

BRITISH GEOLOGICAL SURVEY

WORLD MINERAL STATISTICS
1987–91

Volume 1: Metals & Energy

Production: Exports: Imports

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BRITISH GEOLOGICAL SURVEY

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The British Geological Survey carries out the geological survey of Great Britain and Northern Ireland (the latter as an agency service for the government of Northern Ireland), and of the surrounding continental shelf, as well as its basic research projects. It also undertakes programmes of British technical aid in geology in developing countries as arranged by the Overseas Development Administration.

The British Geological Survey is a component body of the Natural Environment Research Council.

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PREFACE

This volume is the sixteenth in the series *World Mineral Statistics*.

The first volume in this series was published in 1978 but publication by the British Geological Survey, and its precursors, of descriptive statistics encompassing the mineral industry world-wide dates back to 1913 in the well-known *Statistical Summary of the Mineral Industry*. The current volume is therefore the latest in a continuous series encompassing 79 years.

In response to the wishes of many of our subscribers, the current edition of *World Mineral Statistics* is being published in two volumes: **Metals and Energy** and **Industrial Minerals**. It is hoped that this will enable the book to serve better those with specific interests in the minerals field. A precise split between the two categories has not been possible; consequently some materials are featured in both volumes. These are bauxite, alumina, chromite, lithium minerals, rare earths and titanium minerals.

Production data for 1992 will be made available on microfiche towards the end of this year. Publication of a special production supplement is to be resumed at the same time. The first issue will contain production data for 1992. Development of a dial-up subscription service, for accessing the World Mineral Statistics database on line, is continuing.

Trends in mineral production were generally downwards from 1990 to 1991, reflecting the recession in most of the major economies.

Coal recorded in 1990, its first year-on-year fall since 1967 and the decline steepened in 1991 with world production falling by 6% to its lowest level since 1984. Petroleum production fell slightly in 1991. Natural gas remained steady.

In contrast to 1990, the production of most of the industrial minerals also fell in 1991, although barytes, kaolin, magnesite and salt resisted this trend. The production of fluorspar fell sharply partly due to the decline, for environmental reasons, in the use of chlorinated fluoro-carbons.

The mine production of most metals fell in 1991, the second annual fall since the numerous all-time peaks of 1989 but precious metals and the major base metals, copper, lead and zinc, showed increases. These were not, however, matched by similar rises in consumption and as a consequence the levels of stocks rose, in general, worldwide. In contrast to the general situation, there was a fall in reported production of base metals in the Soviet Union, but exports from that country, especially of aluminium, lead and nickel, increased markedly.

An appendix showing reconstructed trade data, which was a feature of previous volumes, has not been included this year. However, the research required to produce this data is on-going and the reconstructed figures to appear in the commodity tables where they are shown as estimates. Price and production graphics have been discontinued in this issue. It is hoped that it will be possible to re-introduce them in up-graded form in future issues.

The reader should be aware that this publication is compiled from a more comprehensive data set maintained by the staff of the Minerals Group of the British Geological Survey. Additional data such as those for value of minerals produced, for country breakdown of trade, and for trade in other minerals, are available on enquiry. Although data on consumption is not compiled, it will be evident to the reader that it is possible to calculate approximate apparent consumption of many commodities from the published data, although stock changes have to be ignored unless such information is obtainable elsewhere.

In each new volume account is taken of revisions and information received after the publication of the previous issue, so that data for every year are up-to-date as is practicable. The objective remains to present the latest complete information from primary sources, that is from individual producing and trading countries, rather than to reproduce data from compilations made by other organisations working in the same field of world mineral statistics. However, such secondary sources have been fully consulted and the cooperation afforded to the British Geological Survey by numerous national and international organisations, in particular the International Consultative Group on Non-Ferrous Metal Statistics, is gratefully acknowledged.

Many problems now surround the mineral production and trade statistics for countries of the former communist bloc, particularly where political revision has not yet been matched by reorganisation of the institutions responsible for the collection of statistics. Every effort has been made by the compilers of *World Mineral Statistics* to ensure that figures truly refer to the countries indicated but users of these volumes should take particular note of commentaries and footnotes in these cases.

The British Geological Survey continues to provide to customers a reliable, comprehensive and continuous set of data covering most of the minerals that enter international trade. In view of the political and economic changes that are taking place in several major mineral-producing countries, and the attention now given to sustainable development and other global environmental concerns, the availability of such a statistical series is vital for the intelligent analysis of the use of mineral resources. Funding constraints make the continuation of this service increasingly difficult but it is our hope that the present high standards will be maintained.

Criticisms and suggestions that might help us to meet your changing needs would be welcome.

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Director

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16 November 1993

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EXPLANATORY NOTES

Coverage

World Mineral Statistics: Volume 1 covers the majority of economically important, and internationally traded, metal and energy minerals. It should be noted that prior to 1992 (data to 1989) both metallic and non-metallic minerals were included in one volume of the same title. 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 in the Minerals Group files and is available for consultation. Historical data (1913–1970) can be obtained from the predecessor of this series entitled the *Statistical Summary of the Mineral Industry*.

Arrangement of countries

After the United Kingdom, if listed, countries are ordered alphabetically in geographical groupings as follows:

- European Economic Community (EEC)
- Europe other than EEC; including the Soviet Union
- Africa
- North and Central America, including the Caribbean
- South America
- Asia
- Australasia, including the Pacific Islands

So far as possible the nomenclature follows the London Diplomatic List and United Nations usage.

German Democratic Republic For 1991, the data shown against Federal Republic of Germany includes data for the former German Democratic Republic, where available.

Soviet Union This country name has been retained for 1987–91 data pending clarification of statistical sources in the CIS.

Production data

Metals Mine production of many metals is expressed in terms of metal content. This is clearly indicated at the head of the table, adjacent to the unit used. For aluminium, cobalt, copper, iron, lead, nickel, tin and zinc, mine production and metal production are shown in separate tables. Unless otherwise specified, metal production statistics relate to metal recovered from both domestic or imported materials, whether primary or secondary, but exclude remelted material.

Trade data

Federal Republic of Germany Data up to 1990 include shipments to, and purchases from the German Democratic Republic.

South Africa Import data are taken from the trade statistics of the common customs area, which includes Botswana, Lesotho, South Africa and Swaziland, and relate to this area as a whole. Where separate data are available for any of these countries they have also been shown even though this may result in some double counting.

Export data are taken from returns furnished by producers to the Department of Mineral and Energy Affairs, and may be shipments rather than actual exports.

Estimates for other South African exports, based on reconstruction from importing countries, may include material originating in any of the countries of the common customs area and so involve some double counting on tables where these are listed separately.

USA US trade statistics show trade between the US customs territory and foreign countries, but exclude trade between the US and Puerto Rico, and between the US and Guam, American Samoa and other US possessions. Also excluded is trade between any of these outlying areas, shipments from US possessions to foreign countries, and shipments for the use of the US Government in foreign countries.

General 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 or other countries, the resulting figure may be conservative, as complete coverage of world trade is seldom available.

In general, export statistics include re-exports. The distinction is only made when re-exports are recorded separately in the relevant national trade account and are deemed to be significant.

Tables showing trade in metals covered by Standard International Trade Classification (Revision 3) 689.1, 8 & 9, and 699.6 & 9 (Antimony, Bismuth, Cadmium, Chromium, Cobalt, Manganese, Molybdenum, Tantalum-Niobium, Titanium, Tungsten and Vanadium) include under the term 'metal', unwrought and wrought forms, powder, alloys, waste and scrap, unless these are separately shown. Trade tables of other metals include only unwrought forms under the term 'metal'.

Acknowledgements

Compilation of this volume of mineral statistics has been possible only by obtaining information from a very large number of organisations throughout the world, chiefly home and overseas government departments and specialist national or international authorities concerned with particular sectors of the minerals or metals industries. To all these bodies the British Geological Survey expresses its grateful acknowledgement for the information made available, whether in published form or provided by direct correspondence.

Among the numerous overseas government agencies which have provided valuable information, particular acknowledgement is made to the United States Bureau of Mines; the Department of Energy, Mines and Resources of Canada; the Australian Bureau of Agricultural and Resource Economics; the Department of Mineral and Energy Affairs of South Africa; the Indian Bureau of Mines; and the Mines Departments of other countries whose regular statements, yearbooks and other reports are worthy of direct consultation by readers in search of detail.

Specialist commodity organisations which have kindly allowed information to be reproduced include the International Lead and Zinc Study Group, the UK Iron and Steel Statistics Bureau, and the UNCTAD. In a few instances, information on specific commodities has been obtained directly from company sources.

Supplementary information is also obtained from publications dealing with a wider range of commodities such as American Bureau of Metal Statistics, *Non-ferrous Metal Data*; Annales des Mines, *Realities Industrielles*; International Mining, *Yearbook*; Metaleurop, *Annuaire Statistique*; Metallgesellschaft AG, *Metallstatistik*; Mining Journal, *Mining Annual Review*; Nuova Samim, *Metalli Non Ferrosi*; World Bureau of Metal Statistics, *World Metal Statistics*; and publications of the United Nations and its agencies.

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 metric ton unit = 10 kilograms

1 flask mercury = 34.5 kilograms

Conversion of national currencies to pounds sterling has been made using the annual period 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

S.I.T.C. Standard International Trade Classification

STATISTICAL TABLES

Aluminium and Bauxite

Production of Bauxite

tonnes

Country	1987	1988	1989	1990	1991
France	1 388 200	977 700	550 427	489 805	9 253
Greece	2 455 988	2 460 782	2 550 015	2 511 036	2 164 773
Italy	16 557	17 125	11 761	338	8 700
Spain	1 050	2 500	—	—	—
Albania	16 002	37 669	35 343	23 489	8 000
Hungary	3 101 000	2 593 000	2 644 000	2 559 100	2 036 700
Romania	337 000	356 000	313 000	247 000	200 400
Soviet Union (a)	* 5 700 000	* 5 900 000	* 6 500 000	* 7 500 000	* 6 300 000
Turkey	259 075	269 437	534 273	772 673	460 829
Yugoslavia	3 394 000	3 033 794	3 252 468	2 952 460	(f) 2 542 000
Ghana	195 000	287 300	347 100	381 273	333 800
Guinea	16 413 000	17 859 000	17 547 000	16 150 000	17 065 000
Mozambique	5 114	6 548	5 501	7 186	7 760
Sierra Leone	1 390 600	1 379 200	1 561 800	1 445 120	1 376 200
Dominican Republic	186 671	167 800	150 813	85 164	6 514
Jamaica	7 702 000	7 316 000	9 487 000	10 965 000	11 610 000
USA (b)	576 000	588 000	670 000	* 495 000	* 50 000
Brazil (c)	6 376 650	7 388 000	7 893 000	9 875 600	10 364 200
Guyana	2 351 496	1 773 900	1 321 081	1 423 978	2 145 907
Suriname	2 522 000	3 426 000	3 457 348	3 266 759	3 136 341
Venezuela	245 157	521 504	701 770	771 422	1 997 066
China	* 3 200 000	* 3 500 000	2 055 200	3 655 200	5 926 000
India	2 778 678	3 960 799	4 344 936	5 277 000	4 738 000
Indonesia	635 309	513 053	862 313	1 163 820	1 246 322
Iran (d) (e)	60 000	92 537	74 097	92 509	* 80 000
Malaysia	482 125	360 798	355 174	398 180	376 418
Pakistan	3 447	2 500	1 967	2 581	4 324
Australia	34 101 721	36 192 000	38 584 000	41 391 000	40 510 000
World total	95 900 000	101 000 000	105 400 000	113 900 000	114 700 000

(a) Including nepheline concentrates and alunite

(b) Dried bauxite equivalent

(c) Including beneficiated and direct shipping ore

(d) Alunite

(e) Years ended 20 March following that stated

(f) Excluding data from August to December for the Republic of Croatia

Production of Alumina

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom	109 800	114 000	116 200	120 000	120 000
France (a)	712 000	551 000	478 000	466 540	403 765
Germany, Federal Republic of	1 312 828	1 162 786	1 173 993	1 172 808	1 148 310
Greece	338 833	336 373	331 007	378 595	392 157
Irish Republic	777 974	842 800	864 510	926 500	980 392
Italy	457 600	460 500	472 000	491 400	525 800
Spain	524 000	576 000	620 000	655 000	656 200
Czechoslovakia	149 917	182 651	204 615	209 229	186 600
German Democratic Republic (a)	50 880	64 000	69 000	27 000	—
Hungary (a)	857 612	873 232	881 505	826 000	635 000
Romania (a)	584 000	458 000	426 000	440 000	310 000
Soviet Union	* 4 400 000	* 4 600 000	* 3 900 000	* 3 700 000	* 3 400 000
Turkey	95 232	181 670	200 560	177 144	159 091
Yugoslavia	1 113 000	1 060 041	1 170 463	1 086 298	780 000
Guinea	543 000	593 000	627 000	642 100	650 900
Canada	952 690	992 576	1 048 432	1 087 029	1 131 000
Jamaica	1 622 000	1 520 000	2 221 070	2 868 844	3 014 585
USA	* 4 150 000	* 4 770 000	* 5 000 000	* 5 230 000	* 5 230 000
Brazil	1 365 000	1 487 850	1 632 000	1 654 800	1 742 500
Suriname	1 363 000	1 633 000	1 567 051	1 531 460	1 509 638
Venezuela	1 360 012	1 284 036	1 293 219	1 404 769	1 481 000
China	* 1 320 000	* 1 300 000	1 318 000	1 463 800	1 522 000
India	650 000	1 188 000	1 419 000	1 334 000	1 435 000
Japan	465 000	508 000	564 000	458 893	564 700
Australia	10 109 290	10 510 514	10 823 000	11 231 000	11 713 000
World total	35 400 000	37 300 000	38 400 000	39 600 000	39 700 000

Notes(s):

(1) Where possible figures in this table show the alumina equivalent (Al_2O_3) of total hydrate produced, whether or not calcined

(a) Calcined

Production of Primary Aluminium

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom	294 382	300 166	297 313	289 796	293 512
France	322 500	327 856	329 253	330 824	346 194
Germany, Federal Republic of	792 628	752 927	733 703	714 946	705 033
Greece	126 751	148 253	144 833	152 362	150 878
Italy	232 600	226 300	219 500	231 800	218 000
Netherlands	275 939	278 198	279 243	(b) 257 884	(b) 253 563
Spain	341 000	293 900	352 400	355 300	355 200
Austria	93 414	95 494	92 933	89 434	80 384
Czechoslovakia	32 366	31 435	32 576	30 076	49 387
German Democratic Republic	* 67 900	* 61 200	* 53 900	* 21 000	—
Hungary	73 500	74 692	75 195	75 162	63 318
Iceland	83 485	82 034	88 477	86 773	88 768
Norway (a)	853 213	838 224	867 276	867 061	832 558
Poland	47 500	47 700	47 801	45 974	45 793
Romania	260 000	266 000	269 100	168 000	158 400
Soviet Union	* 3 600 000	* 3 500 000	* 3 450 000	* 3 523 000	* 3 251 000
Sweden	79 462	94 711	96 070	92 100	96 900
Switzerland	73 169	71 816	71 308	71 602	65 899
Turkey	41 685	56 500	58 564	60 902	55 817
Yugoslavia	280 633	321 900	331 011	349 087	* 314 000
Cameroon	71 500	80 000	87 300	87 500	85 600
Egypt	179 200	173 460	180 931	141 081	177 700
Ghana	150 300	163 500	168 600	174 200	175 400
South Africa	170 600	170 400	165 900	157 500	169 390
Canada	1 540 439	1 534 499	1 554 753	1 567 395	1 821 642
Mexico	63 260	68 337	71 691	67 515	50 827
USA	3 343 000	3 944 000	4 030 000	4 048 000	4 121 000
Argentina	155 107	157 407	164 154	165 608	168 274
Brazil	843 500	873 500	887 432	930 585	1 139 600
Suriname	1 913	9 900	28 600	31 282	30 657
Venezuela	430 230	443 305	546 022	599 480	609 548
Bahrain	180 344	182 804	186 395	212 500	209 800
China	* 640 000	* 713 000	758 300	854 300	963 000
Dubai	155 876	162 500	168 250	174 300	239 030
India	253 372	334 861	423 250	433 200	511 800
Indonesia	201 402	185 112	196 869	192 100	174 773
Iran	37 821	28 183	44 019	94 647	70 100
Japan	40 691	35 347	35 014	34 224	32 400
Korea, Dem. P.R. of	* 10 000	* 10 000	* 5 000	* 11 000	* 9 500
Korea, Republic of	16 777	16 101	15 683	13 285	13 604
Australia	1 003 947	1 149 000	1 244 000	1 234 000	1 235 000
New Zealand	252 000	265 700	258 800	259 700	260 400
World total	17 700 000	18 600 000	19 100 000	19 300 000	19 700 000

(a) May include some super purity aluminium

(b) Sales

Exports of Bauxite, Alumina and Aluminium

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Bauxite	2 148	4 120	10 951	4 774	8 291
Alumina	8 031	7 453	9 614	11 735	11 033
Alumina hydrate	34 335	41 695	45 492	42 105	42 674
Unwrought	69 108	79 378	73 816	60 795	39 105
Unwrought alloys	64 447	75 672	95 379	95 804	91 217
Scrap	87 372	114 286	99 334	94 452	80 171
Belgium-Luxembourg					
Bauxite	2 416	3 648	1 713	1 725	1 236
Alumina	1 102	1 202	2 143	1 079	955
Unwrought	8 278	4 996	4 566	3 162	3 132
Unwrought alloys	19 277	27 922	30 785	29 735	50 594
Scrap	60 186	77 770	74 729	67 769	69 055
Denmark					
Unwrought	73	309	574	469	463
Unwrought alloys	12 581	10 703	7 629	9 045	7 760
Scrap	25 186	26 645	28 003	29 068	26 822
France					
Bauxite	187 433	13 487	28 916	13 143	17 450
Alumina	93 276	84 106	104 355	96 287	83 726
Alumina hydrate	101 992	127 969	138 981	131 590	94 769
Unwrought	41 028	36 704	49 703	53 067	40 220
Unwrought alloys	78 254	76 436	71 932	82 767	87 307
Scrap	109 206	160 811	155 886	150 037	141 033
Germany, Federal Republic of					
Bauxite	33 385	57 050	71 666	86 019	198 495
Alumina	312 760	330 355	287 282	239 600	238 977
Alumina hydrate	252 435	270 136	269 317	306 068	313 082
Unwrought	91 826	68 866	53 299	64 734	54 878
Unwrought alloys	241 764	254 938	272 717	254 705	235 549
Scrap	134 983	141 019	164 157	198 958	316 585
Greece					
Bauxite	1 224 490	416 811	518 723	401 648	824 573
Alumina	348 700	178 762	222 450	286 046	333 100
Unwrought (a)	73 494	51 415	57 041	61 186	61 552
Scrap	1 466	3 625	4 130	2 378	2 080
Irish Republic					
Alumina	736 485	854 157	853 012	862 448	1 039 839
Alumina hydrate	5 002	46 936	62 337	53 440	37 877
Unwrought (a)	1 475	1 902	2 574	1 970	1 615
Scrap	8 468	11 147	11 028	12 210	11 278
Italy					
Bauxite	21 141	14 333	23 134	15 617	3 611
Alumina	561 315	388 535	410 382	412 368	389 418
Alumina hydrate	29 509	14 078	14 967	15 451	10 147
Unwrought	11 298	5 069	6 155	10 135	5 982
Unwrought alloys	40 338	33 341	23 660	18 150	11 548
Scrap	6 049	8 061	10 365	7 132	10 556
Netherlands					
Bauxite	9 283	17 913	22 351	25 048	21 909
Alumina	61 934	87 557	101 045	98 806	97 375
Alumina hydrate	105	1 497	2 379	2 441	4 066
Unwrought	156 306	90 836	101 842	119 967	99 846
Unwrought alloys	158 083	238 950	246 992	242 497	232 565
Scrap	105 385	138 871	149 824	132 672	129 089
Portugal					
Scrap	5 705	8 052	6 923	5 378	5 552
Spain					
Bauxite	1 849	2 066	2 987	1 182	627
Alumina	124 132	283 368	207 186	233 102	247 077
Alumina hydrate	35 655	26 863	48 521	48 559	56 504
Unwrought	34 436	31 666	14 348	8 515	19 576
Unwrought alloys	72 043	58 223	96 966	98 303	103 547
Scrap	810	2 807	3 348	3 736	7 588
Austria					
Unwrought (a)	39 447	44 894	42 985	52 057	64 680
Scrap	63 587	46 911	35 508	26 881	32 320
Bulgaria					
Unwrought (a) (f)	* 3 600	* 2 700	* 3 600	* 2 200	* 1 500
Scrap (f)	* 4 900	* 5 400	* 1 900	* 2 300	* 3 200

