
| Czech Republic               |           |            |           |           |           |
| Potassic fertilisers         | 3 458     | 3 143      | 3 096     | 3 322     | 6 843     |
| Denmark                      |           |            |           |           |           |
| Chloride                     | 1 052     | 29 533     | 127       | 45        | 59        |
| Finland                      |           |            |           |           |           |
| Sulphate                     | 33 484    | (b)* 7 900 | 49 485    | 17 181    | 45 818    |
| Chloride                     | 38 915    | 65 003     | 50 342    | 50 822    | 26        |
| France                       |           |            |           |           |           |
| Sulphate                     | 54 235    | 32 887     | 33 446    | 34 777    | 18 248    |
| Chloride                     | 6 376     | 3 185      | 8 166     | 11 416    | 9 858     |
| Other potassic fertilisers   | 841       | 221        | 278       | 327       | 414       |
| Germany                      |           |            |           |           |           |
| Potassic fertilisers (b) (c) | 3 235 651 | 3 624 977  | 3 636 504 | 3 280 467 | 1 825 139 |
| Greece                       |           |            |           |           |           |
| Potassic fertilisers         | 2 894     | 3 977      | 1 217     | 1 648     | 1 369     |
| Hungary                      |           |            |           |           |           |
| Potassic fertilisers         | 1 253     | 2 336      | 3 474     | 7 891     | 9 916     |
| Italy                        |           |            |           |           |           |
| Potassic fertilisers         | 1 270     | 2 194      | 5 572     | 6 345     | 12 725    |
| Latvia                       |           |            |           |           |           |
| Chloride                     | 2 321     | 117        | 250       | 970       | 0         |
| Lithuania                    |           |            |           |           |           |
| Potassic fertilisers         | 10 463    | 8 939      | 5 752     | 2 846     | 18 714    |
| Macedonia                    |           |            |           |           |           |
| Potassic fertilisers         | 1 102     | 3          | —         | 2         | —         |
| Netherlands                  |           |            |           |           |           |
| Sulphate                     | 382       | 842        | 7 918     | 1 424     | 4 431     |
| Chloride                     | 163 072   | 152 423    | 170 921   | 147 436   | 133 012   |
| Other potassic fertilisers   | 759       | 1 557      | 1 162     | 1 341     | 2 680     |
| Norway                       |           |            |           |           |           |
| Chloride                     | 7 611     | 2 243      | 1 285     | —         | —         |
| Poland                       |           |            |           |           |           |
| Potassic fertilisers         | 932       | 3 130      | 2 202     | 9 222     | 13 279    |
| Portugal                     |           |            |           |           |           |
| Potassic fertilisers         | 1 056     | 42         | 80        | 240       | 402       |
| Slovakia                     |           |            |           |           |           |
| Potassic fertilisers         | 26        | ...        | 1 407     | 434       | 74        |
| Spain                        |           |            |           |           |           |
| Sulphate                     | 2 832     | 1 245      | 1 795     | 1 251     | 2 540     |
| Chloride                     | 514 042   | 201 242    | 163 891   | 360 538   | 319 549   |
| Other potassic fertilisers   | 483       | 257        | 998       | 1 895     | 1 352     |
| Sweden                       |           |            |           |           |           |
| Sulphate                     | 54 841    | 10 191     | 84 414    | 53 883    | 59 252    |
| Turkey                       |           |            |           |           |           |
| Potassic fertilisers         | 313       | 148        | 488       | 3 544     | 6 438     |
| United Kingdom               |           |            |           |           |           |
| Chloride                     | * 340 000 | * 430 000  | * 350 000 | * 283 000 | * 200 000 |
| Other potassic fertilisers   | 699       | 612        | 399       | 562       | 228       |

### Note(s)

- (a) BGS estimates, based on known imports into certain countries
- (b) K<sub>2</sub>O content
- (c) Including sulphate, chloride and other potassic fertilisers

**Imports of potash**

tonnes

| Country                    | 2005        | 2006        | 2007    | 2008    | 2009    |
|----------------------------|-------------|-------------|---------|---------|---------|
| Austria                    |             |             |         |         |         |
| Fertiliser salts           | 23 685      | 23 423      | ...     | ...     | ...     |
| Sulphate                   | 13 377      | 17 797      | 13 026  | 10 432  | 4 241   |
| Chloride                   | 144 234     | 133 514     | 123 747 | 119 347 | 28 000  |
| Other potassic fertilisers | 2 336       | 3 199       | 26 199  | 25 862  | 9 139   |
| Belgium-Luxembourg         |             |             |         |         |         |
| Fertiliser salts           | 17 331      | 2 628       | ...     | ...     | ...     |
| Sulphate                   | 260 839     | 2 839       | 5 073   | 7 317   | 18 355  |
| Chloride                   | 1 211 640   | 576 972     | 587 275 | 559 104 | 293 965 |
| Other potassic fertilisers | 17 698      | 7 693       | 612     | 825     | 2 109   |
| Bulgaria                   |             |             |         |         |         |
| Potassic fertilisers       | 7 794       | 9 102       | 4 845   | 4 633   | 1 970   |
| Croatia                    |             |             |         |         |         |
| Chloride                   | 131 567     | 149 424     | 159 288 | 157 994 | 10 538  |
| Other potassic fertilisers | 2 083       | 3 594       | 3 564   | 2 958   | 1 091   |
| Czech Republic             |             |             |         |         |         |
| Chloride                   | 97 723      | 43 238      | 32 745  | 28 052  | 36 125  |
| Other potassic fertilisers | 3 783       | 3 475       | 4 215   | 5 025   | 2 430   |
| Denmark                    |             |             |         |         |         |
| Sulphate                   | 2 683       | 4 778       | 6 077   | 1 878   | 1 019   |
| Chloride                   | 38 706      | 106 772     | 34 292  | 47 885  | 4 917   |
| Other potassic fertilisers | 29 605      | 13 150      | 13 742  | 24 438  | 11 052  |
| Estonia                    |             |             |         |         |         |
| Chloride                   | 14 509      | 11 173      | 7 048   | 8 665   | 1       |
| Finland                    |             |             |         |         |         |
| Chloride                   | (a) 163 600 | (a) 161 400 | 148 400 | 120 158 | —       |
| France                     |             |             |         |         |         |
| Fertiliser salts           | 1 400       | 712         | ...     | ...     | ...     |
| Sulphate                   | 70 702      | 33 195      | 50 088  | 53 124  | 12 477  |
| Chloride                   | 1 492 127   | 777 056     | 900 560 | 837 119 | 242 713 |
| Other potassic fertilisers | 29 488      | 11 432      | 16 601  | 18 484  | 7 287   |
| Germany                    |             |             |         |         |         |
| Sulphate                   | 5 964       | 5 414       | 17 108  | 11 801  | 13 194  |
| Chloride                   | 75 483      | 62 917      | 101 081 | 124 643 | 75 154  |
| Other potassic fertilisers | 4 065       | 809         | 1 344   | 2 503   | 633     |
| Greece                     |             |             |         |         |         |
| Sulphate                   | 28 334      | 44 049      | 37 785  | 36 642  | 14 325  |
| Chloride                   | 46 667      | 36 887      | 22 518  | 28 144  | 20 773  |
| Other potassic fertilisers | 4 387       | 9 682       | 6 189   | 8 660   | 107     |
| Hungary                    |             |             |         |         |         |
| Chloride                   | 137 278     | 133 764     | 168 692 | 181 373 | 38 441  |
| Other potassic fertilisers | 3 735       | 3 180       | 5 863   | 4 552   | 4 372   |
| Ireland, Republic of       |             |             |         |         |         |
| Chloride                   | 113 476     | 125 803     | 122 191 | 97 056  | 29 932  |
| Other potassic fertilisers | 5 747       | 4 566       | 1 785   | 4 347   | 3 390   |
| Italy                      |             |             |         |         |         |
| Sulphate                   | 96 415      | 91 061      | 90 992  | 78 513  | 31 910  |
| Chloride                   | 334 324     | 302 115     | 396 162 | 346 465 | 144 086 |
| Other potassic fertilisers | 13 203      | 17 583      | 15 929  | 9 882   | 3 413   |
| Latvia                     |             |             |         |         |         |
| Chloride                   | 19 361      | 9 489       | 8 875   | 10 845  | —       |
| Other potassic fertilisers | 1 982       | 132         | 312     | 111     | 102     |
| Lithuania                  |             |             |         |         |         |
| Sulphate                   | 12 086      | 10 439      | 15 637  | 10 971  | 2 617   |
| Chloride                   | 123 782     | 143 499     | 138 895 | 107 749 | 6 631   |
| Other potassic fertilisers | 236         | 6 200       | 190     | 487     | 87      |
| Netherlands                |             |             |         |         |         |
| Sulphate                   | 26 208      | 24 658      | 21 211  | 17 393  | 28 984  |
| Chloride                   | 445 767     | 265 838     | 314 011 | 307 612 | 204 377 |
| Other potassic fertilisers | 2 486       | 5 283       | 6 691   | 3 899   | 3 466   |
| Norway                     |             |             |         |         |         |
| Sulphate                   | 247 379     | 266 149     | 241 918 | 190 757 | 123 549 |
| Chloride                   | 306 369     | 307 422     | 349 459 | 353 452 | 199 385 |
| Other potassic fertilisers | 555         | 710         | 659     | 674     | 509     |

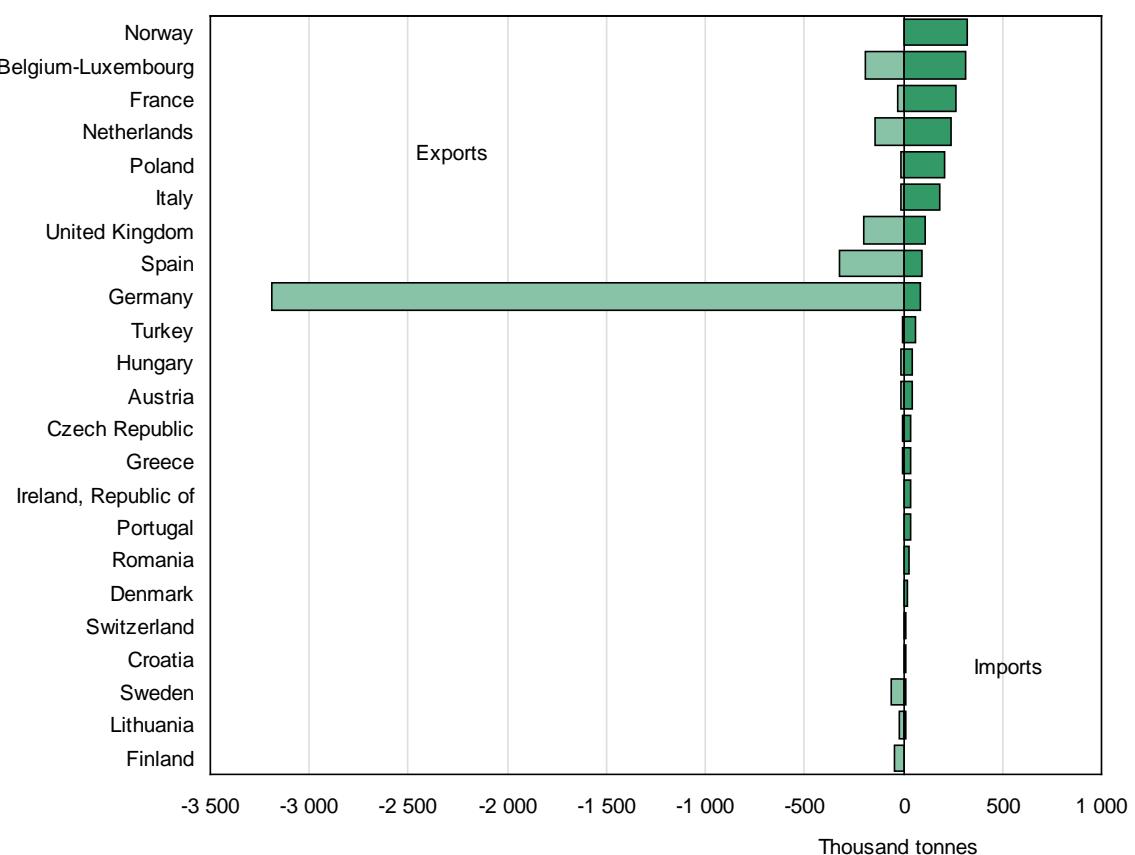
## Imports continued

tonnes

| Country                    | 2005      | 2006    | 2007    | 2008    | 2009    |
|----------------------------|-----------|---------|---------|---------|---------|
| Poland                     |           |         |         |         |         |
| Fertiliser salts           | 621       | 1 066   | ...     | ...     | ...     |
| Sulphate                   | 21 770    | 14 517  | 20 242  | 19 161  | 10 919  |
| Chloride                   | 1 041 798 | 770 674 | 992 979 | 815 282 | 194 900 |
| Other potassic fertilisers | 4 726     | 4 110   | 4 659   | 7 143   | 3 470   |
| Portugal                   |           |         |         |         |         |
| Sulphate                   | 3 631     | 3 227   | 4 223   | 1 869   | 1 574   |
| Chloride                   | 65 682    | 58 237  | 51 600  | 38 200  | 25 525  |
| Other potassic fertilisers | 2 780     | 2 141   | 1 629   | 1 708   | 5 389   |
| Romania                    |           |         |         |         |         |
| Sulphate                   | 757       | 6 361   | 4 086   | 5 133   | 19 592  |
| Chloride                   | 41 974    | 35 384  | 50 558  | 68 877  | 5 119   |
| Other potassic fertilisers | 563       | 491     | 1 058   | 338     | 374     |
| Slovakia                   |           |         |         |         |         |
| Chloride                   | 28 400    | 31 791  | 29 514  | 28 757  | 3 931   |
| Other potassic fertilisers | 576       | 1 752   | 2 375   | 1 832   | 294     |
| Slovenia                   |           |         |         |         |         |
| Potassic fertilisers       | 1 704     | 2 465   | 1 973   | 2 166   | 766     |
| Spain                      |           |         |         |         |         |
| Sulphate                   | 47 561    | 10 412  | 5 547   | 40 911  | 21 022  |
| Chloride                   | 243 017   | 224 320 | 199 403 | 194 656 | 71 444  |
| Other potassic fertilisers | 4 667     | 86      | 25      | 3 548   | 3 721   |
| Sweden                     |           |         |         |         |         |
| Sulphate                   | 4 911     | 10 191  | 1 004   | 2 872   | 965     |
| Chloride                   | 43 106    | 44 941  | 27 470  | 15 689  | 4 769   |
| Other potassic fertilisers | 1 119     | 4 109   | 4 886   | 4 735   | 4 211   |
| Switzerland                |           |         |         |         |         |
| Sulphate                   | 3 325     | 4 215   | 5 259   | 4 685   | 3 967   |
| Chloride                   | 18 971    | 18 811  | 19 279  | 15 158  | 7 595   |
| Other potassic fertilisers | 3 411     | 2 555   | 2 504   | 2 861   | 1 676   |
| Turkey                     |           |         |         |         |         |
| Sulphate                   | 39 198    | 19 373  | 57 661  | 33 427  | 11 576  |
| Chloride                   | 135 433   | 78 671  | 96 038  | 82 412  | 50 634  |
| United Kingdom             |           |         |         |         |         |
| Fertiliser salts           | 9 517     | 10 696  | ...     | ...     | ...     |
| Sulphate                   | 12 206    | 14 274  | 16 166  | 15 157  | 15 766  |
| Chloride                   | 198 893   | 170 942 | 202 623 | 165 331 | 80 842  |
| Other potassic fertilisers | 945       | 1 310   | 10 813  | 11 919  | 10 422  |

## Note(s)

(a) K<sub>2</sub>O content

**Potash - EU33 trade in 2009**

## Rare earth elements

- Rare earth elements (REE), which occur chiefly in the minerals bastnaesite and monazite, are a group of 17 metallic elements of which cerium, lanthanum and neodymium are the most commonly used. Rare earths are widely used in automotive catalysts, as metallurgical additives and in glass and ceramics. An increasingly important use of REE, particularly neodymium, is in high-strength permanent magnets for use computer hard disk drives, hybrid cars and wind turbines.
- Production of rare earths is limited to only a few countries of which China is by far the largest producer (97 per cent). There is no EU33 production, thus Europe is entirely import dependent.

### Exports of rare earths

| Country                                | 2005  | 2006  | 2007  | 2008  | 2009   |
|--|-------|-------|-------|-------|--------|
| Austria                                |       |       |       |       | tonnes |
| Metals                                 | 421   | 333   | 359   | 373   | 244    |
| Cerium compounds                       | 1 980 | 1 569 | 2 596 | 2 702 | 2 035  |
| Other rare earth compounds             | 6 449 | 5 911 | 9 039 | 8 508 | 8 437  |
| Belgium-Luxembourg                     |       |       |       |       |        |
| Metals                                 | 187   | 444   | 253   | 299   | 273    |
| Rare earth compounds                   | 413   | 302   | 802   | 408   | 335    |
| Czech Republic                         |       |       |       |       |        |
| Cerium compounds                       | 8     | 8     | 6     | 3     | 3      |
| Other rare earth compounds             | 4     | 5     | 6     | 5     | 0      |
| Denmark                                |       |       |       |       |        |
| Metals                                 | 0     | 0     | 4     | 2     | —      |
| Estonia                                |       |       |       |       |        |
| Metals                                 | 3     | 1     | 1     | 1     | 1      |
| Rare earth compounds                   | 2 319 | 6 819 | 3 183 | 2 916 | 2 679  |
| Finland                                |       |       |       |       |        |
| Metals                                 | ...   | ...   | 104   | ...   | —      |
| Rare earth compounds                   | 2     | 1     | 1     | 103   | 0      |
| France                                 |       |       |       |       |        |
| Metals                                 | 7     | 24    | 11    | 11    | 3      |
| Rare earth compounds                   | 2 007 | 2 185 | 2 545 | 1 854 | 1 244  |
| Ferro-cerium & other pyrophoric alloys | 32    | 85    | 133   | —     | 0      |
| Germany                                |       |       |       |       |        |
| Metals                                 | 1     | 1     | 8     | 3     | 19     |
| Rare earth compounds                   | 123   | 145   | 217   | 188   | 652    |
| Hungary                                |       |       |       |       |        |
| Rare earth compounds                   | 0     | ...   | ...   | 14    | —      |
| Ireland, Republic of                   |       |       |       |       |        |
| Rare earth compounds                   | 14    | 73    | 8     | 9     | 7      |
| Italy                                  |       |       |       |       |        |
| Metals                                 | 168   | 56    | 177   | 112   | 78     |
| Rare earth compounds                   | 13    | 43    | 38    | 153   | 167    |
| Lithuania                              |       |       |       |       |        |
| Cerium compounds                       | 1     | 3     | 4     | 3     | 8      |
| Netherlands                            |       |       |       |       |        |
| Metals                                 | 13    | 16    | 64    | 202   | * 135  |
| Rare earth compounds                   | 171   | 157   | 77    | 131   | * 150  |
| Norway                                 |       |       |       |       |        |
| Metals                                 | 11    | 59    | 0     | 1     | 105    |
| Rare earth compounds                   | ...   | ...   | 1     | 21    | 21     |
| Poland                                 |       |       |       |       |        |
| Metals                                 | ...   | ...   | —     | 5     | —      |
| Cerium compounds                       | 0     | 0     | 15    | 8     | 4      |
| Other rare earth compounds             | 0     | 0     | 33    | 22    | —      |
| Slovenia                               |       |       |       |       |        |
| Cerium compounds                       | ...   | ...   | 2     | 1     | 1      |
| Spain                                  |       |       |       |       |        |
| Cerium compounds                       | 17    | 45    | 63    | 8     | 13     |
| Other rare earth compounds             | 20    | 18    | 2     | 17    | 5      |
| Ferro-cerium & other pyrophoric alloys | 3     | 1     | ...   | ...   | ...    |
| Switzerland                            |       |       |       |       |        |
| Cerium compounds                       | 1     | 2     | 2     | 1     | 1      |
| Other rare earth compounds             | 3     | 7     | 3     | 1     | 26     |

## Rare Earths

### Exports continued

| Country                                | 2005  | 2006 | 2007  | 2008 | 2009 | tonnes |
|--|-------|------|-------|------|------|--------|
| United Kingdom                         |       |      |       |      |      |        |
| Metals                                 | 26    | 29   | 143   | 237  | 54   |        |
| Cerium compounds                       | 121   | 111  | 37    | 73   | 105  |        |
| Other rare earth compounds             | 1 189 | 954  | 1 089 | 622  | 459  |        |
| Ferro-cerium & other pyrophoric alloys | 2     | 76   | 80    | 7    | 6    |        |

### Note(s)

(1) Rare earths are here taken to include yttrium and scandium

## Imports of rare earths

tonnes

| Country                                | 2005  | 2006  | 2007  | 2008   | 2009  |  |
|--|-------|-------|-------|--------|-------|--|
| Austria                                |       |       |       |        |       |  |
| Metals                                 | 374   | 403   | 512   | 561    | 269   |  |
| Cerium compounds                       | 3 055 | 2 009 | 3 431 | 3 487  | 1 985 |  |
| Other rare earth compounds             | 2 685 | 2 618 | 3 762 | 3 589  | 2 471 |  |
| Belgium-Luxembourg                     |       |       |       |        |       |  |
| Metals                                 | 252   | 443   | 297   | 259    | 323   |  |
| Cerium compounds                       | 411   | 280   | 490   | 259    | 421   |  |
| Other rare earth compounds             | 139   | 138   | 353   | 142    | 292   |  |
| Ferro-cerium & other pyrophoric alloys | 5     | 5     | 2     | 3      | 62    |  |
| Czech Republic                         |       |       |       |        |       |  |
| Rare earth compounds                   | 198   | 227   | 228   | 155    | 124   |  |
| Ferro-cerium & other pyrophoric alloys | 3     | 6     | 4     | 5      | 5     |  |
| Denmark                                |       |       |       |        |       |  |
| Cerium compounds                       | ...   | 1     | 1     | 11     | 734   |  |
| Other rare earth compounds             | 16    | 41    | 30    | 10     | 36    |  |
| Estonia                                |       |       |       |        |       |  |
| Metals                                 | 8     | 10    | ...   | ...    | —     |  |
| Rare earth compounds                   | 4 352 | 6 804 | 4 721 | 4 469  | 4 125 |  |
| Finland                                |       |       |       |        |       |  |
| Cerium compounds                       | 83    | 117   | 92    | 101    | 57    |  |
| Other rare earth compounds             | 13    | 21    | 5     | 7      | 9     |  |
| France                                 |       |       |       |        |       |  |
| Metals                                 | 322   | 479   | 417   | 447    | 402   |  |
| Cerium compounds                       | 7 105 | 9 723 | 8 831 | 9 116  | 6 112 |  |
| Other rare earth compounds             | 585   | 1 329 | 1 232 | 768    | 874   |  |
| Ferro-cerium & other pyrophoric alloys | 5     | 3     | 2     | 3      | 26    |  |
| Germany                                |       |       |       |        |       |  |
| Metals                                 | 402   | 369   | 410   | 430    | 106   |  |
| Cerium compounds                       | 1 082 | 975   | 901   | 673    | 448   |  |
| Other rare earth compounds             | 6 961 | 7 024 | 9 748 | 10 192 | 7 755 |  |
| Ferro-cerium & other pyrophoric alloys | 6     | 3     | 7     | 6      | 2     |  |
| Greece                                 |       |       |       |        |       |  |
| Metals                                 | ...   | ...   | 1     | 20     | 68    |  |
| Rare earth compounds                   | 6     | 4     | 3     | 1      | —     |  |
| Ferro-cerium & other pyrophoric alloys | 1     | 0     | 22    | 0      | —     |  |
| Hungary                                |       |       |       |        |       |  |
| Rare earth compounds                   | 131   | 146   | 242   | 116    | 60    |  |
| Iceland                                |       |       |       |        |       |  |
| Metals                                 | ...   | ...   | —     | 85     | 87    |  |
| Ferro-cerium & other pyrophoric alloys | 156   | 98    | 112   | 86     | 88    |  |
| Ireland, Republic of                   |       |       |       |        |       |  |
| Rare earth compounds                   | 32    | 7     | 23    | 21     | 67    |  |
| Italy                                  |       |       |       |        |       |  |
| Metals                                 | 38    | 58    | 149   | 144    | 87    |  |
| Cerium compounds                       | 651   | 540   | 694   | 710    | 414   |  |
| Other rare earth compounds             | 336   | 313   | 452   | 431    | 258   |  |
| Ferro-cerium & other pyrophoric alloys | 17    | 1     | 2     | 2      | 5     |  |
| Lithuania                              |       |       |       |        |       |  |
| Rare earth compounds                   | 34    | 52    | 3     | 8      | 3     |  |
| Malta                                  |       |       |       |        |       |  |
| Metals                                 | ...   | ...   | ...   | ...    | 12    |  |

Rare Earths

Imports continued

tonnes

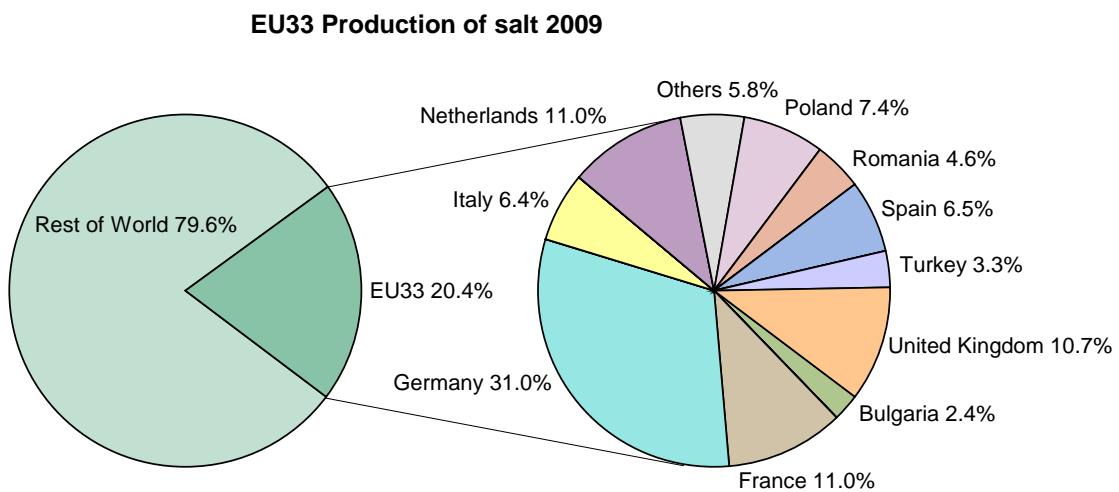
| Country                                | 2005  | 2006  | 2007  | 2008  | 2009    |
|--|-------|-------|-------|-------|---------|
| Netherlands                            |       |       |       |       |         |
| Metals                                 | 8     | 135   | 100   | 261   | * 200   |
| Cerium compounds                       | 164   | 290   | 473   | 278   | 71      |
| Other rare earth compounds             | 2 140 | 2 781 | 3 868 | 2 766 | * 1 100 |
| Ferro-cerium & other pyrophoric alloys | 3     | 3     | 3     | 4     | 6       |
| Norway                                 |       |       |       |       |         |
| Metals                                 | 544   | 686   | 738   | 341   | 24      |
| Poland                                 |       |       |       |       |         |
| Metals                                 | 6     | 7     | 1     | —     | 2       |
| Cerium compounds                       | 79    | 109   | 85    | 148   | 43      |
| Other rare earth compounds             | 39    | 74    | 63    | 58    | 16      |
| Portugal                               |       |       |       |       |         |
| Metals                                 | 4     | 5     | 0     | 0     | ...     |
| Rare earth compounds                   | 46    | 46    | 115   | 20    | 12      |
| Romania                                |       |       |       |       |         |
| Rare earth compounds                   | 22    | 8     | 9     | 6     | 5       |
| Slovakia                               |       |       |       |       |         |
| Rare earth compounds                   | 10    | 8     | 8     | 5     | 8       |
| Slovenia                               |       |       |       |       |         |
| Metals                                 | 139   | 96    | 139   | 88    | 55      |
| Rare earth compounds                   | 4     | 27    | 4     | 3     | 2       |
| Spain                                  |       |       |       |       |         |
| Metals                                 | 20    | 84    | 95    | 274   | 108     |
| Cerium compounds                       | 476   | 572   | 580   | 444   | 443     |
| Other rare earth compounds             | 353   | 260   | 255   | 270   | 140     |
| Ferro-cerium & other pyrophoric alloys | 8     | 29    | 40    | 15    | 19      |
| Sweden                                 |       |       |       |       |         |
| Metals                                 | 41    | 37    | 74    | 46    | 28      |
| Rare earth compounds                   | 26    | 20    | 56    | 68    | 54      |
| Switzerland                            |       |       |       |       |         |
| Rare earth compounds                   | 34    | 38    | 34    | 34    | 30      |
| Ferro-cerium & other pyrophoric alloys | ...   | ...   | ...   | 6     | 44      |
| Turkey                                 |       |       |       |       |         |
| Metals                                 | 0     | 0     | 8     | 9     | 9       |
| Rare earth compounds                   | 155   | 117   | 183   | 360   | 204     |
| Ferro-cerium & other pyrophoric alloys | ...   | ...   | ...   | 12    | 10      |
| United Kingdom                         |       |       |       |       |         |
| Metals                                 | 166   | 88    | 88    | 133   | 99      |
| Cerium compounds                       | 2 324 | 1 615 | 2 167 | 2 067 | 612     |
| Other rare earth compounds             | 775   | 600   | 664   | 251   | 103     |
| Ferro-cerium & other pyrophoric alloys | 19    | 60    | 77    | 57    | 148     |

Note(s)

(1) Rare earths are here taken to include yttrium and scandium

## Salt

- Salt (sodium chloride) is a fundamental chemical of life. However, human consumption accounts for a small fraction of salt usage. Industrial use is far higher, particularly in the chemical industry as a source of soda and chlorine. Salt is also used to 'grit' roads to prevent the formation of ice between 0°C and -6°C.
- Most countries in the world have some salt production from rock salt, brine or seawater. In 2009 the largest producer was China (22 per cent). In the EU33 the largest producer was Germany (31 per cent of total EU33 production).



## Production of salt

tonnes

| Country                | 2005      | 2006          | 2007          | 2008           | 2009           |
|------------------------|-----------|---------------|---------------|----------------|----------------|
| Austria                |           |               |               |                |                |
| Rock salt              | 1 497     | 1 336         | 1 172         | 503            | —              |
| Salt in brine          | 771 455   | 764 103       | 735 724       | 866 674        | 1 035 044      |
| Bulgaria               | 1 900 000 | 2 000 000     | 2 000 000     | 2 100 000      | 1 300 000      |
| Croatia                | 36 970    | 29 589        | 32 536        | 54 937         | 57 186         |
| Denmark                | * 600 000 | * 600 000     | * 600 000     | * 600 000      | * 600 000      |
| France                 |           |               |               |                |                |
| Rock salt              | 494 000   | ...           | ...           | ...            | ...            |
| Brine salt             | 1 468 000 | ...           | ...           | ...            | ...            |
| Salt in brine          | 4 750 780 | (a) 9 371 000 | (a) 6 139 840 | (a)* 6 000 000 | (a)* 6 000 000 |
| Sea salt               | 1 026 000 | ...           | ...           | ...            | ...            |
| Germany                |           |               |               |                |                |
| Rock salt              | 8 258 000 | 9 280 000     | 4 826 000     | 5 545 438      | 7 709 844      |
| Brine salt             | 1 006 000 | 1 001 000     | 1 010 000     | 989 208        | 1 862 630      |
| Salt in brine          | 7 449 000 | 7 189 000     | 7 558 000     | 7 306 745      | * 7 300 000    |
| Greece                 | 198 024   | * 200 000     | 212 000       | * 220 000      | * 189 000      |
| Italy                  |           |               |               |                |                |
| Rock salt & brine salt | 3 475 734 | 2 823 960     | 2 214 133     | 2 334 315      | 3 471 206      |
| Netherlands            | 6 155 000 | 6 056 000     | 6 177 000     | 6 200 000      | 5 967 000      |
| Poland                 |           |               |               |                |                |
| Rock salt              | 1 123 219 | 1 129 875     | 591 240       | 618 111        | 988 545        |
| Brine salt             | 2 889 941 | 2 899 076     | 2 930 726     | 2 783 198      | 2 533 413      |
| Other salt             | 118 703   | 808 247       | 785 694       | 706 618        | 484 486        |
| Portugal               |           |               |               |                |                |
| Rock salt              | 597 945   | 586 190       | 590 588       | 606 545        | 576 723        |
| Sea salt               | 92 495    | 76 858        | 64 048        | 69 249         | 72 325         |
| Romania                | 2 442 640 | 2 621 129     | 2 475 349     | 2 526 774      | * 2 500 000    |
| Slovakia               | 105 100   | 122 500       | 117 000       | 109 510        | 41 000         |
| Slovenia               | 803       | 1 624         | 3 029         | 535            | 2 924          |
| Spain                  |           |               |               |                |                |
| Rock salt              | 2 909 526 | 2 809 046     | 2 709 545     | 2 909 907      | 2 254 543      |
| Sea salt               | 1 368 960 | 1 506 343     | 1 332 360     | 1 290 672      | 1 207 544      |
| Other salt             | 121 461   | 115 826       | 102 524       | 102 149        | 91 793         |

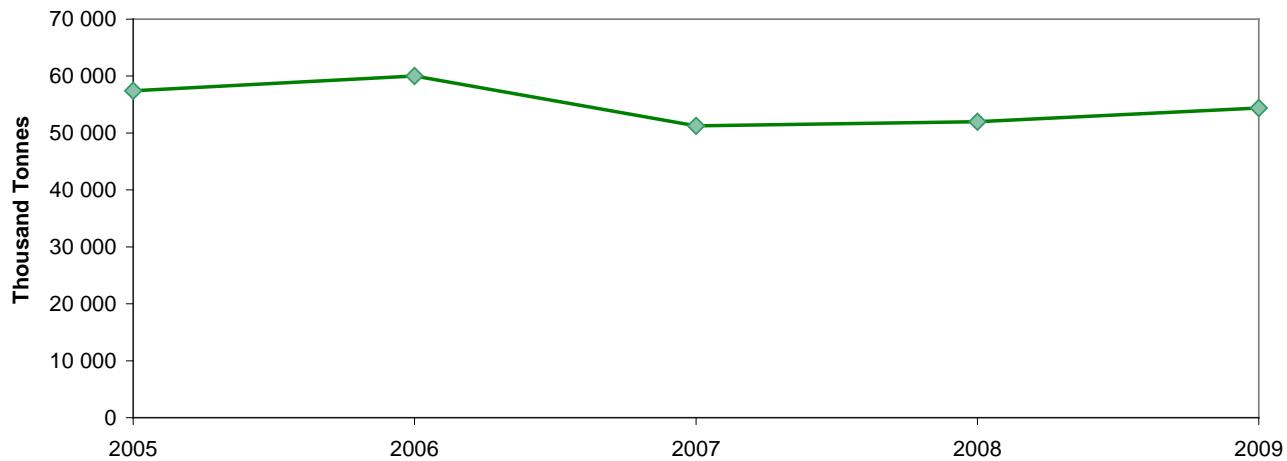
|                   |             |             |             |             | Salt<br>tonnes |
|-------------------|-------------|-------------|-------------|-------------|----------------|
| Country           | 2005        | 2006        | 2007        | 2008        | 2009           |
| Switzerland       | 539 000     | 525 000     | 353 000     | 368 000     | 554 000        |
| Turkey            |             |             |             |             |                |
| Rock salt         | 512         | ...         | ...         | ...         | ...            |
| Sea salt          | 529 235     | * 500 000   | * 500 000   | * 500 000   | * 500 000      |
| Other salt        | 1 196 486   | * 1 200 000 | 1 385 822   | 1 367 981   | * 1 300 000    |
| United Kingdom    |             |             |             |             |                |
| Rock salt         | * 2 000 000 | * 2 000 000 | * 2 000 000 | * 2 000 000 | * 2 000 000    |
| Brine salt        | * 1 000 000 | * 1 000 000 | * 1 000 000 | * 1 000 000 | * 1 000 000    |
| Salt in brine (b) | * 2 800 000 | * 2 800 000 | * 2 800 000 | * 2 800 000 | * 2 800 000    |
| EU33 Total        | 56 700 000  | 59 300 000  | 50 500 000  | 51 100 000  | 53 400 000     |

Note(s)

- (1) This table does not include production of refined salt  
(2) Salt is known to be produced in many countries for which statistics are not available.

- (a) Salt; all forms  
(b) Used for purposes other than salt-making

### EU33 Production of salt 2005 - 09



### Exports of salt

| Country              | 2005      | 2006      | 2007      | 2008      | 2009        |
|----------------------|-----------|-----------|-----------|-----------|-------------|
| Austria              | 199 133   | 202 465   | 235 775   | 388 681   | 491 981     |
| Belgium-Luxembourg   | 121 103   | 94 196    | 55 208    | 61 231    | 125 475     |
| Bulgaria             | 10 090    | 16 020    | 13 943    | 8 239     | 2 689       |
| Croatia              | 5 688     | 9 759     | 3 986     | 4 530     | 9 995       |
| Cyprus               | 635       | 521       | 769       | 956       | 2 910       |
| Czech Republic       | 13 833    | 30 648    | 18 760    | 14 116    | 31 068      |
| Denmark              | 355 887   | 115 980   | 261 895   | 265 036   | 333 383     |
| Estonia              | 149       | 572       | 429       | 121       | 277         |
| Finland              | 384       | 531       | 424       | 336       | 336         |
| France               | 407 255   | 254 487   | 363 438   | 231 953   | 277 617     |
| Germany              | 3 372 522 | 3 943 083 | 2 787 088 | 2 782 861 | 2 744 985   |
| Greece               | 50 390    | 62 896    | 37 232    | 48 908    | 47 406      |
| Hungary              | 49 578    | 45 215    | 1 459     | 1 388     | 3 434       |
| Iceland              | 2 106     | 2 647     | 5 934     | 3 718     | 2 115       |
| Ireland, Republic of | 1 521     | 2 492     | 3 867     | 8 783     | 735         |
| Italy                | 317 124   | 361 602   | 212 223   | 322 221   | 558 441     |
| Latvia               | 10 205    | 14 485    | 14 282    | 13 741    | 15 919      |
| Lithuania            | 5 895     | 7 150     | 6 761     | 6 063     | 5 437       |
| Macedonia            | 2 677     | 4 508     | 5 091     | 3 255     | 3 616       |
| Netherlands          | 3 749 442 | 4 126 810 | 4 055 898 | 3 878 601 | * 3 412 200 |

Salt

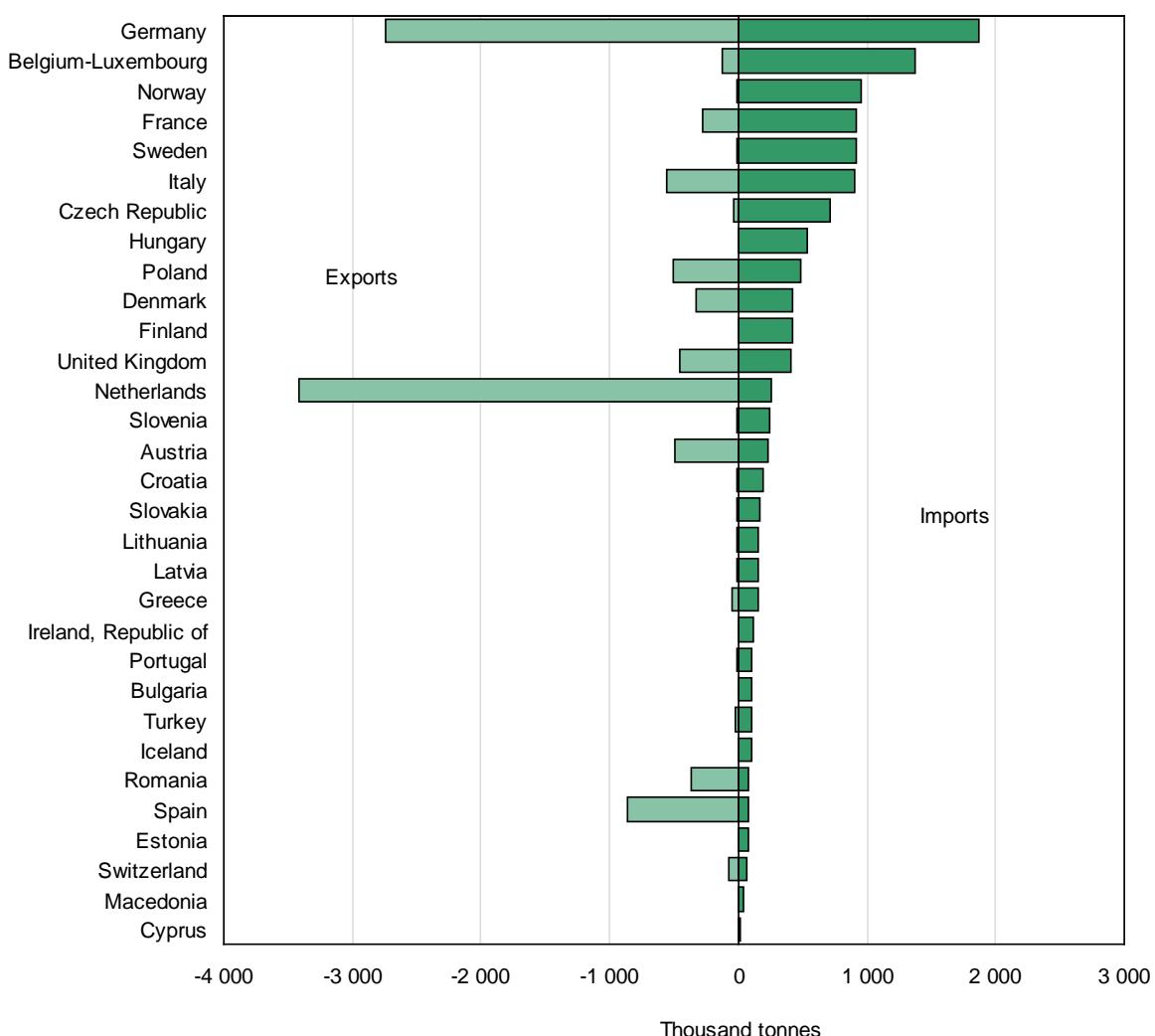
Exports continued

| Country        | 2005    | 2006    | 2007    | 2008    | 2009    |
|----------------|---------|---------|---------|---------|---------|
| Norway         | 6 679   | 9 040   | 4 178   | 4 833   | 14 998  |
| Poland         | 495 481 | 498 345 | 345 335 | 361 691 | 503 899 |
| Portugal       | 6 130   | 11 872  | 25 341  | 13 412  | 15 662  |
| Romania        | 598 154 | 503 629 | 506 641 | 486 040 | 372 501 |
| Slovakia       | 53 451  | 51 566  | 51 517  | 62 133  | 4 606   |
| Slovenia       | 8 034   | 20 702  | 18 280  | 20 590  | 15 671  |
| Spain          | 750 180 | 743 390 | 463 791 | 646 288 | 862 994 |
| Sweden         | 8 783   | 9 357   | 12 601  | 10 444  | 10 025  |
| Switzerland    | 30 461  | 62 318  | 55 916  | 37 772  | 68 947  |
| Turkey         | 22 167  | 17 095  | 11 164  | 27 393  | 26 223  |
| United Kingdom | 538 796 | 557 311 | 514 868 | 873 708 | 449 303 |

Imports of salt

| Country              | 2005      | 2006      | 2007      | 2008      | 2009      |
|----------------------|-----------|-----------|-----------|-----------|-----------|
| Austria              | 210 736   | 429 515   | 143 538   | 105 335   | 230 979   |
| Belgium-Luxembourg   | 1 315 385 | 2 275 674 | 1 230 983 | 1 220 421 | 1 371 028 |
| Bulgaria             | 165 727   | 181 801   | 71 848    | 103 007   | 102 272   |
| Croatia              | 226 931   | 193 911   | 104 066   | 176 408   | 197 644   |
| Cyprus               | 13 795    | 13 647    | 12 208    | 13 445    | 16 822    |
| Czech Republic       | 891 667   | 1 151 331 | 567 960   | 610 149   | 711 374   |
| Denmark              | 436 794   | 520 735   | 230 787   | 213 931   | 421 109   |
| Estonia              | 58 269    | 78 483    | 72 445    | 72 149    | 73 931    |
| Finland              | 438 346   | 401 961   | 409 761   | 397 033   | 417 495   |
| France               | 1 110 898 | 1 024 789 | 592 976   | 578 882   | 918 448   |
| Germany              | 2 558 898 | 2 591 036 | 2 476 738 | 2 319 273 | 1 867 023 |
| Greece               | 162 669   | 277 940   | 177 719   | 134 557   | 149 094   |
| Hungary              | 592 522   | 662 455   | 514 119   | 510 287   | 535 928   |
| Iceland              | 108 821   | 96 212    | 100 169   | 113 142   | 98 207    |
| Ireland, Republic of | 83 746    | 96 164    | 89 236    | 105 636   | 114 659   |
| Italy                | 773 507   | 863 836   | 611 435   | 572 965   | 902 241   |
| Latvia               | 139 662   | 149 696   | 123 316   | 144 424   | 151 529   |
| Lithuania            | 198 994   | 197 262   | 171 915   | 166 505   | 159 534   |
| Macedonia            | 39 178    | 40 184    | 35 657    | 37 575    | 39 232    |
| Malta                | 5 453     | 1 629     | 3 590     | 3 794     | 1 364     |
| Netherlands          | 630 738   | 1 150 949 | 193 457   | 167 508   | * 253 000 |
| Norway               | 910 846   | 1 026 541 | 988 001   | 1 075 905 | 959 630   |
| Poland               | 376 829   | 582 080   | 313 297   | 356 929   | 483 243   |
| Portugal             | 70 266    | 110 581   | 169 480   | 94 501    | 108 161   |
| Romania              | 131 683   | 113 585   | 111 681   | 92 815    | 82 569    |
| Slovakia             | 320 413   | 299 087   | 182 234   | 189 268   | 168 211   |
| Slovenia             | 207 314   | 232 017   | 148 352   | 190 017   | 239 191   |
| Spain                | 111 449   | 37 632    | 33 691    | 97 348    | 81 729    |
| Sweden               | 738 931   | 1 054 982 | 744 328   | 875 294   | 910 606   |
| Switzerland          | 48 114    | 19 300    | 8 913     | 8 988     | 70 386    |
| Turkey               | 320 147   | 285 694   | 35 382    | 257 146   | 99 400    |
| United Kingdom       | 287 623   | 246 879   | 237 772   | 237 288   | 410 434   |

## Salt - EU33 trade in 2009



## Sillimanite

### Sillimanite minerals

- Sillimanite minerals are a group of three anhydrous aluminium silicate minerals (andalusite, kyanite and sillimanite) that are chiefly used as refractories. Bricks and mortar used to line furnaces and kilns usually contain a proportion of these minerals.
- Despite being common minerals in high-grade metamorphic rocks, economic concentrations of these minerals are rare. In 2009, known production was restricted to only six countries, of which South Africa was the largest producer. China is also believed to be a significant producer of sillimanite minerals. The only major producer in the EU33 is France.

### Production of sillimanite minerals

tonnes

| Country    | 2005     | 2006     | 2007     | 2008     | 2009     |
|------------|----------|----------|----------|----------|----------|
| France     |          |          |          |          |          |
| Andalusite | * 65 000 | * 65 000 | * 65 000 | * 65 000 | * 65 000 |

#### Note(s)

- (1) A number of other countries produce sillimanite minerals but details of output are not reported
- (2) In addition to the countries listed above as producing sillimanite minerals, synthetic mullite is known to be produced in Denmark, France, Hungary and the United Kingdom

### Exports of sillimanite minerals

tonnes

| Country            | 2005   | 2006   | 2007       | 2008       | 2009       |
|--------------------|--------|--------|------------|------------|------------|
| Belgium-Luxembourg | 77 463 | 48 825 | 47 141     | 62 423     | 39 809     |
| France             | 55 052 | 59 002 | 66 776     | 66 242     | 38 494     |
| Germany            | 12 191 | 13 257 | 16 143     | 18 231     | 7 965      |
| Hungary            |        |        |            |            |            |
| Mullite            | 6 920  | 6 870  | (a)* 7 500 | (a)* 7 100 | (a)* 3 300 |
| Netherlands        | 11 444 | 7 679  | 9 689      | 10 848     | 5 602      |
| United Kingdom     | 2 417  | 1 925  | 2 430      | 2 076      | 1 414      |

#### Note(s)

- (1) In this table 'Sillimanite minerals' is understood to include any or all of andalusite, kyanite, sillimanite and mullite

(a) BGS estimates, based on known imports into certain countries

### Imports of sillimanite minerals

tonnes

| Country              | 2005   | 2006   | 2007    | 2008   | 2009   |
|----------------------|--------|--------|---------|--------|--------|
| Austria              | 2 194  | 2 100  | 3 160   | 2 639  | 1 353  |
| Belgium-Luxembourg   | 81 538 | 50 726 | 52 899  | 68 986 | 40 981 |
| Czech Republic       | 3 733  | 6 765  | 5 601   | 6 686  | 4 717  |
| Denmark              | 2 909  | 3 023  | 3 377   | 2 482  | 2 598  |
| France               | 3 080  | 4 813  | 6 026   | 6 255  | 4 536  |
| Germany              | 58 047 | 80 183 | 109 961 | 79 668 | 39 511 |
| Greece               | 25     | 62     | 734     | 2 662  | 505    |
| Hungary              | 4 519  | 3 001  | 3 428   | 4 004  | 2 541  |
| Italy                | 27 476 | 26 304 | 24 807  | 30 616 | 45 172 |
| Netherlands          | 20 001 | 24 195 | 17 488  | 24 457 | 4 189  |
| Norway               | 2 400  | 2 288  | 3 404   | 2 702  | 4 359  |
| Poland               |        |        |         |        |        |
| Sillimanite minerals | 9 975  | 21 196 | 23 321  | 16 975 | 7 852  |
| Mullite              | 2 207  | 2 012  | 4 956   | 3 728  | 1 040  |
| Portugal             | 160    | 192    | 293     | 646    | 573    |
| Slovakia             | 4 312  | 2 069  | 3 299   | 1 919  | 1 812  |
| Spain                | 27 308 | 22 102 | 27 792  | 34 909 | 21 648 |
| Sweden               | 5 086  | 5 568  | 6 381   | 5 212  | 2 395  |

## Sillimanite

Imports continued

tonnes

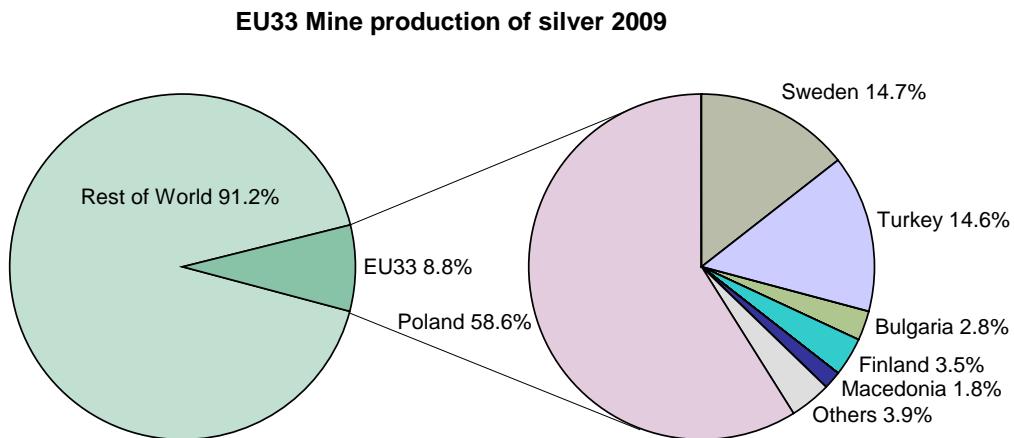
| Country              | 2005   | 2006   | 2007   | 2008   | 2009  |
|----------------------|--------|--------|--------|--------|-------|
| Switzerland          | 413    | 463    | 1 035  | 1 128  | 527   |
| Turkey               | 5 504  | 2 939  | 6 987  | 9 535  | 8 526 |
| United Kingdom       |        |        |        |        |       |
| Sillimanite minerals | 39 650 | 10 268 | 10 239 | 11 920 | 7 763 |
| Mullite              | 10 430 | 7 468  | 12 036 | 6 488  | 5 255 |

## Note(s)

(1) In this table 'Sillimanite minerals' is understood to include any or all of andalusite, kyanite, sillimanite and mullite

## Silver

- Silver is a ductile and malleable metallic element that has the highest electrical and thermal conductivity of all metals. It is widely used in electronics although the most important uses are in photography (silver nitrate) and making mirrors.
- Silver is more common than the other precious metals, although still much rarer than base and ferrous metals. It is rarely mined in its own right, and is chiefly produced as a by-product of lead, tin or copper mining. In 2009 the world's largest producers were Peru, Mexico and China, together accounting for 46 per cent of world production. The largest EU33 producer was Poland (58.6 per cent of EU33 production and five per cent of world production).