Exports of Bauxite, Alumina and Aluminium

tonnes

Country	1987	1988	1989	1990	1991
Czechoslovakia					
Unwrought (a) (f)	* 11 200	* 14 800	* 16 400	* 14 900	* 33 700
Finland					
Unwrought (a)	24 286	25 291	24 023	23 285	20 430
German Democratic Republic					
Unwrought (a) (f)	* 30 700	* 28 500	* 24 500	* 30 700	—
Scrap (f)	* 6 000	* 8 000	* 9 100	* 3 000	—
Hungary					
Bauxite	437 987	378 533	338 428	280 338	...
Alumina	665 226	715 214	676 892	613 163	...
Alumina hydrate	2 729	1 513	—	—	...
Unwrought	63 354	59 135	76 479	121 761	...
Scrap	8 748	9 868	9 534	11 312	...
Iceland					
Unwrought (a)	89 081	81 071	89 657	86 392	86 267
Norway					
Alumina	17 764	16 241	27	104	36
Unwrought	326 307	241 612	240 743	211 412	241 677
Unwrought alloys	431 308	513 051	529 603	565 864	568 547
Scrap	38 156	50 536	52 079	28 678	28 407
Poland					
Unwrought (a)	2 595	2 647	2 638	15 456	15 450
Romania					
Unwrought	157 300	193 700	108 100	...	...
Scrap (f)	* 2 800	* 500	* 3 200	* 1 600	* 500
Soviet Union					
Unwrought (a) (f)	* 610 300	* 641 200	* 709 900	* 675 400	* 785 500
Scrap (f)	* 57 600	* 43 200	* 33 100	* 16 000	* 39 400
Sweden					
Alumina	676	356	210	452	191
Unwrought	8 056	25 654	25 125	14 427	9 979
Unwrought alloys	35 509	34 233	33 689	49 713	47 823
Scrap	11 259	11 069	13 691	20 882	34 006
Switzerland					
Alumina	459	1 313	830	1 432	2 655
Unwrought (a)	(i) 60 991	32 872	32 476	30 618	32 928
Scrap	...	35 776	39 143	36 846	34 537
Turkey					
Bauxite	104 525	79 997	58 243	83 015	57 800
Alumina	17 746	66 450	77 483	63 016	34 048
Unwrought (a)	320	6 326	8 945	9 890	7 080
Yugoslavia					
Bauxite	584 714	639 528	600 084	506 966	(k) 241 280
Alumina	389 531	457 136	587 188	584 741	(k) —
Alumina hydrate	29 231	58 966	99 890	115 827	(k) —
Unwrought	130 242	129 829	144 122	196 275	(k) 49 365
Unwrought alloys	29 515	23 914	22 965	34 444	(k) 6 973
Scrap	1 702	1 594	1 427	591	(k) 370
Cameroon					
Unwrought & scrap	47 356	63 100	69 304	67 700	61 300
Ghana					
Bauxite	226 375	299 939	374 646	369 000	* 324 000
Unwrought (a)	160 784	97 109	118 500	127 500	129 700
Guinea					
Bauxite (f)	* 13 200 000	* 13 700 000	* 14 200 000	* 13 200 000	* 12 700 000
Alumina	500 000	600 000	600 000	640 000	650 000
Sierra Leone					
Bauxite	1 280 000	1 428 000	1 557 000	1 430 000	1 176 800
South Africa					
Unwrought (a)	94 000	68 000	53 415	71 835	82 661
Scrap (f)	* 2 600	* 2 500	* 2 300	* 2 300	* 2 000
Canada					
Alumina	(b) 45 624	139 094	128 256	134 334	85 696
Unwrought	(a) 1 171 887	659 922	615 238	664 549	769 866
Unwrought alloys	...	495 096	544 445	617 647	703 317
Scrap	127 181	165 216	164 493	188 363	173 675
Cuba					
Scrap (e)	3 778	2 498	1 524	412	970

Exports of Bauxite, Alumina and Aluminium

tonnes

Country	1987	1988	1989	1990	1991
Dominican Republic					
Bauxite (h)	328 046	199 933	174 871	76 529	30 337
Jamaica					
Bauxite	3 711 396	3 494 440	4 189 739	3 885 758	4 260 881
Alumina	1 557 008	1 561 349	2 140 885	2 885 131	3 031 988
Mexico					
Unwrought & scrap	9 649	19 126	11 860	18 061	* 10 000
USA					
Bauxite	203 711	68 252	65 022	90 723	75 178
of which: Re-exports	2 214	5 321	21 278	17 214	8 669
Alumina	1 108 975	1 021 372	1 295 075	1 216 084	1 431 849
Alumina hydrate	29 004	24 160	51 404	52 664	54 145
Unwrought	249 563	362 559	481 293	510 513	633 392
Unwrought alloys	35 345	40 111	112 116	173 557	158 489
Scrap	369 745	487 714	575 890	537 994	461 521
Argentina					
Unwrought	73 009	83 473	81 802	136 184	111 000
Brazil					
Bauxite	2 813 587	4 660 509	4 636 700	5 463 921	5 823 521
Alumina	52 903	70 429	175 995	172 114	120 440
Unwrought (a)	426 893	514 898	470 266	591 982	751 607
Guyana					
Bauxite	1 372 000	1 297 000	1 311 000	1 389 000	1 320 000
Suriname					
Bauxite	340 900	7 460	—	—	—
Alumina	1 342 100	1 629 980	1 445 088	1 448 158	1 393 449
Unwrought	3 200	8 000	26 111	27 416	29 431
Venezuela					
Alumina	516 969	366 856	152 932	102 869	231 822
Unwrought	302 515	287 925	379 641	452 178	412 954
Bahrain					
Unwrought (a)	122 551	94 817	96 043	112 711	98 300
China					
Bauxite	(j) 785 003	(j) 1 250 502	(j) 1 491 702	680 315	541 554
Alumina	...	...	...	556 149	646 294
Unwrought (a)	60 680	130 378	13 411	65 125	68 556
Scrap	(f)* 3 100	(f)* 7 200	(f)* 5 000	1 715	2 706
Dubai					
Unwrought (a)	146 000	154 000	165 100	171 000	235 800
Hong Kong					
Bauxite (g)	25 971	15 010	16 654	14 461	10 561
Alumina (g)	1 193	20 137	133 729	38	17
Unwrought	36 181	77 616	26 412	17 381	21 955
of which: Re-exports	36 131	77 252	26 291	17 281	21 857
Scrap	27 656	31 929	30 240	32 999	31 895
India (c)					
Bauxite	147 402	93 547	...	187 782	121 618
Alumina	10 637	404 170	...	317 218	334 442
Unwrought (a)	1 196	13 830	...	26 940	68 094
Indonesia					
Bauxite	583 900	466 517	843 476	813 637	1 077 036
Unwrought (a)	163 337	125 628	142 885	125 162	123 016
Israel					
Unwrought (a) (f)	* 2 600	* 4 500	* 5 900	* 6 800	* 2 100
Scrap (f)	* 2 600	* 2 800	* 2 400	* 2 200	* 4 100
Japan					
Alumina	101 057	126 353	151 192	158 656	121 012
Alumina hydrate	96 789	71 917	98 273	119 991	131 084
Unwrought	854	665	307	547	1 338
Unwrought alloys	1 073	2 768	2 640	4 267	3 311
Scrap	8 707	7 334	9 893	7 751	6 874
Jordan					
Scrap	3 133	7 162	4 241	1 207	1 440
Korea, Dem. P.R. of					
Unwrought (a) (f)	* 7 400	* 5 800	* 5 800	* 3 900	* 3 000
Korea, Republic of					
Unwrought (a)	2 850	7 643	3 819	6 307	1 810
Malaysia					
Bauxite	199 000	222 100	321 750	407 670	302 048
Scrap	6 548	11 249	5 127	...	4 826

Exports of Bauxite, Alumina and Aluminium

tonnes

Country	1987	1988	1989	1990	1991
Saudi Arabia					
Scrap	27 552	52 266	54 544	49 826	23 052
Singapore					
Alumina	31 102	32 414	29 300	20 581	11 788
of which: Re-exports	30 090	32 297	28 617	20 468	11 659
Unwrought	13 107	106 582	65 907	21 890	43 205
of which: Re-exports	11 193	104 842	63 571	19 362	39 311
Scrap	15 770	20 386	21 779	20 591	19 067
Taiwan					
Alumina	3 721	562	3 459	3 833	950
Unwrought	17 254	(a) 34 753	(a) 30 204	(a) 47 687	(a) 52 728
Scrap	7 969	5 211	4 412	5 557	5 275
Australia					
Bauxite	* 4 500 000	* 4 800 000	* 5 000 000	* 5 700 000	* 4 900 000
Alumina	8 299 277	8 558 000	8 426 000	8 785 000	9 274 000
Unwrought (a)	710 425	815 600	921 800	936 400	953 400
Scrap (d)	43 801	44 205	48 777	50 046	62 793
New Zealand (d)					
Unwrought (a)	211 521	227 259	243 992	230 556	240 941
Scrap	5 659	10 013	8 299	9 207	9 602

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 684.1 of the Standard International Trade Classification (Revision 3) 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) Officially described as 'Aluminium ores and concentrates' but believed to be mostly alumina
- (c) Years ended 31 March following that stated
- (d) Years ended 30 June of that stated
- (e) Imports into the Netherlands
- (f) BGS estimates, based on known imports into certain countries
- (g) Re-exports
- (h) Some material believed to come from stocks
- (i) Including scrap
- (j) Including alumina
- (k) Data for the Federal Republic of Yugoslavia only

Imports of Bauxite, Alumina and Aluminium

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Bauxite	429 390	491 480	443 537	440 915	387 027
Alumina	609 630	601 850	655 396	625 284	586 109
Alumina hydrate	19 549	17 646	21 409	17 204	23 513
Unwrought	65 257	119 757	129 134	130 688	122 361
Unwrought alloys	110 566	115 263	106 317	110 318	99 403
Scrap	12 621	18 664	24 138	16 864	29 040
Belgium-Luxembourg					
Bauxite	26 534	37 841	25 077	37 310	44 774
Alumina	8 029	9 032	10 650	11 025	10 383
Alumina hydrate	28 842	23 858	30 841	47 101	53 027
Unwrought	238 168	208 265	196 711	225 569	251 813
Unwrought alloys	77 346	146 873	161 407	141 923	118 815
Scrap	90 872	112 805	120 849	117 184	140 597
Denmark					
Bauxite	1 024	1 414	1 675	2 667	2 185
Alumina	1 606	688	648	814	544
Alumina hydrate	3 350	4 866	5 196	4 515	4 929
Unwrought	872	914	984	1 926	427
Unwrought alloys	26 961	29 235	28 202	28 046	29 788
Scrap	7 162	8 790	4 575	6 082	9 637
France					
Bauxite	894 330	1 069 102	1 348 886	1 388 476	1 239 070
Alumina	121 762	230 645	371 255	373 484	355 082
Alumina hydrate	24 030	36 502	38 924	78 103	36 737
Unwrought	186 105	203 915	208 744	248 642	254 583
Unwrought alloys	221 015	257 960	275 506	292 455	296 966
Scrap	70 185	96 994	122 986	137 528	203 559
Germany, Federal Republic of					
Bauxite	2 879 377	2 576 992	2 879 675	3 076 544	2 549 118
Alumina	857 845	851 658	1 033 220	970 227	877 748
Alumina hydrate	7 201	106 588	22 865	35 750	69 750
Unwrought	448 670	467 538	569 135	545 143	666 475
Unwrought alloys	285 363	339 184	374 056	355 557	340 544
Scrap	205 285	283 217	271 198	229 002	195 137
Greece					
Bauxite	5 616	—	5 028	800	200
Alumina	261	235	381	419	620
Unwrought (a)	14 259	5 506	13 180	11 843	26 627
Scrap	32	1 734	1 898	1 258	1 444
Irish Republic					
Bauxite	1 440 106	1 746 828	1 606 158	1 746 337	1 976 987
Alumina	4 234	4 355	5 142	3 852	4 362
Unwrought (a)	2 252	2 812	3 711	7 705	7 720
Italy					
Bauxite	1 380 836	1 394 092	1 465 981	1 680 619	1 667 669
Alumina	266 522	240 880	243 024	210 232	196 319
Alumina hydrate	69 951	88 875	148 762	146 823	128 488
Unwrought	215 962	270 397	306 670	339 639	298 966
Unwrought alloys	160 962	147 721	154 334	198 994	212 679
Scrap	159 707	184 202	207 982	174 198	168 084
Netherlands					
Bauxite	141 702	160 273	142 971	142 916	133 475
Alumina	612 071	642 945	530 875	459 077	567 626
Alumina hydrate	35 066	44 301	40 697	43 689	57 017
Unwrought	97 818	105 308	114 755	138 298	134 939
Unwrought alloys	47 718	62 423	62 563	51 926	48 161
Scrap	81 662	105 655	138 241	126 757	118 272
Portugal					
Bauxite	1 793	1 836	1 658	1 786	1 971
Alumina	8 562	8 066	7 557	7 943	7 690
Unwrought	5 825	(a) 45 127	(a) 47 105	15 320	14 232
Unwrought alloys	38 225	...	...	34 157	35 935
Spain					
Bauxite	1 663 191	1 389 690	1 725 327	1 922 855	1 935 071
Alumina	16 499	19 658	22 338	24 718	21 879
Alumina hydrate	10 796	11 227	13 222	13 809	15 380
Unwrought	5 623	38 638	6 629	15 400	35 910
Unwrought alloys	7 772	11 235	7 378	15 771	26 033
Scrap	16 103	16 088	22 339	24 198	15 080

Imports of Bauxite, Alumina and Aluminium

tonnes

Country	1987	1988	1989	1990	1991
Austria					
Bauxite	32 661	49 223	54 922	34 466	48 763
Alumina	282 983	298 833	224 419	222 498	176 497
Alumina hydrate	8 227	8 139	8 226	8 552	8 715
Unwrought (a)	81 133	108 266	130 428	150 097	150 197
Scrap	54 621	56 043	47 231	41 628	51 683
Bulgaria					
Unwrought (a) (f)	* 14 400	* 29 600	* 11 000	* 8 000	* 8 900
Czechoslovakia					
Bauxite	453 000	445 000	478 000	...	...
Alumina (f)	* 30 500	* 3 200	* 400	* 700	* 3 400
Unwrought (a)	76 000	108 000	106 000	...	...
Finland					
Bauxite	5 633	2 043	236	7 070	8 037
Alumina	1 372	1 447	1 717	3 317	1 134
Alumina hydrate	32 186	26 207	32 296	21 513	27 166
Unwrought	18 825	18 127	17 528	20 754	15 585
Unwrought alloys	4 697	5 452	6 208	5 382	3 859
Scrap	57 677	69 811	70 477	27 004	37 758
German Democratic Republic					
Bauxite	141 600	148 300	152 900	...	—
Alumina (f)	* 100 900	* 83 000	* 56 900	* 25 500	—
Unwrought (a) (f)	* 120 500	* 119 200	* 113 900	* 102 000	—
Hungary					
Unwrought	189 961	197 577	204 974	204 070	...
Iceland					
Alumina	142 335	140 525	160 763	160 290	185 459
Norway					
Bauxite	5 792	14 746	9 463	14 185	19 010
Alumina	1 604 669	1 287 319	1 334 530	1 861 687	1 697 538
Alumina hydrate	40 467	277 169	232 489	35 809	33 442
Unwrought	19 444	71 541	86 300	71 411	67 715
Unwrought alloys	37 702	18 654	15 804	9 548	13 323
Scrap	1 417	2 085	4 371	23 732	28 246
Poland					
Bauxite	52 248	51 891	44 236	...	...
Alumina	221 042	193 457	185 179	130 000	...
Unwrought	88 631	88 755	96 415	44 961	...
Romania					
Bauxite (f)	* 529 100	* 463 300	* 495 000	* 398 200	* 572 000
Alumina (f)	* 72 100	* 16 800	* 10 000	* 28 200	* 32 100
Soviet Union					
Bauxite (f)	* 4 823 500	* 4 563 600	* 5 300 700	* 3 813 900	* 3 559 600
Alumina (f)	* 928 500	* 736 800	* 1 322 200	* 1 558 800	* 675 600
Sweden					
Bauxite	46 425	51 108	56 593	48 816	65 879
Alumina	184 283	189 820	189 798	165 454	445 735
Alumina hydrate	86 615	63 896	63 709	53 972	59 921
Unwrought	21 725	28 191	27 030	15 607	21 073
Unwrought alloys	21 399	30 628	29 111	31 110	27 896
Scrap	2 526	3 592	5 223	6 808	4 593
Switzerland					
Bauxite	2 625	3 852	1 747	691	1 051
Alumina	156 382	140 614	146 529	150 483	144 331
Unwrought	(b) 90 239	59 738	78 598	63 586	64 597
Unwrought alloys	...	35 088	39 003	41 010	28 793
Scrap	...	4 042	5 734	4 110	6 191
Turkey					
Bauxite	40 461	55 684	51 367	44 790	36 129
Alumina	1 499	2 293	1 165	1 851	2 958
Unwrought (a)	89 638	59 193	48 243	100 961	62 982
Yugoslavia					
Bauxite	132 797	364 761	691 925	439 702	(g) 22 545
Alumina	118 165	128 230	264 843	245 465	(g) 434
Unwrought	33 981	17 587	14 945	18 180	(g) 11 595
Unwrought alloys	147	3 253	1 376	4 564	(g) 416