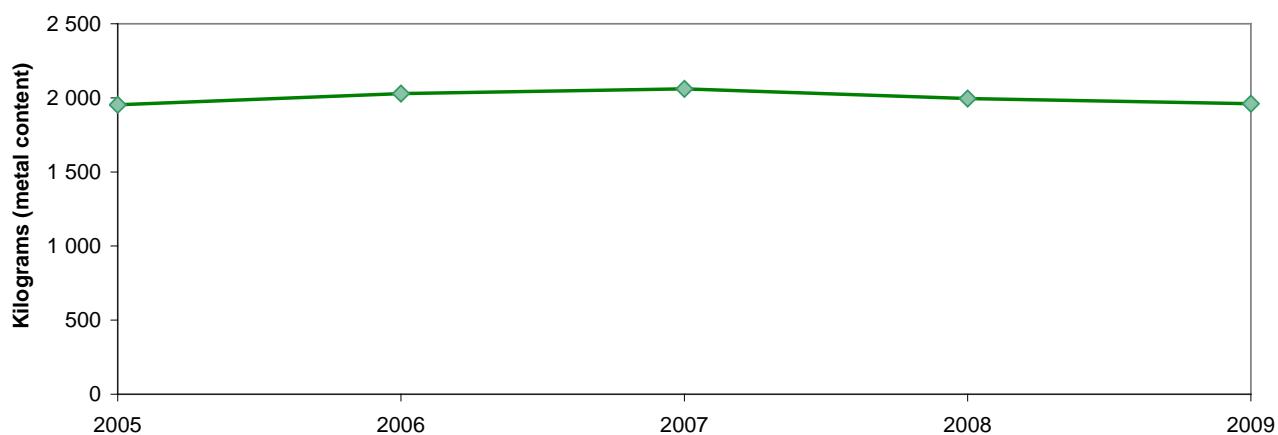


### Mine production of silver

kilograms (metal content)

| Country              | 2005      | 2006      | 2007      | 2008      | 2009      |
|----------------------|-----------|-----------|-----------|-----------|-----------|
| Bulgaria             | * 55 000  | * 65 000  | * 55 000  | * 55 000  | * 55 000  |
| Finland              | 47 462    | 50 843    | 44 895    | 69 906    | 69 600    |
| Greece               | 2 300     | 25 500    | 38 300    | 35 500    | 30 177    |
| Ireland, Republic of | 10 500    | 12 900    | 9 650     | 7 172     | 5 267     |
| Italy                | 100       | —         | —         | —         | —         |
| Macedonia            | —         | * 10 000  | * 30 000  | * 40 000  | * 35 000  |
| Poland               | 1 262 400 | 1 265 100 | 1 199 500 | 1 161 000 | 1 150 000 |
| Portugal             | 23 786    | 20 078    | 26 514    | 28 825    | 22 472    |
| Romania              | * 18 000  | * 18 000  | * 18 000  | * 18 000  | * 18 000  |
| Slovakia             | 65        | 74        | 50        | 198       | 201       |
| Spain                | 5 227     | 2 369     | —         | —         | —         |
| Sweden               | 309 933   | 292 255   | 323 171   | 293 068   | 288 590   |
| Turkey               | 219 000   | * 266 000 | * 315 000 | * 286 000 | * 286 000 |
| United Kingdom       | —         | —         | 212       | 398       | 505       |
| EU33 Total           | 1 954 000 | 2 028 000 | 2 060 000 | 1 995 000 | 1 961 000 |

## EU33 Mine production of silver 2005 - 09



## Exports of silver

kilograms

| Country              | 2005      | 2006      | 2007      | 2008      | 2009      |
|----------------------|-----------|-----------|-----------|-----------|-----------|
| Austria              |           |           |           |           |           |
| Metal                | 62 600    | 120 400   | 115 100   | 95 000    | 98 600    |
| Belgium-Luxembourg   |           |           |           |           |           |
| Ores & concentrates  | 7 200     | 8 000     | 47 600    | 33 100    | 6 200     |
| Metal                | 12 600    | 45 200    | 31 200    | 42 000    | 69 900    |
| Bulgaria             |           |           |           |           |           |
| Metal                | ...       | ...       | 49 468    | 36 516    | 58 565    |
| Croatia              |           |           |           |           |           |
| Metal                | 352       | ...       | ...       | ...       | ...       |
| Czech Republic       |           |           |           |           |           |
| Metal                | 29 337    | 98 354    | 102 968   | 117 325   | 77 000    |
| Denmark              |           |           |           |           |           |
| Metal                | 14 748    | 24 299    | 43 775    | 18 782    | 37 200    |
| Estonia              |           |           |           |           |           |
| Metal                | 93        | 26        | 9         | 13        | 955       |
| Finland              |           |           |           |           |           |
| Ores & concentrates  | 416 650   | 262 669   | 700       | 38        | —         |
| Metal                | 6 764     | 6 041     | 3 400     | 3 400     | 1 680     |
| France               |           |           |           |           |           |
| Ores & concentrates  | ...       | ...       | 26 500    | 51 100    | 1 597 157 |
| Metal                | 252 300   | 228 673   | 208 832   | 215 148   | 169 806   |
| Germany              |           |           |           |           |           |
| Metal                | 2 631 200 | 2 995 900 | 2 884 200 | 3 012 400 | 2 169 994 |
| Greece               |           |           |           |           |           |
| Metal                | 152       | 3 325     | 8 300     | 7 400     | 79 400    |
| Hungary              |           |           |           |           |           |
| Metal                | 1 033     | 395       | 527       | 139       | 1 300     |
| Ireland, Republic of |           |           |           |           |           |
| Ores & concentrates  | 19        | ...       | 2 560     | —         | —         |
| Italy                |           |           |           |           |           |
| Metal                | 564 308   | 516 281   | 547 042   | 519 148   | 383 782   |
| Lithuania            |           |           |           |           |           |
| Metal                | 245       | 300       | ...       | 600       | 200       |
| Macedonia            |           |           |           |           |           |
| Metal                | 500       | ...       | 71        | 26        | 10        |
| Netherlands          |           |           |           |           |           |
| Ores & concentrates  | ...       | 26 860    | ...       | 18 000    | ...       |
| Metal                | 93 668    | 151 077   | 144 024   | 208 300   | 196 180   |
| Norway               |           |           |           |           |           |
| Metal                | 66 139    | 52 952    | 45 461    | 59 381    | 58 979    |
| Poland               |           |           |           |           |           |
| Metal                | 318 800   | 519 800   | 1 148 300 | 1 121 900 | 1 265 200 |
| Portugal             |           |           |           |           |           |
| Ores & concentrates  | ...       | ...       | 4 000     | 13 500    | 11 500    |
| Metal                | 1 673     | 411       | 218       | 7 876     | 580       |

Silver

Exports continued

kilograms

| Country             | 2005      | 2006      | 2007      | 2008      | 2009      |
|---------------------|-----------|-----------|-----------|-----------|-----------|
| Slovakia            |           |           |           |           |           |
| Metal               | 1 872     | 3 430     | 35 036    | 6 061     | 2 700     |
| Slovenia            |           |           |           |           |           |
| Metal               | 6 382     | 3 100     | 5 200     | 8 800     | 1 600     |
| Spain               |           |           |           |           |           |
| Ores & concentrates | ...       | ...       | 1 608     | —         | 30        |
| Metal               | 11 665    | 7 915     | 13 637    | 379 675   | 233 084   |
| Sweden              |           |           |           |           |           |
| Ores & concentrates | ...       | ...       | 59 400    | ...       | —         |
| Metal               | 421 000   | 368 000   | 364 500   | 521 200   | 476 300   |
| Switzerland         |           |           |           |           |           |
| Metal               | 1 044 080 | 930 397   | 1 201 402 | 1 444 198 | 2 059 830 |
| Turkey              |           |           |           |           |           |
| Metal               | 27 323    | 8 932     | 10 700    | 20 897    | 170 009   |
| United Kingdom      |           |           |           |           |           |
| Ores & concentrates | 13 387    | ...       | 1 627     | 192       | 1 338     |
| Metal               | 2 289 098 | 1 069 383 | 2 317 951 | 6 071 009 | 943 522   |

Note(s)

- (1) This table excludes silver coin but includes silver shipped for minting  
(2) In this table the term 'metal' includes both unwrought and partly worked silver and alloys

Imports of silver

kilograms

| Country              | 2005      | 2006      | 2007      | 2008      | 2009      |
|----------------------|-----------|-----------|-----------|-----------|-----------|
| Austria              |           |           |           |           |           |
| Metal                | 127 900   | 168 300   | 151 600   | 441 900   | 431 500   |
| Belgium-Luxembourg   |           |           |           |           |           |
| Ores & concentrates  | 625       | 536 600   | 195 900   | 254 200   | 1 567 600 |
| Metal                | 175 200   | 258 700   | 443 200   | 354 200   | 233 900   |
| Bulgaria             |           |           |           |           |           |
| Metal                | ...       | ...       | 10 521    | 2 189     | 871       |
| Croatia              |           |           |           |           |           |
| Metal                | 3 837     | 5 043     | 3 684     | 3 293     | 2 353     |
| Cyprus               |           |           |           |           |           |
| Metal                | 5 675     | 2 866     | 3 746     | 2 863     | 1 993     |
| Czech Republic       |           |           |           |           |           |
| Ores & concentrates  | ...       | ...       | ...       | ...       | 5 700     |
| Metal                | 103 373   | 602 527   | 647 818   | 1 557 076 | 163 316   |
| Denmark              |           |           |           |           |           |
| Metal                | 18 173    | 26 104    | 62 049    | 51 992    | 1 873 817 |
| Estonia              |           |           |           |           |           |
| Metal                | 133 123   | 10 100    | 3 100     | 5 800     | 2 900     |
| Finland              |           |           |           |           |           |
| Metal                | 70 623    | 64 504    | 55 400    | 44 800    | 498 859   |
| France               |           |           |           |           |           |
| Ores & concentrates  | 1 955     | 16 300    | 39 800    | 21 300    | 4 279     |
| Metal                | 731 182   | 734 679   | 643 280   | 544 821   | 435 001   |
| Germany              |           |           |           |           |           |
| Ores & concentrates  | ...       | 1 323 500 | 859 400   | 6 024 500 | 2 581 290 |
| Metal                | 1 861 800 | 2 227 600 | 2 565 300 | 2 668 900 | 1 784 960 |
| Greece               |           |           |           |           |           |
| Metal                | 1 059 816 | 46 241    | 1 039 000 | 276 100   | 31 300    |
| Hungary              |           |           |           |           |           |
| Metal                | 15 711    | 206 137   | 14 581    | 8 354     | 128 985   |
| Iceland              |           |           |           |           |           |
| Metal                | 544       | 763       | 1 388     | 858       | 1 096     |
| Ireland, Republic of |           |           |           |           |           |
| Ores & concentrates  | ...       | 18 974    | 1 270     | 385       | 41        |
| Metal                | 2 611     | 5 147     | 1 045     | 29 530    | 5 320     |
| Italy                |           |           |           |           |           |
| Ores & concentrates  | 2 378     | 67 952    | 1 002     | —         | 15        |
| Metal                | 1 635 765 | 1 583 508 | 1 445 303 | 1 167 457 | 881 205   |

| Imports continued       |           |           |           |           | kilograms |
|-------------------------|-----------|-----------|-----------|-----------|-----------|
| Country                 | 2005      | 2006      | 2007      | 2008      | 2009      |
| Latvia                  |           |           |           |           |           |
| Metal                   | 189 912   | 16        | 1 450     | 1 174     | 556       |
| Lithuania               |           |           |           |           |           |
| Metal                   | 3 943     | 4 500     | 5 200     | 6 900     | 5 800     |
| Macedonia               |           |           |           |           |           |
| Metal                   | 3 813     | 3 901     | 3 612     | 3 807     | 2 229     |
| Malta                   |           |           |           |           |           |
| Metal                   | 188       | 1 800     | 600       | 5 300     | 30 400    |
| Netherlands             |           |           |           |           |           |
| Metal                   | 139 625   | 263 049   | 229 637   | 265 925   | 218 279   |
| Norway                  |           |           |           |           |           |
| Ores & concentrates     | ...       | 7 923 075 | —         | ...       | ...       |
| Metal                   | 90 331    | 64 511    | 62 077    | 67 398    | 47 040    |
| Poland                  |           |           |           |           |           |
| Metal                   | 40 100    | 28 800    | 77 000    | 95 200    | 122 900   |
| Portugal                |           |           |           |           |           |
| Metal                   | 54 309    | 36 450    | 30 616    | 22 678    | 18 602    |
| Romania                 |           |           |           |           |           |
| Metal (a)               | * 17 700  | * 18 600  | * 7 700   | * 9 400   | * 8 800   |
| Slovakia                |           |           |           |           |           |
| Metal                   | 57 439    | 6 400     | 12 200    | 8 200     | 9 000     |
| Slovenia                |           |           |           |           |           |
| Metal                   | 42 380    | 19 700    | 27 800    | 45 000    | 17 800    |
| Spain                   |           |           |           |           |           |
| Ores & concentrates     | 59 653    | 56 421    | 58 344    | 75 633    | 66 088    |
| Metal                   | 106 596   | 134 673   | 126 668   | 1 547 747 | 754 262   |
| Sweden                  |           |           |           |           |           |
| Ores & concentrates     | ...       | ...       | 21 000    | ...       | 2 330 100 |
| Metal                   | 151 000   | 137 000   | 162 900   | 122 200   | 85 300    |
| Switzerland             |           |           |           |           |           |
| Ores & concentrates (a) | * 309 400 | * 792 000 | * 39 800  | * 9 600   | * 100 900 |
| Metal                   | 1 484 207 | 1 306 866 | 849 037   | 1 520 531 | 2 136 092 |
| Turkey                  |           |           |           |           |           |
| Metal                   | 409 844   | 108 588   | 996 239   | 154 639   | 57 700    |
| United Kingdom          |           |           |           |           |           |
| Ores & concentrates     | 12 640    | 249       | 8 283     | 8 332     | 1 106     |
| Metal                   | 1 485 290 | 7 316 639 | 3 635 563 | 3 943 638 | 6 649 190 |
| Waste & scrap           | 2 282 562 | 2 741 705 | 3 049 452 | 4 222 712 | 3 311 165 |

## Note(s)

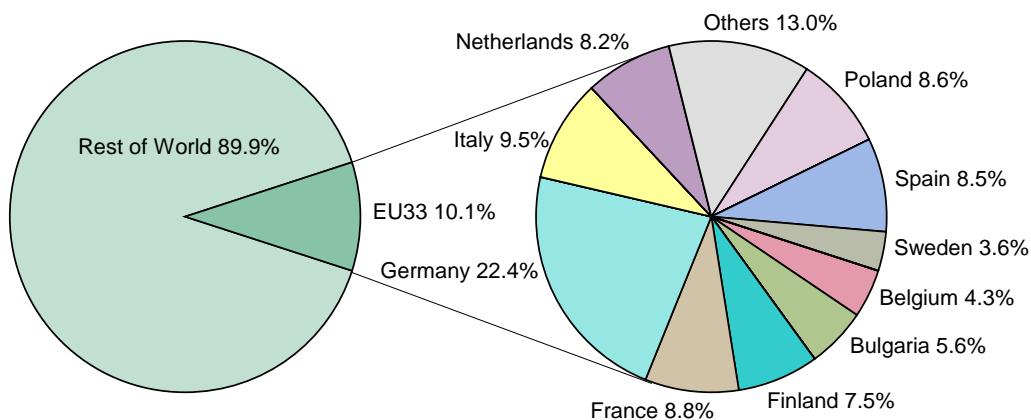
- (1) This table excludes silver coin but includes silver shipped for minting  
(2) In this table the term 'metal' includes both unwrought and partly worked silver and alloys

(a) BGS estimates, based on known exports from certain countries

## Sulphur and pyrites

- Sulphur is one of the fundamental feedstocks to the chemical industry, usually as sulphuric acid. The chief sources of sulphur are petroleum refining, natural gas, base metal sulphide processing and pyrites (iron sulphide).
- Most industrialised countries in the world have some sulphur production. The largest producers of recovered sulphur in 2009 were the USA (15 per cent of world total) and Canada (12 per cent). The largest world producer of pyrites and sulphur ore was China. In the EU33 the largest producer was Germany (22.4 per cent of EU33 production).

**EU33 Production of sulphur and pyrites 2009**



## Production of sulphur and pyrites

tonnes (sulphur content)

| Country          | 2005      | 2006      | 2007      | 2008      | 2009      |
|------------------|-----------|-----------|-----------|-----------|-----------|
| Austria          |           |           |           |           |           |
| Recovered (a)    | 54 377    | 50 097    | 50 501    | 48 024    | 48 624    |
| Belgium          |           |           |           |           |           |
| Recovered (b)(a) | 376 000   | 391 000   | 395 000   | 394 000   | 322 000   |
| Bulgaria         |           |           |           |           |           |
| Recovered (b)    | 312 000   | 340 000   | 359 000   | 352 000   | 379 000   |
| Recovered (a)    | 30 000    | 35 000    | 35 000    | 30 000    | 35 000    |
| Croatia          |           |           |           |           |           |
| Recovered (a)    | 9 000     | 7 000     | 9 000     | 7 000     | 11 000    |
| Czech Republic   |           |           |           |           |           |
| Recovered (a)    | 65 000    | 65 000    | 65 000    | 61 000    | 55 000    |
| Denmark          |           |           |           |           |           |
| Recovered (a)    | 4 223     | 4 142     | 3 896     | 3 467     | 4 200     |
| Finland          |           |           |           |           |           |
| Pyrites          | 184 400   | 199 700   | 194 400   | 226 000   | 153 600   |
| Recovered (b)    | 304 751   | 325 793   | * 326 000 | 331 000   | 273 600   |
| Recovered (a)    | 70 000    | 70 000    | 125 000   | 117 000   | 127 000   |
| France           |           |           |           |           |           |
| Recovered (a)    | 622 345   | 616 234   | 605 820   | * 590 000 | * 590 000 |
| Recovered (c)    | 127 000   | 75 000    | 62 000    | 64 000    | 65 000    |
| Germany          |           |           |           |           |           |
| Recovered (a)    | 1 627 900 | 1 706 200 | 1 650 100 | 1 578 000 | 1 624 000 |
| Recovered (c)    | 42 900    | 42 500    | 35 900    | 39 000    | ...       |
| Greece           |           |           |           |           |           |
| Recovered (a)    | 162 000   | 162 000   | 165 000   | 120 000   | 142 000   |
| Hungary          |           |           |           |           |           |
| Recovered (a)    | 65 000    | 50 000    | 65 000    | 55 000    | 50 000    |
| Italy            |           |           |           |           |           |
| Recovered (b)    | 92 000    | 87 000    | 84 000    | 82 000    | 79 000    |
| Recovered (a)    | 650 000   | 680 000   | 650 000   | 645 000   | 625 000   |
| Lithuania        |           |           |           |           |           |
| Recovered (a)    | 74 276    | 61 135    | 42 618    | 73 870    | 69 722    |

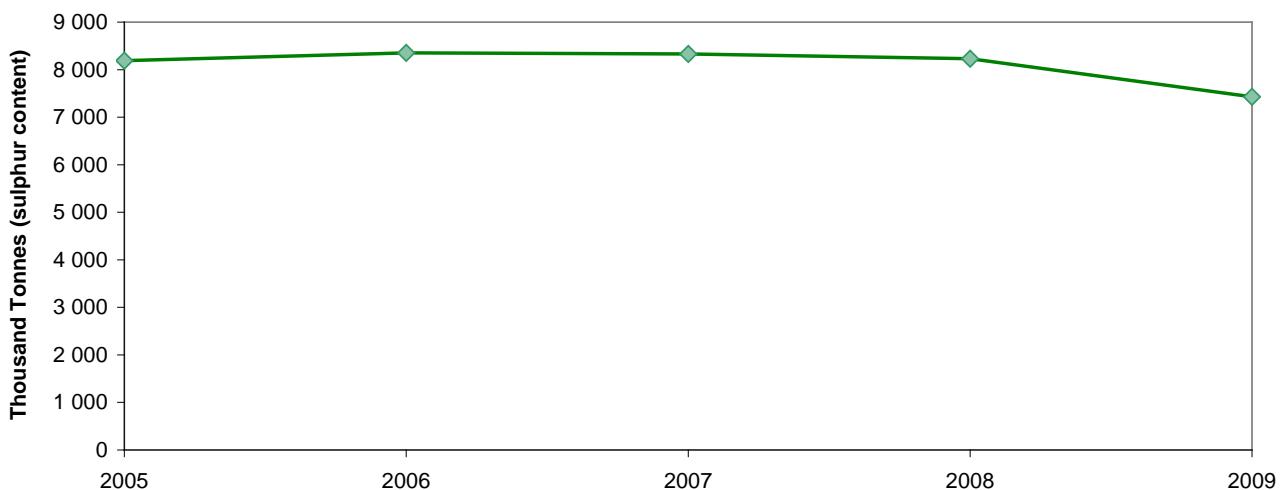
**Production of sulphur and pyrites**

tonnes (sulphur content)

| Country           | 2005      | 2006      | 2007      | 2008      | 2009      |
|-------------------|-----------|-----------|-----------|-----------|-----------|
| Netherlands       |           |           |           |           |           |
| Recovered (b)     | 141 000   | 141 000   | 116 000   | 108 000   | 98 000    |
| Recovered (a)     | 440 000   | 495 000   | 505 000   | 515 000   | 510 000   |
| Norway            |           |           |           |           |           |
| Recovered (b)     | * 110 000 | * 110 000 | * 95 000  | * 95 000  | * 90 000  |
| Recovered (a)     | 19 000    | 20 000    | 18 000    | 28 000    | 25 000    |
| Poland            |           |           |           |           |           |
| Frasch            | 801 799   | 800 200   | 833 583   | 762 119   | 262 769   |
| Recovered (b)     | 289 000   | 308 000   | * 304 000 | * 305 000 | * 300 000 |
| Recovered (a)     | 186 600   | 203 100   | 211 900   | 215 000   | 79 004    |
| Portugal          |           |           |           |           |           |
| Recovered         | 30 000    | 38 000    | 27 000    | 22 000    | 23 000    |
| Romania           |           |           |           |           |           |
| Recovered         | 79 000    | 60 000    | 64 000    | 61 000    | 74 000    |
| Slovakia          |           |           |           |           |           |
| Recovered (b)     | 5 000     | 5 000     | 5 000     | 5 000     | 5 000     |
| Recovered (a)     | 65 000    | 65 000    | 78 000    | 75 000    | 71 000    |
| Spain             |           |           |           |           |           |
| Recovered (b)     | 541 000   | 547 000   | 543 000   | 551 000   | 533 000   |
| Recovered (a)     | * 115 000 | * 100 000 | * 100 000 | * 100 000 | * 100 000 |
| Sweden            |           |           |           |           |           |
| Recovered (b)     | 180 000   | 180 000   | 177 000   | 199 600   | 186 100   |
| Recovered (a)     | 59 839    | 68 391    | 66 569    | 84 456    | 83 646    |
| Turkey            |           |           |           |           |           |
| Pyrites           | 55 000    | 59 000    | 61 000    | 79 000    | 79 000    |
| Recovered (a) (c) | 76 000    | 73 000    | 73 000    | 73 000    | 73 000    |
| United Kingdom    |           |           |           |           |           |
| Recovered (a)     | 124 000   | 115 000   | 130 000   | 135 000   | 145 000   |
| EU33 Total        |           |           |           |           |           |
| Pyrites           | 239 000   | 259 000   | 255 000   | 305 000   | 233 000   |
| Frasch            | 802 000   | 800 000   | 834 000   | 762 000   | 263 000   |
| Recovered         | 7 149 000 | 7 297 000 | 7 242 000 | 7 162 000 | 6 935 000 |

## Note(s)

- (a) From petroleum refining and/or natural gas
- (b) From metal sulphide processing
- (c) Other