Imports of Bauxite, Alumina and Aluminium

tonnes

Country	1987	1988	1989	1990	1991
Algeria					
Alumina	186	290	352	15	2 092
Unwrought (a)	7 665	7 946	8 061	8 475	5 574
Cameroon					
Alumina	161 945	160 000	164 675	170 000	...
Ghana					
Alumina	182 461	158 087	170 000	165 000	...
Kenya					
Alumina	1 984	3 926	...	...	...
Morocco					
Bauxite	4 575	5 118	10 651	9 102	6 351
Alumina	2 885	3 029	2 798	4 761	4 091
Unwrought (a)	1 139	1 717	2 151	2 461	2 039
Nigeria					
Unwrought (a)	11 306	5 000	5 000	3 000	...
South Africa					
Bauxite	21 765	4 983	5 587	7 294	...
Alumina	322 058	339 264	351 415	321 733	...
Scrap	536	273	312	1 699	...
Tanzania					
Unwrought (a)	3 909	1 061	1 023	...	...
Tunisia					
Alumina	18 847	24 904	33 333	24 560	28 195
Alumina hydrate	2 438	3 803	4 440	5 562	4 131
Unwrought	936	1 296	2 189	(a) 1 583	(a) 2 610
Canada					
Bauxite	2 019 119	2 351 595	2 540 694	2 310 461	2 773 509
Alumina	2 068 390	1 875 546	2 040 947	1 982 952	2 456 234
Unwrought	(a) 53 479	23 973	20 037	27 300	27 676
Unwrought alloys	...	35 342	44 941	57 358	46 201
Scrap	56 959	62 161	58 203	52 603	46 339
Costa Rica					
Unwrought (a)	506	3 436	3 496	7 707	4 235
Mexico					
Bauxite	40 264	53 040	51 247	46 028	44 051
Alumina	137 192	150 178	147 089	141 745	...
Alumina hydrate	27 668	44 441	47 512	40 320	...
Unwrought & scrap (a)	38 065	48 155	49 912	47 494	71 234
Panama					
Unwrought (a)	1 989	546	1 013	761	1 167
USA					
Bauxite, crude dried	9 819 080	10 502 783	11 346 182	12 628 163	11 174 990
Bauxite, calcined	338 589	393 699	531 000	558 000	376 000
Alumina	4 078 048	4 647 390	4 330 405	4 087 503	4 622 317
Unwrought	706 200	514 037	422 416	438 543	517 338
Unwrought alloys	539 385	512 786	502 970	523 194	510 797
Scrap	188 614	200 498	206 380	214 853	208 423
Argentina					
Bauxite	31 525	20 457	25 696	19 911	...
Alumina	226 437	261 862	292 403	207 153	347 000
Alumina hydrate	12 787	9 137	8 008	9 211	...
Brazil					
Bauxite	2 998	2 028	129 259	349 678	356 708
Alumina	393 438	378 243	372 956	419 838	677 155
Unwrought	118	33	1 287	329	1 029
Unwrought alloys	2 192	67	1 239	4 806	1 163
Scrap	4 931	759	2 621	4 751	4 440
Chile					
Unwrought	3 010	3 728	3 834	6 371	7 644
Colombia					
Bauxite	* 7 000	6 733	8 384	6 201	5 906
Alumina	* 3 000	3 908	5 039	5 202	5 066
Unwrought (a)	17 901	8 690	13 791	21 221	22 923
Ecuador					
Unwrought	4 773	4 947	4 256	3 428	4 453
Peru					
Bauxite	1 874	2 504	3 021	2 949	1 266
Alumina	1 636	2 301	735	1 918	646
Unwrought	5 082	4 190	759	1 046	3 408

Imports of Bauxite, Alumina and Aluminium

tonnes

Country	1987	1988	1989	1990	1991
Uruguay					
Bauxite	8 455	4 071	4 400	3 400	3 990
Alumina	1 102	1 120	1 661	1 335	1 205
Unwrought	2 693	2 306	1 439	2 090	1 900
Venezuela					
Bauxite	3 023 945	3 086 130	3 158 812	2 422 895	...
Alumina	6 832	7 818	6 435	5 638	13 568
Alumina hydrate	2 249	2 167	798	1 862	1 600
Unwrought	1 816	3	106	258	...
Abu Dhabi					
Scrap	5 017	9 197	...	8 625	6 461
Bahrain					
Alumina	346 191	363 151	351 694	436 846	...
China					
Alumina	322 149	159 535	298 006	583 012	686 178
Unwrought (a)	148 130	75 381	175 510	71 771	43 711
Scrap	(f)* 1 600	(f)* 4 100	(f)* 8 000	5 490	6 149
Dubai					
Alumina	284 000	315 000	320 000	300 000	...
Hong Kong					
Bauxite	25 815	16 471	17 289	12 497	9 850
Alumina	474	84 000	181 969	—	0
Alumina hydrate	469	29	881	60	60
Unwrought	70 480	111 187	52 889	46 208	58 666
Scrap	3 072	5 512	5 660	5 693	8 460
India (c)					
Alumina	3 025	4 321	...	6 682	3 890
Unwrought (a)	52 276	12 145	35 900	16 148	14 712
Indonesia					
Alumina	226 509	287 585	372 591	303 594	225 280
Alumina hydrate	36 499	44 590	59 238	54 469	63 958
Unwrought (a)	12 086	6 818	7 324	24 777	55 638
Iran (e)					
Alumina	26 980	27 100	43 275	40 000	...
Unwrought	9 500	3 532	1 005	...	...
Israel					
Alumina (f)	* 1 800	* 1 100	* 1 100	* 900	* 900
Unwrought (a)	18 180	17 698	15 932	18 244	...
Japan					
Bauxite	1 872 020	2 148 590	2 269 477	2 302 206	2 048 992
Alumina	26 984	44 092	28 294	19 008	33 489
Alumina hydrate	14 791	27 956	48 667	54 448	70 874
Unwrought	1 435 037	1 716 070	1 745 362	1 983 773	2 057 144
Unwrought alloys	400 253	575 926	617 828	669 290	773 874
Scrap	430 642	399 154	400 226	352 699	291 742
Jordan					
Alumina	11 529	22 174	20 820	22 871	31 498
Unwrought	5 319	3 883	3 651	3 588	4 799
Korea, Dem. P.R. of					
Alumina (f)	* 7 600	* 30 600	* 6 600	* 9 400	* 12 100
Unwrought (a) (f)	* 150	* 400	* 1 300	* 700	* 2 500
Korea, Republic of					
Bauxite	30 359	24 733	31 320	34 536	37 396
Alumina	38 603	43 242	42 144	14 328	13 191
Alumina hydrate	68 406	75 233	96 032	100 765	120 263
Unwrought	480 535	217 744	442 379	301 611	300 104
Unwrought alloys	32 955	48 831	43 179	60 315	91 690
Scrap	43 240	27 840	55 601	39 576	57 805
Malaysia					
Alumina	12 030	18 661	16 298	...	19 867
Unwrought	11 724	15 072	19 700	217 130	28 326
Unwrought alloys	19 812	18 636	22 410	31 452	38 611
Scrap	849	3 462	2 448	...	3 045
Pakistan (d)					
Alumina	2 487	2 500	...	2 360	...
Unwrought (a)	8 921	14 471	...	8 630	...
Scrap	26 688	26 451	...	27 017	...

Imports of Bauxite, Alumina and Aluminium

tonnes

Country	1987	1988	1989	1990	1991
Philippines					
Bauxite	933	4 637	7 669	1 962	7 105
Alumina	8 257	5 775	7 798	7 155	8 478
Unwrought (a)	10 808	10 222	13 771	14 631	17 617
Saudi Arabia					
Bauxite	77 602	147 531	214 534	182 905	126 428
Unwrought (a)	18 625	14 405	14 662	22 273	16 196
Singapore					
Alumina	12 093	1 215	1 064	1 426	1 901
Alumina hydrate	63 131	84 780	69 124	62 258	76 948
Unwrought	40 628	125 646	38 576	46 158	55 067
Scrap	1 525	3 101	4 452	3 357	3 989
Taiwan					
Bauxite	36 235	39 635	31 297	48 025	45 321
Alumina	4 888	9 097	23 065	33 085	22 725
Alumina hydrate	7 215	11 685	13 579	22 191	28 254
Unwrought	195 095	136 553	162 521	170 088	214 008
Unwrought alloys	...	56 851	60 304	75 269	101 596
Scrap	23 211	64 115	71 711	70 265	128 649
Thailand					
Bauxite	21 714	30 426	32 131	25 102	32 076
Alumina	7 842	6 151	9 853	10 008	8 339
Alumina hydrate	12 117	19 592	26 570	17 800	9 051
Unwrought	43 804	1 036 106	66 030	75 581	83 911
Unwrought alloys	9 932	26 601	32 234	52 555	62 836
Scrap	1 499	4 716	4 570	2 012	709
Australia					
Bauxite	10 107	21 429	35 000	19 000	20 000
Alumina	5 639	10 939	12 000	10 000	10 000
Unwrought (a)	1 060	2 800	3 400	1 600	2 400
Scrap (d)	1 397	1 834	2 552	2 574	2 752
New Zealand (d)					
Alumina	472 601	520 223	471 467	511 261	493 688
Unwrought (a)	1 565	6 942	5 172	8 341	5 839

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 684.1 of the Standard International Trade Classification (Revision 3) 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) Including alloys and scrap
- (c) Years ended 31 March following that stated
- (d) Years ended 30 June of that stated
- (e) Years ended 20 March following that stated
- (f) BGS estimates, based on known exports from certain countries
- (g) Data for the Federal Republic of Yugoslavia only

Antimony

Mine Production of Antimony

tonnes (metal content)

Country	1987	1988	1989	1990	1991
Italy	91	119	—	—	—
Austria	399	270	412	469	—
Czechoslovakia	931	947	839	917	297
Romania	* 400	* 350	* 300	* 400	* 300
Soviet Union	* 6 000	* 6 000	* 5 800	* 5 400	* 4 800
Turkey	2 344	1 876	1 465	552	338
Yugoslavia	834	725	798	409	* 400
Morocco	440	243	142	172	157
South Africa	6 301	5 917	4 401	5 258	4 176
Zimbabwe	83	89	113	55	86
Canada	3 531	3 387	2 821	658	469
Guatemala	1 696	1 226	1 222	840	557
Honduras	72	19	44	* 25	* 20
Mexico	2 839	2 185	1 906	2 627	2 752
USA	—	* 150	* 500	* 500	* 500
Bolivia	10 635	9 943	9 189	8 454	7 287
Peru (a)	590	420	519	560	* 600
China	* 66 400	* 67 600	62 800	60 000	* 60 000
Malaysia	22	—	—	—	—
Pakistan	45	—	33	38	—
Thailand	409	445	496	326	96
Australia (b)	1 231	1 377	1 419	1 300	1 500
World total	105 300	103 300	95 200	89 000	84 300

Note(s):

- (1) This table includes antimony content of antimonial lead alloys
 - (2) In addition to the countries listed, Afghanistan, Hungary and Iran are believed to produce antimony
- (a) Including Sb content of antimonial lead plus Sb content of ores for export
- (b) Including Sb content of lead and zinc concentrates

Exports of Antimony

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Metal	59	33	167	115	273
Oxide (a)	* 4 600	* 4 500	* 5 300	* 4 900	* 5 400
Belgium-Luxembourg					
Oxide (a)	* 3 100	* 3 800	* 3 900	* 3 800	* 3 400
France					
Ore	58	144	73	26	—
Metal	45	158	69	72	206
Oxide	6 019	5 458	5 479	5 007	4 408
Germany, Federal Republic of					
Metal	57	237	289	76	144
Oxide	803	822	689	675	653
Italy					
Metal	4	9	13	46	2
Oxide	79	36	52	24	22
Netherlands					
Metal	—	45	—	—	—
Oxide	453	467	527	495	304
Austria					
Ore	3	77	138	1	—
Sulphide (b)	4	24	58	67	3
Soviet Union					
Metal (a)	* 1 200	* 400	* 600	* 1 000	* 2 000
Oxide (a)	* 200	* 300	* 200	* 100	* 100
Turkey					
Ore	4 084	1 644	...	...	...
Metal	665	12 384	494	293	105
Morocco					
Ore	999	465	41	377	60
South Africa					
Ore (c)	112	76	100	92	96
Oxide	3 940	4 802	4 802	4 764	...
Canada					
Ores & concentrates	...	3 833	2 371	463	81
Mexico					
Ores & concentrates	3 108	3 980	3 857	819	...
Metal	63	109	67	250	...
USA					
Ores & concentrates	...	...	366	417	715
Metal	816	626	311	736	806
Oxide	854	1 478	2 268	8 608	4 551
Bolivia					
Ore	17 351	11 891	13 037	11 686	6 029
Metal	1 029	469	404	453	458
Oxide	870	672	853	762	3 915
Peru					
Ores & concentrates	274	241	76	...	...
China					
Ores & concentrates	(a)* 12 200	(a)* 6 500	(a)* 11 100	10 241	5 087
Metal	29 573	29 276	32 993	33 368	29 373
Oxide	(a)* 7 400	(a)* 11 300	(a)* 13 200	13 014	14 429
Sulphide	(a)* 100	(a)* 260	...	10 040	4 064
Thailand					
Ore	3 627	3 617	2 480	302	—
Metal	93	—	—	1 132	1 263
Australia					
Ores & concentrates (d)	1 397	1 769	2 305	1 622	3 114

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

(b) Believed to be crude liquated sulphide

(c) Sb content

(d) Years ended 30 June of that stated

Antimony

Imports of Antimony

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Ore (b)	...	* 2 900	* 1 800	* 800	* 500
Metal	389	410	558	604	1 184
Oxide	1 416	1 637	1 890	2 172	2 154
Belgium-Luxembourg					
Ore	6 086	5 341	6 048	3 863	1 855
Metal	878	1 260	2 435	2 953	1 983
Oxide	786	945	665	1 299	654
Denmark					
Oxide	72	79	104	83	76
France					
Ore	14 886	9 269	12 806	9 620	7 183
Metal	2 821	1 046	2 729	2 977	3 768
Oxide	735	989	772	1 080	911
Germany, Federal Republic of					
Ore	319	—	36	5	10
Metal	1 399	1 727	1 386	3 145	3 426
Oxide	4 792	4 922	5 411	5 517	4 853
Greece					
Metal	80	35	24	...	—
Italy					
Metal	155	581	845	1 247	1 405
Oxide	1 669	2 069	2 116	2 682	2 698
Netherlands					
Metal	45	111	82	51	72
Oxide	1 652	1 805	1 807	1 531	1 426
Portugal					
Metal	79	84	134	98	107
Spain					
Ore	684	129	8	100	91
Metal	235	171	203	683	959
Oxide	411	596	456	508	486
Austria					
Ore	970	0	—	...	...
Metal	63	45	64	49	68
Oxide	163	115	200	220	193
Sulphide	27	203	—	—	—
Finland					
Metal	49	7	5	9	6
Oxide	...	231	255	229	141
German Democratic Republic					
Oxide (b)	* 50	* 60	* 70	* 10	—
Norway					
Metal	55	10	12	45	40
Oxide	...	155	163	168	139
Sweden					
Metal	12	112	65	59	29
Oxide	...	652	561	563	502
Switzerland					
Metal	90	65	30	79	67
Oxide	...	464	316	390	408
Yugoslavia					
Ores & Concentrates	2 907	—	—	—	—
Metal	—	66	66	135	(d) 10
Algeria					
Metal	115	39	60	0	...
Canada					
Metal	209	123	243	182	110
Oxide	1 526	1 760	1 322	1 277	1 165
USA					
Ore	10 332	8 109	8 613	5 681	4 395
Liquated	92	163	...	...	...
Metal	9 011	17 733	10 557	13 940	13 502
Oxide	12 378	11 548	12 041	14 472	14 347
Argentina					
Ore	680	743	550	...	...

Imports of Antimony

tonnes

Country	1987	1988	1989	1990	1991
Brazil					
Ore	768	765	464	215	...
Metal	1 010	730	1 155	370	511
Oxide	44	71	85	81	...
Sulphide	23	24	53	48	...
Colombia					
Metal	...	88	50	102	189
Venezuela					
Metal	134	103	172	39	35
India (a)					
Metal	852	1 283	...	1 505	907
Oxide	156	149	...	184	140
Japan					
Ores & Concentrates	5 886	6 376	4 978	5 997	6 051
Metal	4 743	5 817	6 225	6 316	6 172
Oxide	4 368	6 202	7 268	6 299	8 645
Sulphide	69	134	208	184	219
Korea, Republic of					
Ores & Concentrates	5 266	3 780	2 238	2 326	100
Metal	725	416	645	2 178	2 976
Oxide	616	416	527	505	958
Malaysia					
Metal	99	152	221	224	138
Pakistan (c)					
Metal	66	92	...	110	...
Taiwan					
Metal	618	580	1 242	1 954	2 443
Oxide	1 079	1 197	987	1 075	1 753
Thailand					
Ores & Concentrates	4 284	6 045	5 167	7 956	2 665
Metal	10	0	17	1	10
Oxide	...	120	470	427	393
Australia					
Metal (c)	205	139	198	66	98
Oxide (c)	371	416	377	449	444

(a) Years ended 31 March following that stated

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

(c) Years ended 30 June of that stated

(d) Data for the Federal Republic of Yugoslavia only

Arsenic

Production of White Arsenic

tonnes

Country	1987	1988	1989	1990	1991
Belgium	* 3 500	* 3 500	* 3 500	* 3 000	* 2 500
France	7 000	7 000	7 000	6 500	2 309
Germany, Federal Republic of	* 360	* 360	* 360	* 360	* 300
Portugal	217	214	199	246	* 200
Soviet Union	* 8 100	* 8 100	* 8 100	* 7 800	* 7 000
Sweden	* 10 000	* 10 000	* 10 000	* 7 000	* 2 500
Namibia (a)	1 864	2 984	2 399	1 637	1 804
Canada	* 5 000	2 825	1 825	485	236
Mexico (b)	7 001	6 816	7 327	6 348	6 563
Bolivia	132	191	338	300	463
Chile (c)	5 028	7 292	4 596	5 831	6 822
Peru	1 757	828	597	643	661
China	* 7 000	* 7 000	* 7 000	* 9 000	* 10 000
Japan	* 500	* 500	* 500	* 500	* 500
Philippines	6 286	5 046	4 652	5 092	* 5 000

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, Argentina, Austria, Czechoslovakia, German Democratic Republic, Finland, Hungary, Spain, United Kingdom and Yugoslavia are believed to produce arsenic
- (a) Output of Tsumeb Corp. only, trioxide equivalent of reported black arsenic
- (b) Including trioxide equivalent of black arsenic
- (c) Exports

Exports of Arsenic					Arsenic
					tonnes
Country	1987	1988	1989	1990	1991
United Kingdom					
White arsenic	42	...	...	...	...
Metallic arsenic	(a) 87	29	30	92	38
Belgium-Luxembourg					
Metallic arsenic	(a) 78	0	7	4	...
France					
Metallic arsenic	251	128	1 058	784	1 576
Germany, Federal Republic of					
White arsenic	284	...	...	...	...
Metallic arsenic	(a) 11	9	2	2	74
Italy					
Metallic arsenic	(a) 50	91	...	...	12
Netherlands					
Metallic arsenic	(a) 56	24	—	27	12
Portugal					
White arsenic	76	...	...	...	...
Namibia					
White arsenic	2 219	2 890	2 331	2 055	1 785
Mexico					
White arsenic	4 547	* 3 500	...	...	...
USA					
Metallic arsenic	...	...	144	219	261
Bolivia					
White arsenic	132	191	338	300	463
Chile					
White arsenic	5 028	7 292	4 596	5 831	6 822
China					
White arsenic (b)	* 1 600	* 700	* 400	* 2 000	* 12 000
Metallic arsenic (b)	* 680	* 620	* 880	* 1 200	* 1 200
Hong Kong					
White arsenic (c)	441	554	208	763	4 264
Korea, Republic of					
White arsenic	268	133	125	187	34

Note(s):

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

(a) May include some tellurium

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

(c) Re-exports

Arsenic

Imports of Arsenic

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
White arsenic	3 804	...	...	...	...
Metallic arsenic	(a) 152	58	70	80	268
Belgium-Luxembourg					
Metallic arsenic	(a) 194	100	107	97	93
Denmark					
White arsenic	29	...	...	...	...
France					
White arsenic	1 635	...	...	...	...
Metallic arsenic	104	71	250	260	289
Germany, Federal Republic of					
White arsenic	195	...	...	...	...
Metallic arsenic	(a) 111	34	11	29	68
Greece					
White arsenic	14	...	...	...	...
Italy					
White arsenic	564	...	...	...	...
Metallic arsenic	(a) 92	71	144	208	164
Netherlands					
Metallic arsenic	(a) 58	38	—	30	—
Spain					
White arsenic	280	...	...	...	...
Metallic arsenic	20	12	33	30	35
Austria					
Metallic arsenic	...	11	21	22	17
Finland					
White arsenic (d)	1 373	...	...	...	...
Norway					
Metallic arsenic	...	20	31	19	32
Sweden					
Metallic arsenic	—	143	5	29	7
Turkey					
White arsenic	55	95	...	...	...
Yugoslavia					
White arsenic	112	...	...	...	...
Metallic arsenic	50	39	67	27	(e) —
South Africa					
Metallic arsenic	43	28	28	31	...
USA					
White arsenic	26 934	28 056	28 347	26 257	27 142
Metallic arsenic	631	600	928	796	1 018
Argentina					
White arsenic	115	94	...	...	...
Brazil					
White arsenic	428	314	393	...	...
Uruguay					
White arsenic	35	51	...	...	42
Hong Kong					
White arsenic	375	348	326	658	4 676
India (b)					
White arsenic	857	527	...	211	504
Metallic arsenic	374	312	...	41	103
Indonesia					
White arsenic	84	93	43	2	160
Japan					
White arsenic	325	104	315	362	234
Metallic arsenic	...	9	30	95	336
Malaysia					
White arsenic	1 368	...	...	...	...
Philippines					
White arsenic (d)	52	65	108	25	54
Taiwan					
White arsenic	646	511	165	245	223
Thailand					
White arsenic (d)	134	51	56	97	99

Imports of Arsenic

tonnes

Country	1987	1988	1989	1990	1991
Australia					
White arsenic (c)	1 254	724	1 174	966	962
New Zealand (c)					
White arsenic (d)	930	1 242	857	1 215	1 073

Note(s):

- (1) This table does not purport to be comprehensive: data relating to arsenic are not fully recorded by many countries
- (a) May include some tellurium
- (b) Years ended 31 March following that stated
- (c) Years ended 30 June of that stated
- (d) Including pentoxide and/or arsenic acid
- (e) Data for the Federal Republic of Yugoslavia only

Bismuth

Mine Production of Bismuth

tonnes (metal content)

Country	1987	1988	1989	1990	1991
France	100	100	110	70	—
Italy	44	32	46	34	45
Romania	* 75	* 65	* 60	* 70	* 60
Soviet Union	* 85	* 85	* 85	* 80	* 70
Yugoslavia	73	23	40	9	(b) 22
Canada	167	212	205	87	65
Mexico	1 012	958	883	733	651
USA	* 100	* 100	* 100	* 100	* 100
Bolivia	1	13	41	68	—
Peru (a)	438	386	687	* 555	* 610
China	* 600	* 750	786	1 058	* 1 100
Japan	546	524	502	442	461
Korea, Republic of	145	132	96	79	42
Australia	* 350	* 400	* 400	* 400	* 400
World total	3 700	3 800	4 000	3 800	3 600

Note(s)

- (1) The figures in this table are in some instances derived from reported bismuth content of refined and impure metal plus recoverable bismuth 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
 - (3) In addition to the countries listed, Belgium, Brazil, Bulgaria, German Democratic Republic and Namibia are believed to produce bismuth
- (a) Including Bi content of bullion and concentrates exported
(b) Excluding data from August to December for the Republic of Croatia

Exports of Bismuth

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Metal	(a)* 460	566	413	598	473
France					
Compounds	35	163	113	68	86
Metal	40	73	88	78	18
Germany, Federal Republic of					
Compounds	81	104	24	56	39
Metal	146	144	168	75	107
Italy					
Metal	80	23	31	19	7
Netherlands					
Metal	17	30	18	46	2
Spain					
Compounds	6	32	36	33	30
Canada					
Metal	(c) 52	103	28	130	49
Mexico					
Metal	1 993	1 514	1 174	871	1 567
USA					
Metal	38	154	124	123	77
Peru					
Metal	1 047	425	424	...	...
China					
Metal	(a)* 130	(a)* 530	(a)* 300	609	961
Japan					
Metal	55	68	16	35	13
Korea, Republic of					
Metal	152	180	161	129	90
Australia					
Metal (b)	...	...	380	176	41

Note(s):

- (1) The compounds recorded in this table are bismuth carbonate and/or bismuth nitrate
- (a) BGS estimates, based on known imports into certain countries
- (b) Years ended 30 June of that stated
- (c) Imports into the USA

Bismuth

Imports of Bismuth

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Compounds	40	48	4	3	16
Metal	550	678	414	449	572
France					
Compounds	3	59	59	13	1
Metal	327	427	273	199	311
Germany, Federal Republic of					
Compounds	14	9	11	5	4
Metal	688	659	602	635	847
Italy					
Compounds	10	14	17	11	9
Metal	61	96	80	144	107
Netherlands					
Compounds	—	246	40	28	136
Metal	25	28	25	41	26
Spain					
Metal	83	77	73	59	55
Switzerland					
Metal	...	28	12	15	11
Yugoslavia					
Metal	—	47	22	49	(c) —
USA					
Metal	1 693	1 749	1 880	1 612	1 410
Argentina					
Metal	20	28	...	...	...
Brazil					
Compounds (a)	12	6	10	6	...
Metal	72	55	88	35	57
Japan					
Metal	...	326	408	180	181
Australia					
Metal (b)	15	11	9	13	11

Note(s):

- (1) The compounds recorded in this table are bismuth carbonate and/or bismuth nitrate
- (a) Also includes oxide and chloride
- (b) Years ended 30 June of that stated
- (c) Data for the Federal Republic of Yugoslavia only

Production of Cadmium

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom	498	399	395	438	449
Belgium	1 308	1 836	1 761	1 956	1 807
France (a)	457	558	790	780	1 100
Germany, Federal Republic of (a)	1 125	1 156	1 208	973	1 048
Italy	320	705	775	691	658
Netherlands	517	655	505	590	539
Spain	297	438	361	355	344
Austria	26	26	49	44	19
Bulgaria	* 290	351	390	309	232
Finland	428	808	569	484	471
German Democratic Republic	37	30	26	17	—
Norway	147	169	207	286	237
Poland	620	642	485	373	364
Romania	* 23	* 27	* 46	* 40	* 10
Soviet Union	* 2 600	* 2 650	* 2 600	* 2 400	* 2 000
Turkey	11	22	54	46	22
Yugoslavia	284	405	475	362	* 280
Algeria	102	55	46	65	78
Namibia	51	106	88	69	67
Zaire	299	281	224	127	123
Canada (a)	1 571	1 694	1 620	1 470	1 829
Mexico (b)	1 139	1 553	1 316	1 278	1 126
USA (a)	1 515	1 885	1 550	1 678	1 676
Argentina	53	54	60	55	49
Brazil	214	161	190	135	* 140
Peru	353	316	497	378	526
China	* 750	* 840	1 165	1 129	* 1 125
India	214	237	275	277	270
Japan	2 374	2 614	2 694	2 451	2 889
Korea, Dem. P.R. of	* 220	* 260	* 190	* 180	* 200
Korea, Republic of	* 470	* 490	* 470	568	395
Australia	950	855	696	648	1 076
World total	19 300	22 300	21 800	20 700	21 100

Note(s):

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

(a) Including cadmium sponge and/or secondary metal

(b) Including oxides

Cadmium

Exports of Cadmium

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom	62	147	570	621	210
Belgium-Luxembourg					
Metal	583	1 032	1 643	1 168	1 390
Sulphide	86	56	162	60	49
France	316	544	679	377	721
Germany, Federal Republic of					
Metal (a)	991	...	...	...	...
Italy	221	560	741	450	686
Netherlands	842	703	717	500	513
Spain	230	438	254	155	318
Austria	40	20	120	35	20
Bulgaria (b)	* 40	* 40	* 110	* 40	* 190
Finland	609	784	591	591	407
Hungary	...	...	147	144	...
Norway	135	140	229	287	232
Poland	...	...	122	140	15
Soviet Union	* 200	* 100	* 100	...	...
Yugoslavia	97	125	318	33	(d) —
Algeria	224	30	40	58	...
Namibia	45	107	73	45	69
Zaire	174	* 240	...	...	...
Canada	1 157	1 113	1 433	1 283	1 452
Mexico	782	1 408	1 061	691	* 800
USA	270	626	790	702	460
Peru	138	200	299	...	...
China	(b)* 290	(b)* 700	(b)* 430	568	475
Japan	201	158	141	255	13
Korea, Republic of					
Metal	163	731	828	874	669
Oxide	292	—	—	—	...
Australia (c)	2 262	1 103	1 237	311	701

(a) Including rhenium

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

(c) Years ended 30 June of that stated

(d) Data for the Federal Republic of Yugoslavia only

Imports of Cadmium

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom	1 093	1 157	943	971	696
Belgium-Luxembourg					
Metal	1 586	2 096	1 991	1 925	2 221
Sulphide	18	6	29	31	45
Denmark					
Sulphide	...	82	157	—	1
France					
Metal	1 137	1 180	1 746	1 750	1 546
Sulphide	58	76	70	69	41
Germany, Federal Republic of					
Metal	511	658	791	530	482
Oxide	660	—	—	—	—
Sulphide	14	59	8	4	9
Italy					
Metal	90	84	64	71	70
Sulphide	3	6	8	4	8
Netherlands					
Metal	115	102	65	32	5
Sulphide	3	7	7	2	28
Spain	87	65	105	69	85
Czechoslovakia	146	93	137	...	...
Finland	242	68	0	1	0
German Democratic Republic (a)	* 130	* 50	* 10	* 30	—
Soviet Union (a)	* 110	...	* 60	...	...
Sweden	122	177	181	252	157
USA	2 701	2 482	2 787	1 740	2 037
Brazil					
Metal	208	22	98	15	80
Oxide	158	74	85	55	...
India (b)	116	2	...	190	141
Japan	...	2 546	2 908	2 199	3 568
Pakistan (c)					
Sulphide	51	15	...	49	...
Taiwan					
Oxide	341	282	274	254	258

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

(b) Years ended 31 March following that stated

(c) Years ended 30 June of that stated

Chromium

Production of Chromium Ores and Concentrates

tonnes

Country	1987	1988	1989	1990	1991
Greece	63 825	49 335	47 324	22 400	20 108
Albania	1 072 000	1 109 000	1 101 000	1 011 000	586 700
Finland (b)	503 159	536 309	573 715	461 277	458 000
Soviet Union	3 570 000	3 700 000	3 800 000	* 3 800 000	* 3 800 000
Turkey (a)	762 071	851 425	1 415 038	1 089 942	1 381 633
Madagascar	106 773	171 484	165 397	122 276	145 583
South Africa	3 862 000	4 244 632	4 950 854	4 618 000	5 100 299
Sudan	10 000	25 000	30 000	35 000	25 000
Zimbabwe	570 298	561 630	627 500	562 600	563 634
Cuba	52 400	52 200	50 600	* 50 000	* 30 000
Brazil (a)	191 033	229 912	270 198	256 453	336 900
India	623 591	820 863	1 002 659	939 000	958 000
Iran (b) (c)	92 120	60 289	72 628	77 189	90 119
Japan	11 815	9 508	11 674	8 075	* 7 500
Oman	* 4 000	* 4 000	12 810	...	...
Pakistan	9 963	4 924	27 105	18 191	* 18 000
Philippines (b)	188 647	165 710	379 521	234 600	210 267
Vietnam	4 000	2 600	4 000	4 600	* 3 500
New Caledonia	61 832	70 341	60 281	6 223	—
World total	11 800 000	12 700 000	14 600 000	13 300 000	13 700 000

Note(s):

(1) In addition to the countries listed, Bulgaria, China, Democratic P.R. of Korea and Thailand are believed to produce chromite

(a) Including beneficiated and direct shipping ore

(b) Including foundry sand and/or lumpy ore

(c) Years ended 20 March following that stated

Exports of Chromium

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Ores & concentrates	217	207	64	36	75
Metal	3 733	3 469	3 409	3 301	3 787
Belgium-Luxembourg					
Ores & concentrates	85	1 484	290	12 484	16 491
Metal	123	133	82	65	11
France					
Ores & concentrates	1 368	3 113	9 676	2 395	4 089
Metal	1 659	2 205	2 358	3 900	2 674
Germany, Federal Republic of					
Ores & concentrates	11 392	14 419	16 237	13 466	18 221
Metal	143	189	364	1 184	1 798
Greece					
Ores & concentrates	7 089	6 484	17 510	7 967	8 539
Italy					
Ores & concentrates	2 053	13 475	2 999	3 940	1 960
Metal	307	28	817	157	69
Netherlands					
Ores & concentrates	28 005	31 902	39 777	37 703	37 183
Metal	6	5	65	50	44
Albania					
Ores & concentrates	671 900	669 700	620 800	468 800	...
Austria					
Ores & concentrates	—	213	94	131	140
Finland					
Ores & concentrates	144 017	200 693	109 976	9 106	2 008
Soviet Union					
Ores & concentrates	521 000	632 000	741 000	587 000	(c) 350 673
Metal (b)	...	* 300	* 800	* 1 900	* 3 200
Turkey					
Ores & concentrates	569 733	843 116	882 627	676 499	577 358
Yugoslavia					
Ores & concentrates	10 589	2 459	3 124	—	—
Madagascar					
Ores & concentrates	83 842	148 500	152 591	125 558	129 342
South Africa					
Ores & concentrates	1 442 747	1 461 713	1 541 011	1 200 919	1 010 101
Cuba					
Ores & concentrates	49 664	...	...	...	...
USA					
Ores & concentrates	5 982	4 964	42 820	10 373	8 808
of which: Re-exports	4 837	1 033	2 375	4 052	—
Metal	379	322	1 503	345	440
Brazil					
Ores & concentrates	8	29 931	41 863	34 995	59 253
China					
Metal (b)	* 1 300	* 1 200	* 1 100	* 2 500	* 1 500
India (a)					
Ores & concentrates	185 196	588 700	...	179 580	397 547
Iran					
Ores & concentrates (b)	* 13 500	* 7 500	* 30 500	* 30 700	* 67 400
Japan					
Ores & concentrates	309	298	2 429	495	356
Metal	...	2 014	2 322	2 822	2 020
Philippines					
Ores & concentrates	105 676	163 499	201 683	198 366	197 764

Chromium

Exports of Chromium

tonnes

Country	1987	1988	1989	1990	1991
New Caledonia					
Ores & concentrates	72 112	71 646	64 651	6 782	—

Note(s):

- (1) Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys
- (a) Years ended 31 March following that stated
- (b) BGS estimates, based on known imports into certain countries
- (c) Data for the Russian Federation only

Imports of Chromium

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Ores & concentrates	124 318	199 043	170 461	154 919	80 278
Metal	504	391	709	854	910
Belgium-Luxembourg					
Ores & concentrates	2 581	3 404	3 861	19 926	28 515
Metal	406	374	392	570	465
Denmark					
Ores & concentrates	667	697	6 481	14 770	2 878
France					
Ores & concentrates	24 771	80 910	81 288	88 144	77 035
Metal	253	264	506	1 047	1 557
Germany, Federal Republic of					
Ores & concentrates	258 912	272 541	343 779	245 513	276 511
Metal	1 144	1 347	2 147	3 236	3 207
Greece					
Ores & concentrates	27 354	42 600	73 812	47 284	39 575
Irish Republic					
Ores & concentrates	3 010	13	22	47	44
Italy					
Ores & concentrates	218 974	304 149	383 158	179 711	159 914
Metal	223	376	289	649	478
Netherlands					
Ores & concentrates	17 229	34 477	42 777	54 066	34 378
Metal	82	155	137	261	175
Portugal					
Ores & concentrates	779	1 136	1 055	1 571	1 922
Spain					
Ores & concentrates	76 902	104 254	87 766	54 695	40 115
Metal	143	80	104	110	117
Austria					
Ores & concentrates	39 282	58 712	60 936	43 752	47 997
Czechoslovakia					
Ores & concentrates	188 000	171 000	171 000	...	...
German Democratic Republic					
Ores & concentrates (b)	41 000	47 400	41 600	...	—
Hungary					
Ores & concentrates	(a)* 20 100	(a)* 27 500	18 315	16 169	...
Norway					
Ores & concentrates	760	558	64 663	159 457	338 719
Poland					
Ores & concentrates	190 731	168 081	159 110	147 000	...
Romania					
Ores & concentrates	130 100	115 500	146 700	...	...
Sweden					
Ores & concentrates	314 495	432 148	397 178	190 308	230 352
Metal	216	220	271	315	253
Switzerland					
Ores & concentrates	...	1 211	2 404	2 682	1 568
Metal	...	112	115	184	247
Yugoslavia					
Ores & concentrates	225 856	290 212	334 479	283 601	(d) 19 389
Canada					
Ores & concentrates	(b) 19 797	32 529	33 843	21 309	20 957
Mexico					
Ores & concentrates	45 016	39 019	29 376	29 037	...
USA					
Ores & concentrates	489 900	625 490	525 044	565 357	212 139
Metal	3 957	4 104	4 184	6 713	5 765
Argentina					
Ores & concentrates	27 558	14 776	20 393	17 160	...
Brazil					
Ores & concentrates	14 380	8 649	18 358	6 568	1 779
Chile					
Ores & concentrates	6 084	12 233	22 111	9 148	12 840
Peru					
Ores & concentrates	2 658	3 246	2 006	2 001	...
Venezuela					
Ores & concentrates	20 149	7 072	11 958	3 383	6 160