**EU33 Production of sulphur and pyrites 2005 - 09**

Sulphur and Pyrites

**Exports of sulphur and pyrites**

tonnes

| Country                          | 2005      | 2006     | 2007     | 2008      | 2009     |
|----------------------------------|-----------|----------|----------|-----------|----------|
| Austria                          |           |          |          |           |          |
| Pyrites                          | 2 641     | 2 881    | 2 645    | 2 672     | 1 740    |
| Sulphur                          | 141       | 225      | 3 006    | 3 292     | 472      |
| Sulphur, sublimed & precipitated | 9 245     | 4 881    | 492      | 3 906     | 7 423    |
| Belgium-Luxembourg               |           |          |          |           |          |
| Sulphur                          | 47 927    | 38 494   | 18 393   | 73 317    | 74 240   |
| Sulphur, sublimed & precipitated | 290       | 465      | 531      | 368       | 345      |
| Bulgaria                         |           |          |          |           |          |
| Sulphur                          | 25 019    | 31 737   | 33 039   | 28 993    | 20 840   |
| Croatia                          |           |          |          |           |          |
| Sulphur                          | 8 028     | 6 606    | 8 614    | 7 604     | 8 664    |
| Czech Republic                   |           |          |          |           |          |
| Sulphur                          | 9 294     | 11 718   | 5 579    | 16 670    | 20 153   |
| Sulphur, sublimed & precipitated | 503       | 113      | 114      | 658       | 86       |
| Finland                          |           |          |          |           |          |
| Pyrites (a)                      | * 100 000 | * 73 000 | * 90 000 | * 386 000 | * 88 000 |
| Sulphur                          | 3 135     | 3 674    | 3 513    | 2 521     | 35 701   |
| France                           |           |          |          |           |          |
| Sulphur                          | 361 594   | 294 003  | 59 934   | 246 005   | 313 229  |
| Sulphur, sublimed & precipitated | 642       | 619      | 680      | 2 843     | 445      |
| Germany                          |           |          |          |           |          |
| Pyrites                          | 240       | 486      | 741      | 485       | 320      |
| Sulphur                          | 898 820   | 796 341  | 828 544  | 654 808   | 681 563  |
| Greece                           |           |          |          |           |          |
| Pyrites                          | 4 306     | 16 495   | 73 606   | 63 893    | 24 429   |
| Sulphur                          | 138       | 43 773   | 52 668   | 16 345    | 4 044    |
| Hungary                          |           |          |          |           |          |
| Sulphur                          | 36 471    | 34 850   | 43 178   | 43 649    | 39 638   |
| Italy                            |           |          |          |           |          |
| Pyrites                          | 4 763     | 8 646    | 8 024    | 10 071    | 6 005    |
| Sulphur                          | 225 403   | 290 353  | 263 362  | 219 095   | 256 614  |
| Sulphur, sublimed & precipitated | 2 159     | 36 881   | 39 061   | 4 693     | 21 430   |
| Lithuania                        |           |          |          |           |          |
| Sulphur                          | 3 851     | 1        | 7        | 1 517     | 14 038   |
| Netherlands                      |           |          |          |           |          |
| Pyrites                          | 82 502    | 82 883   | 102 300  | 132 802   | 10 039   |
| Sulphur                          | 248 680   | 436 669  | 460 352  | 850 183   | 36 898   |
| Norway                           |           |          |          |           |          |
| Sulphur                          | 1         | 20       | 3 325    | —         | —        |
| Poland                           |           |          |          |           |          |
| Sulphur                          | 575 796   | 478 736  | 555 603  | 446 202   | 152 484  |
| Sulphur, sublimed & precipitated | 17 364    | 18 426   | 26 376   | 27 041    | 29 540   |
| Portugal                         |           |          |          |           |          |
| Sulphur                          | 28 122    | 9 747    | 15 410   | 7 539     | 5 737    |
| Sulphur, sublimed & precipitated | 80        | 500      | 1        | 136       | 15       |
| Romania                          |           |          |          |           |          |
| Pyrites                          | 42        | 73       | 0        | 994       | 6 315    |
| Sulphur                          | 54 917    | 43 255   | 45 579   | 59 030    | 49 052   |
| Slovakia                         |           |          |          |           |          |
| Sulphur, sublimed & precipitated | 60 776    | 63 019   | 75 817   | 71 373    | 72 613   |
| Spain                            |           |          |          |           |          |
| Sulphur                          | 45 690    | 76 771   | 77 220   | 116 213   | 198 585  |
| Sweden                           |           |          |          |           |          |
| Sulphur                          | 16 883    | 12 071   | 5 168    | 5 525     | 3 018    |
| Sulphur, sublimed & precipitated | 239       | 5 719    | 10 959   | 13 128    | 12 242   |
| Turkey                           |           |          |          |           |          |
| Sulphur                          | 638       | 152      | 7 091    | 21 289    | 6 495    |
| Sulphur, sublimed & precipitated | 127       | 170      | 15 376   | 17 259    | 14 769   |
| United Kingdom                   |           |          |          |           |          |
| Sulphur, crude                   | 105       | 113      | 8 207    | 13 182    | 2 545    |
| Sulphur, refined                 | 326       | 643      | 15 268   | 27 872    | 38 723   |
| Sulphur, sublimed & precipitated | 1 458     | 1 312    | 624      | 1 144     | 1 902    |

Note(s)

(a) BGS estimates, based on known imports into certain countries

**Imports of sulphur and pyrites**

tonnes

| Country                          | 2005    | 2006        | 2007        | 2008    | 2009        |
|----------------------------------|---------|-------------|-------------|---------|-------------|
| Austria                          |         |             |             |         |             |
| Pyrites                          | 3 251   | 3 537       | 3 809       | 3 754   | 1 614       |
| Sulphur                          | 60 054  | 70 350      | 84 659      | 89 038  | 68 881      |
| Sulphur, sublimed & precipitated | 9 589   | 10 850      | 5 556       | 17 842  | 14 961      |
| Belgium-Luxembourg               |         |             |             |         |             |
| Sulphur, crude                   | 167 624 | ...         | ...         | 265 363 | ...         |
| Sulphur, refined                 | 322 649 | (a) 574 515 | (a) 506 662 | 351 577 | (a) 463 971 |
| Sulphur, sublimed & precipitated | 127     | 156         | 311         | 1 852   | 750         |
| Bulgaria                         |         |             |             |         |             |
| Sulphur                          | 1 076   | 767         | 1 039       | 487     | 162         |
| Croatia                          |         |             |             |         |             |
| Pyrites                          | 101     | 122         | 75          | 32      | 124         |
| Sulphur                          | 70 897  | 86 431      | 71 965      | 98 785  | 10 349      |
| Sulphur, sublimed & precipitated | 1 923   | 3 492       | 2 425       | 4       | 51          |
| Cyprus                           |         |             |             |         |             |
| Sulphur                          | 1 356   | 893         | 995         | 895     | 1 011       |
| Czech Republic                   |         |             |             |         |             |
| Pyrites                          | 134     | 223         | 281         | 1 576   | 299         |
| Sulphur                          | 16 983  | 40 147      | 55 196      | 43 473  | 20 986      |
| Sulphur, sublimed & precipitated | 89 595  | 70 555      | 57 410      | 65 242  | 71 033      |
| Denmark                          |         |             |             |         |             |
| Sulphur                          | 7 066   | 2 335       | 204         | 2 082   | 4 447       |
| Finland                          |         |             |             |         |             |
| Sulphur                          | 310     | 11 925      | 415         | 9 073   | 1 673       |
| France                           |         |             |             |         |             |
| Pyrites                          | 4 521   | 2 533       | 160         | 173     | 159         |
| Sulphur                          | 82 326  | 72 785      | 56 072      | 50 092  | 55 212      |
| Sulphur, sublimed & precipitated | 5 809   | 2 439       | 797         | 5 861   | 403         |
| Germany                          |         |             |             |         |             |
| Pyrites                          | 62 686  | 76 343      | 92 569      | 109 955 | 52 641      |
| Sulphur                          | 46 127  | 31 267      | 51 785      | 53 602  | 38 246      |
| Sulphur, sublimed & precipitated | 4 389   | 1 363       | 2 007       | 2 964   | 2 856       |
| Greece                           |         |             |             |         |             |
| Pyrites                          | ...     | 31 906      | 94 621      | 40 754  | 3           |
| Sulphur                          | 68 765  | 3 933       | 35 625      | 42 733  | 26 673      |
| Hungary                          |         |             |             |         |             |
| Sulphur (b)                      | * 1 400 | * 3 400     | * 1 200     | * 1 400 | * 1 200     |
| Sulphur, sublimed & precipitated | 362     | 326         | 174         | 586     | 186         |
| Ireland, Republic of             |         |             |             |         |             |
| Sulphur, sublimed & precipitated | 2 327   | 2 486       | 887         | 305     | 74          |
| Italy                            |         |             |             |         |             |
| Pyrites                          | 15 548  | 17 741      | 14 879      | 20 984  | 228         |
| Sulphur                          | 13 647  | 11 691      | 16 271      | 48 618  | 13 305      |
| Sulphur, sublimed & precipitated | 328     | 375         | 414         | 2 711   | 3 617       |
| Latvia                           |         |             |             |         |             |
| Sulphur                          | 6       | 7           | 8           | 9       | 12 488      |
| Lithuania                        |         |             |             |         |             |
| Sulphur                          | 306 635 | 320 658     | 317 678     | 293 365 | 319 353     |
| Sulphur, sublimed & precipitated | 560     | 607         | 0           | 404     | 18          |
| Netherlands                      |         |             |             |         |             |
| Pyrites                          | 8 896   | 95          | 80          | 145 627 | 2 119       |
| Sulphur                          | 37 083  | 23 928      | 38 189      | 55 173  | 11 430      |
| Sulphur, sublimed & precipitated | 37 484  | —           | ...         | 0       | 2           |
| Norway                           |         |             |             |         |             |
| Pyrites                          | 26 940  | ...         | ...         | 77      | ...         |
| Sulphur                          | 16 413  | 11 983      | 5 224       | 4 690   | 3 102       |
| Sulphur, sublimed & precipitated | 240     | 5 571       | 10 790      | 12 932  | 12 127      |
| Poland                           |         |             |             |         |             |
| Pyrites                          | 1 013   | 5 065       | 1 582       | 5 768   | 813         |
| Sulphur                          | 78 274  | 83 432      | 74 805      | 104 300 | 35 350      |
| Sulphur, sublimed & precipitated | 3       | 52          | 10          | 105     | 978         |
| Portugal                         |         |             |             |         |             |
| Sulphur                          | 5 878   | 4 485       | 3 233       | 2 852   | 3 366       |
| Romania                          |         |             |             |         |             |
| Pyrites                          | ...     | ...         | 3           | 1 072   | 1           |
| Sulphur                          | 964     | 1 413       | 1 959       | 2 390   | 1 884       |
| Sulphur, sublimed & precipitated | 113     | 112         | 2           | 180     | 1 254       |

## Sulphur and Pyrites

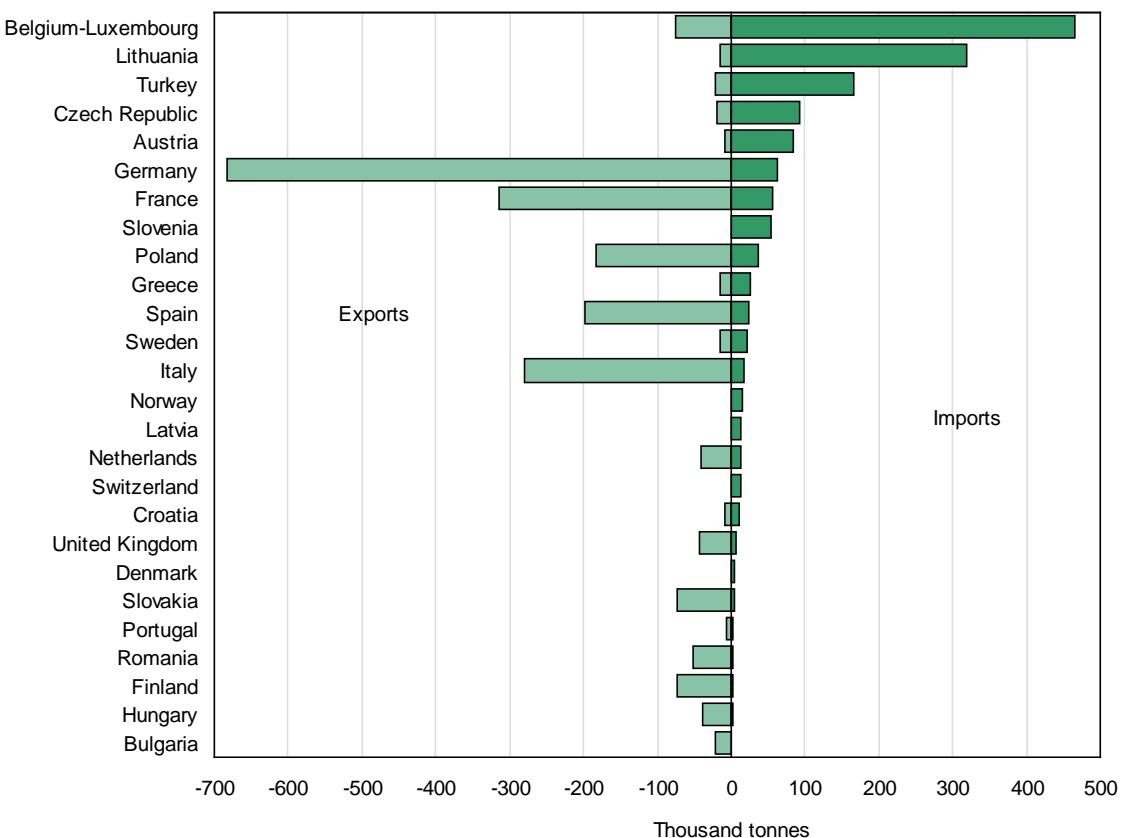
### Imports continued

| Country                          | 2005    | 2006    | 2007    | 2008    | 2009    |
|----------------------------------|---------|---------|---------|---------|---------|
| Slovakia                         |         |         |         |         |         |
| Sulphur                          | 3 669   | 3 454   | 4 339   | 4 553   | 2 462   |
| Sulphur, sublimed & precipitated | 689     | 266     | 753     | 1 518   | 1 046   |
| Slovenia                         |         |         |         |         |         |
| Pyrites                          | 400     | 463     | 612     | 683     | 353     |
| Sulphur                          | 58 287  | 58 159  | 53 434  | 56 381  | 53 615  |
| Sulphur, sublimed & precipitated | 88      | 135     | 1       | 7       | 1       |
| Spain                            |         |         |         |         |         |
| Pyrites                          | 1 542   | 1 478   | 2 585   | 1 903   | 958     |
| Sulphur                          | 188 096 | 133 552 | 152 566 | 153 575 | 24 015  |
| Sulphur, sublimed & precipitated | 243     | 296     | 265     | 372     | 187     |
| Sweden                           |         |         |         |         |         |
| Pyrites                          | 319     | 557     | 750     | 691     | 544     |
| Sulphur                          | 71 337  | 82 246  | 94 449  | 78 784  | 21 772  |
| Sulphur, sublimed & precipitated | 16      | 23      | 4       | 112     | 143     |
| Switzerland                      |         |         |         |         |         |
| Pyrites                          | 76      | 69      | 51      | 135     | 68      |
| Sulphur                          | 24 977  | 19 369  | 20 982  | 17 425  | 12 086  |
| Turkey                           |         |         |         |         |         |
| Pyrites                          | 94      | 231     | 252     | 224     | 67      |
| Sulphur                          | 139 197 | 162 187 | 168 952 | 128 685 | 164 034 |
| Sulphur, sublimed & precipitated | 111     | 111     | 194     | 321     | 1 315   |
| United Kingdom                   |         |         |         |         |         |
| Pyrites                          | 26      | 19      | 105     | 704     | 104     |
| Sulphur, crude                   | 24 222  | 11 608  | 5 101   | 64      | 74      |
| Sulphur, refined                 | 7 263   | 7 334   | 8 577   | 9 574   | 6 211   |
| Sulphur, sublimed & precipitated | 577     | 1 297   | 1 073   | 1 186   | 473     |

### Note(s)

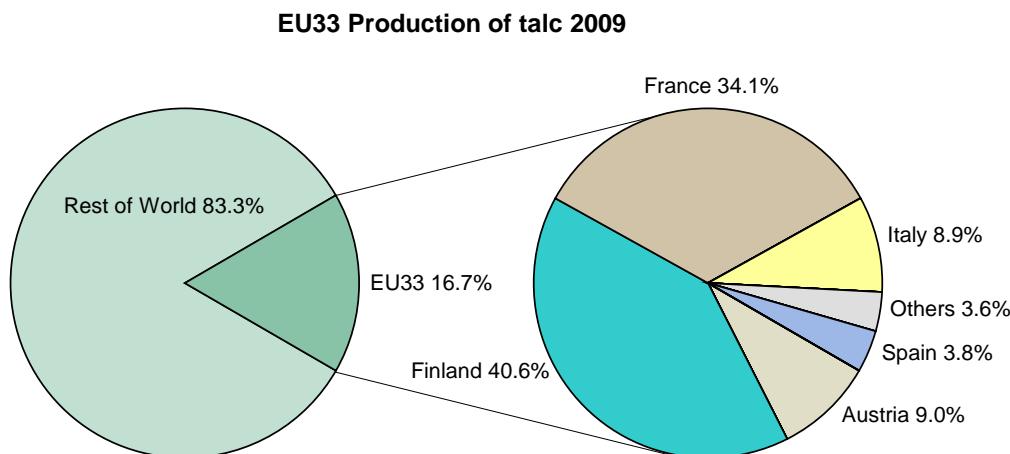
- (a) Including crude
- (b) BGS estimates, based on known exports from certain countries

## Sulphur and pyrites - EU33 trade in 2009



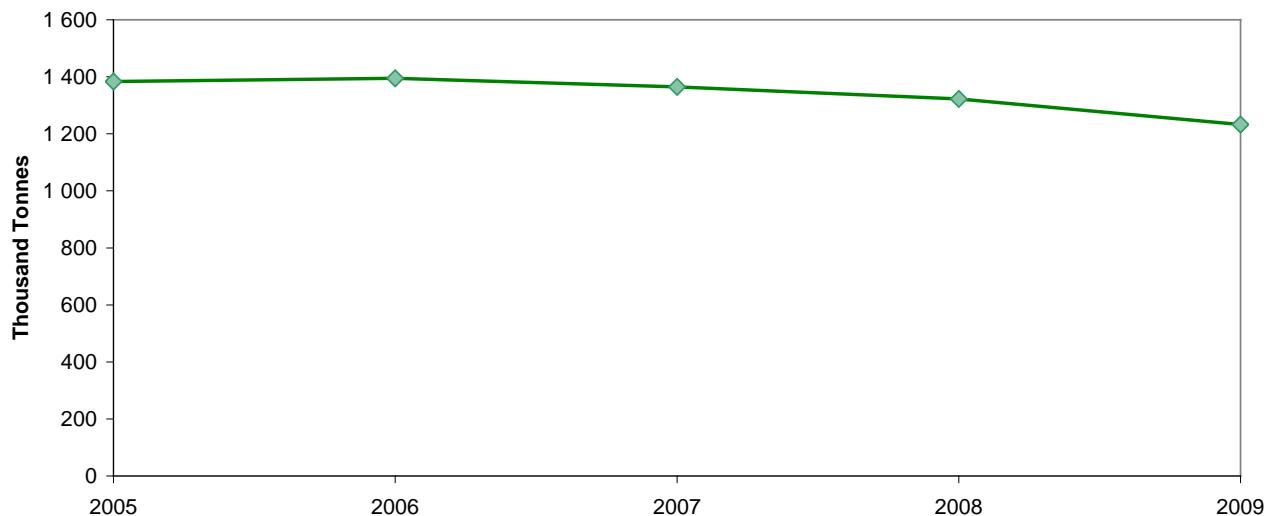
## Talc

- Talc is a soft hydrous magnesium silicate mineral. It is frequently coloured by the presence of iron-bearing minerals and trace elements but usually turns white when finely ground. The familiar use of talc as a cosmetic powder is minor compared to industrial usage. Talc is chiefly used as a filler in paint, plastics, pharmaceuticals, adhesives and rubber. It is also extensively used in ceramics manufacture and as a filler and coater in the paper industry.
- In 2009 the largest world producer was China with an estimated 31 per cent of world production. The EU33 countries contributed 16.7 per cent to the world total and the largest producer was Finland, which accounted for 40.6 per cent of EU33 production.



## Production of talc

| Country        | 2005      | 2006      | 2007      | 2008      | 2009      |
|----------------|-----------|-----------|-----------|-----------|-----------|
| Austria        | 166 569   | 159 447   | 153 409   | 154 577   | 111 388   |
| Finland        | 508 169   | 547 146   | 535 882   | 527 686   | * 500 000 |
| France         | 416 000   | * 420 000 | * 420 000 | * 420 000 | * 420 000 |
| Greece         | 250       | * 250     | 200       | * 200     | * 200     |
| Italy          | 140 581   | 130 714   | 117 643   | * 110 000 | * 110 000 |
| Macedonia      | 1 955     | 1 025     | 1 775     | 977       | —         |
| Norway         | 34 000    | * 34 000  | * 34 000  | * 30 000  | 23 350    |
| Portugal       | 5 362     | 5 517     | 12 367    | 11 220    | 11 567    |
| Romania        | 6 760     | 2 967     | 1 513     | 1 843     | * 2 000   |
| Slovakia       | 200       | —         | —         | ...       | ...       |
| Spain          |           |           |           |           |           |
| Talc           | 90 589    | 83 502    | 78 042    | 59 299    | 47 218    |
| Pyrophyllite   | 700       | —         | —         | —         | —         |
| Sweden         | 7 000     | 6 000     | 7 000     | 4 000     | 4 000     |
| United Kingdom | 6 000     | 4 325     | 2 850     | 2 410     | 2 861     |
| EU33 Total     | 1 383 000 | 1 395 000 | 1 365 000 | 1 322 000 | 1 233 000 |

**EU33 Production of talc 2005 - 09****Exports of talc**

tonnes

| Country            | 2005      | 2006      | 2007      | 2008      | 2009      |
|--------------------|-----------|-----------|-----------|-----------|-----------|
| Austria            | 158 799   | 165 923   | 153 457   | 135 390   | 106 423   |
| Belgium-Luxembourg | 168 900   | 144 081   | 165 105   | 139 619   | 113 000   |
| Finland (a)        | * 278 000 | * 246 000 | * 284 000 | * 320 000 | * 174 000 |
| France             | 279 659   | 273 706   | 276 014   | 269 771   | 224 419   |
| Germany            | 3 906     | 4 790     | 5 394     | 6 382     | 3 662     |
| Greece             | 3 479     | 4 065     | 5 016     | 3 926     | 3 898     |
| Italy              | 120 920   | 122 148   | 131 071   | 114 017   | 124 212   |
| Macedonia          | 789       | 735       | 1 124     | 509       | 528       |
| Netherlands        | 183 270   | 190 668   | 199 896   | 186 688   | 147 544   |
| Norway             | 28 448    | 31 834    | 33 032    | 27 371    | 23 461    |
| Portugal           | 1 614     | 6 013     | 4 243     | 3 841     | 2 699     |
| Slovakia           | 1 051     | 1 011     | 1 494     | 1 994     | 45        |
| Spain              | 56 493    | 47 142    | 39 689    | 51 180    | 29 580    |
| Sweden             | 10 080    | 7 556     | 9 415     | 9 227     | 8 032     |
| Turkey             | 2 806     | 1 195     | 1 742     | 1 636     | 1 712     |
| United Kingdom     | 5 244     | 4 626     | 2 389     | 3 129     | 2 402     |

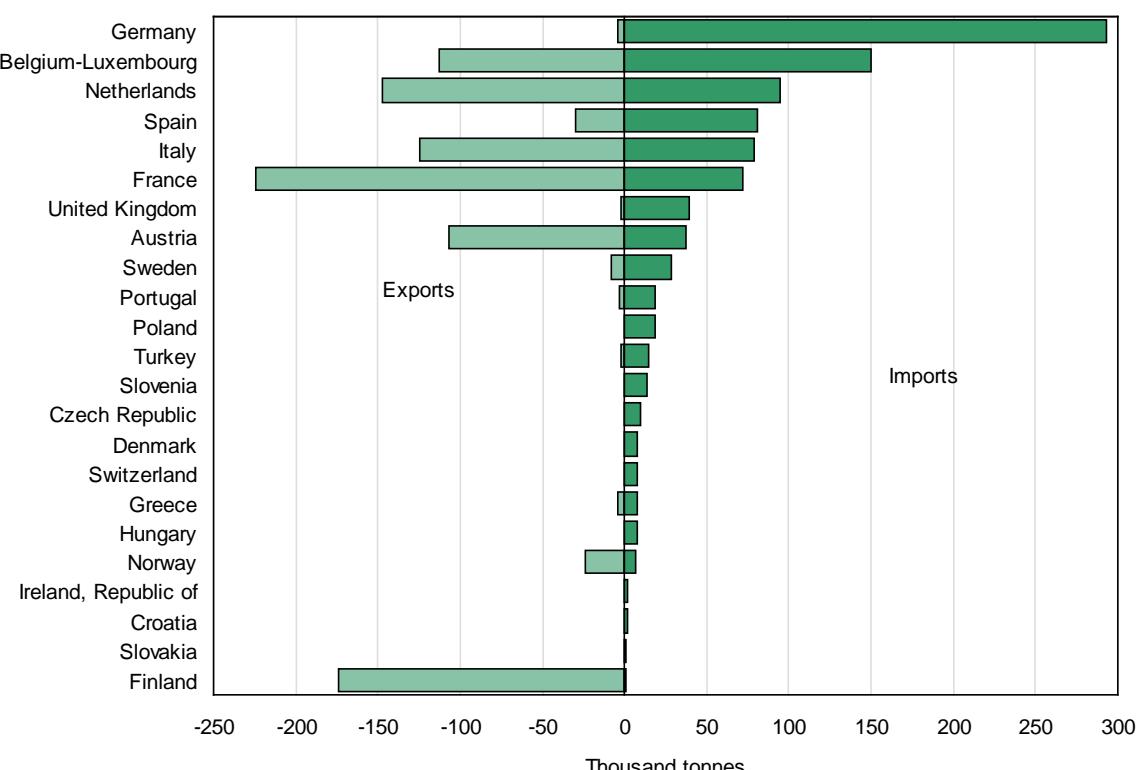
## Note(s)

(a) BGS estimates, based on known imports into certain countries

## Imports of talc

| Country              | 2005    | 2006    | 2007    | 2008    | 2009    |
|----------------------|---------|---------|---------|---------|---------|
| Austria              | 50 768  | 49 900  | 58 500  | 68 797  | 37 648  |
| Belgium-Luxembourg   | 224 624 | 186 227 | 202 593 | 194 833 | 149 768 |
| Bulgaria             | 599     | 626     | 688     | 1 048   | 747     |
| Croatia              | 1 378   | 1 753   | 1 985   | 1 709   | 1 721   |
| Cyprus               | 386     | 307     | 343     | 521     | 290     |
| Czech Republic       | 9 986   | 10 855  | 12 993  | 11 007  | 9 312   |
| Denmark              | 14 103  | 13 299  | 10 830  | 12 055  | 8 035   |
| Estonia              | 300     | 295     | 418     | 331     | 332     |
| Finland              | 866     | 757     | 663     | 503     | 525     |
| France               | 76 021  | 59 853  | 77 772  | 76 147  | 72 274  |
| Germany              | 376 618 | 345 863 | 347 230 | 338 606 | 293 417 |
| Greece               | 9 937   | 10 000  | 8 550   | 12 372  | 7 862   |
| Hungary              | ...     | 8 175   | 9 224   | 8 875   | 7 566   |
| Ireland, Republic of | 2 632   | 1 278   | 375     | 473     | 1 722   |
| Italy                | 125 913 | 129 218 | 140 461 | 147 549 | 78 506  |
| Latvia               | 105     | 217     | 396     | 417     | 314     |
| Lithuania            | 402     | 463     | 511     | 388     | 225     |
| Malta                | 302     | 271     | 179     | 295     | 263     |
| Netherlands          | 206 485 | 243 071 | 225 720 | 207 922 | 94 407  |
| Norway               | 16 488  | 10 991  | 13 374  | 8 020   | 6 517   |
| Poland               | 20 536  | 22 348  | 23 122  | 28 186  | 18 325  |
| Portugal             | 23 583  | 30 955  | 36 089  | 26 774  | 18 537  |
| Romania              | 1 962   | 2 101   | 2 006   | 1 971   | 1 105   |
| Slovakia             | 1 552   | 4 174   | 1 344   | 2 448   | 1 030   |
| Slovenia             | 5 357   | 5 297   | 5 301   | 12 860  | 13 756  |
| Spain                | 80 726  | 87 578  | 96 298  | 85 942  | 81 043  |
| Sweden               | 45 376  | 44 669  | 48 746  | 45 801  | 28 459  |
| Switzerland          | 10 254  | 10 786  | 10 360  | 8 756   | 7 987   |
| Turkey               | 15 454  | 17 143  | 18 549  | 17 706  | 14 893  |
| United Kingdom       | 65 496  | 55 200  | 54 812  | 53 864  | 39 520  |

## Talc - EU33 trade in 2009



## Tantalum and niobium

- Tantalum and niobium are produced from their ores, sometimes combined in one mineral. Tantalum is also produced from tin refinery slags. Tantalum is a heavy, very hard, ductile metallic element that has a very high melting point (2996°C) and is strongly resistant to chemical attack. It is used chiefly in electronic applications, especially in miniature capacitors, such as those in mobile telephones. Niobium is a soft and ductile metallic element that is used mainly in special steels and superalloys.
- The largest producer of tantalum in 2009 was Rwanda (approximately 26 per cent of the world's total) because Australia's output dropped by 85 per cent due to the temporary closure of its mines. The largest producer of niobium ores was Brazil (> 90 per cent). There was no production in the EU33, which is entirely import dependent.

### Exports of tantalum

| Country            | 2005 | 2006 | 2007 | 2008 | 2009 |
|--------------------|------|------|------|------|------|
| Austria            | —    | —    | 13   | 20   | 35   |
| Belgium-Luxembourg | ...  | 0    | 3    | 26   | 3    |
| Czech Republic     | 68   | 53   | 66   | 97   | 62   |
| Estonia            | 65   | 51   | 43   | 67   | 47   |
| France             | 101  | 9    | 21   | 18   | 37   |
| Germany            | 190  | 294  | 199  | 299  | 8    |
| Lithuania          | 5    | 5    | 48   | 31   | 11   |
| Netherlands        | 3    | 76   | 2    | 2    | 4    |
| Portugal           | 15   | 4    | 63   | 48   | 49   |
| Switzerland        | 27   | 17   | 14   | 7    | 1    |
| United Kingdom     | 131  | 83   | 77   | 55   | 72   |

## Note(s)

(1) Metal traded in ferro-alloy form is included under iron, steel and ferro-alloys

### Imports of tantalum

| Country        | 2005 | 2006 | 2007 | 2008 | 2009 |
|----------------|------|------|------|------|------|
| Austria        | 0    | 0    | 70   | —    | —    |
| Czech Republic | 141  | 164  | 206  | 253  | 141  |
| France         | 23   | 55   | 83   | 84   | 43   |
| Germany        | 164  | 148  | 125  | 188  | 67   |
| Lithuania      | 10   | 11   | 47   | 38   | 24   |
| Netherlands    | 12   | 6    | 8    | 10   | 4    |
| Poland         | 1    | 0    | 3    | 52   | 1    |
| Portugal       | 115  | 103  | 69   | 83   | 22   |
| Spain          | 62   | 10   | 112  | —    | 3    |
| United Kingdom | 97   | 119  | 96   | 161  | 145  |

## Note(s)

(1) Metal traded in ferro-alloy form is included under iron, steel and ferro-alloys

## Tin

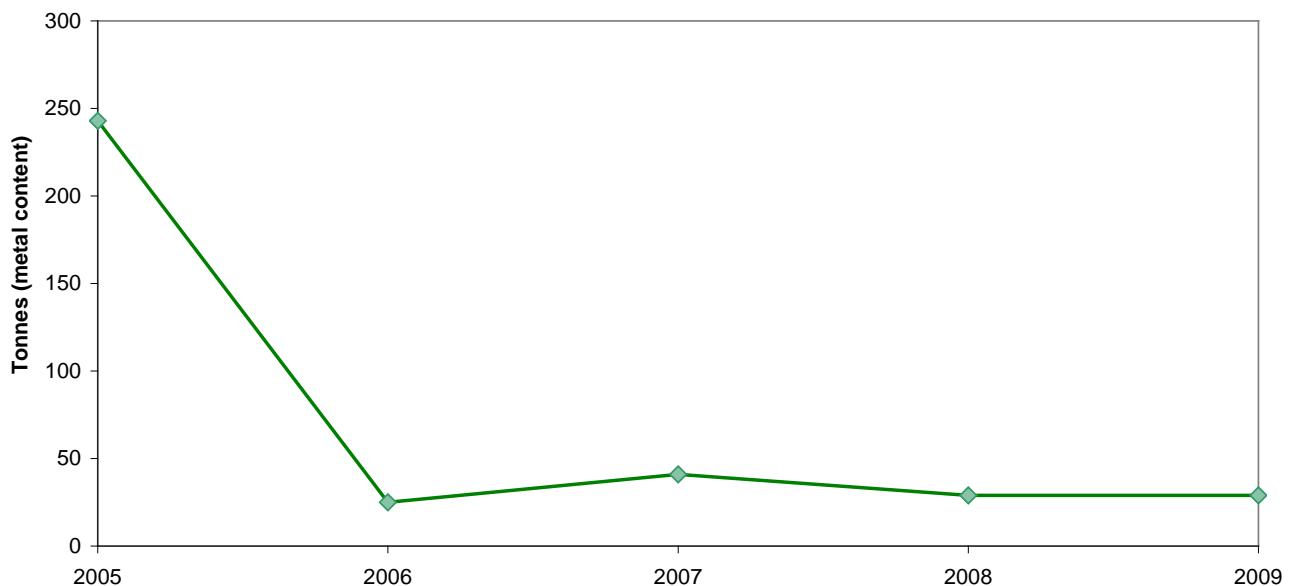
- Tin is a malleable and ductile metal that is resistant to corrosion. The chief use of tin is to coat metals that are more susceptible to corrosion, especially steel. It is also widely used as an alloying agent (i.e. with lead to make pewter) and its use in solders is rapidly growing as it replaces lead. Tin chemicals are used as fungicides and other biocides.
- World mine production is dominated by China with an estimated 46 per cent of the world total in 2009, while mine production from the EU33 countries is limited to a small amount from Portugal. World production of refined tin is also dominated by China with 43 per cent of the world total in 2009. Production within the EU33 countries occurs only in Belgium, which produces nearly three per cent of the world total from imported ores.

### Mine production of tin

tonnes (metal content)

| Country  | 2005 | 2006 | 2007 | 2008 | 2009 |
|----------|------|------|------|------|------|
| Portugal | 243  | 25   | 41   | 29   | 34   |

EU33 Mine production of tin 2005 - 09



### Smelter production of tin

tonnes

| Country | 2005  | 2006  | 2007  | 2008  | 2009  |
|---------|-------|-------|-------|-------|-------|
| Belgium | 7 700 | 8 000 | 8 400 | 9 200 | 8 700 |

**Exports of tin**

tonnes

| Country              | 2005  | 2006    | 2007  | 2008  | 2009  |
|----------------------|-------|---------|-------|-------|-------|
| Austria              |       |         |       |       |       |
| Unwrought (a)        | 116   | 110     | 167   | 177   | 71    |
| Scrap                | 62    | 125     | 103   | 141   | 53    |
| Belgium-Luxembourg   |       |         |       |       |       |
| Concentrates         | 286   | 118     | 68    | 161   | 42    |
| Unwrought            | 6 814 | 1 633   | 2 734 | 7 274 | 4 753 |
| Unwrought alloys     | 388   | 7 421   | 7 072 | 2 448 | 5 000 |
| Scrap                | 362   | 216     | 148   | 233   | 127   |
| Czech Republic       |       |         |       |       |       |
| Unwrought (a)        | 381   | 74      | 253   | 86    | 76    |
| Scrap                | 65    | 249     | 958   | 85    | 118   |
| Denmark              |       |         |       |       |       |
| Scrap                | 68    | 124     | 90    | 28    | 37    |
| Estonia              |       |         |       |       |       |
| Scrap                | 125   | 17      | 71    | 88    | 124   |
| Finland              |       |         |       |       |       |
| Unwrought (a)        | 66    | 95      | 56    | 77    | 36    |
| Scrap                | 58    | 89      | 201   | 193   | 124   |
| France               |       |         |       |       |       |
| Unwrought            | 324   | 368     | 552   | 441   | 402   |
| Unwrought alloys     | 1 020 | 1 010   | 884   | 236   | 140   |
| Scrap                | 478   | 893     | 590   | 654   | 282   |
| Germany              |       |         |       |       |       |
| Concentrates         | 163   | 331     | —     | —     | 163   |
| Unwrought            | 1 343 | 1 015   | 1 246 | 1 612 | 1 000 |
| Unwrought alloys     | 329   | 392     | 1 371 | 1 530 | 1 088 |
| Scrap                | 701   | 965     | 1 222 | 1 649 | 1 129 |
| Hungary              |       |         |       |       |       |
| Unwrought (a)        | 28    | 70      | 51    | 140   | 82    |
| Scrap                | 67    | 123     | 141   | 246   | 222   |
| Ireland, Republic of |       |         |       |       |       |
| Concentrates         | 151   | 110     | 75    | 83    | 81    |
| Unwrought (a)        | 67    | 71      | 1 094 | 34    | 23    |
| Scrap                | 58    | 54      | 77    | 86    | 90    |
| Italy                |       |         |       |       |       |
| Unwrought (a)        | 503   | 437     | 567   | 392   | 411   |
| Scrap                | 17    | 269     | 204   | 249   | 154   |
| Latvia               |       |         |       |       |       |
| Scrap                | 20    | 307     | —     | —     | ...   |
| Malta                |       |         |       |       |       |
| Scrap                | 9     | 373     | 340   | 250   | ...   |
| Netherlands          |       |         |       |       |       |
| Unwrought            | 5 330 | 6 971   | 8 061 | 2 566 | 1 536 |
| Unwrought alloys     | 1 790 | 1 051   | 293   | 948   | 558   |
| Scrap                | 297   | 761     | 545   | 157   | 547   |
| Norway               |       |         |       |       |       |
| Scrap                | 323   | 236     | 189   | 119   | 12    |
| Poland               |       |         |       |       |       |
| Unwrought (a)        | 116   | 182     | 1 520 | 355   | 279   |
| Scrap                | 158   | 37      | 34    | 20    | 14    |
| Portugal             |       |         |       |       |       |
| Unwrought alloys     | —     | 146     | 172   | —     | —     |
| Scrap                | 7     | 124     | 25    | 147   | 9     |
| Slovakia             |       |         |       |       |       |
| Unwrought            | 59    | (a) 251 | 20    | 107   | (a) 9 |
| Spain                |       |         |       |       |       |
| Unwrought (a)        | 139   | 120     | 98    | 433   | 427   |
| Scrap                | 435   | 408     | 460   | 447   | 2 038 |
| Sweden               |       |         |       |       |       |
| Unwrought (a)        | 217   | 250     | 201   | 213   | 122   |
| Scrap                | 45    | 43      | 161   | 96    | 63    |
| Switzerland          |       |         |       |       |       |
| Unwrought (a)        | 29    | 160     | 112   | 114   | 87    |
| Scrap                | 157   | 130     | 123   | 76    | 136   |
| Turkey               |       |         |       |       |       |
| Unwrought (a)        | 17    | 18      | 179   | 118   | 37    |

## Exports continued

tonnes

| Country          | 2005   | 2006   | 2007   | 2008   | 2009   |
|------------------|--------|--------|--------|--------|--------|
| United Kingdom   |        |        |        |        |        |
| Concentrates     | 2      | 4      | 373    | 254    | 61     |
| Unwrought        | 1 608  | 8 395  | 4 085  | 1 264  | 928    |
| Unwrought alloys | 442    | 698    | 696    | 532    | 537    |
| Scrap            | 20 603 | 35 252 | 27 329 | 19 110 | 22 597 |

## Note(s)

(1) In this table the term 'unwrought' tin corresponds to item 8001 of the Harmonised System and comprises ingots, pigs, unwrought bars, sticks, etc.

(a) Including alloys

## Imports of tin

tonnes

| Country              | 2005   | 2006   | 2007   | 2008   | 2009   |
|----------------------|--------|--------|--------|--------|--------|
| Austria              |        |        |        |        |        |
| Unwrought (a)        | 1 926  | 2 177  | 2 486  | 2 679  | 1 915  |
| Belgium-Luxembourg   |        |        |        |        |        |
| Concentrates         | 377    | 154    | 17     | 318    | 16     |
| Unwrought            | 1 210  | 1 312  | 1 657  | 1 112  | 1 364  |
| Unwrought alloys     | 1 284  | 1 368  | 2 719  | 2 235  | 2 638  |
| Scrap                | 1 382  | 4 866  | 3 907  | 2 422  | 2 327  |
| Bulgaria             |        |        |        |        |        |
| Unwrought (a)        | 51     | 278    | 51     | 69     | 22     |
| Czech Republic       |        |        |        |        |        |
| Unwrought (a)        | 634    | 665    | 616    | 802    | 937    |
| Finland              |        |        |        |        |        |
| Unwrought (a)        | 178    | 173    | 166    | 184    | 94     |
| France               |        |        |        |        |        |
| Concentrates         | 194    | 22     | 73     | 81     | 78     |
| Unwrought            | 7 307  | 8 159  | 7 689  | 6 506  | 5 869  |
| Unwrought alloys     | 1 080  | 931    | 409    | 554    | 207    |
| Scrap                | 217    | 182    | 432    | 588    | 259    |
| Germany              |        |        |        |        |        |
| Unwrought            | 20 438 | 21 584 | 23 917 | 22 160 | 14 193 |
| Unwrought alloys     | 554    | 936    | 409    | 179    | 175    |
| Scrap                | 506    | 917    | 1 689  | 2 243  | 674    |
| Greece               |        |        |        |        |        |
| Unwrought (a)        | 615    | 244    | 323    | 265    | 80     |
| Hungary              |        |        |        |        |        |
| Unwrought (a)        | 192    | 384    | 328    | 320    | 208    |
| Ireland, Republic of |        |        |        |        |        |
| Unwrought (a)        | 307    | 211    | 249    | 389    | 100    |
| Italy                |        |        |        |        |        |
| Concentrates         | 24     | 572    | 65     | —      | 3      |
| Unwrought            | 5 899  | 5 526  | 4 113  | 4 124  | 2 652  |
| Unwrought alloys     | 135    | 392    | 504    | 777    | 360    |
| Netherlands          |        |        |        |        |        |
| Unwrought            | 8 730  | 13 696 | 7 858  | 11 003 | 7 071  |
| Unwrought alloys     | 1 983  | 1 283  | 1 972  | 2 540  | 504    |
| Scrap                | 201    | 466    | 607    | 503    | 380    |
| Norway               |        |        |        |        |        |
| Unwrought (a)        | 78     | 126    | 74     | 80     | 71     |
| Poland               |        |        |        |        |        |
| Concentrates         | ...    | 3      | 77     | ...    | 220    |
| Unwrought (a)        | 1 437  | 1 583  | 1 838  | 1 857  | 1 102  |
| Scrap                | 705    | 1 653  | 1 931  | 1 038  | 1 664  |
| Portugal             |        |        |        |        |        |
| Unwrought            | 971    | 763    | 577    | 487    | 308    |
| Unwrought alloys     | 100    | 274    | 419    | 130    | 103    |
| Romania              |        |        |        |        |        |
| Unwrought (a)        | 216    | 421    | 137    | 127    | 114    |

## Tin

## Imports continued

tonnes

| Country          | 2005  | 2006  | 2007   | 2008  | 2009  |
|------------------|-------|-------|--------|-------|-------|
| Slovakia         |       |       |        |       |       |
| Unwrought (a)    | 2 610 | 2 246 | 2 260  | 2 276 | 2 059 |
| Slovenia         |       |       |        |       |       |
| Unwrought (a)    | 151   | 73    | 101    | 87    | 69    |
| Spain            |       |       |        |       |       |
| Unwrought        | 7 109 | 7 716 | 7 093  | 7 313 | 5 457 |
| Unwrought alloys | 170   | 220   | 167    | 261   | 243   |
| Scrap            | 1 919 | 1 576 | 185    | 376   | 441   |
| Sweden           |       |       |        |       |       |
| Unwrought (a)    | 761   | 838   | 720    | 555   | 364   |
| Switzerland      |       |       |        |       |       |
| Unwrought (a)    | 909   | 1 042 | 1 241  | 1 093 | 800   |
| Turkey           |       |       |        |       |       |
| Unwrought (a)    | 2 731 | 2 380 | 2 788  | 2 603 | 1 630 |
| United Kingdom   |       |       |        |       |       |
| Unwrought        | 4 812 | 3 558 | 13 630 | 7 181 | 4 522 |
| Unwrought alloys | 2 067 | 891   | 525    | 400   | 370   |
| Scrap            | 468   | 1 728 | 452    | 448   | 121   |

## Note(s)

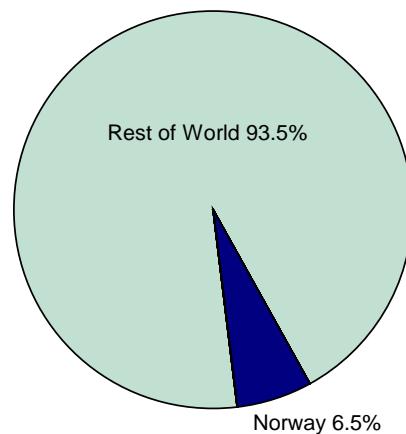
(1) In this table the term 'unwrought' tin corresponds to item 8001 of the Harmonised System and comprises ingots, pigs, unwrought bars, sticks, etc.

(a) Including alloys

## Titanium minerals

- The titanium minerals ilmenite and rutile are the main sources of titanium, a low density, strong and corrosion-resistant metal that is important in the aerospace industry. However, the chief use (94 per cent) of titanium minerals is in the form of titanium dioxide, a white pigment used in paint, plastics, rubber and paper.
- In 2009 Canada was the world's largest producer of titanium minerals, followed by Australia and South Africa. Together these three countries produced 50 per cent of the world total. EU33 production is restricted to Norway, which produced 6.5 per cent of the world total.

**EU33 Production of titanium minerals 2009**



### Production of titanium minerals

tonnes

| Country  | 2005    | 2006    | 2007    | 2008    | 2009    |
|----------|---------|---------|---------|---------|---------|
| Norway   |         |         |         |         |         |
| Ilmenite | 806 800 | 850 000 | 882 000 | 915 000 | 671 000 |

Note(s)

(1) The figures in this table refer to gross tonnage of titanium concentrates

**EU33 Production of titanium minerals 2005 - 09**



## Titanium

**Exports of titanium**

tonnes

| Country               | 2005      | 2006      | 2007      | 2008      | 2009      |
|-----------------------|-----------|-----------|-----------|-----------|-----------|
| Austria               |           |           |           |           |           |
| Metal                 | 317       | 513       | 576       | 717       | 203       |
| Oxides                | 3 457     | 3 976     | 4 885     | 6 444     | 5 344     |
| Belgium-Luxembourg    |           |           |           |           |           |
| Titanium minerals     | 131 597   | 100 498   | 129 722   | 100 210   | 58 687    |
| Titanium slag         | 4 219     | 20 830    | 3 209     | 5 085     | ...       |
| Metal                 | 1 093     | 1 490     | 2 074     | 1 174     | 1 096     |
| Oxides                | 366 632   | 401 614   | 422 885   | 401 906   | 369 495   |
| Bulgaria              |           |           |           |           |           |
| Metal                 | 9         | 4         | 28        | 835       | 2         |
| Croatia               |           |           |           |           |           |
| Oxides                | 155       | 419       | 489       | 417       | 331       |
| Czech Republic        |           |           |           |           |           |
| Titanium minerals     | 340       | 492       | 745       | 641       | 452       |
| Metal                 | 358       | 424       | 126       | 84        | 339       |
| Oxides                | 40 707    | 43 010    | 43 166    | 42 860    | 46 753    |
| Denmark               |           |           |           |           |           |
| Metal                 | 184       | 146       | 162       | 152       | 102       |
| Oxides                | 1 136     | 1 134     | 1 121     | 460       | 442       |
| Estonia               |           |           |           |           |           |
| Metal                 | 31        | 49        | 11        | 13        | 30        |
| Oxides                | 144       | 163       | 1 491     | 579       | 158       |
| Finland               |           |           |           |           |           |
| Metal                 | 44        | 35        | 30        | 11        | 14        |
| Oxides (a)            | * 104 000 | * 103 000 | * 103 000 | * 106 000 | * 86 000  |
| France                |           |           |           |           |           |
| Titanium minerals     | 62        | 116       | 2 242     | 93        | 150       |
| Metal                 | 5 891     | 5 722     | 5 112     | 5 391     | 4 523     |
| Oxides                | 157 543   | 167 807   | 171 337   | 148 573   | 113 798   |
| Germany               |           |           |           |           |           |
| Titanium minerals     | 607       | 490       | 776       | 3 322     | 6 864     |
| Metal                 | 8 911     | 8 893     | 8 713     | 8 278     | 5 367     |
| Oxides                | 359 946   | 400 832   | 409 495   | 367 545   | 351 872   |
| Greece                |           |           |           |           |           |
| Oxides                | 2 373     | 1 861     | 2 233     | 598       | 462       |
| Hungary               |           |           |           |           |           |
| Oxides                | 126       | 324       | 991       | 1 402     | 1 120     |
| Italy                 |           |           |           |           |           |
| Titanium slag         | 1 499     | ...       | ...       | ...       | ...       |
| Metal                 | 4 130     | 4 101     | 4 884     | 5 478     | 3 607     |
| Oxides                | 25 433    | 22 473    | 26 242    | 25 982    | 23 508    |
| Lithuania             |           |           |           |           |           |
| Oxides                | 141       | 208       | 268       | 1 230     | 502       |
| Netherlands           |           |           |           |           |           |
| Titanium minerals     | 1 390     | 1 660     | 449       | 1 341     | 13 664    |
| Metal                 | 2 181     | 1 902     | 2 182     | 1 551     | 895       |
| Oxides                | 84 310    | 95 512    | 64 544    | 15 544    | 36 179    |
| Norway                |           |           |           |           |           |
| Titanium minerals (a) | * 382 000 | * 477 000 | * 435 000 | * 435 000 | * 350 000 |
| Metal                 | 159       | 176       | 117       | 339       | 227       |
| Oxides (a)            | * 177 000 | * 221 000 | * 199 000 | * 217 000 | * 207 000 |
| Poland                |           |           |           |           |           |
| Metal                 | 740       | 917       | 52        | 117       | 105       |
| Oxides                | 24 394    | 25 598    | 21 776    | 21 509    | 20 937    |
| Portugal              |           |           |           |           |           |
| Oxides                | 512       | 840       | 1 064     | 1 189     | 1 166     |
| Romania               |           |           |           |           |           |
| Metal                 | 255       | 579       | 650       | 2 469     | 541       |
| Slovakia              |           |           |           |           |           |
| Metal                 | 13        | 28        | 5         | 76        | 3         |
| Slovenia              |           |           |           |           |           |
| Metal                 | 21        | 36        | 37        | 40        | 23        |
| Oxides                | 44 123    | 50 755    | 55 867    | 55 110    | 57 866    |

## Titanium

Exports continued

tonnes

| Country           | 2005    | 2006    | 2007    | 2008    | 2009    |
|-------------------|---------|---------|---------|---------|---------|
| Spain             |         |         |         |         |         |
| Titanium minerals | 170     | 185     | 232     | 155     | 25 892  |
| Metal             | 903     | 2 005   | 1 431   | 947     | 1 018   |
| Oxides            | 83 905  | 85 307  | 91 583  | 58 342  | 33 721  |
| Sweden            |         |         |         |         |         |
| Metal             | 1 955   | 1 461   | 2 667   | 1 002   | 717     |
| Oxides            | 14 306  | 20 409  | 17 047  | 19 992  | 15 921  |
| Switzerland       |         |         |         |         |         |
| Metal             | 560     | 692     | 868     | 987     | 734     |
| Oxides            | 1 020   | 1 024   | 1 133   | 1 276   | 1 203   |
| Turkey            |         |         |         |         |         |
| Metal             | 30      | 17      | —       | 49      | 47      |
| Oxides            | 2 350   | 2 023   | 2 489   | 2 607   | 2 237   |
| United Kingdom    |         |         |         |         |         |
| Metal             | 17 212  | 14 028  | 12 934  | 11 155  | 9 555   |
| Oxides            | 215 741 | 182 246 | 212 068 | 222 503 | 203 873 |