Chromium

Imports of Chromium

tonnes

Country	1987	1988	1989	1990	1991
China					
Ores & concentrates	230 375	429 808	595 783	641 267	544 648
Japan					
Ores & concentrates	674 743	976 168	1 043 468	789 225	755 059
Metal	...	725	830	571	812
Korea, Dem. P.R. of					
Ores & concentrates (a)	* 24 000	* 21 000	* 25 700	* 20 000	...
Korea, Republic of					
Ores & concentrates	41 147	7 408	3 250	528	501
Philippines					
Ores & concentrates	12 000	52 111	46 541	20	15
Singapore					
Ores & concentrates	...	4 045	7 010	1 073	673
Taiwan					
Ores & concentrates	20 899	12 238	35 709	4 492	5 595
Thailand					
Ores & concentrates	174	4 492	7 359	5 872	2 944
Australia					
Ores & concentrates (c)	4 395	2 579	8 154	5 302	7 394
Metal (c)	84	61	79	91	95

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
- (b) Cr₂O₃ content
- (c) Years ended 30 June of that stated
- (d) Data for the Federal Republic of Yugoslavia only

Production of Coal		Coal			
		tonnes			
Country	1987	1988	1989	1990	1991
United Kingdom					
Anthracite	2 091 000	1 798 000	2 060 000	1 945 000	1 864 000
Bituminous	102 442 000	102 268 000	98 545 000	91 563 000	93 057 000
Belgium					
Bituminous	4 356 455	2 487 217	1 892 689	1 035 832	634 000
France					
Anthracite & bituminous	13 743 000	12 142 000	11 471 000	10 487 000	10 100 000
Lignite	2 051 000	1 653 000	2 168 000	2 333 000	2 000 000
Germany, Federal Republic of					
Anthracite & bituminous	76 300 000	73 304 000	71 428 000	70 159 000	66 438 000
Brown coal	108 799 000	108 563 000	110 081 000	107 525 000	111 676 000
Greece					
Lignite	40 944 576	48 507 091	51 942 495	51 500 678	52 082 570
Irish Republic					
Anthracite & semi-bituminous	45 200	41 700	42 900	25 000	* 5 000
Italy					
Bituminous	15 356	48 408	69 420	56 300	170 000
Lignite	1 641 744	1 600 373	1 485 490	1 482 611	1 563 000
Portugal					
Anthracite	228 648	227 188	257 985	283 529	245 783
Spain					
Anthracite	5 361 395	5 276 111	5 519 231	5 720 000	5 950 000
Bituminous	13 602 604	13 608 676	13 604 995	13 760 000	12 599 000
Lignite	15 626 963	12 959 775	17 274 878	16 370 000	15 551 000
Albania					
Lignite	2 133 950	2 184 130	2 193 050	2 070 574	1 098 000
Austria					
Brown coal & lignite	2 785 616	2 129 264	2 065 815	2 448 053	2 080 649
Bulgaria					
Anthracite & bituminous	198 000	196 000	193 000	143 000	128 000
Brown coal & lignite	36 623 000	33 951 000	34 105 000	31 532 000	28 323 000
Czechoslovakia					
Bituminous	25 736 000	25 503 000	25 070 000	22 082 000	19 459 000
Lignite	3 639 000	3 558 000	3 348 000	3 124 000	2 838 000
Brown coal	98 347 000	96 361 000	90 915 000	82 044 000	79 669 000
German Democratic Republic					
Brown coal	308 976 000	310 314 000	301 058 000	249 100 000	—
Hungary					
Bituminous	2 360 056	2 254 882	2 127 359	1 735 940	1 694 882
Lignite	7 223 032	5 633 577	5 882 957	5 469 419	5 326 624
Brown coal	13 261 262	12 986 323	12 019 527	10 372 572	9 952 700
Norway					
Spitzbergen (d)					
Bituminous	398 745	263 717	339 000	302 804	390 273
Poland					
Bituminous	193 012 000	193 015 000	177 633 000	147 672 000	140 269 000
Brown coal	73 194 000	73 489 000	71 815 000	67 584 000	69 406 000
Romania					
Anthracite & bituminous	11 693 000	11 568 000	11 583 000	3 828 000	3 242 000
Lignite	43 109 000	50 439 000	53 980 000	...	...
Brown coal	897 000	910 000	899 000	(a) 33 516 000	(a) 27 967 000
Soviet Union					
Anthracite & bituminous	595 000 000	599 000 000	577 000 000	543 000 000	487 000 000
Lignite	165 000 000	172 000 000	164 000 000	160 000 000	143 000 000
Turkey					
Bituminous	7 084 479	6 687 948	6 258 784	5 628 747	5 209 481
Lignite	46 481 173	39 025 028	52 567 468	46 892 206	48 038 561
Yugoslavia					
Bituminous	379 444	362 000	292 588	292 000	(i) 209 000
Lignite	59 359 000	60 352 000	62 276 291	64 094 000	(i) 62 453 000
Brown coal	12 135 000	11 876 611	12 062 544	12 029 113	(i) 8 613 000
Botswana	579 409	612 873	663 045	794 041	783 873
Malawi	23 531	* 39 000	* 41 500	41 380	52 347
Morocco					
Anthracite	634 200	636 700	504 300	528 000	530 000

Coal

Production of Coal

tonnes

Country	1987	1988	1989	1990	1991
Mozambique					
Bituminous	43 319	23 856	62 010	40 411	50 832
Niger	164 313	* 150 000	171 434	* 150 000	* 150 000
Nigeria					
Sub-bituminous	117 917	82 488	57 379	77 502	* 90 000
South Africa					
Anthracite	5 251 945	4 950 988	4 208 058	3 622 253	2 689 353
Bituminous	171 293 841	176 408 771	172 074 711	171 161 308	175 704 883
Swaziland					
Bituminous	165 371	164 845	165 122	152 705	122 502
Tanzania					
Bituminous	2 865	11 580	45 380	41 900	74 914
Zaire					
Bituminous	121 866	* 123 000	...	...	* 60 000
Zambia					
Bituminous	463 072	523 651	394 839	381 501	* 420 000
Zimbabwe					
Bituminous	4 831 000	5 065 000	5 112 000	5 504 000	5 616 043
Canada					
Bituminous	32 650 000	38 554 000	38 779 000	37 697 000	39 906 000
Sub-bituminous	18 537 000	19 910 000	20 918 000	21 252 000	22 242 000
Lignite	10 020 000	12 148 000	10 816 000	9 407 000	8 981 000
Mexico					
Bituminous	11 137 054	10 586 336	9 983 087	10 013 655	9 401 325
USA					
Anthracite	3 300 000	3 300 000	3 000 000	3 200 000	...
Bituminous & lignite	830 300 000	858 800 000	886 700 000	930 400 000 (g)	903 500 000
Argentina					
Bituminous	380 855	505 000	441 052	270 354	288 000
Brazil					
Bituminous & lignite (e)	6 741 984	7 686 516	6 837 044	4 702 000	5 100 000
Chile					
Bituminous	1 305 246	1 436 151	1 267 456	1 467 885	1 341 527
Lignite	430 906	1 034 265	1 136 088	1 261 404	1 399 034
Colombia					
Bituminous	14 594 000	15 101 000	18 902 000	20 400 000	20 031 000
Peru					
Anthracite	* 90 000	101 198	* 100 000	...	...
Bituminous	107 501	49 200	* 50 000	...	...
Venezuela					
Bituminous	237 608	1 072 204	2 113 296	2 242 965	2 528 961
Afghanistan (c)					
Bituminous	* 167 000	* 138 000	* 125 000	...	* 250 000
China					
Anthracite	...	...	217 980 000	212 850 000	...
Bituminous	(h) 927 965 000	(h) 980 000 000	793 390 000	821 530 000 (g)	976 000 000
Lignite	...	...	42 780 000	45 500 000	114 000 000
India					
Bituminous	177 220 000	189 023 000	199 054 000	191 000 000	218 000 000
Lignite	8 311 000	12 588 000	12 571 000	9 000 000	15 000 000
Indonesia					
Anthracite & bituminous	2 813 533	4 094 629	4 533 055	7 330 156	7 823 781
Iran (c)					
Bituminous	1 518 612	1 625 214	1 457 406	1 435 318	1 750 000
Japan					
Anthracite & bituminous	13 034 465	11 223 396	10 187 309	8 262 891	8 060 000
Lignite	12 154	12 600	14 240	14 618	46 808
Korea, Dem. P.R. of					
Anthracite	39 500 000	40 000 000	40 000 000	40 000 000	43 300 000
Lignite	12 500 000	12 500 000	12 500 000	12 500 000	13 000 000
Korea, Republic of					
Anthracite	24 273 100	24 294 700	20 785 000	17 216 500	15 057 700
Mongolia					
Anthracite	655 000	692 000	* 1 000 000	...	...
Lignite	7 110 000	7 914 000	7 000 000	(g) 6 367 800	(g) 6 354 700

Production of Coal

	Coal				
	tonnes				
Country	1987	1988	1989	1990	1991
Myanmar (b)	39 334	30 258	39 321	31 396	56 695
Pakistan (a)	2 418 875	2 696 000	2 642 489	2 733 345	3 039 967
Philippines					
Bituminous	1 169 167	1 335 687	1 342 891	1 186 531	1 267 102
Taiwan					
Bituminous	1 499 240	1 225 487	784 409	472 050	402 575
Thailand					
Lignite	6 929 212	7 273 647	8 899 195	12 421 138	14 688 440
Vietnam					
Anthracite	6 428 400	6 332 200	3 310 800	4 218 000	4 200 000
Australia					
Bituminous (f)	178 399 000	176 604 000	190 085 000	199 212 000	206 045 000
Brown coal	44 877 000	43 450 000	48 252 000	47 725 000	52 124 000
New Zealand					
Bituminous	(a) (f) 2 401 956	(a) (f) 2 400 556	773 015	651 927	734 122
Sub-bituminous	...	...	1 780 694	1 762 729	1 779 549
Lignite	...	...	159 289	169 596	170 476
World total	4 669 000 000	4 783 000 000	4 864 000 000	4 738 000 000	4 425 000 000

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) Including lignite

(b) Years ended 31 March following that stated

(c) Years ended 20 March following that stated

(d) Not including production from mines controlled by the Soviet Union

(e) Including beneficiated and directly shipped material

(f) Including sub-bituminous

(g) Including anthracite

(h) Including anthracite and lignite

(i) Excluding data from August to December for the Republic of Croatia

Coal

Exports of Coal

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Anthracite	200 905	286 298	336 862	508 720	695 699
Other coal	2 140 982	1 450 667	1 735 043	1 812 866	1 127 964
Briquettes	114 018	78 860	129 750	137 304	107 015
Belgium-Luxembourg					
Anthracite	112 601	122 089	83 189	96 708	254 128
Other coal	836 194	830 587	875 041	723 999	684 291
Lignite	1 907	3 635	11 693	5 204	2 398
Briquettes	13 900	23 847	14 958	17 780	12 495
Denmark					
Coal (b)	52 004	89 464	44 397	44 394	54 777
of which: Re-exports	50 499	83 417	44 289	44 342	54 649
France					
Anthracite	33 038	38 001	62 562	36 793	32 511
Other coal	718 672	1 643 901	745 379	606 512	651 922
Lignite	1 574	20	264	14	—
Briquettes	90 805	13 799	14 119	27 705	49 896
Germany, Federal Republic of					
Coal (b)	6 295 396	5 020 570	5 921 642	5 410 412	3 531 584
Brown coal	426 669	365 660	410 623	448 886	441 817
Briquettes	791 281	738 730	672 258	1 037 618	1 268 700
Irish Republic (b)	50 122	30 455	23 165	27 785	23 997
Italy (b)	15 587	84 631	27 521	30 883	72 248
Netherlands					
Anthracite	291 512	330 853	230 634	341 242	288 319
Other coal	1 746 868	1 416 406	928 530	1 933 077	2 012 522
Briquettes	2 545	2 734	1 337	512	—
Spain					
Coal (b)	75	7 117	7 351	3 230	759
Austria					
Brown coal	4 295	3 557	3 285	3 472	2 562
Czechoslovakia					
Coal	1 999 000	2 147 000	2 202 000	1 557 000	2 484 000
Brown coal	2 281 000	1 968 000	2 303 000	2 515 000	2 722 000
German Democratic Republic					
Briquettes	3 088 000	3 352 000	3 059 000	...	—
Hungary					
Brown coal	17 534	11 726	2 274	...	...
Norway (b)	203 239	254 941	246 956	254 277	270 980
Poland					
Coal	30 961 000	32 177 000	28 858 000	28 026 000	19 534 000
Soviet Union					
Coal (b)	35 454 000	39 385 000	37 514 000	35 438 000	(g) 17 500 000
Brown coal (c)	* 145 800	* 109 000	* 372 800	* 393 400	* 345 900
Sweden (b)	104 255	35 380	7 331	2 290	13 065
Switzerland (b)	12 567	26 289	18 426	4 274	3 104
Turkey					
Coal	—	154	1 709	5 000	43 000
Lignite	3 350	3 364	3 000	3 000	4 000
Yugoslavia					
Lignite	5 296	...	...	...	...
Brown coal	61 927	(e) 45 625	(e) 29 747	(e) 72 914	(e) (f) 70 405
Morocco					
Anthracite	20 070	10 655	2 659	—	—
South Africa					
Anthracite	3 211 682	2 938 789	3 712 572	3 519 364	3 293 983
Other coal	39 231 329	40 059 056	44 856 995	46 047 056	45 971 140
Swaziland	157 108	160 239	...	6 525	...
Zimbabwe (b)	57 667	78 516	...	59 369	50 512
Canada	25 466 258	29 449 199	31 779 902	31 989 284	32 403 178
USA					
Anthracite	1 071 346	817 129	677 200	625 786	503 437
Other coal	70 439 178	85 287 394	90 791 738	95 391 482	100 071 698
Lignite	32 771	109 037	24 971	34 719	40 599
Briquettes	88 093	44 104	7 443	36 545	26 618
Colombia	8 442 616	10 075 435	12 485 059	13 504 899	16 403 000
Venezuela	58 690	964 629	1 785 059	1 711 198	1 572 000

Exports of Coal

Coal

tonnes

Country	1987	1988	1989	1990	1991
China (b)	13 514 670	15 625 509	15 338 150	17 293 160	20 001 255
India (a)	150 215	166 407	...	411 770	134 957
Indonesia					
Anthracite	60 530	198 995	742 611	643 386	587 133
Other coal	832 056	1 162 085	1 649 505	3 707 778	7 019 073
Japan	1 281	1 304	989	1 987	1 098
Korea, Dem. P.R. of (c)	* 2 033 000	* 2 095 000	* 1 948 000	* 1 701 000	* 1 466 000
Vietnam	200 600	314 300	543 300	693 000	...
Australia	101 979 000	99 821 000	99 121 000	107 682 000	120 828 000
New Zealand (d)	318 879	331 437	428 670	377 775	416 183

Note(s):

- (1) This table excludes bunker shipments
- (a) Years ended 31 March following that stated
- (b) Including anthracite
- (c) BGS estimates, based on known imports into certain countries
- (d) Years ended 30 June of that stated
- (e) Including lignite
- (f) Data for the Federal Republic of Yugoslavia only
- (g) Data for the Russian Federation only

Coal

Imports of Coal

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Anthracite	573 106	803 736	765 182	633 964	1 133 205
Other coal	9 207 810	10 881 160	11 371 897	14 156 669	18 477 346
Briquettes	137 107	167 942	140 317	132 484	160 513
Belgium-Luxembourg					
Anthracite	1 214 710	1 020 753	1 009 006	911 275	1 181 064
Other coal	8 536 441	10 334 943	11 413 679	14 182 191	13 597 504
Brown coal	255 758	221 441	245 294	260 967	250 191
Briquettes	166 227	123 138	93 127	85 399	98 517
Denmark					
Coal (c)	12 054 761	10 306 160	10 876 410	9 953 126	12 879 950
Lignite	26	11 016	5 333	4 476	5 943
Briquettes	30 135	3 662	597	3 627	4 359
France					
Anthracite	997 098	1 987 932	1 807 936	1 979 970	2 687 252
Other coal	12 060 312	10 866 117	14 067 060	17 161 598	18 851 045
Lignite	38 352	48 674	61 902	70 793	75 582
Briquettes	179 961	161 503	172 897	174 924	191 201
Germany, Federal Republic of					
Anthracite	27 423	75 517	72 803	76 926	135 426
Other coal	8 140 454	7 092 646	6 335 453	10 778 573	15 264 936
Brown coal	2 163 504	1 882 968	2 091 051	2 408 115	3 424 576
Briquettes	1 051 426	983 620	930 281	467 176	299 022
Greece					
Anthracite	5 369	15	40	127	5
Other coal	1 131 583	774 635	833 052	980 020	1 739 787
Irish Republic					
Anthracite	73 634	96 526	109 099	139 914	174 276
Other coal	2 860 951	3 478 429	3 221 483	2 994 684	2 950 739
Lignite	6 254	7 231	10 227	26 006	58 278
Briquettes	7 179	11 448	12 107	14 141	16 801
Italy					
Anthracite	144 267	2 847 819	2 875 271	2 838 619	3 152 616
Other coal	19 844 210	16 237 229	17 370 830	16 860 099	16 998 778
Lignite	2 732	4 706	398 295	3 047	754
Briquettes	135 236	148 379	123 844	125 489	213 006
Netherlands					
Anthracite	322 434	400 968	346 112	308 069	274 047
Other coal	12 265 969	14 766 903	13 548 665	17 196 108	15 533 199
Brown coal	78 400	64 264	64 100	73 609	50 945
Briquettes	18 346	14 417	10 042	4 496	5 562
Portugal					
Anthracite	535 079	...	...	...	595 000
Other coal	2 015 262	(c) 3 115 713	(c) 3 529 728	(c) 4 555 309	3 553 000
Spain					
Anthracite	35 137	13 931	87 800	218 661	522 941
Other coal	8 844 016	8 747 702	10 638 155	10 292 866	12 628 683
Lignite	1 566	1 525	1 213	848	886
Briquettes	70 296	73 071	136 236	312 344	4 282
Albania (e)	* 202 000	* 246 000	* 212 000	* 236 000	* 163 000
Austria					
Anthracite	28 789	16 716	17 692	16 265	7 475
Other coal	4 103 845	3 843 570	3 703 417	3 579 750	3 769 821
Brown coal	50 416	38 520	24 225	23 551	22 842
Briquettes	465 791	359 213	317 729	318 977	326 738
Bulgaria					
Anthracite	1 658 000	1 112 000	...	...	...
Other coal	5 600 000	5 339 000	5 001 000	(c) 5 682 000	(c) 3 968 000
Czechoslovakia					
Coal	4 235 000	4 781 000	4 503 000	4 736 000	5 843 000
Briquettes	702 000	977 000	766 000	198 000	1 000
Finland					
Anthracite	62 436	43 486	24 605	17 246	13 070
Other coal	5 008 427	4 756 402	5 540 412	6 084 368	5 160 032
Briquettes	6 237	6 921	0	0	1 419
German Democratic Republic (c)	7 166 000	5 802 000	4 311 000	...	—
Hungary					
Coal (c)	1 955 028	2 076 309	1 697 415	1 039 267	2 262 000
Briquettes	707 137	917 931	936 554	794 180	189 000
Iceland	59 919	66 167	71 534	64 518	60 493
Malta	181 275	191 579	303 101	247 893	237 837