## Note(s)

- (1) Significant quantities of titanium slag are traded, but it is not always possible to identify this material in national trade accounts  
(2) So far as possible, the term 'oxides', as used in this table, includes oxides and oxide based pigments classified under Harmonised System items 2823 and 3206.10  
(3) Metal traded in ferro-alloy form is included under iron, steel and ferro-alloys

(a) BGS estimates, based on known imports into certain countries

**Imports of titanium**

tonnes

| Country                 | 2005    | 2006    | 2007    | 2008    | 2009    |
|-------------------------|---------|---------|---------|---------|---------|
| Austria                 |         |         |         |         |         |
| Titanium minerals       | 349     | 575     | 451     | 520     | 362     |
| Metal                   | 1 691   | 1 873   | 3 851   | 2 455   | 1 346   |
| Oxides                  | 25 640  | 27 485  | 26 856  | 30 861  | 28 258  |
| Belgium-Luxembourg      |         |         |         |         |         |
| Ilmenite                | —       | 720     | —       | 1 337   | 586     |
| Other titanium minerals | 165 711 | 156 771 | 221 173 | 203 355 | 109 443 |
| Metal                   | 2 289   | 1 857   | 4 139   | 3 904   | 2 198   |
| Oxides                  | 291 670 | 314 131 | 145 929 | 133 378 | 109 696 |
| Bulgaria                |         |         |         |         |         |
| Titanium minerals       | 1 287   | 300     | 712     | 42      | 105     |
| Oxides                  | 3 959   | 4 750   | 5 398   | 5 955   | 5 329   |
| Croatia                 |         |         |         |         |         |
| Oxides                  | 2 561   | 2 827   | 3 244   | 2 989   | 2 697   |
| Cyprus                  |         |         |         |         |         |
| Oxides                  | 1 286   | 1 227   | 1 243   | 1 603   | 1 189   |
| Czech Republic          |         |         |         |         |         |
| Titanium minerals       | 80 407  | 149 925 | 179 323 | 193 858 | 140 394 |
| Metal                   | 1 143   | 1 155   | 1 086   | 1 122   | 918     |
| Oxides                  | 8 008   | 8 734   | 10 529  | 8 765   | 7 248   |
| Denmark                 |         |         |         |         |         |
| Metal                   | 770     | 788     | 623     | 774     | 670     |
| Oxides                  | 23 156  | 24 678  | 19 514  | 17 055  | 17 511  |
| Estonia                 |         |         |         |         |         |
| Metal                   | 294     | 74      | 393     | 97      | 50      |
| Oxides                  | 1 367   | 2 193   | 2 548   | 2 106   | 1 349   |
| Finland                 |         |         |         |         |         |
| Titanium minerals       | 5 080   | 34 403  | 20 578  | 26 200  | 8 794   |
| Oxides                  | 14 380  | 14 788  | 15 838  | 14 256  | 12 524  |
| France                  |         |         |         |         |         |
| Ilmenite                | 60 205  | 83 499  | 60 739  | 58 423  | 17 766  |
| Other titanium minerals | 86 552  | 78 849  | 71 292  | 12 531  | 11 964  |
| Titanium slag           | 111 137 | 107 092 | 91 602  | 80 726  | 85 776  |
| Metal                   | 9 403   | 9 431   | 10 521  | 10 036  | 7 282   |
| Oxides                  | 119 699 | 135 309 | 126 786 | 128 226 | 136 389 |

## Titanium

## Imports continued

tonnes

| Country                 | 2005    | 2006    | 2007    | 2008    | 2009      |
|-------------------------|---------|---------|---------|---------|-----------|
| Germany                 |         |         |         |         |           |
| Ilmenite                | 333 603 | 414 037 | 425 175 | 446 154 | 304 471   |
| Other titanium minerals | 224 675 | 253 392 | 200 512 | 279 407 | 212 735   |
| Titanium slag           | —       | 17 403  | 112 474 | 76 107  | 42 042    |
| Metal                   | 15 978  | 18 426  | 19 385  | 19 449  | 11 649    |
| Oxides                  | 240 554 | 269 812 | 299 599 | 281 009 | 240 120   |
| Greece                  |         |         |         |         |           |
| Titanium minerals       | 528     | 440     | 826     | 399     | 351       |
| Oxides                  | 25 592  | 25 372  | 27 284  | 23 260  | 19 289    |
| Hungary                 |         |         |         |         |           |
| Titanium minerals       | 2 260   | 1 623   | ...     | 2 659   | ...       |
| Oxides                  | 7 523   | 7 845   | 8 291   | 8 590   | 6 853     |
| Iceland                 |         |         |         |         |           |
| Oxides                  | 388     | 312     | 396     | 322     | 233       |
| Ireland, Republic of    |         |         |         |         |           |
| Metal                   | 290     | 350     | 362     | 1 154   | 507       |
| Oxides                  | 5 059   | 4 703   | 4 822   | 3 961   | 4 308     |
| Italy                   |         |         |         |         |           |
| Titanium minerals       | 85 607  | 185 121 | 136 274 | 102 909 | 74 338    |
| Metal                   | 5 186   | 6 248   | 8 609   | 7 155   | 3 352     |
| Oxides                  | 154 950 | 161 253 | 166 223 | 141 959 | 139 071   |
| Latvia                  |         |         |         |         |           |
| Oxides                  | 726     | 833     | 781     | 3 112   | 562       |
| Lithuania               |         |         |         |         |           |
| Oxides                  | 926     | 975     | 1 328   | 980     | 1 259     |
| Macedonia               |         |         |         |         |           |
| Oxides                  | 466     | 471     | 383     | 426     | 427       |
| Malta                   |         |         |         |         |           |
| Oxides                  | 471     | 512     | 531     | 463     | 470       |
| Netherlands             |         |         |         |         |           |
| Titanium minerals       | 127 941 | 79 377  | 103 580 | 87 769  | * 100 000 |
| Metal                   | 1 857   | 2 234   | 4 295   | 1 073   | 1 224     |
| Oxides                  | 46 008  | 8 387   | 41 221  | 37 101  | 40 914    |
| Norway                  |         |         |         |         |           |
| Titanium minerals       | 33 000  | 73 690  | 17 600  | 73 307  | 29 809    |
| Metal                   | 636     | 661     | 637     | 937     | 389       |
| Oxides                  | 11 924  | 16 013  | 12 121  | 12 241  | 8 209     |
| Poland                  |         |         |         |         |           |
| Titanium minerals       | 100 539 | 95 057  | 100 002 | 91 208  | 84 396    |
| Metal                   | 328     | 2 550   | 2 122   | 451     | 264       |
| Oxides                  | 33 417  | 36 943  | 45 984  | 41 019  | 42 031    |
| Portugal                |         |         |         |         |           |
| Oxides                  | 17 458  | 18 565  | 19 545  | 18 800  | 18 456    |
| Romania                 |         |         |         |         |           |
| Titanium minerals       | 2 111   | 1 809   | 2 093   | 2 171   | 1 513     |
| Metal                   | 328     | 486     | 612     | 453     | 707       |
| Oxides                  | 7 600   | 9 794   | 11 132  | 9 127   | 7 151     |
| Slovakia                |         |         |         |         |           |
| Titanium minerals       | 17 627  | 12 648  | 17 242  | ...     | ...       |
| Metal                   | 980     | 179     | 250     | 329     | 130       |
| Oxides                  | 2 804   | 2 742   | 2 193   | 2 389   | 2 949     |
| Slovenia                |         |         |         |         |           |
| Titanium minerals       | 21 054  | 22 825  | 14 903  | 34 930  | 32 789    |
| Titanium slag           | ...     | 64 246  | 53 245  | 65 180  | 66 818    |
| Metal                   | 614     | 392     | 348     | 257     | 233       |
| Oxides                  | 3 157   | 3 153   | 3 500   | 3 296   | 2 889     |
| Spain                   |         |         |         |         |           |
| Ilmenite                | 121 204 | 159 090 | 121 898 | 119 467 | 26 512    |
| Other titanium minerals | 1 746   | 1 807   | 22 037  | 9 133   | 522       |
| Titanium slag           | 57      | 8       | 2 164   | 10 004  | ...       |
| Metal                   | 3 862   | 5 782   | 3 450   | 3 131   | 1 735     |
| Oxides                  | 117 203 | 112 778 | 123 132 | 138 275 | 93 267    |
| Sweden                  |         |         |         |         |           |
| Titanium minerals       | 300     | 911     | 1 032   | 995     | 726       |
| Metal                   | 1 382   | 2 294   | 2 623   | 2 391   | 1 593     |
| Oxides                  | 50 099  | 62 841  | 65 872  | 61 890  | 53 071    |

## Imports continued

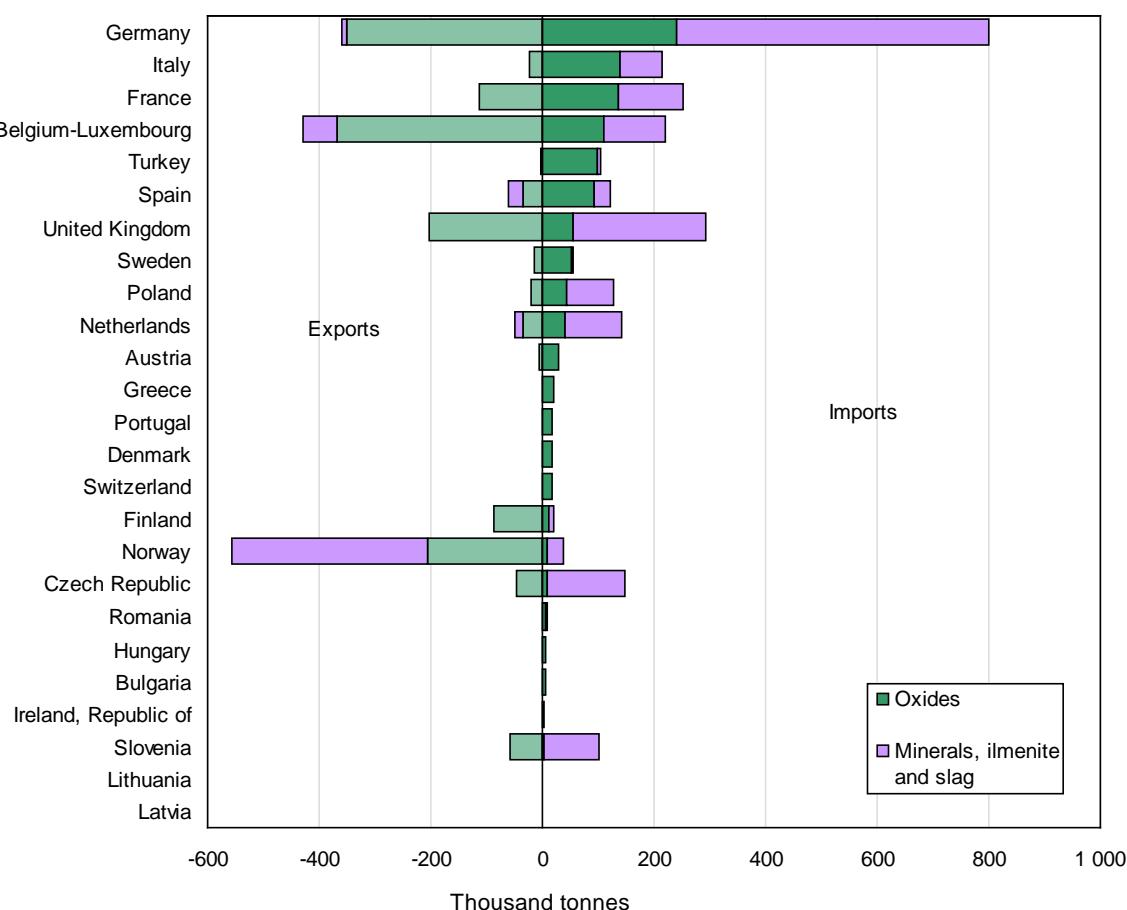
tonnes

| Country                 | 2005    | 2006    | 2007    | 2008    | 2009    |
|-------------------------|---------|---------|---------|---------|---------|
| Switzerland             |         |         |         |         |         |
| Metal                   | 1 273   | 1 357   | 1 352   | 1 168   | 862     |
| Oxides                  | 19 055  | 18 805  | 20 455  | 19 550  | 17 086  |
| Turkey                  |         |         |         |         |         |
| Titanium minerals       | 6 755   | 6 831   | * 9 000 | 7 762   | 5 628   |
| Oxides                  | 92 136  | 108 721 | 111 858 | 106 206 | 98 100  |
| United Kingdom          |         |         |         |         |         |
| Ilmenite                | 80 435  | 175 882 | 181 794 | 194 719 | 112 068 |
| Other titanium minerals | 109 238 | 48 147  | 42      | 37      | 23      |
| Titanium slag           | 64 849  | 91 603  | 151 494 | 316 390 | 127 224 |
| Metal                   | 27 938  | 30 267  | 30 905  | 32 305  | 23 178  |
| Oxides                  | 67 102  | 71 528  | 74 708  | 58 748  | 53 864  |

## Note(s)

- (1) Significant quantities of titanium slag are traded, but it is not always possible to identify this material in national trade accounts  
(2) So far as possible, the term 'oxides', as used in this table, includes oxides and oxide based pigments classified under Harmonised System items 2823 and 3206.10  
(3) Metal traded in ferro-alloy form is included under iron, steel and ferro-alloys

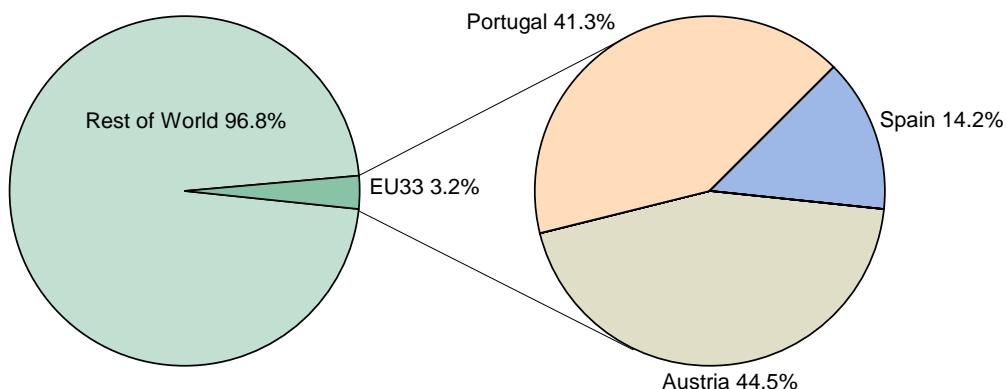
## Titanium - EU33 trade in 2009



## Tungsten

- Tungsten is a corrosion-resistant metallic element with an extremely high melting point. Its largest use is as cemented carbides in cutting tools; it is also used as an alloying agent with steel to make high-speed tool steel, and in superalloys. Its most familiar use is in light bulb filaments.
- China was the world's largest tungsten producer in 2009, with 80 per cent of the world total. There was minor production from Austria, Portugal and Spain but overall the EU33 contributed just 3.2 per cent to the world total.

**EU33 Production of tungsten 2009**



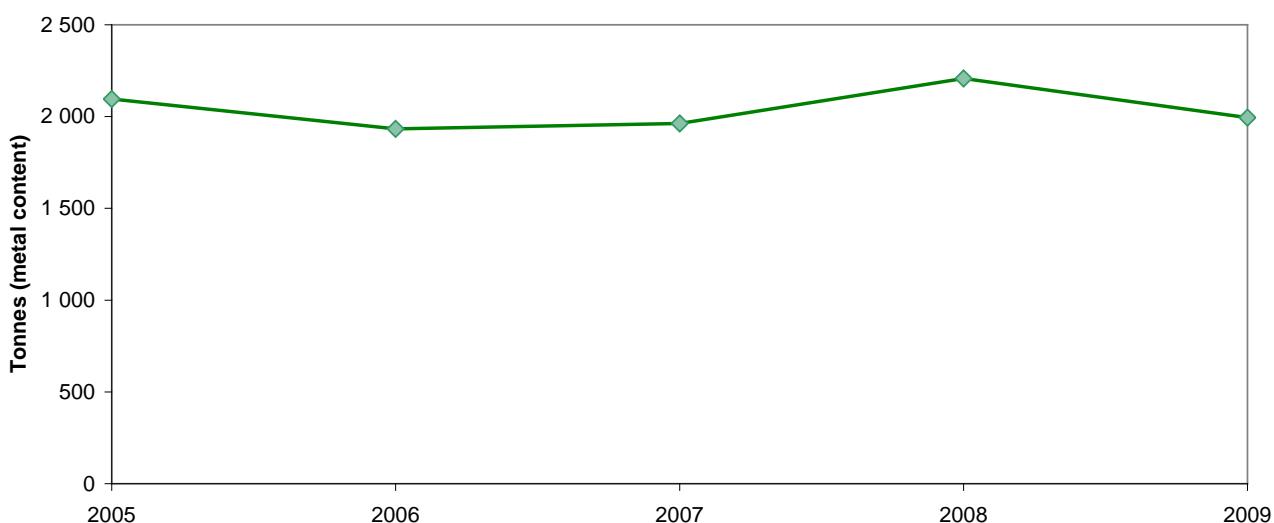
### Mine production of tungsten

| Country      | tonnes (metal content) |       |       |       |       |
|--------------|------------------------|-------|-------|-------|-------|
|              | 2005                   | 2006  | 2007  | 2008  | 2009  |
| Austria      | 1 280                  | 1 153 | 1 117 | 1 122 | 887   |
| Portugal (a) | 816                    | 780   | 846   | 892   | 823   |
| Spain        | —                      | —     | —     | 194   | 284   |
| EU33 Total   | 2 100                  | 1 900 | 2 000 | 2 200 | 2 000 |

Note(s)

(a) Wolframite and scheelite

**EU33 Production of tungsten 2005 - 09**



**Exports of tungsten**

tonnes

| Country              | 2005    | 2006    | 2007    | 2008    | 2009    |
|----------------------|---------|---------|---------|---------|---------|
| Austria              |         |         |         |         |         |
| Metal (a)            | * 2 100 | * 2 000 | * 1 600 | * 1 600 | * 4 300 |
| Belgium-Luxembourg   |         |         |         |         |         |
| Metal                | 452     | 484     | 387     | 405     | 422     |
| Carbide              | 25      | 62      | 54      | 36      | 32      |
| Czech Republic       |         |         |         |         |         |
| Metal                | 185     | 142     | 102     | 86      | 30      |
| Carbide              | ...     | 579     | 605     | 592     | 307     |
| Denmark              |         |         |         |         |         |
| Metal                | 5       | 86      | 112     | 121     | 91      |
| Finland              |         |         |         |         |         |
| Metal                | 77      | 80      | 113     | 360     | 291     |
| France               |         |         |         |         |         |
| Metal                | 574     | 617     | 1 148   | 676     | 398     |
| Carbide              | 265     | 343     | 431     | 354     | 261     |
| Germany              |         |         |         |         |         |
| Metal                | 4 020   | 4 320   | 3 020   | 4 687   | 2 655   |
| Ireland, Republic of |         |         |         |         |         |
| Metal                | 963     | 183     | 180     | 10      | —       |
| Italy                |         |         |         |         |         |
| Metal                | 233     | 197     | 455     | 973     | 670     |
| Netherlands          |         |         |         |         |         |
| Ores & concentrates  | —       | 276     | 181     | 29      | ...     |
| Metal                | 502     | 434     | 391     | 582     | 133     |
| Poland               |         |         |         |         |         |
| Metal                | 84      | 89      | 76      | 143     | 136     |
| Portugal             |         |         |         |         |         |
| Ores & concentrates  | 1 425   | 1 305   | 1 466   | 1 705   | 1 407   |
| Slovakia             |         |         |         |         |         |
| Metal                | 16      | 66      | 2       | 9       | 4       |
| Spain                |         |         |         |         |         |
| Ores & concentrates  | —       | —       | 0       | 286     | 457     |
| Metal                | 77      | 59      | 177     | 223     | 156     |
| Sweden               |         |         |         |         |         |
| Ores & concentrates  | 62      | —       | 3 192   | 75      | 96      |
| Metal                | 414     | 296     | 234     | 328     | 431     |
| Carbide              | 37      | 491     | 446     | 436     | 253     |
| Switzerland          |         |         |         |         |         |
| Metal                | 316     | 270     | 392     | 400     | 239     |
| Turkey               |         |         |         |         |         |
| Metal                | 115     | 25      | 33      | 99      | 213     |
| United Kingdom       |         |         |         |         |         |
| Metal                | 1 732   | 2 100   | 2 444   | 1 625   | 1 541   |
| Carbide              | 83      | 251     | 303     | 51      | 80      |

## Note(s)

- (1) Significant amounts of tungsten are traded in the forms of ammonium paratungstate (APT) and carbide. Though statistics are included where available, most countries do not separately distinguish these forms in their trade accounts
- (2) Metal traded in ferro-alloy form is included under iron, steel and ferro-alloys

(a) BGS estimates, based on known imports into certain countries

## Tungsten

**Imports of tungsten**

tonnes

| Country              | 2005  | 2006  | 2007  | 2008  | 2009  |
|----------------------|-------|-------|-------|-------|-------|
| Austria              |       |       |       |       |       |
| Metal                | 825   | 670   | 548   | 435   | 369   |
| Belgium-Luxembourg   |       |       |       |       |       |
| Metal                | 340   | 454   | 513   | 426   | 327   |
| Carbide              | 42    | 64    | 1 182 | 1 028 | 500   |
| Czech Republic       |       |       |       |       |       |
| Metal                | 173   | 197   | 837   | 206   | 4 184 |
| Denmark              |       |       |       |       |       |
| Metal                | 307   | 523   | 113   | 110   | 105   |
| Finland              |       |       |       |       |       |
| Metal                | 121   | 21    | 130   | 296   | 205   |
| France               |       |       |       |       |       |
| Metal                | 784   | 925   | 823   | 898   | 547   |
| Carbide              | 592   | 898   | 866   | 859   | 311   |
| Germany              |       |       |       |       |       |
| Ores & concentrates  | 493   | 512   | 604   | 967   | 821   |
| Metal                | 5 515 | 4 450 | 4 791 | 5 184 | 3 313 |
| Carbide              | 1 802 | 1 366 | 2 678 | 2 526 | 1 333 |
| Hungary              |       |       |       |       |       |
| Metal                | 165   | 41    | 41    | 54    | 31    |
| Ireland, Republic of |       |       |       |       |       |
| Metal                | 292   | 173   | 277   | 215   | 68    |
| Carbide              | ...   | 53    | 184   | 158   | 108   |
| Italy                |       |       |       |       |       |
| Metal                | 257   | 236   | 280   | 255   | 147   |
| Carbide              | 337   | 365   | 361   | 350   | 103   |
| Netherlands          |       |       |       |       |       |
| Ores & concentrates  | 110   | 1 532 | 875   | 457   | 5     |
| Metal                | 204   | 330   | 284   | 329   | 71    |
| Carbide              | 99    | 49    | 36    | 94    | 42    |
| Poland               |       |       |       |       |       |
| Metal                | 108   | 111   | 108   | 103   | 87    |
| Portugal             |       |       |       |       |       |
| Metal                | 179   | 106   | 122   | 251   | 193   |
| Carbide              | 105   | 97    | 119   | 169   | 46    |
| Romania              |       |       |       |       |       |
| Metal                | 7     | 7     | 59    | 1 122 | 22    |
| Spain                |       |       |       |       |       |
| Metal                | 134   | 556   | 914   | 731   | 681   |
| Sweden               |       |       |       |       |       |
| Metal                | 502   | 563   | 546   | 588   | 175   |
| Carbide              | 925   | 738   | 876   | 904   | 233   |
| Switzerland          |       |       |       |       |       |
| Metal                | 235   | 146   | 257   | 272   | 105   |
| United Kingdom       |       |       |       |       |       |
| Metal                | 3 204 | 4 607 | 2 925 | 1 865 | 1 477 |
| Carbide              | 974   | 913   | 1 409 | 1 023 | 614   |

## Note(s)

- (1) Significant amounts of tungsten are traded in the forms of ammonium paratungstate (APT) and carbide. Though statistics are included where available, most countries do not separately distinguish these forms in their trade accounts
- (2) Metal traded in ferro-alloy form is included under iron, steel and ferro-alloys

## Vanadium

- Vanadium is a soft, ductile, metallic element that is very corrosion resistant. The chief use is as an additive in alloy steels where it imparts strength and corrosion resistance. Other uses are in titanium alloys and as a catalyst.
- Mine production is confined to four countries, of which Russia (estimated 38 per cent of world total) and China (36 per cent of world total) are the largest producers. There is no EU33 mine production. In the USA vanadium is a significant by-product from the refining of heavy crude oils.