Imports of Coal

Coal

tonnes

Country	1987	1988	1989	1990	1991
Norway (a)					
Anthracite	97 078	110 264	126 477	120 549	114 801
Other coal	629 434	662 906	520 972	577 096	475 404
Lignite	10	22	5 331	6 126	7 562
Briquettes	18 918	707	4 429	9 377	3 124
Poland					
Anthracite	20 000	21 000	20 000	...	...
Other coal	1 092 000	1 108 000	926 000	540 000	54 000
Romania	7 082 800	8 085 700	6 831 700	4 981 000	2 971 000
Soviet Union (e)	* 9 583 000	* 11 735 000	* 9 947 000	* 10 000 000	...
Sweden					
Anthracite	23 895	28 219	23 750	50 705	33 058
Other coal	3 942 080	3 811 143	3 671 573	3 510 958	3 095 351
Switzerland					
Coal (c)	521 212	436 555	333 358	484 654	364 363
Briquettes	28 479	24 910	16 020	11 475	17 191
Turkey					
Coal	3 442 858	4 460 192	4 043 847	4 771 000	5 115 000
Lignite	392 885	228 644	253 000	445 000	512 000
Yugoslavia					
Anthracite	174 089	225 661	186 579	174 121	(g) 9 489
Other coal	3 819 985	3 895 877	3 984 780	3 342 281	(g) 45 803
Brown coal	34 381	2 444	12 892	12 973	(g) 14 347
Briquettes	125 821	22 709	14 550	23 921	(g) —
Algeria	1 371 406	1 304 651	719 212	1 008 868	1 000 139
Botswana	22 427	21 999	15 554	...	...
Egypt	1 311 107	1 142 007	1 291 202	...	...
Kenya	91 784	130 791	...	...	...
Madagascar	11 686	17 000	13 371	11 473	11 049
Malawi	26 000	66 000	...	...	...
Morocco	1 040 745	1 018 299	(c) 1 278 452	(c) 1 189 248	(c) 1 376 178
Mozambique	39 416	...	...	...	...
South Africa	1 685	2 372	100 977	483 428	...
Tanzania	28 009	4 130	3 537	...	...
Tunisia	11 951	28 505	11 588	13 025	3 086
Zaire	* 62 000	* 62 000	...	...	...
Zimbabwe	47 708	* 50 000	...	71 173	...
Canada					
Anthracite	277 913	407 199	422 178	440 670	312 863
Other coal	13 872 312	15 258 058	15 020 145	14 364 811	11 377 781
Cuba	58 814	60 819	193 861	...	...
Mexico					
Coal	20 163	76 242	20 229	285 993	202 394
Lignite	3 180	4 232	1 459	1 631	...
USA					
Anthracite	...	...	382 847	104	242
Other coal	(c) 1 611 769	(c) 1 935 959	2 111 797	2 384 111	3 002 205
Briquettes	142 541	74 002	99 262	69 989	74 611
Argentina	1 110 223	1 252 053	1 032 878	861 998	931 888
Brazil					
Anthracite	30 710	156 866	235 433	233 523	328 940
Other coal	10 559 811	10 554 775	10 096 062	10 417 062	9 718 000
Chile	499 288	417 559	1 572 006	1 791 072	1 520 283
Peru	26 450	53 517	61 504	46 506	181 567
Venezuela	29 169	40 980	43 673	35 903	19 363
China					
Anthracite	1 717 439	1 596 749	1 521 550	1 201 885	968 476
Other coal	224 746	96 153	669 724	784 161	376 488
Cyprus	151 423	91 000	102 419	97 035	72 175
Hong Kong	8 009 570	9 266 528	9 927 839	8 930 667	9 634 464
India (c) (d)	2 861 023	4 488 209	...	6 047 265	5 276 238
Indonesia	2 076 520	1 035 432	1 299 378	620 717	673 050
Iran (b)	267 410	120 605	277 816	603 307	...
Israel	3 518 000	3 536 000	3 673 000	3 998 000	3 921 000
Japan					
Anthracite	1 876 376	2 453 917	2 272 209	2 039 845	2 390 381
Other coal	90 678 010	101 726 899	102 729 332	105 477 448	109 563 568
Lignite	37 368	28 208	22 477	10 875	24 566

Coal

Imports of Coal

tonnes

Country	1987	1988	1989	1990	1991
Korea, Dem. P.R. of (e)	* 1 815 000	* 1 797 000	* 1 605 000	* 1 728 000	* 1 948 000
Korea, Republic of					
Anthracite	3 432 671	2 803 007	1 516 883	1 072 492	1 409 952
Other coal	18 385 997	21 913 035	23 499 690	22 846 311	27 849 073
Briquettes	39 272	20 990	31 087	19 717	19 352
Malaysia					
Anthracite	42 416	13 450	...	...	19 012
Other coal	477 427	694 832	1 021 454	...	2 090 647
Lignite	...	127 647	186 180	...	47 781
Myanmar	* 40 000	* 40 000	...	...	...
Pakistan (f)	832 196	814 459	...	764 981	...
Philippines (c)	469 990	1 255 437	883 983	891 901	1 265 657
Taiwan					
Coal	13 381 901	17 887 678	(c) 17 013 984	(c) 19 006 018	(c) 18 455 411
Briquettes	...	...	52 807	5 482	31 479
Thailand					
Coal (c)	254 408	292 300	370 408	249 615	442 312
Australia (f)	951	342	126 447	166 244	7 139
New Caledonia	149 691	163 507	199 200	212 747	195 304

- (a) Excludes coal imported from Spitzbergen
(b) Years ended 20 March following that stated
(c) Including anthracite
(d) Years ended 31 March following that stated
(e) BGS estimates, based on known exports from certain countries
(f) Years ended 30 June of that stated
(g) Data for the Federal Republic of Yugoslavia only

Mine Production of Cobalt

tonnes (metal content)

Country	1987	1988	1989	1990	1991
Albania	612	673	643	586	500
Finland	187	—	250	273	234
Soviet Union	* 5 500	* 5 600	* 5 600	* 6 000	* 5 200
Botswana	182	298	215	205	208
Morocco	259	278	125	113	324
South Africa	263	206	199	249	209
Zaire	11 871	10 026	9 311	9 981	8 620
Zambia	4 479	5 025	4 488	4 614	4 817
Zimbabwe	111	122	111	121	105
Canada	5 490	6 234	6 167	5 470	5 274
Cuba	1 613	1 783	1 827	1 743	1 331
Brazil	500	500	400	...	...
China	* 270	* 270	255	325	233
Australia	2 715	2 443	* 2 400	* 2 400	* 2 400
New Caledonia	1 724	2 137	2 885	2 551	2 990
World total	35 800	35 600	34 900	35 000	32 800

Note(s):

- (1) There is frequently a considerable disparity between the cobalt content of ore raised and cobalt actually recovered
- (2) Figures in this table relate where possible to cobalt recovered. The principal exceptions to this are Australia, Brazil and New Caledonia, the figures for which relate to cobalt in ore raised

Cobalt

Production of Cobalt Metal

tonnes

Country	1987	1988	1989	1990	1991
Belgium (a)	...	...	...	...	...
Germany, Federal Republic of (b)	475	656	713	1 303	975
Albania	—	* 10	* 10	* 20	* 20
Czechoslovakia	...	...	* 50	59	...
Finland	516	436	402	507	515
Norway	1 578	1 851	1 946	1 830	1 983
Soviet Union	* 6 000	* 6 000	* 6 600	* 7 000	* 5 200
South Africa	263	206	199	249	209
Zaire	11 871	10 026	9 311	10 033	8 790
Zambia	4 479	5 025	4 488	4 614	4 817
Canada (c)	2 527	2 356	2 110	2 063	2 248
China	* 270	* 270	255	325	340
Japan	124	109	98	199	185
World total	28 200	27 000	26 200	28 200	25 300

Note(s):

- (1) In addition to the production listed above, several countries, including the United Kingdom, Finland, France and USA, are known to produce substantial amounts of cobalt compounds
- (a) Production not reported. Much of the metal recorded under Zaire is believed to be further processed in Belgium and elsewhere
- (b) Sales
- (c) Including oxides

Exports of Cobalt

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Metal	928	820	1 089	1 385	1 328
Oxides	780	1 004	1 200	1 413	1 730
Belgium-Luxembourg (a)					
Metal	* 1 500	* 1 900	* 3 100	* 3 400	* 3 500
Oxides	* 1 500	* 1 600	* 1 500	* 1 900	* 1 800
France					
Metal	580	617	966	616	669
Oxides	31	33	55	32	22
Germany, Federal Republic of					
Metal	1 182	1 236	1 084	1 382	1 332
Oxides	40	37	50	63	41
Italy					
Metal	82	74	123	71	222
Oxides	1	213	218	54	49
Netherlands					
Metal	39	47	91	93	186
Oxides	123	41	24	45	39
Spain	29	1	6	83	32
Austria					
Oxides	22	29	—	3	2
Finland					
Metal	481	282	288	318	396
Oxides	676	1 772	1 539	1 112	1 065
Norway	1 613	1 740	1 962	1 832	2 010
Sweden					
Metal	76	325	217	142	140
Oxides	0	155	141	181	117
Switzerland	...	88	111	130	139
Morocco					
Ore	...	2 148	2 021	2 070	3 126
South Africa	214	175	148	219	176
Zaire	9 367	8 700	...	...	...
Zambia	9 909	5 891	2 785	...	...
Canada					
Metal	1 875	3 062	3 245	3 056	4 910
Oxides	440	953	371	393	463
Cuba					
Oxide, sinter & sulphide (b)	* 1 600	* 1 800	* 1 800	* 1 700	* 1 300
USA					
Metal	683	903	538	1 059	1 039
Oxides	378	419	606	934	1 115
Brazil					
Metal	50	89	61	125	249
China					
Oxides	(d)* 40	(d)* 60	(d)* 80	170	143
Hong Kong					
Oxides (c)	21	14	33	50	42
Japan					
Metal	...	207	355	440	335
Oxides	21	48	21	99	50
Korea, Republic of					
Oxides	42	16	47	—	1

(a) Exports of cobalt are not separately recorded. Figures shown are BGS estimates based on known imports into certain countries

(b) Co content

(c) Re-exports

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

Cobalt

Imports of Cobalt

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Metal	2 253	2 898	2 588	3 857	3 558
Oxides	636	645	500	543	528
Belgium-Luxembourg					
Metal	494	417	202	84	201
Oxides	89	146	142	191	171
Denmark					
Metal	22	24	20	24	19
Oxides	30	53	9	2	7
France					
Metal	1 144	1 563	1 518	1 632	1 339
Oxides	389	286	357	290	404
Germany, Federal Republic of					
Metal	2 476	2 773	2 690	2 765	2 163
Oxides	311	383	387	496	503
Italy					
Metal	613	539	604	632	543
Oxides	290	454	473	591	656
Netherlands					
Metal	156	24	50	127	161
Oxides	372	321	285	329	316
Portugal					
Oxide	20	65	13	21	13
Spain					
Metal	208	264	238	285	189
Oxides	140	179	214	255	209
Austria					
Metal	...	347	388	405	286
Oxides	30	28	28	23	20
German Democratic Republic (b)	* 100	* 10	* 30	* 20	—
Norway					
Oxides	1	33	163	2	41
Sweden					
Metal	335	585	599	785	576
Oxides	10	12	5	5	7
Switzerland					
...	...	243	240	256	248
Turkey					
Oxides	54	49	55	63	57
Yugoslavia					
Metal	...	53	73	93	(d) 22
Oxides	47	50	47	42	(d) 3
South Africa					
Metal	115	115	116	348	...
Oxides	15	21	16	6	...
Canada					
...	...	768	716	812	2 083
Mexico					
Metal	58	112	121	31	35
Oxides	158	136	200	182	...
USA					
Metal	8 443	6 562	6 011	6 377	6 894
Oxide	361	337	380	488	584
Argentina					
...	41	36	...	...	...
Brazil					
Metal	507	511	748	964	562
Oxide	27	29	70	74	44
Venezuela					
Oxides	34	28	48	28	...
China					
...	...	...	...	498	437
Hong Kong					
Oxide	20	32	164	62	46
India (a)					
...	148	273	...	318	205
Indonesia					
Oxides	64	24	27	41	156
Japan					
Metal	4 775	4 934	3 377	4 807	6 815
Oxide	432	455	449	631	571

Imports of Cobalt

Country	1987	1988	1989	1990	1991
Korea, Republic of					
Metal	276	404	436	630	654
Oxides	56	64	74	147	168
Malaysia					
Metal	168	346	431	88	25
Oxides	8	24	21	...	29
Saudi Arabia					
Oxides	575	364	106	106	256
Taiwan					
Metal	...	159	118	107	181
Oxides	99	109	102	148	133
Australia					
Metal (c)	35	48	37	47	37
Oxide (c)	36	72	66	71	55

(a) Years ended 31 March following that stated

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

(c) Years ended 30 June of that stated

(d) Data for the Federal Republic of Yugoslavia only

Copper

Mine Production of Copper

tonnes (metal content)

Country	1987	1988	1989	1990	1991
United Kingdom	750	732	508	955	294
France	291	509	1 027	483	372
Germany, Federal Republic of	1 500	700	100	—	—
Greece	1 000	—	—	—	—
Portugal	203	8 221	98 017	157 460	158 400
Spain	16 213	14 165	27 510	15 400	9 900
Albania	16 227	17 269	16 000	12 250	8 000
Bulgaria	54 000	50 000	38 800	32 900	47 200
Czechoslovakia	4 069	3 807	3 709	2 884	1 550
Finland	21 593	18 420	25 107	17 482	16 224
German Democratic Republic	11 112	9 019	7 906	3 564	—
Norway	23 235	18 655	20 132	23 041	17 393
Poland	438 000	459 000	401 000	370 000	382 000
Romania	49 800	50 200	47 800	32 000	27 200
Soviet Union	* 1 010 000	* 990 000	* 950 000	* 900 000	* 840 000
Sweden	86 113	75 032	71 238	74 283	79 900
Turkey	31 531	37 746	38 151	39 825	39 422
Yugoslavia	130 470	103 523	139 631	140 145	(a) 121 842
Algeria	200	—	—	—	—
Botswana	18 934	24 428	23 403	20 612	20 576
Congo	320	520	—	—	—
Morocco	13 944	13 284	14 496	15 300	15 000
Mozambique	151	139	88	28	—
Namibia	37 993	42 899	32 792	27 797	31 719
South Africa	197 913	178 171	191 577	188 368	193 642
Zaire	501 864	505 800	454 600	356 200	235 000
Zambia	527 000	518 062	540 079	545 677	423 000
Zimbabwe	18 800	16 116	15 800	14 800	13 811
Canada	802 181	776 482	723 052	793 735	811 134
Cuba	3 461	2 951	2 759	* 2 000	* 2 000
Honduras	306	538	244	...	...
Mexico	230 573	268 359	249 328	291 349	267 039
USA	1 243 596	1 416 928	1 497 818	1 587 742	1 631 078
Argentina	379	492	653	343	393
Brazil	40 332	44 845	47 439	34 441	37 947
Chile	1 418 100	1 451 000	1 609 300	1 588 400	1 814 300
Peru	406 430	316 400	368 200	323 400	382 277
China	* 350 000	* 370 000	544 000	557 000	630 000
Cyprus	97	383	485	472	245
India	54 085	51 463	53 342	51 566	50 430
Indonesia	105 346	126 200	135 035	162 366	267 401
Iran	* 40 000	50 700	68 000	60 300	97 000
Japan	23 817	16 666	14 650	12 927	12 414
Korea, Dem. P.R. of	* 12 000	* 12 000	* 12 000	* 12 000	* 14 000
Korea, Republic of	249	36	4	53	5
Malaysia	29 861	22 014	23 565	24 327	25 581
Mongolia	120 940	121 594	123 410	123 893	90 100
Myanmar	10 600	4 700	5 000	4 400	5 700
Oman	16 900	18 100	16 600	13 700	13 500
Philippines	214 103	216 465	196 422	182 318	148 200
Australia	232 695	243 800	296 000	330 000	325 000
Papua New Guinea	217 699	218 633	204 025	170 211	204 459
World total	8 800 000	8 900 000	9 400 000	9 300 000	9 500 000

(a) Excluding data from August to December for the Republic of Croatia

Smelter Production of Copper

Country	1987	1988	1989	1990	1991
Belgium	* 100	* 200	—	* 1 500	* 100
Germany, Federal Republic of	168 900	162 500	176 900	183 600	171 900
Portugal	200	—	—	—	—
Spain	104 700	* 115 000	* 120 000	* 121 000	* 144 000
Albania	13 000	14 000	15 600	11 600	4 800
Bulgaria	49 800	57 400	59 200	30 300	27 800
Czechoslovakia	34 415	34 792	36 832	33 000	27 658
Finland	101 955	95 745	99 147	112 843	114 284
German Democratic Republic	* 23 300	* 22 700	* 20 100	* 14 000	—
Hungary	3 524	3 593	4 287	* 4 000	4 900
Norway	30 101	31 730	34 980	36 455	38 445
Poland	367 300	469 560	460 519	430 000	440 000
Romania	37 970	38 697	39 397	28 300	27 800
Soviet Union	* 1 140 000	* 1 110 000	* 1 075 000	* 990 000	* 920 000
Sweden	92 909	93 653	69 977	76 385	68 113
Turkey	19 247	12 910	21 129	18 840	28 380
Yugoslavia	103 399	106 457	101 606	105 908	122 200
Namibia	37 653	42 163	37 978	33 190	33 539
South Africa	189 800	180 600	184 800	176 000	164 700
Zaire (a)	472 303	439 500	424 500	338 700	221 100
Zambia (a)	523 226	466 756	485 199	426 246	408 443
Zimbabwe	30 000	27 500	23 100	24 400	23 800
Canada	473 979	478 321	462 324	475 596	511 980
Mexico	133 850	166 631	183 356	209 801	208 339
USA	972 141	1 042 961	1 120 445	1 158 462	1 122 926
Brazil	146 969	147 880	153 378	152 117	141 443
Chile	1 106 900	1 189 400	1 266 600	1 328 500	1 296 100
Peru	311 800	239 151	309 348	261 403	341 919
China	* 417 000	* 425 000	557 000	358 000	385 000
India	32 923	44 284	42 456	40 667	45 531
Iran	* 40 000	* 52 000	76 000	78 500	123 200
Japan	980 191	994 045	1 005 534	1 040 628	1 085 435
Korea, Dem. P.R. of	* 30 000	* 29 000	* 30 000	* 25 000	* 25 000
Korea, Republic of	143 800	123 500	159 600	160 500	186 000
Oman	20 600	21 700	19 600	15 200	15 100
Philippines	164 476	159 218	156 268	153 462	167 462
Taiwan	61 500	56 400	61 900	11 400	—
Australia	172 873	177 669	203 000	192 000	197 000
World total	8 800 000	8 900 000	9 300 000	8 900 000	8 800 000

Note(s):

- (1) This table shows, where possible, primary metal in the form of blister and anode produced from concentrates, but may include some secondary metal produced from scrap, residues, etc.
- (a) Including leach cathodes

Copper

Production of Refined Copper

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom	122 287	123 958	119 033	121 634	70 060
Belgium	407 500	354 300	329 200	331 857	297 593
France	39 323	43 239	43 163	44 034	43 570
Germany, Federal Republic of	399 800	426 400	475 200	476 200	521 500
Italy	65 000	75 400	83 300	83 000	83 400
Portugal	5 300	5 400	—	100	300
Spain	151 410	158 756	165 700	170 567	189 850
Albania	11 000	13 000	13 000	10 900	4 400
Austria	32 924	38 378	46 267	49 703	52 837
Bulgaria	52 812	50 020	55 800	24 333	12 800
Czechoslovakia	27 202	27 076	26 920	24 606	25 273
Finland	59 538	55 846	69 911	69 030	64 908
German Democratic Republic	76 700	75 700	75 100	55 700	—
Hungary	23 251	15 627	13 137	12 817	9 341
Norway	29 387	31 730	32 294	33 514	38 445
Poland	390 200	400 560	390 268	346 000	378 500
Romania	* 32 200	* 32 000	* 33 200	* 24 700	* 25 700
Soviet Union	* 1 410 000	* 1 380 000	* 1 345 000	* 1 260 000	* 1 120 000
Sweden	91 905	90 292	94 745	97 278	96 554
Turkey	75 600	76 400	84 800	106 000	98 500
Yugoslavia	138 867	145 376	151 035	151 395	(a) 122 200
Egypt	1 141	8 427	* 4 000	* 4 000	* 4 000
South Africa	146 500	136 700	144 200	133 000	127 200
Zaire	210 218	202 790	203 800	173 175	120 000
Zambia	483 040	422 252	450 910	426 243	394 900
Zimbabwe	23 000	27 500	24 000	24 400	23 800
Canada	491 124	528 723	515 216	515 835	538 339
Mexico	118 040	133 909	140 510	157 108	171 866
USA	1 541 646	1 852 000	1 956 851	2 017 390	1 995 194
Argentina	* 13 000	* 12 500	* 11 000	* 15 000	* 15 000
Brazil	146 969	147 880	153 378	152 117	141 443
Chile	970 300	1 012 700	1 071 000	1 191 600	1 228 300
Peru	224 808	174 746	224 260	181 790	246 198
China	496 400	517 000	555 100	558 000	560 000
India	30 807	40 100	41 843	46 400	47 222
Iran	* 30 000	32 600	39 900	43 300	81 100
Japan	980 349	955 108	989 566	1 007 976	1 076 283
Korea, Dem. P.R. of	* 40 000	* 40 000	* 40 000	* 30 000	* 30 000
Korea, Republic of	157 922	170 541	178 665	192 196	200 763
Oman	15 490	16 267	15 318	12 015	11 413
Philippines	132 112	132 183	132 193	125 938	115 471
Taiwan	46 961	43 333	43 237	16 090	—
Australia	207 768	222 707	255 000	274 000	272 000
World total	10 100 000	10 400 000	10 800 000	10 800 000	10 700 000

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

(a) Excluding data from August to December for the Republic of Croatia

Exports of Copper

Country	1987	1988	1989	1990	1991
United Kingdom					
Ore & matte	2 990	4 310	1 401	5 138	2 041
Unwrought	18 685	13 800	11 050	11 597	16 356
Unwrought alloys	15 581	19 585	19 400	21 055	21 719
Scrap	123 013	125 557	127 878	111 208	126 652
Belgium-Luxembourg					
Ore	727	263	113	95	111
Burnt cupreous pyrites	3 672	...	...	...	...
Unwrought	249 270	...	...	(h) 231 548	(h) 181 083
Unwrought alloys	8 913	7 850	11 005	8 275	7 525
Scrap	32 485	46 016	65 906	55 629	55 978
Denmark					
Unwrought	53	209	273	2	7
Unwrought alloys	1 674	494	1 731	277	460
Scrap	18 857	23 775	23 924	22 089	22 681
France					
Ore	409	1 707	996	1 060	683
Matte & cement	436	578	215	77	61
Unwrought					
Unrefined	7 508	5 638	7 971	5 271	3 754
Refined	3 900	6 195	7 036	7 176	12 389
Alloys	1 878	12 082	13 651	15 169	13 306
Scrap	139 481	174 213	188 955	161 158	169 115
Germany, Federal Republic of					
Matte & cement	194	7	1 644	1 568	1 026
Unwrought					
Unrefined	5 109	822	1 497	577	470
Refined	89 977	73 849	83 396	94 534	62 995
Alloys	11 981	14 987	13 542	14 383	17 674
Scrap	96 068	120 925	143 471	156 553	212 555
Irish Republic					
Unwrought	209	280	74	78	42
Scrap	9 783	10 121	10 061	9 274	9 713
Italy					
Ore	—	521	974	125	76
Matte & cement	751	156	101	265	298
Unwrought	4 436	13 078	15 175	20 281	19 519
Unwrought alloys	4 994	8 326	6 912	7 256	6 545
Scrap	16 476	19 447	26 324	22 797	24 655
Netherlands					
Unwrought	2 577	1 657	2 517	449	717
Unwrought alloys	4 793	5 115	8 146	8 523	5 970
Scrap	83 853	96 744	105 708	83 437	107 608
Portugal					
Ore	8 211	49 412	442 029	706 115	694 535
Unwrought	4	3 081	1 577	340	11
Scrap	1 387	5 402	3 903	6 304	11 087
Spain					
Ore	47 402	24 009	24 910	42 476	19 967
Burnt cupreous pyrites	3 274	...	...	...	...
Matte & cement	3 778	4 486	4 458	4 118	1 181
Unwrought	42 525	39 642	41 794	30 834	83 963
Unwrought alloys	1 601	1 059	476	186	1 766
Scrap	967	11 741	17 112	16 859	34 126
Austria					
Unwrought	18 200	18 254	28 203	39 412	41 927
Unwrought alloys	5 647	6 180	5 243	5 272	6 042
Scrap	16 534	25 360	15 717	13 638	16 583
Bulgaria					
Unwrought (f)	* 800	* 2 400	* 500	* 4 000	* 13 000
Scrap (f)	* 700	* 1 500	* 1 200	* 1 100	* 6 400
Czechoslovakia					
Scrap (f)	* 5 000	* 5 700	* 3 400	* 3 500	* 18 000
Finland					
Ore	—	5 243	16 701	12 432	18 071
Unwrought					
Unrefined	20 869	23 811	22 675	25 413	24 690
Refined	8 693	15 241	18 873	19 509	19 812
Alloys	2 509	1 642	1 828	3 093	1 425
Scrap	1 650	3 596	4 621	3 289	6 553

Copper

Exports of Copper

tonnes

Country	1987	1988	1989	1990	1991
German Democratic Republic					
Unwrought (f)	* 13 300	* 12 900	* 14 100	* 7 900	—
Hungary					
Scrap	1 528	1 223	4 077	6 537	...
Norway					
Ore	115 880	71 858	94 482	90 189	91 627
Unwrought					
Unrefined	705	10 236	24	19 397	—
Refined	30 160	29 075	33 706	37 682	37 755
Scrap	9 683	10 709	12 233	10 790	11 404
Poland					
Unwrought	161 632	166 520	157 247	177 000	...
Soviet Union					
Unwrought (f)	* 141 100	* 140 700	* 181 700	* 261 000	* 284 100
Scrap (f)	* 22 800	* 27 100	* 17 900	* 10 900	* 33 500
Sweden					
Ore	72 584	55 190	75 144	93 376	116 722
Unwrought					
Unrefined	13 113	4 929	20	5	943
Refined	40 161	41 737	33 151	39 582	32 070
Alloys	3 400	4 031	7 575	4 918	4 463
Scrap	8 059	3 658	6 347	3 019	6 463
Switzerland					
Unwrought					
Refined	3 715	4 425	1 457	3 816	3 131
Alloys	5 202	6 588	5 870	4 842	7 299
Scrap	17 723	23 721	27 701	18 721	25 786
Turkey					
Ore	—	47 908	17 669	30 873	6 100
Unwrought	6 554	5 458	6 113	2 145	4 000
Yugoslavia					
Ore	24 500	11 722	6 191	17 479	(k) 1
Matte	4 261	4 902	8 104	9 199	(k) 522
Unwrought	33 361	44 553	49 989	66 224	(k) 65 189
Unwrought alloys	1 350	9 003	9 029	14 778	(k) 7 671
Scrap	20 828	4 741	2 151	2 393	(k) 829
Algeria					
Scrap	1 760	6 158	3 193	2 179	9 389
Botswana					
Matte (b)	18 800	25 400	19 200	19 300	20 100
Morocco					
Ore	50 854	44 675	45 229	44 848	43 295
Matte	2 235	2 738	2 647	2 057	2 562
Scrap	2 649	3 312	5 323	4 800	7 954
Namibia					
Unwrought	37 147	39 049	33 306	29 974	30 218
Senegal					
Scrap	612	2 085	853	1 067	...
South Africa					
Ores & concentrates (b)	27 507	14 824	18 078	17 283	20 735
Unwrought	97 359	88 010	103 406	86 787	94 678
Scrap (f)	* 7 700	* 6 100	* 12 600	* 9 300	* 9 200
Tunisia					
Scrap	2 088	6 916	5 735	2 747	2 004
Zaire					
Ores & concentrates	38 884	46 784	* 26 000	* 28 000	* 23 000
Unwrought					
Unrefined (e)	254 329	233 376	221 400	215 451	117 813
Refined	204 867	198 307	201 600	140 743	* 130 000
Zambia					
Unwrought, refined	543 525	435 548	456 365	459 924	382 326
Zimbabwe					
Unwrought	20 912	15 549	10 200	11 899	9 422
Canada					
Ores & concentrates (b)	(i) 381 123	330 840	329 617	359 553	324 584
Matte & cement (b)	...	10 952	18 796	14 682	22 211
Unwrought	288 811	264 045	322 017	335 983	377 988
Unwrought alloys	...	5 909	4 262	714	236
Scrap	72 102	76 959	67 327	104 469	86 407

Exports of Copper

Copper

tonnes

Country	1987	1988	1989	1990	1991
Cuba					
Concentrates (b)	3 378	3 108	2 783	2 000	...
Scrap (a)	7 932	4 213	1 804	2 548	3 337
Mexico					
Concentrates	367 400	346 684	221 195	286 724	212 310
Unwrought, unrefined	10 209	28 270	49 891	48 115	60 545
USA					
Ores & concentrates (b)	124 751	192 406	360 494	258 235	229 467
Unwrought					
Unrefined	12 539	33 337	5 475	6 424	21 212
Refined	9 196	60 633	145 769	212 719	266 424
Alloys	9 787	8 856	6 641	9 272	9 344
Scrap	301 971	320 751	369 697	325 581	306 070
Brazil					
Unwrought, refined	—	5 000	33 802	40 914	63 064
Chile					
Ores & concentrates (b)	280 800	241 800	317 900	258 300	503 100
Matte & cement (b)	—	2 200	7 900	700	—
Unwrought					
Unrefined	139 900	161 800	168 500	151 100	92 500
Refined	942 500	975 500	1 060 500	1 141 100	1 130 500
Scrap	3 800	3 100	2 800	2 400	1 500
Colombia					
Ore	453	—	—	60	13 543
Peru					
Ore (f)	* 269 300	* 208 000	* 172 000	* 165 000	* 127 500
Unwrought					
Unrefined	87 033	54 989	89 777	92 834	100 979
Refined	179 795	147 377	167 538	137 433	207 512
China					
Unwrought	5 565	49 144	11 770	18 002	8 711
Scrap (f)	* 7 100	* 17 400	* 14 800	* 20 800	* 27 000
Cyprus					
Cement copper	304	600	955	1 080	500
Scrap (j)	756	...	63 795	46 484	140 329
Hong Kong					
Unwrought	3 791	32 887	6 599	5 483	14 382
of which: Re-exports	3 791	32 841	6 400	5 134	14 260
Scrap	39 955	62 367	69 626	80 879	111 755
of which: Re-exports	6 979	12 516	16 898	21 708	38 619
India (g)					
Ores & concentrates	18 000	14 000	...	14 322	20
Indonesia					
Ores & concentrates	250 770	299 665	321 745	397 648	600 571
Iran (c)					
Ore	30 000	...	...	...	...
Unwrought (f)	* 12 200	* 10 000	* 18 500	* 11 400	* 12 900
Israel					
Scrap	1 006	2 949	4 961	3 875	...
Japan					
Unwrought	73 067	78 494	68 625	81 710	87 267
Scrap	5 831	6 933	18 816	12 003	9 186
Jordan					
Scrap	238	1 529	2 831	1 483	4 918
of which: Re-exports	238	563	734	282	438
Korea, Republic of					
Unwrought	3 663	20 979	35 225	1 125	151
Scrap	443	1 274	2 080	1 919	2 819
Malaysia					
Ore	122 103	85 872	102 168	105 664	97 068
Scrap	14 551	17 922	24 617	...	20 068
Myanmar (g)					
Ores & concentrates	37 000	14 800	11 320	24 036	...
Oman					
Unwrought	14 128	18 137	15 999	12 124	...
Pakistan (d)					
Scrap	181	1 295	2 645	3 772	...
Philippines					
Ores & concentrates	361 952	450 330	426 191	421 405	396 962
Unwrought	106 529	126 731	114 273	109 703	98 047
Scrap	8 150	2 702	3 960	27 999	46 696

Copper

Exports of Copper

tonnes

Country	1987	1988	1989	1990	1991
Saudi Arabia					
Unwrought	3 189	2 911	3 192	1 718	2 629
Scrap	23 961	23 224	22 830	23 023	8 540
Singapore					
Unwrought	12 499	60 654	53 903	41 937	58 632
of which: Re-exports	12 403	60 603	53 591	39 273	58 464
Scrap	29 639	37 356	40 426	38 762	41 847
Taiwan					
Unwrought	664	2 972	2 983	5 327	2 351
Scrap	10 073	16 395	15 665	30 418	15 924
Australia					
Ores & concentrates	149 156	210 700	199 400	232 400	212 000
Matte & cement (d)	—	...	440	120	6 182
Unwrought					
Unrefined	3 502	1 009	3 733	4 756	3 207
Refined	81 580	94 400	120 400	152 800	182 000
Alloys (d)	2 352	2 140	429	676	1 594
Scrap (d)	254	368	193	3 107	14 676
New Zealand (d)					
Unwrought	1	2	288	255	243
Scrap	1 260	2 499	2 567	2 406	4 708
Papua New Guinea					
Ores & concentrates (b)	216 731	221 891	226 000	155 624	193 700

Note(s):

- (1) In this table the term 'unwrought' copper corresponds to item 682.1 of the Standard International Trade Classification (Revision 3) 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
- (a) Imports into the Netherlands
 - (b) Cu content
 - (c) Years ended 20 March following that stated
 - (d) Years ended 30 June of that stated
 - (e) Including leach cathodes
 - (f) BGS estimates, based on known imports into certain countries
 - (g) Years ended 31 March following that stated
 - (h) Refined only
 - (i) Including matte and cement
 - (j) Re-exports
 - (k) Data for the Federal Republic of Yugoslavia only

Imports of Copper

Country	1987	1988	1989	1990	1991
United Kingdom					
Ore & matte	68	801	950	2 065	2 536
Unwrought					
Unrefined	72 642	61 754	65 293	63 905	31 567
Refined	239 214	246 103	259 584	251 031	242 657
Alloys	1 331	4 610	1 508	3 036	2 297
Scrap	14 344	18 893	23 123	22 017	16 356
Belgium-Luxembourg					
Ore	912	1 434	2 368	4 968	3 150
Unwrought					
Unrefined	(b) 179 036	...	...	191 653	161 730
Refined	209 646	...	...	260 877	235 950
Alloys	5 837	5 561	16 920	8 421	23 440
Scrap	147 257	208 488	191 150	158 411	201 245
Denmark					
Unwrought	50	205	340	1 017	146
Unwrought alloys	1 892	1 402	1 972	1 967	2 652
Scrap	7 215	11 585	16 558	19 731	19 650
France					
Ore	93	4 566	137	50	4 455
Burnt cupreous pyrites	11 082	...	...	...	...
Matte & cement	20	5 446	91	322	369
Unwrought					
Unrefined	19 025	15 137	20 732	20 921	12 598
Refined	353 544	379 216	411 534	429 752	436 732
Alloys	4 125	6 681	6 548	9 420	7 951
Scrap	43 973	52 634	67 093	58 396	69 198
Germany, Federal Republic of					
Ore	435 670	553 600	621 619	498 000	523 295
Burnt cupreous pyrites	32 289	...	...	...	...
Matte & cement	12 064	12 892	8 543	17 569	19 717
Unwrought					
Unrefined	49 038	43 722	55 586	53 036	59 749
Refined	395 982	433 407	459 577	514 754	556 500
Alloys	43 848	40 682	52 923	64 831	68 003
Scrap	248 301	295 279	364 619	310 643	322 879
Greece					
Matte & cement	6 803	42	—	—	—
Unwrought	37 248	53 120	51 226	54 776	48 986
Unwrought alloys	1 823	1 827	1 780	1 581	1 268
Scrap	452	825	1 633	664	689
Irish Republic					
Unwrought	185	551	194	329	334
Scrap	86	127	437	527	483
Italy					
Unwrought					
Unrefined	8 176	4 020	992	241	3 165
Refined	371 763	377 363	389 998	412 020	406 596
Alloys	21 085	16 199	17 559	24 179	27 603
Scrap	134 278	136 953	163 875	175 917	175 057
Netherlands					
Unwrought	24 086	22 036	20 508	23 539	18 333
Unwrought alloys	1 038	1 130	2 166	2 121	1 419
Scrap	62 487	57 453	71 478	78 218	95 818
Portugal					
Unwrought	29 943	25 833	24 105	25 830	27 303
Scrap	1 546	264	1 399	939	396
Spain					
Ore	346 867	381 180	367 532	393 745	464 853
Matte & cement	226	24	897	365	111
Unwrought					
Unrefined	2 301	25	2 173	3 122	35 649
Refined	13 597	7 554	21 460	21 406	26 403
Alloys	3 697	5 203	3 829	3 629	5 569
Scrap	32 943	49 944	50 704	42 090	34 430
Austria					
Unwrought					
Unrefined	4 373	3 850	2 824	746	8 009
Refined	2 813	6 023	2 817	7 598	5 756
Alloys	1 715	1 539	1 651	1 783	2 588
Scrap	45 299	49 652	32 225	24 662	59 836