### Exports of vanadium

| Country             | 2005  | 2006  | 2007  | 2008  | 2009 |
|---------------------|-------|-------|-------|-------|------|
| Belgium-Luxembourg  |       |       |       |       |      |
| Ores & concentrates | 2 600 | 791   | 297   | 327   | 131  |
| France              |       |       |       |       |      |
| Metal               | 25    | 63    | ...   | ...   | ...  |
| Germany             |       |       |       |       |      |
| Ores & concentrates | 4 680 | 2 372 | ...   | ...   | ...  |
| Pentoxide           | 1 216 | 1 444 | 1 250 | 1 173 | ...  |
| Metal               | 1 469 | 573   | ...   | ...   | ...  |
| Italy               |       |       |       |       |      |
| Ores & concentrates | 1 092 | 1 291 | 527   | 217   | 385  |
| Lithuania           |       |       |       |       |      |
| Ores & concentrates | ...   | ...   | 346   | 358   | ...  |
| Netherlands         |       |       |       |       |      |
| Pentoxide           | 381   | 411   | 157   | 45    | 102  |
| Metal               | 11    | 20    | ...   | ...   | ...  |
| Turkey              |       |       |       |       |      |
| Pentoxide           | 940   | —     | 24    | 200   | 119  |
| United Kingdom      |       |       |       |       |      |
| Pentoxide           | 20    | 23    | 697   | 589   | 487  |
| Metal               | 433   | 69    | 2 182 | 2     | 18   |

#### Note(s)

- (1) In this table the term 'pentoxide' also includes vanadium oxides and hydroxides, if any  
(2) Metal traded in ferro-alloy form is included under iron, steel and ferro-alloys

### Imports of vanadium

| Country               | 2005     | 2006     | 2007     | 2008     | 2009     |
|-----------------------|----------|----------|----------|----------|----------|
| Austria               |          |          |          |          |          |
| Vanadiferous residues | * 29 000 | * 29 000 | * 37 000 | * 36 000 | * 35 000 |
| Ores & concentrates   | 1 565    | 792      | 543      | 460      | ...      |
| Pentoxide (a)         | * 260    | * 50     | ...      | * —      | * 30     |
| Belgium-Luxembourg    |          |          |          |          |          |
| Ores & concentrates   | 894      | 197      | 162      | 202      | 123      |
| Pentoxide             | 267      | 12       | 64       | 38       | 94       |
| Metal                 | 60       | 67       | ...      | ...      | ...      |
| Czech Republic        |          |          |          |          |          |
| Pentoxide             | 3 831    | 4 858    | 3 210    | 5 135    | 2 702    |
| France                |          |          |          |          |          |
| Ores & concentrates   | 21       | —        | ...      | —        | —        |
| Pentoxide             | 556      | 533      | 656      | 674      | 371      |
| Metal                 | 88       | 71       | ...      | ...      | ...      |
| Germany               |          |          |          |          |          |
| Ores & concentrates   | 104      | 53       | 79       | 60       | ...      |
| Pentoxide             | 741      | 1 222    | 1 071    | 879      | ...      |
| Metal                 | 193      | 173      | ...      | ...      | ...      |
| Greece                |          |          |          |          |          |
| Ores & concentrates   | ...      | ...      | ...      | ...      | 80       |

## Vanadium

## Imports continued

tonnes

| Country             | 2005 | 2006 | 2007 | 2008 | 2009 |
|---------------------|------|------|------|------|------|
| Italy               |      |      |      |      |      |
| Ores & concentrates | ...  | 75   | ...  | 255  | 18   |
| Pentoxide           | 156  | 209  | 150  | 173  | 45   |
| Netherlands         |      |      |      |      |      |
| Pentoxide           | 714  | 362  | 316  | 227  | 27   |
| Norway              |      |      |      |      |      |
| Metal               | 10   | 63   | ...  | ...  | ...  |
| Poland              |      |      |      |      |      |
| Metal               | 32   | 41   | ...  | ...  | ...  |
| Slovenia            |      |      |      |      |      |
| Metal               | 14   | 26   | ...  | ...  | ...  |
| Spain               |      |      |      |      |      |
| Ores & concentrates | 9    | 20   | 50   | 80   | 22   |
| Pentoxide           | 62   | 71   | 45   | 43   | 50   |
| Sweden              |      |      |      |      |      |
| Pentoxide           | 3    | 1    | 1    | 76   | 25   |
| Metal               | 20   | 40   | ...  | ...  | ...  |
| United Kingdom      |      |      |      |      |      |
| Pentoxide           | 339  | 472  | 425  | 344  | 84   |
| Metal               | 812  | 407  | 583  | 314  | 112  |

## Note(s)

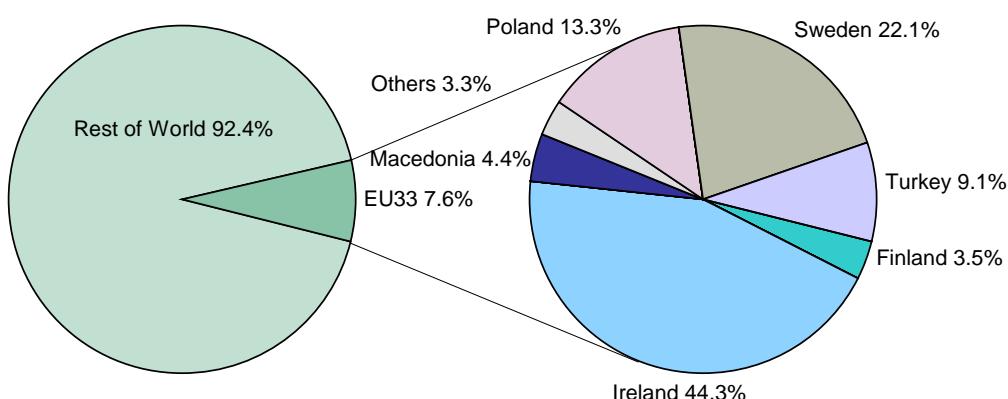
- (1) In this table the term 'pentoxide' also includes vanadium oxides and hydroxides, if any  
(2) Metal traded in ferro-alloy form is included under iron, steel and ferro-alloys

(a) BGS estimates, based on known exports from certain countries

## Zinc

- Zinc is a metal that is brittle at ordinary temperatures but malleable at temperatures above 100°C. It is corrosion resistant and this property is exploited in its chief use as a steel coating (galvanising). Its other main uses are as zinc die-castings and alloyed with copper to make brass, which is widely used in the electrical, engineering and construction industries.
- Zinc is produced by many countries from mines, or in refineries that process imported zinc concentrates. China was the world's largest mine producer during 2009 with 27 per cent of the total. Peru (13 per cent) and Australia (11 per cent) are also major producers. The Republic of Ireland was the largest mine producer in the EU33 with 44.3 per cent of the EU33 total, although overall the EU33 contributed less than eight per cent to the world total. A number of EU33 countries have major zinc refineries.

**EU33 Mine production of zinc 2009**



## Mine production of zinc

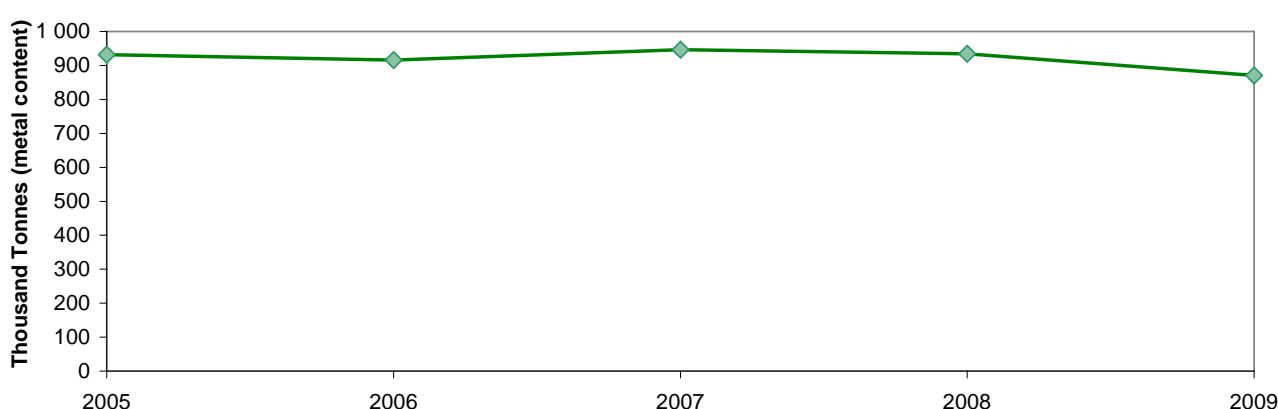
tonnes (metal content)

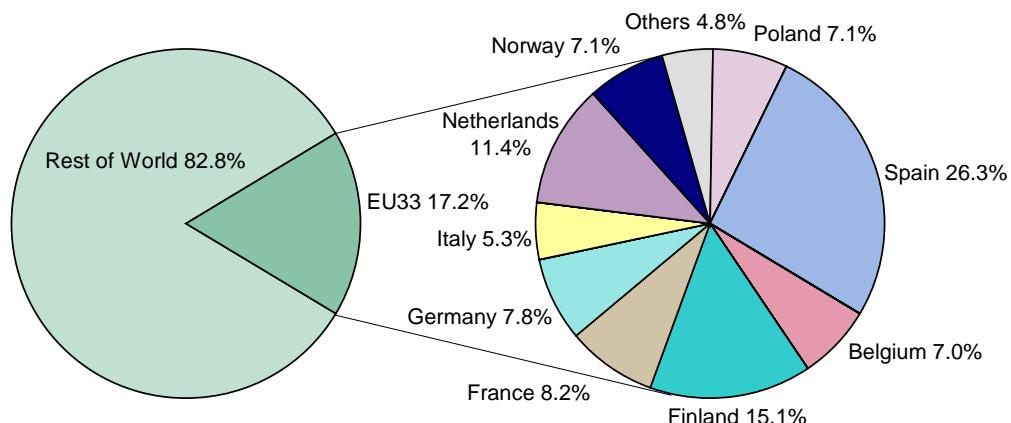
| Country              | 2005    | 2006    | 2007    | 2008    | 2009    |
|----------------------|---------|---------|---------|---------|---------|
| Bulgaria (a)         | 20 875  | 16 108  | 14 453  | 12 819  | 9 339   |
| Finland              | 40 500  | 35 700  | 38 900  | 27 800  | 30 233  |
| Greece               | 4 000   | 16 000  | 20 700  | 24 200  | 17 800  |
| Ireland, Republic of | 445 400 | 425 800 | 400 900 | 398 200 | 385 700 |
| Macedonia            | —       | 10 836  | 30 957  | 38 737  | 38 648  |
| Poland               | 135 600 | 126 600 | 129 600 | 132 400 | 115 500 |
| Portugal             | —       | 7 505   | 24 380  | 37 900  | 501     |
| Romania              | 13 784  | 8 052   | 849     | 14      | —       |
| Spain                | —       | —       | —       | —       | 1 200   |
| Sweden               | 215 691 | 210 029 | 214 576 | 187 987 | 192 502 |
| Turkey               | 56 000  | 59 000  | 71 000  | 74 000  | 79 000  |
| EU33 Total           | 932 000 | 916 000 | 946 000 | 934 000 | 870 000 |

Note(s)

(a) Metal content of ore

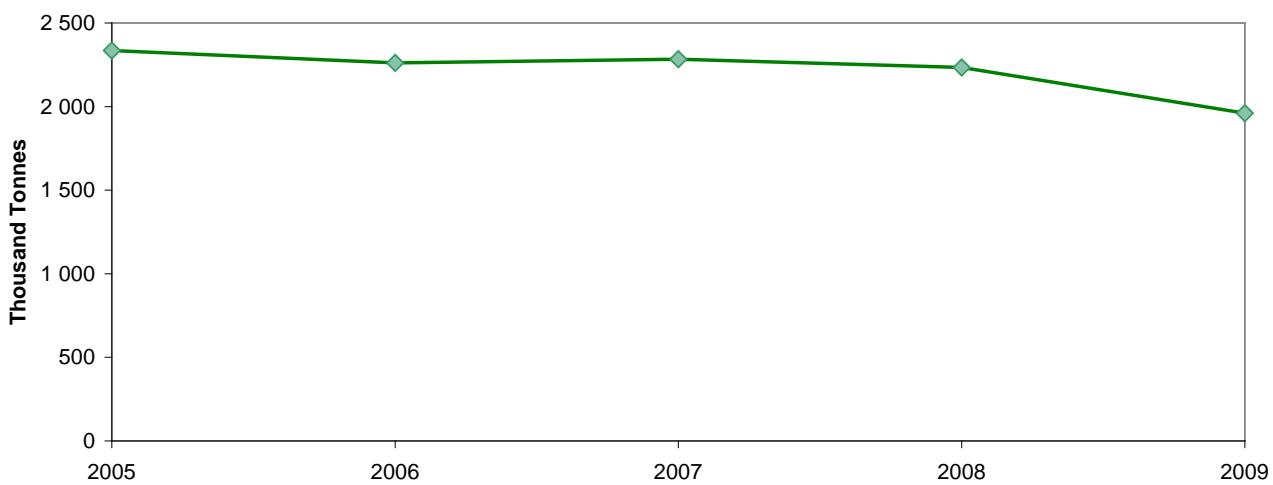
**EU33 Mine production of zinc 2005 - 09**



**EU33 Production of slab zinc 2009****Production of slab zinc**

tonnes

| Country     | 2005      | 2006      | 2007      | 2008      | 2009      |
|-------------|-----------|-----------|-----------|-----------|-----------|
| Belgium     | 222 000   | 238 000   | 254 000   | 251 000   | 137 000   |
| Bulgaria    | 92 500    | 85 900    | 98 100    | 101 700   | 92 700    |
| Finland     | 281 904   | 282 238   | 305 543   | 297 722   | 295 049   |
| France      | 209 000   | 120 000   | 129 000   | 118 000   | 161 000   |
| Germany     | 334 900   | 342 566   | 294 735   | 292 284   | * 153 000 |
| Italy       | 121 200   | 109 200   | 102 100   | 107 100   | 103 400   |
| Netherlands | 227 500   | 238 274   | 234 000   | 250 000   | 224 000   |
| Norway      | 151 285   | 160 670   | 157 027   | 145 469   | 138 973   |
| Poland      | 137 300   | 133 900   | 141 900   | 142 500   | 139 100   |
| Romania     | 56 795    | 43 705    | 58 342    | 61 978    | 1 000     |
| Spain       | 501 400   | 507 300   | 509 000   | 466 000   | 515 000   |
| EU33 Total  | 2 336 000 | 2 262 000 | 2 284 000 | 2 234 000 | 1 960 000 |

**EU33 Production of slab zinc 2005 - 09**

**Exports of zinc**

tonnes

| Country              | 2005    | 2006    | 2007    | 2008    | 2009     |
|----------------------|---------|---------|---------|---------|----------|
| Austria              |         |         |         |         |          |
| Unwrought (a)        | 13 469  | 19 981  | 14 682  | 13 794  | 5 703    |
| Scrap                | 3 559   | 4 329   | 2 132   | 8 176   | 6 052    |
| Belgium-Luxembourg   |         |         |         |         |          |
| Ores & concentrates  | 511 730 | 540 810 | 479 825 | 735 050 | 785 125  |
| Unwrought            | 10 058  | 13 275  | 22 114  | 8 379   | 13 626   |
| Scrap                | 37 754  | 57 851  | 42 673  | 15 900  | 17 067   |
| Bulgaria             |         |         |         |         |          |
| Ores & concentrates  | ...     | 492     | 4 384   | 7 982   | 2 076    |
| Unwrought (a)        | 82 902  | 227 543 | 90 573  | 96 678  | 87 008   |
| Scrap                | 1 576   | 1 854   | 1 511   | 1 293   | 2 226    |
| Croatia              |         |         |         |         |          |
| Scrap                | 417     | 511     | 683     | 700     | 708      |
| Cyprus               |         |         |         |         |          |
| Scrap                | 63      | 69      | 1 746   | ...     | 118      |
| Czech Republic       |         |         |         |         |          |
| Unwrought (a)        | 7 865   | 10 669  | 18 786  | 17 258  | 19 982   |
| Scrap                | 2 498   | 3 086   | 2 981   | 2 705   | 2 716    |
| Denmark              |         |         |         |         |          |
| Scrap                | 3 538   | 3 628   | 2 388   | 2 028   | 2 622    |
| Estonia              |         |         |         |         |          |
| Scrap                | 539     | 1 121   | 725     | 2 860   | 1 065    |
| Finland              |         |         |         |         |          |
| Unwrought (a)        | 235 403 | 233 231 | 260 434 | 257 411 | 268 893  |
| Scrap                | 2 116   | 1 650   | 1 274   | 964     | 1 012    |
| France               |         |         |         |         |          |
| Ores & concentrates  | 39 463  | 47 516  | 51 781  | 78 398  | 39 350   |
| Unwrought            | 80 472  | 31 960  | 29 305  | 31 601  | 64 773   |
| Unwrought alloys     | 33 940  | 12 205  | 7 238   | 5 073   | 9 362    |
| Scrap                | 63 571  | 71 224  | 56 200  | 43 770  | 45 986   |
| Germany              |         |         |         |         |          |
| Ores & concentrates  | 7 257   | 2 336   | 612     | 1 835   | 888      |
| Unwrought            | 81 664  | 65 824  | 77 443  | 70 724  | 63 165   |
| Unwrought alloys     | 30 115  | 29 999  | 30 439  | 28 835  | 24 163   |
| Scrap                | 55 913  | 54 939  | 59 297  | 51 801  | 68 648   |
| Greece               |         |         |         |         |          |
| Ores & concentrates  | 3 276   | 12 615  | 14 890  | 43 003  | 21 311   |
| Unwrought (a)        | 334     | 1 802   | 29 861  | 448     | 665      |
| Hungary              |         |         |         |         |          |
| Unwrought            | 415     | 1 189   | —       | (a) 523 | —        |
| Scrap                | 3 938   | 4 557   | 3 716   | 1 902   | 2 978    |
| Iceland              |         |         |         |         |          |
| Scrap                | 49      | ...     | ...     | ...     | ...      |
| Ireland, Republic of |         |         |         |         |          |
| Ores & concentrates  | 522 312 | 483 949 | 412 703 | 404 303 | 594 268  |
| Scrap                | 684     | 569     | 3 044   | 649     | 312      |
| Italy                |         |         |         |         |          |
| Ores & concentrates  | 96 439  | 114 339 | 105 437 | 99 121  | 48 051   |
| Unwrought            | 9 230   | 37 659  | 21 048  | 7 967   | 5 258    |
| Unwrought alloys     | 2 854   | 7 792   | 6 689   | 2 857   | 3 491    |
| Scrap                | 13 652  | 12 934  | 13 574  | 8 603   | 12 334   |
| Latvia               |         |         |         |         |          |
| Scrap                | 629     | 750     | 757     | 443     | 975      |
| Lithuania            |         |         |         |         |          |
| Scrap                | 685     | 976     | 517     | 232     | 553      |
| Macedonia            |         |         |         |         |          |
| Ores & concentrates  | 3 306   | 23 106  | 58 973  | ...     | 69 509   |
| Scrap                | 720     | 719     | 874     | 576     | 479      |
| Netherlands          |         |         |         |         |          |
| Ores & concentrates  | 5 836   | 3 730   | 13 939  | 0       | 425      |
| Unwrought            | 273 832 | 615 269 | 243 354 | 244 789 | 133 994  |
| Unwrought alloys     | 9 364   | 38 116  | 31 276  | 23 932  | 22 041   |
| Scrap                | 41 593  | 39 073  | 67 010  | 19 815  | * 11 900 |
| Norway               |         |         |         |         |          |
| Unwrought            | 134 690 | 138 491 | 130 570 | 130 397 | 128 416  |
| Unwrought alloys     | 5 600   | 12 275  | 13 899  | 9 227   | 6 107    |

## Zinc

## Exports continued

tonnes

| Country             | 2005    | 2006      | 2007      | 2008      | 2009      |
|---------------------|---------|-----------|-----------|-----------|-----------|
| Poland              |         |           |           |           |           |
| Ores & concentrates | 63 913  | 61 094    | 61 595    | 58 035    | 45 877    |
| Unwrought           | 74 938  | 62 332    | 73 096    | 83 571    | 84 833    |
| Unwrought alloys    | 857     | 2 513     | 1 829     | 3 606     | 4 699     |
| Scrap               | 797     | 233       | 422       | 430       | 1 617     |
| Portugal            |         |           |           |           |           |
| Ores & concentrates | ...     | 13 035    | 40 950    | 75 414    | 371       |
| Unwrought (a)       | 127     | 706       | 242       | 1 307     | 849       |
| Scrap               | 2 050   | 2 023     | 3 345     | 2 910     | 1 646     |
| Romania             |         |           |           |           |           |
| Ores & concentrates | 26 611  | 16 796    | 4 043     | 503       | 24 528    |
| Unwrought (a)       | 42 012  | 32 008    | 48 339    | 59 395    | 8 004     |
| Scrap               | 1 073   | 228       | 1 348     | 442       | 1 615     |
| Slovakia            |         |           |           |           |           |
| Unwrought           | 3 522   | 5 232     | 16 356    | 14 600    | 12 871    |
| Unwrought alloys    | 3 618   | 14 053    | 7 147     | 10 412    | 11 365    |
| Slovenia            |         |           |           |           |           |
| Unwrought           | 180     | (a) 1 553 | (a) 1 557 | (a) 1 937 | (a) 1 469 |
| Scrap               | 803     | 846       | 873       | 975       | 517       |
| Spain               |         |           |           |           |           |
| Ores & concentrates | 67 420  | 31 416    | 98 359    | 121 688   | 40 118    |
| Unwrought           | 333 966 | 270 233   | 220 002   | 191 897   | 216 633   |
| Unwrought alloys    | 32 673  | 87 073    | 66 155    | 92 781    | 62 544    |
| Scrap               | 11 981  | 7 946     | 5 295     | 6 210     | 8 865     |
| Sweden              |         |           |           |           |           |
| Ores & concentrates | 372 925 | 402 219   | 405 682   | 389 473   | 395 616   |
| Unwrought (a)       | 165     | 1 143     | 103       | 538       | 302       |
| Scrap               | 16 134  | 29 015    | 2 777     | 2 898     | 1 840     |
| Switzerland         |         |           |           |           |           |
| Unwrought (a)       | 897     | 1 001     | 679       | 1 078     | 524       |
| Scrap               | 2 480   | 2 856     | 2 408     | 2 445     | 2 574     |
| Turkey              |         |           |           |           |           |
| Ores & concentrates | 138 288 | 144 662   | 123 956   | 253 573   | 272 559   |
| Scrap               | 53      | 176       | 281       | 468       | 1 929     |
| United Kingdom      |         |           |           |           |           |
| Ores & concentrates | 141     | 468       | 82        | 246       | 11 418    |
| Unwrought           | 1 661   | 5 325     | 5 932     | 3 883     | 3 600     |
| Unwrought alloys    | 38 267  | 37 120    | 33 799    | 28 408    | 13 578    |
| Scrap               | 9 881   | 4 571     | 7 543     | 5 699     | 6 030     |

## Note(s)

(1) In this table the term 'unwrought' zinc corresponds to item 7901 of the Harmonised System and comprises blocks, pigs, slabs, etc.

(a) Including alloys

## Imports of zinc

tonnes

| Country             | 2005      | 2006      | 2007      | 2008        | 2009      |
|---------------------|-----------|-----------|-----------|-------------|-----------|
| Austria             |           |           |           |             |           |
| Unwrought           | 58 838    | 61 856    | 65 391    | 61 877      | 37 864    |
| Unwrought alloys    | 28 955    | 41 002    | 33 939    | 33 911      | 27 886    |
| Belgium-Luxembourg  |           |           |           |             |           |
| Ores & concentrates | 1 182 083 | 1 109 923 | 1 100 875 | * 1 100 000 | * 550 000 |
| Unwrought           | 46 505    | 73 894    | 218 660   | 211 576     | 243 790   |
| Unwrought alloys    | 35 653    | 24 414    | 13 475    | 8 612       | 13 536    |
| Scrap               | 44 890    | 44 221    | 60 039    | 40 657      | 61 433    |
| Bulgaria            |           |           |           |             |           |
| Ores & concentrates | 149 735   | 198 504   | 208 313   | 146 655     | 147 579   |
| Unwrought (a)       | 1 450     | 9 994     | 3 330     | 5 095       | 2 480     |
| Croatia             |           |           |           |             |           |
| Unwrought (a)       | 3 329     | 11 506    | 4 674     | 4 656       | 3 149     |

## Imports continued

tonnes

| Country              | 2005    | 2006    | 2007    | 2008    | 2009    |
|----------------------|---------|---------|---------|---------|---------|
| Czech Republic       |         |         |         |         |         |
| Unwrought            | 28 263  | 33 732  | 35 666  | 36 733  | 24 660  |
| Unwrought alloys     | 8 039   | 11 113  | 11 992  | 11 344  | 7 155   |
| Scrap                | 565     | 334     | 4 008   | 2 792   | 2 434   |
| Denmark              |         |         |         |         |         |
| Unwrought            | 9 855   | 11 494  | 9 931   | 12 591  | 6 063   |
| Unwrought alloys     | 1 457   | 1 320   | 1 345   | 910     | 771     |
| Estonia              |         |         |         |         |         |
| Unwrought (a)        | 9 129   | 7 253   | 4 362   | 7 676   | 1 595   |
| Finland              |         |         |         |         |         |
| Ores & concentrates  | 499 024 | 520 081 | 555 569 | 582 049 | 532 036 |
| Unwrought (a)        | 1 314   | 1 443   | 4 513   | 4 242   | 3 705   |
| France               |         |         |         |         |         |
| Ores & concentrates  | 423 664 | 250 791 | 259 750 | 238 502 | 241 976 |
| Unwrought            | 143 476 | 170 263 | 166 110 | 164 172 | 128 674 |
| Unwrought alloys     | 45 566  | 47 309  | 44 124  | 45 480  | 27 000  |
| Scrap                | 6 996   | 7 833   | 7 247   | 3 694   | 4 604   |
| Germany              |         |         |         |         |         |
| Ores & concentrates  | 401 829 | 314 268 | 357 692 | 383 789 | 271 554 |
| Unwrought            | 245 794 | 313 034 | 316 603 | 305 075 | 285 965 |
| Unwrought alloys     | 76 981  | 83 795  | 87 785  | 89 738  | 36 350  |
| Scrap                | 22 480  | 30 028  | 19 586  | 17 395  | 16 782  |
| Greece               |         |         |         |         |         |
| Unwrought (a)        | 20 110  | 19 320  | 58 708  | 28 996  | 25 422  |
| Hungary              |         |         |         |         |         |
| Unwrought (a)        | 14 529  | 19 093  | 16 843  | 17 011  | 9 862   |
| Ireland, Republic of |         |         |         |         |         |
| Unwrought (a)        | 3 629   | 7 010   | 7 687   | 5 185   | 2 210   |
| Italy                |         |         |         |         |         |
| Ores & concentrates  | 219 491 | 175 253 | 195 798 | 161 838 | 155 028 |
| Unwrought            | 261 192 | 229 040 | 314 714 | 179 691 | 118 424 |
| Unwrought alloys     | 34 929  | 42 768  | 51 514  | 81 350  | 22 194  |
| Scrap                | 14 172  | 18 541  | 21 599  | 15 369  | 15 315  |
| Latvia               |         |         |         |         |         |
| Unwrought (a)        | 654     | 953     | 664     | 1 256   | 830     |
| Lithuania            |         |         |         |         |         |
| Unwrought (a)        | 547     | 1 554   | 627     | 563     | 190     |
| Macedonia            |         |         |         |         |         |
| Unwrought (a)        | 3 750   | 15 658  | 6 721   | 4 954   | 4 147   |
| Netherlands          |         |         |         |         |         |
| Ores & concentrates  | 484 472 | 532 861 | 359 520 | 430 617 | 320 568 |
| Unwrought            | 144 592 | 200 472 | 182 072 | 155 003 | 104 253 |
| Unwrought alloys     | 2 387   | 40 482  | 38 602  | 24 062  | 15 791  |
| Scrap                | 15 257  | 14 619  | 13 633  | 6 270   | 8 274   |
| Norway               |         |         |         |         |         |
| Ores & concentrates  | 255 158 | 248 486 | 284 791 | 243 213 | 209 649 |
| Unwrought (a)        | 247     | 2 828   | 2 167   | 3 286   | 1 612   |
| Poland               |         |         |         |         |         |
| Ores & concentrates  | 78 746  | 129 551 | 127 720 | 150 283 | 130 258 |
| Unwrought            | 13 333  | 28 714  | 31 838  | 26 811  | 18 498  |
| Unwrought alloys     | 13 337  | 11 421  | 13 660  | 11 906  | 8 922   |
| Scrap                | 3 899   | 2 681   | 4 445   | 6 378   | 3 907   |
| Portugal             |         |         |         |         |         |
| Unwrought            | 11 862  | 19 015  | 16 367  | 19 551  | 12 830  |
| Unwrought alloys     | 11 573  | 5 778   | 5 054   | 4 617   | 4 018   |
| Romania              |         |         |         |         |         |
| Ores & concentrates  | 150 282 | 137 878 | 173 536 | 161 527 | 12      |
| Unwrought (a)        | 14 640  | 23 732  | 13 135  | 7 394   | 10 523  |
| Slovakia             |         |         |         |         |         |
| Unwrought (a)        | 43 437  | 45 143  | 44 959  | 41 003  | 28 863  |
| Slovenia             |         |         |         |         |         |
| Unwrought            | 15 015  | 17 571  | 16 696  | 14 881  | 16 766  |
| Unwrought alloys     | 6 701   | 11 864  | 11 711  | 8 938   | 6 180   |

Zinc

Imports continued

tonnes

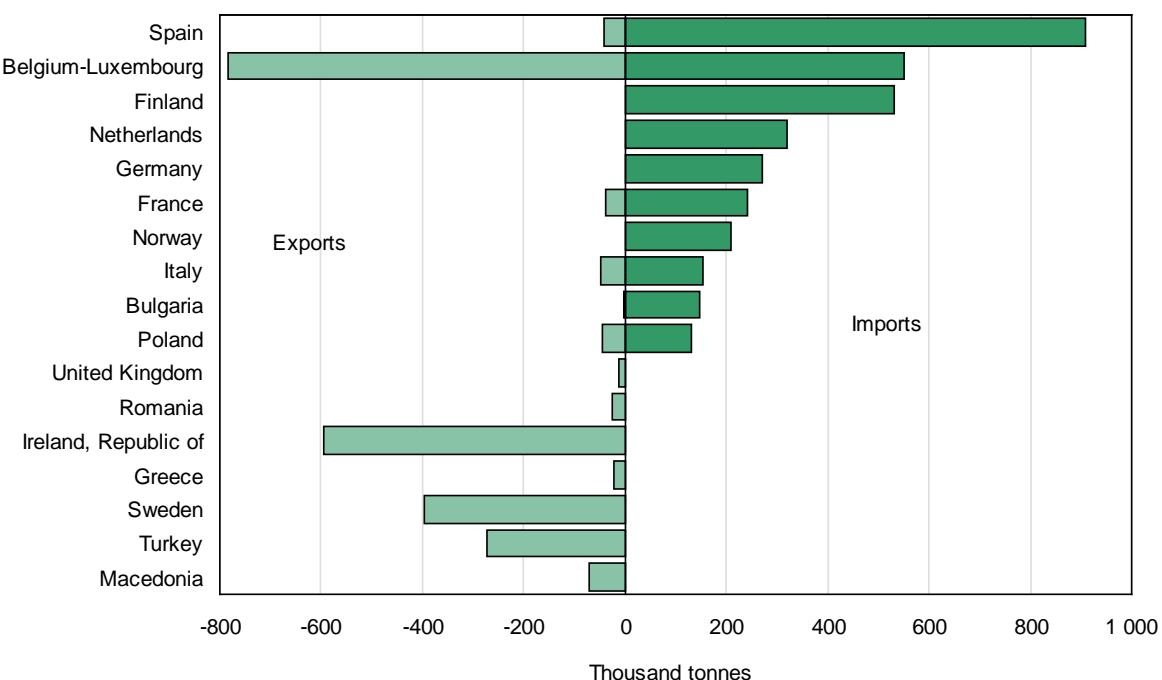
| Country             | 2005      | 2006      | 2007      | 2008      | 2009    |
|---------------------|-----------|-----------|-----------|-----------|---------|
| Spain               |           |           |           |           |         |
| Ores & concentrates | 1 090 022 | 1 188 067 | 1 257 304 | 1 114 634 | 909 078 |
| Unwrought           | 8 203     | 7 577     | 21 634    | 26 779    | 16 091  |
| Unwrought alloys    | 17 858    | 18 933    | 17 411    | 15 000    | 9 230   |
| Scrap               | 3 927     | 4 996     | 6 601     | 7 396     | 3 127   |
| Sweden              |           |           |           |           |         |
| Unwrought           | 29 847    | 25 763    | 21 570    | 29 211    | 29 750  |
| Unwrought alloys    | 16 812    | 20 325    | 22 600    | 12 059    | 2 691   |
| Switzerland         |           |           |           |           |         |
| Unwrought           | 13 045    | 12 189    | 14 473    | 13 715    | 9 431   |
| Unwrought alloys    | 2 601     | 2 214     | 2 700     | 2 471     | 1 549   |
| Turkey              |           |           |           |           |         |
| Unwrought           | 141 842   | 397 384   | 136 916   | 147 215   | 137 765 |
| Unwrought alloys    | 6 121     | 5 481     | 3 775     | 4 091     | 1 714   |
| Scrap               | 153       | 3 206     | 1 913     | 1 381     | 181     |
| United Kingdom      |           |           |           |           |         |
| Unwrought           | 135 840   | 119 676   | 122 458   | 119 911   | 84 594  |
| Unwrought alloys    | 16 128    | 15 666    | 13 201    | 8 524     | 1 869   |

Note(s)

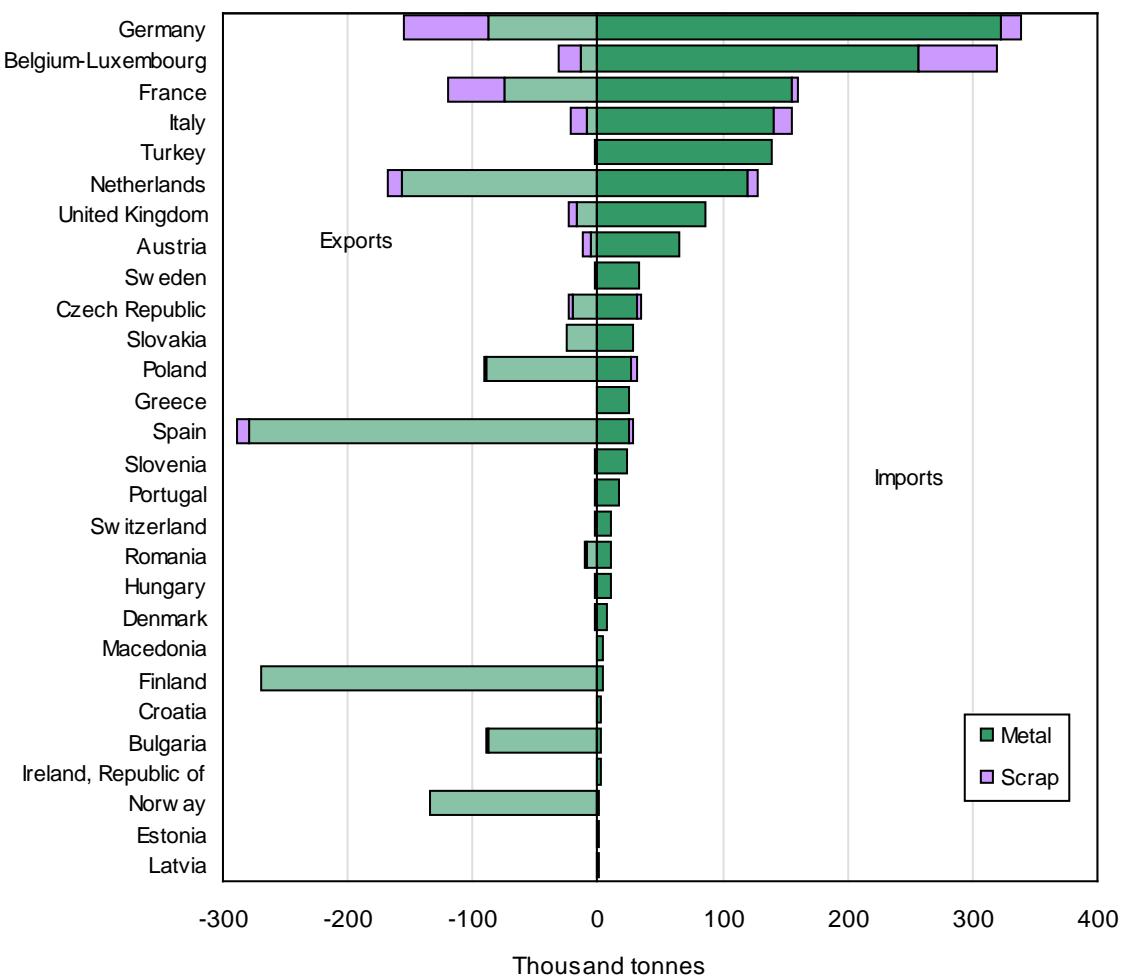
(1) In this table the term 'unwrought' zinc corresponds to item 7901 of the Harmonised System and comprises blocks, pigs, slabs, etc.

(a) Including alloys

Zinc ore - EU33 trade in 2009



## Zinc - EU33 trade in 2009



## Zirconium minerals

- The mineral zircon (zirconium silicate) is the principal zirconium commodity. Due to its very high melting temperature and chemical stability, it is used as a refractory in furnace and ladle linings, foundry sands and ceramic manufacture. Zirconium metal manufacture is a very small part of total output.
- Zircon is recovered from heavy mineral sands, typically as a co-product with titanium minerals, and the relative rarity of large deposits restricts production to only a few countries. The largest producers in 2009 were Australia (36 per cent) and South Africa (30 per cent).

### Exports of zirconium

tonnes

| Country            | 2005   | 2006   | 2007   | 2008   | 2009   |
|--------------------|--------|--------|--------|--------|--------|
| Belgium-Luxembourg |        |        |        |        |        |
| Concentrates       | 22 965 | 27 054 | 23 645 | 16 056 | 28 907 |
| Metal              | 222    | 144    | 251    | 157    | 125    |
| France             |        |        |        |        |        |
| Concentrates       | 1 058  | 2 316  | 1 832  | 1 440  | 1 243  |
| Germany            |        |        |        |        |        |
| Concentrates       | 5 211  | 1 643  | 2 057  | 2 799  | 1 562  |
| Metal              | 286    | 434    | 514    | 625    | 386    |
| Italy              |        |        |        |        |        |
| Concentrates       | 21 760 | 23 472 | 25 596 | 41 296 | 33 219 |
| Metal              | 455    | 260    | 630    | 233    | 274    |
| Netherlands        |        |        |        |        |        |
| Concentrates       | 8 178  | 7 391  | 14 539 | 8 223  | 4 639  |
| Slovenia           |        |        |        |        |        |
| Concentrates       | 1 009  | 1 186  | 509    | 202    | 22     |
| Spain              |        |        |        |        |        |
| Concentrates       | 9 805  | 9 811  | 11 803 | 14 151 | 13 581 |
| Metal              | 820    | 110    | 200    | 525    | 746    |
| United Kingdom     |        |        |        |        |        |
| Concentrates       | 699    | 902    | 1 096  | 716    | 742    |

## Note(s)

(1) Metal traded in ferro-alloy form is included under iron, steel and ferro-alloys

### Imports of zirconium

tonnes

| Country              | 2005   | 2006   | 2007   | 2008   | 2009   |
|----------------------|--------|--------|--------|--------|--------|
| Austria              |        |        |        |        |        |
| Concentrates         | 1 200  | 1 285  | 2 054  | 2 163  | 1 298  |
| Belgium-Luxembourg   |        |        |        |        |        |
| Concentrates         | 14 504 | 18 763 | 17 593 | 17 337 | 28 897 |
| Metal                | 605    | 556    | 469    | 433    | 214    |
| Bulgaria             |        |        |        |        |        |
| Concentrates         | 1 589  | 1 421  | 1 357  | 1 081  | 573    |
| Czech Republic       |        |        |        |        |        |
| Concentrates         | 655    | 1 498  | 1 482  | 751    | 268    |
| Metal                | 60     | 86     | 78     | 101    | 45     |
| France               |        |        |        |        |        |
| Concentrates         | 53 701 | 48 973 | 47 719 | 55 030 | 25 087 |
| Metal                | 207    | 378    | 570    | 456    | 553    |
| Germany              |        |        |        |        |        |
| Concentrates         | ...    | —      | —      | 76 070 | 51 179 |
| Metal                | 503    | 571    | 880    | 791    | 664    |
| Greece               |        |        |        |        |        |
| Concentrates         | 629    | 466    | 547    | 429    | 122    |
| Hungary              |        |        |        |        |        |
| Concentrates         | 3 266  | ...    | 2 427  | 2 439  | 1 265  |
| Ireland, Republic of |        |        |        |        |        |
| Concentrates         | 248    | 258    | 425    | 3 976  | 1 323  |

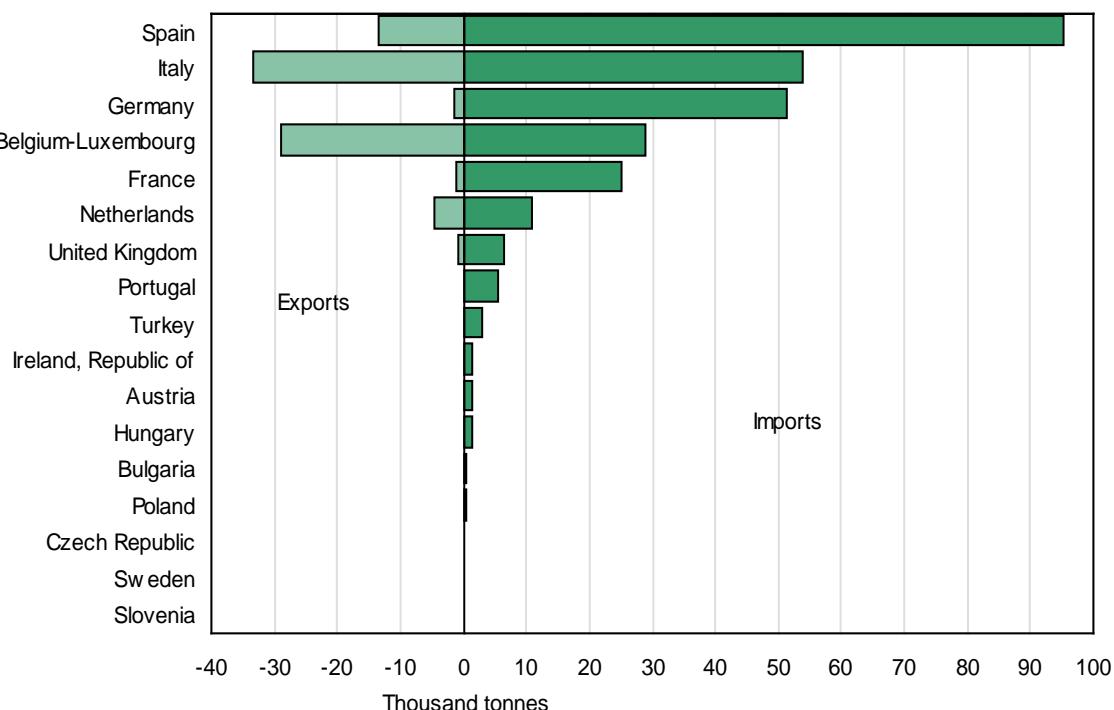
**Imports of zirconium**

tonnes

| Country        | 2005    | 2006    | 2007    | 2008    | 2009   |
|----------------|---------|---------|---------|---------|--------|
| Italy          |         |         |         |         |        |
| Concentrates   | 147 435 | 143 672 | 114 838 | 129 999 | 53 845 |
| Metal          | 120     | 128     | 315     | 130     | 226    |
| Netherlands    |         |         |         |         |        |
| Concentrates   | 10 975  | 15 948  | 20 462  | 24 694  | 11 027 |
| Metal          | 88      | 123     | 199     | 240     | * 70   |
| Poland         |         |         |         |         |        |
| Concentrates   | 870     | 863     | 542     | 833     | 340    |
| Portugal       |         |         |         |         |        |
| Concentrates   | 5 918   | 6 426   | 7 205   | 8 162   | 5 620  |
| Romania        |         |         |         |         |        |
| Concentrates   | 552     | 766     | 303     | 437     | 190    |
| Metal          | 22      | 32      | 16      | 136     | 301    |
| Slovenia       |         |         |         |         |        |
| Concentrates   | 625     | 443     | 550     | 548     | 227    |
| Spain          |         |         |         |         |        |
| Concentrates   | 153 619 | 149 710 | 138 442 | 152 604 | 95 103 |
| Metal          | 56      | 55      | 65      | 136     | 83     |
| Sweden         |         |         |         |         |        |
| Concentrates   | 588     | 750     | 825     | 832     | 248    |
| Metal          | 91      | 134     | 219     | 185     | 218    |
| Switzerland    |         |         |         |         |        |
| Metal          | 117     | 29      | 29      | 19      | 38     |
| Turkey         |         |         |         |         |        |
| Concentrates   | 4 581   | 1 118   | 980     | 4 844   | 2 918  |
| United Kingdom |         |         |         |         |        |
| Concentrates   | 19 519  | 13 729  | 11 007  | 13 092  | 6 386  |
| Metal          | 338     | 467     | 446     | 521     | 203    |

## Note(s)

(1) Metal traded in ferro-alloy form is included under iron, steel and ferro-alloys

**Zirconium concentrates - EU33 trade in 2009**

## Borates

- Borates is a general term for a range of boron-containing minerals of which borax (tincal), ulexite, colemanite and datolite are the most commercially significant. These minerals are processed via boron trioxide to boric acid. The chief use of borate minerals is in glass manufacture (in particular fibreglass) and ceramics.
- Economic concentrations form in unusual geological environments and so production is restricted to a few countries. Of these, Turkey (33.5 per cent of world production) was the largest in the world in 2009 and was the only EU33 producer.

### Production of borates

tonnes

| Country | 2005      | 2006      | 2007      | 2008      | 2009      |
|---------|-----------|-----------|-----------|-----------|-----------|
| Turkey  | 2 087 000 | 2 373 345 | 1 997 163 | 2 139 224 | 1 682 000 |

## Nepheline syenite

- Nepheline syenite is an igneous rock composed chiefly of feldspar and nepheline (one of a family of minerals called feldspathoids). The chief uses are similar to those for feldspar, i.e. in the manufacture of glass, in ceramics and as a filler.
- Economic concentrations form in rare geological environments and only four countries produce nepheline syenite. Russia was the largest known producer in 2009, followed by Canada and Norway. Iran is also believed to produce nepheline syenite but accurate figures of the quantity are difficult to obtain.

### Production of nepheline syenite

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| Country | 2005    | 2006    | 2007    | 2008    | 2009    |
|---------|---------|---------|---------|---------|---------|
| Norway  | 320 000 | 312 000 | 312 000 | 346 000 | 270 000 |

## Perlite

- Perlite is a silicate mineral that results from the alteration of natural glass with the chemical composition of granite. Upon heating the mineral swells and dewater — resulting in a sudden increase in volume accompanied by a decrease in density. It has remarkable thermal insulation properties, porosity, chemical stability, low flammability, high heat resistance and high sound absorption. It is chiefly used in building materials.
- More than 20 countries produce perlite. Greece is believed to be the largest perlite producer in the world, followed by China and the USA.

### Production of perlite

tonnes

| Country  | 2005      | 2006        | 2007      | 2008      | 2009      |
|----------|-----------|-------------|-----------|-----------|-----------|
| Bulgaria | 15 300    | 4 500       | 13 900    | 7 400     | 14 800    |
| Greece   | 1 075 129 | * 1 100 000 | 1 100 000 | 1 000 000 | 862 935   |
| Hungary  | 69 900    | 71 019      | 67 542    | 132 000   | 82 058    |
| Italy    | * 60 000  | * 60 000    | * 60 000  | * 60 000  | * 60 000  |
| Slovakia | 8 630     | 10 560      | 20 000    | 25 000    | 25 000    |
| Turkey   | 156 935   | * 160 000   | * 160 000 | * 160 000 | * 160 000 |

## Selenium metal

- Selenium is a light, weakly toxic, metalloid. Selenium has a wide range of uses; the largest is in glass-making where it acts as a decolouriser, and it is also used in ceramics, pigments, electronics, animal feed supplement and in base-metal alloys. Its former major use in photocopiers has declined as it has been replaced by other materials.
- Selenium is most commonly produced as a by-product of copper refining. Thus, production tends to occur in the countries that produce significant amounts of refined copper. The largest world producer in 2009 was Japan. In the EU33 countries, Germany and Belgium are the largest producers.

### Production of selenium metal

| Country | 2005  | 2006  | 2007  | 2008  | 2009  |
|---------|-------|-------|-------|-------|-------|
| Belgium | * 200 | * 200 | * 200 | * 200 | * 200 |
| Finland | 66    | 70    | 52    | 65    | 66    |
| Germany | * 250 | * 250 | * 250 | * 250 | * 230 |
| Poland  | 82    | 87    | 85    | 82    | 80    |
| Sweden  | 122   | 135   | 126   | 139   | * 140 |

## Strontium minerals

- Strontium is a soft metallic element. The most common strontium mineral is celestite (strontium sulphate). This is frequently converted into strontium carbonate before marketing. The dominant use of strontium is (in oxide form) in the faceplate glass of cathode ray tubes where it blocks X-ray emissions. Strontium compounds are also used in pigments, pyrotechnics and fluorescent tubes. Strontium metal has only very minor uses.
- Only a small number of countries produce strontium minerals. China is believed to be the world's largest producer with 87 per cent of world production. Spain is the second largest known producer in the world, contributing seven per cent to the world total.

### Production of strontium minerals

| Country | 2005     | 2006    | 2007    | 2008    | 2009   |
|---------|----------|---------|---------|---------|--------|
| Spain   | 336 630  | 280 195 | 142 512 | 138 590 | 57 466 |
| Turkey  | * 18 000 | * 6 300 | * 4 200 | * 1 600 | ...    |

#### Note(s)

(1) In addition to the countries listed, Germany and Poland are believed to produce strontium minerals

## Uranium

- Uranium is a dense metallic element. It is chiefly used as the fuel source for nuclear power stations. Uranium ore is milled and processed into 'yellowcake' (a uranium oxide), which is the chief form in international trade. Yellowcake is converted to uranium hexafluoride, which is then enriched to enable it to be used as a fuel.
- In 2009, Kazakhstan overtook Canada to become the world's largest producer of mined uranium with a 63 per cent increase in output compared to 2008. Kazakhstan now contributes 27 per cent to the world total compared to Canada's 20 per cent and Australia's 16 per cent. In the EU33, a small amount of uranium was mined in the Czech Republic. In addition there was minor production from Romania and Germany.

### Mine production of uranium

| Country   | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|------|------|------|------|------|
| Czech Republic                                  | 420  | 383  | 322  | 290  | 286  |
| Germany   | 80   | 65   | 41   | * 40 | * 60 |
| Romania   | * 90 | * 90 | * 77 | * 77 | * 75 |
| EU33 Total                                      | 590  | 538  | 440  | 407  | 421  |
| EU33 Total ( $\text{U}_3\text{O}_8$ equivalent) | 696  | 635  | 519  | 480  | 497  |

Note(s)

(1) Excluding uranium production from decommissioning operations in France, Germany and Spain

## Wollastonite

- Wollastonite (calcium metasilicate) is a commercially important mineral because of its bladed (acicular) crystals. It is used as filler in plastics, ceramics, paint and friction products and as an asbestos substitute.
- Production is restricted to a handful of countries, of which China was the largest in 2009 with an estimated 55 per cent of world production. Spain and Finland were the only EU33 producers, together contributing four per cent to world production.

### Production of wollastonite

| Country | 2005     | 2006     | 2007   | 2008   | 2009     |
|---------|----------|----------|--------|--------|----------|
| Finland | 15 950   | 16 200   | 16 364 | 15 600 | * 16 000 |
| Spain   | * 30 000 | * 30 000 | 10 918 | 10 100 | 7 000    |

Note(s)

(1) In addition to the countries listed, Turkey is believed to produce wollastonite



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