Copper

Imports of Copper

tonnes

Country	1987	1988	1989	1990	1991
Bulgaria					
Ores & concentrates (a)	...	...	* 26 000	* 17 000	* 50 500
Unwrought (a)	* 3 700	...	* 600	* 1 000	* 5 600
Czechoslovakia					
Unwrought	69 000	35 000	32 000	...	...
Finland					
Ore	236 919	249 107	209 136	279 755	304 188
Unwrought					
Refined	26 714	30 995	39 013	27 427	19 074
Alloys	524	1 030	2 111	1 808	1 000
Scrap	2 299	7 462	3 392	988	6 379
German Democratic Republic					
Ores & concentrates (a)	* 17 400	* 20 800	* 16 600	* 5 900	—
Unwrought (a)	* 58 500	* 76 400	* 67 000	* 64 600	—
Scrap (a)	* 25 200	* 25 000	* 25 300	* 20 600	—
Hungary					
Unwrought (c)	41 953	32 038	21 275	14 958	...
Scrap	4 286	4 721	2 951	895	...
Norway					
Matte	27	12	228	0	6
Unwrought	133	343	105	302	364
Unwrought alloys	2 498	1 904	2 276	2 833	2 771
Scrap	309	71 509	715	1 578	4 908
Poland					
Unwrought	18 846	14 021	7 993	2 900	282
Romania					
Unwrought (a)	* 3 900	* 2 700	* 2 500	* 4 600	* 2 100
Soviet Union					
Unwrought	* 1 000	* 1 000	...	...	...
Sweden					
Ore	56 037	83 977	60 666	51 012	23 978
Matte & cement	5 219	3 423	1 957	11	2 572
Unwrought	46 551	61 407	65 599	63 387	61 554
Unwrought alloys	4 968	5 204	7 889	4 840	4 325
Scrap	19 951	15 945	9 148	14 605	44 320
Switzerland					
Unwrought					
Refined	7 594	6 583	7 695	7 239	7 450
Alloys	1 148	1 189	1 248	1 598	1 484
Scrap	4 064	4 106	5 288	8 188	8 402
Turkey					
Ore	150	812	89	12	10
Unwrought	73 108	47 978	62 230	55 915	49 708
Scrap	223	1 715	3 120	1 088	227
Yugoslavia					
Unwrought	34 302	22 831	20 683	8 190	(h) 7 899
Unwrought alloys	614	37	154	1 714	(h) 686
Scrap	423	21	525	730	(h) 73
Algeria					
Unwrought	418	298	365	1 849	112
Morocco					
Unwrought	676	662	761	733	743
South Africa					
Ores & concentrates	110	5 555	8 068	8 099	...
Matte & cement	...	3 642	8 414	7 405	...
Unwrought	975	451	703	21	200
Unwrought alloys	121	136	228	438	...
Scrap	4 194	1 222	1 442	759	...
Tunisia					
Unwrought	700	507	485	503	1 036
Zambia					
Ores & concentrates (d)	23 007	32 822	16 272	17 291	13 973
Canada					
Ores & concentrates (d)	50 510	41 464	40 693	30 167	69 809
Unwrought	16 584	7 719	17 290	9 456	16 334
Unwrought alloys	16 795	1 953	1 694	3 274	3 594
Scrap	69 322	91 107	97 174	65 540	47 704

Imports of Copper

Country	1987	1988	1989	1990	1991
Cuba					
Unwrought	7 641	7 446	7 815	8 100	...
Mexico					
Unwrought & scrap	40 442	45 889	50 704	29 236	26 001
USA					
Ores & concentrates (d)	4 712	4 332	46 516	91 493	60 766
Matte (d)	6 787	5 738	2 251	7 813	1 732
Unwrought					
Unrefined	45 218	132 735	80 866	44 668	60 750
Refined	505 283	382 320	300 109	261 672	288 586
Alloys	15 084	11 281	4 745	2 289	3 200
Scrap	77 285	87 180	110 897	134 615	125 855
Argentina					
Unwrought, refined	50 889	31 949	15 432	10 127	16 500
Brazil					
Ores & concentrates	340 529	378 252	350 215	350 612	408 029
Unwrought					
Unrefined	11 191	15 075	6 536	9 585	0
Refined	113 570	37 935	50 621	25 118	75 919
Scrap	19 348	3 622	3 869	1 967	2 920
Colombia					
Unwrought	256	347	2 125	581	1 300
Venezuela					
Unwrought					
Refined	24 681	27 225	9 864	12 016	21 139
Alloys	1 152	2 144	446	1 064	...
China					
Ores & concentrates	(f) 199 572	(f) 172 999	(f) 178 166	242 197	309 786
Unwrought	75 482	84 368	70 082	40 251	113 967
Scrap	(a)* 8 000	(a)* 20 100	(a)* 52 300	21 729	78 358
Hong Kong					
Unwrought	9 577	30 542	9 207	7 097	20 337
Scrap	12 732	22 408	33 758	46 639	92 467
India (e)					
Unwrought	83 180	67 740	82 360	72 049	49 740
Scrap	31 836	67 783	29 676	80 201	64 154
Indonesia					
Unwrought	32 430	30 639	39 305	49 456	49 322
Unwrought alloys	289	382	293	958	527
Japan					
Ores & concentrates	2 981 054	3 435 547	3 372 960	3 522 535	3 786 873
Matte & cement	21	65	179	3 110	438
Unwrought	375 944	443 872	509 130	646 210	658 722
Unwrought alloys	4 481	4 979	6 084	6 841	10 893
Scrap	97 841	108 438	82 247	126 662	153 426
Korea, Republic of					
Ore	553 628	346 370	463 175	368 402	429 317
Matte & cement	9 941	25 114	13 086	8 487	3 530
Unwrought	120 011	147 960	115 233	176 006	199 673
Scrap	215 933	129 098	126 010	287 313	220 544
Malaysia					
Unwrought	19 027	32 878	48 495	50 173	67 103
Philippines					
Concentrates	22 005	107 030	119 691	187 398	272 910
Unwrought	544	2 483	2 331	6 092	4 225
Saudi Arabia					
Unwrought	17 406	9 902	4 722	50 716	51 335
Singapore					
Unwrought	12 775	77 952	55 594	66 018	84 053
Scrap	7 873	13 367	12 646	45 843	14 748
Taiwan					
Ores & concentrates	153 155	118 023	152 261	10 625	301
Unwrought	166 902	176 690	278 665	256 166	404 984
Scrap	49 693	30 479	30 445	15 333	39 596
Thailand					
Unwrought	27 303	29 594	34 184	53 725	68 953
Scrap	530	2 087	4 281	2 450	1 331

Copper

Imports of Copper

tonnes

Country	1987	1988	1989	1990	1991
Australia					
Scrap (g)	1 676	2 982	2 616	3 034	5 362
New Zealand (g)					
Unwrought	1 481	3 195	6 007	4 416	5 031

Note(s):

- (1) In this table the term 'unwrought' copper corresponds to item 682.1 of the Standard International Trade Classification (Revision 3) 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
- (a) BGS estimates, based on known exports from certain countries
- (b) Including matte and cement
- (c) Including semi-manufactures
- (d) Cu content
- (e) Years ended 31 March following that stated
- (f) Including cement copper
- (g) Years ended 30 June of that stated
- (h) Data for the Federal Republic of Yugoslavia only

kilograms (metal content)

Mine Production of Gold

Country	1987	1988	1989	1990	1991
France	2 225	2 525	3 303	4 236	4 612
Germany, Federal Republic of	* 30	* 30	* 15	—	—
Portugal	320	317	294	364	* 360
Spain	5 505	5 571	7 719	6 300	7 420
Finland	708	594	1 785	1 503	1 818
German Democratic Republic	* 2 500	* 2 500	* 2 500	—	—
Hungary	* 560	* 560	* 500	* 500	* 600
Romania	* 5 000	* 5 000	6 000	* 5 000	* 6 000
Soviet Union	260 000	277 600	304 000	302 000	* 240 000
Sweden	4 108	3 590	5 120	6 326	6 190
Yugoslavia (d)	5 348	4 620	4 349	8 190	(f) 6 920
Botswana	32	21	56	46	20
Burkina Faso	2 272	2 825	2 000	3 461	* 3 000
Burundi	30	* 30	19	9	25
Central African Republic	224	382	328	241	191
Ethiopia (b)	643	728	746	850	3 038
Gabon	79	138	81	150	* 150
Ghana	10 228	11 631	13 265	16 840	26 310
Guinea	74	1 300	2 053	6 340	4 400
Kenya	14	16	16	48	34
Liberia (a)	657	677	734	* 600	* 600
Mali	337	483	699	2 355	* 2 200
Namibia	172	240	336	1 634	1 850
Rwanda	8	16	745	700	* 700
Sierra Leone	300	20	70	32	26
South Africa	607 000	621 000	607 474	605 100	601 013
Sudan	76	50	150	150	* 150
Tanzania	201	164	112	1 643	3 851
Zaire	4 365	3 301	2 100	4 857	6 042
Zambia (c)	350	262	149	129	124
Zimbabwe	14 693	14 965	16 003	16 921	17 820
Canada	117 227	135 889	159 527	169 412	176 552
Costa Rica (e)	336	368	92	72	564
Dominican Republic	7 798	6 335	5 355	4 354	3 160
Honduras	92	123	75	...	137
Mexico	7 988	9 098	8 613	8 208	8 475
Nicaragua	948	881	1 399	1 200	1 154
USA	153 870	200 914	265 731	294 527	289 885
Argentina	982	962	1 150	1 200	1 270
Bolivia	2 806	4 891	3 602	5 198	3 501
Brazil	35 780	56 447	52 378	101 728	89 369
Chile	17 035	20 614	22 559	27 503	28 879
Colombia	26 546	29 020	29 506	29 353	34 845
Ecuador	9 400	8 599	8 155	4 417	4 500
French Guiana	520	522	544	870	1 417
Guyana	666	585	539	1 204	1 844
Peru	8 933	9 720	9 898	9 097	9 987
Venezuela	3 417	3 502	5 113	6 334	6 733
China	* 72 000	* 78 000	* 90 000	* 100 000	* 109 000
India	1 864	1 942	1 827	1 983	1 973
Indonesia	3 752	4 731	5 239	10 653	11 275
Iran	* 400	* 400	* 400	* 500	* 800
Japan	8 590	7 308	6 097	7 303	8 299
Korea, Dem. P.R. of	* 5 000	* 5 000	* 5 000	* 5 000	* 5 000
Korea, Republic of (d)	7 600	11 121	14 270	20 760	20 809
Malaysia	3 516	2 928	2 860	2 595	2 778
Myanmar	...	309	426	784	145
Philippines	32 780	30 482	30 627	24 591	24 938
Saudi Arabia	...	...	2 901	3 536	4 808
Taiwan (d)	536	237	269	72	—

Gold

Mine Production of Gold

kilograms (metal content)

Country	1987	1988	1989	1990	1991
Australia	110 696	156 950	203 563	244 237	236 213
Fiji	2 866	4 274	4 222	4 116	3 333
New Zealand	1 148	2 404	4 963	4 626	6 758
Papua New Guinea	35 937	38 089	31 137	34 280	60 782
Solomon Islands	74	50	39	53	50
World total	1 612 000	1 796 000	1 961 000	2 126 000	2 105 000

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) In addition to the countries listed, Bulgaria, Cameroon, Czechoslovakia, Greece, Morocco, Norway, Oman and Thailand are believed to produce gold
- (a) Exports
- (b) Years ended 6 July of that stated
- (c) Contained in blister copper, refinery muds and electrolytic copper
- (d) Metal production
- (e) Central Bank purchases
- (f) Excluding data from August to December for the Republic of Croatia

Exports of Gold

kilograms

Country	1987	1988	1989	1990	1991
United Kingdom					
Metal					
Refined	367 532	615 999	811 331	632 154	547 699
Other	6 102	5 204	22 091	15 034	9 726
Waste & scrap	3 747	2 862	156 276	248 638	5 490
Belgium-Luxembourg					
Metal	16 279	19 088	36 046	18 929	19 689
Waste & scrap	£3 455 000	£4 560 000	£4 564 000	£3 068 000	£2 577 000
Denmark					
Metal	391	684	972	1 865	961
of which: Re-exports	375	426	248	1 124	381
Waste & scrap	40 855	6 777	4 964	5 507	6 218
of which: Re-exports	4 084	3 988	969	1 575	2 088
France					
Metal	26 044	28 773	40 779	40 916	44 377
Waste & scrap	78 681	370 010	535 107	962 268	1 599 937
Germany, Federal Republic of					
Metal	33 925	45 665	46 980	44 493	71 517
Waste & scrap	30 727	135 140	88 894	108 542	32 567
Irish Republic					
Metal	£35 000	£21 000	£114 000	£49 000	£32 000
Waste & scrap	£1 046 000	£1 282 000	£1 206 000	£1 350 000	£1 485 000
Italy					
Metal	30 561	4 719	11 846	5 500	4 421
Netherlands					
Metal	2 556	23 293	4 693	1 643	1 083
Waste & scrap	9 000	11 000	17 000	21 000	3 000
Spain					
Metal	1 404	183	903	2 195	2 763
Austria					
Metal	528	1 015	622	313	638
Finland					
Metal	1 367	1 405	1 699	1 914	1 943
German Democratic Republic					
Metal (c)	* 200	* 700	* 700	* 200	—
Norway					
Metal	726	696	607	776	926
Waste & scrap	145	65	78	154	370
Soviet Union					
Metal (c)	* 38 100	* 165 400	* 83 900	* 41 400	* 79 700
Sweden					
Metal	8 000	6 000	7 000	7 000	9 000
Waste & scrap	49 000	21 000	41 000	42 000	39 000
Switzerland					
Metal	671 605	841 276	1 111 541	1 104 637	1 040 647
Waste & scrap	...	63 351	374 894	35 907	94 401
Ghana					
Metal	10 086	10 981	12 003	...	...
Liberia					
Metal	657	677	734	...	...
Namibia					
Metal	179	205	312	1 573	1 873
Sierra Leone					
Metal	310	40	200	10	19
South Africa					
Metal	£5 265 000 000	£4 888 000 000	£4 684 000 000	£4 130 000 000	£3 969 000 000
Zaire					
Metal	3 352	2 910	...	...	...
Zimbabwe					
Metal	18 052	14 432	...	18 454	...
Canada					
Ores & concentrates (f)	8 604	11 596	10 973	10 816	8 393
Metal	69 876	126 937	161 986	144 930	162 975
Dominican Republic					
Metal	7 798	6 335	5 355	4 354	3 160

Gold

Exports of Gold

kilograms

Country	1987	1988	1989	1990	1991
USA					
Ore (b)	1 395	1 386	16	328	10
Metal					
Unrefined	20 446	20 614	43 071	88 275	47 534
Refined	78 838	300 965	124 938	142 460	177 920
Other	3 886	4 459	11 297	8 957	9 646
Waste & scrap	28 199	36 037	44 559	67 003	68 102
Bolivia					
Ores & concentrates (b)	1 226	1 873	1 924	2 229	1 675
Metal	1 370	2 380	1 677	3 028	1 682
Chile					
Metal	32 648	15 507	37 035	68 119	65 780
Colombia					
Ore	...	296 250	435 000	359 732	401 552
Peru					
Metal	66	24	—	713	9 890
China					
Metal (c)	* 11 200	* 1 100	* 1 900	* 2 200	* 3 900
Hong Kong					
Metal (a)	15 815	23 333	15 112	15 874	5 826
Waste & scrap (a)	2 337	1 470	1 038	3 044	2 000
Indonesia					
Metal	19 818	21 764	19 474	9 544	12 495
Japan					
Metal	11 525	11 241	18 136	30 995	12 353
Jordan					
Metal (a)	4 630	3 695	2 478	147	2 800
Korea, Dem. P.R. of					
Metal (c)	* 7 700	* 7 500	* 1 300	* 2 500	* 1 000
Korea, Republic of					
Metal	3 395	6 551	11 282	14 373	16 866
Malaysia					
Metal	999	1 104	893	1 153	720
Waste & scrap	315	431	645	900	788
Philippines					
Ores & concentrates (b)	6 596	8 529	9 181	7 515	5 682
Singapore					
Metal	4 555	4 624	5 176	20 127	8 258
of which: Re-exports	1 536	778	808	2 107	2 133
Waste & scrap	1 749	2 213	1 697	1 326	22 234
Taiwan					
Waste & scrap	197	12 339	41 621	42 830	22 253
Australia					
Ores, concentrates & unrefined metal (b)	1 403	(d) 4 362	(d) 5 800	(d) 8 800	(d) 5 507
Refined metal	84 999	(e) 138 353	(e) 172 000	(e) 238 400	(e) 253 703
Fiji					
Metal	2 992	4 134	...	...	...
New Zealand (g)					
Metal	478	1 530	1 878	5 700	3 508
Papua New Guinea					
Metal	35 937	38 089	31 137	34 280	60 782

Note(s):

(1) In this table the term 'metal' includes both unwrought and partly worked gold and alloys but excludes gold coin

(a) Re-exports

(b) Au content

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

(d) Excluding unrefined metal

(e) Including unrefined metal

(f) Au content of all ores and concentrates

(g) Years ended 30 June of that stated

Imports of Gold

kilograms

Country	1987	1988	1989	1990	1991
United Kingdom					
Ores & concentrates	2 879	12 892	2 031	15 913	39 980
Metal					
Unrefined	19 751	8 455	14 991	45 700	55 519
Refined	354 971	571 458	610 634	657 427	479 147
Other	33 060	23 709	57 616	49 219	25 886
Waste & scrap	205 799	165 158	282 175	145 639	82 801
Belgium-Luxembourg					
Metal	45 014	53 114	22 536	26 948	24 003
Waste & scrap	£1 463 000	£3 371 000	£2 147 000	£1 270 000	£4 452 000
Denmark					
Metal	1 054	1 017	1 024	1 239	1 159
Waste & scrap	8 211	534	1 062	385	494
France					
Metal	92 643	134 364	124 270	199 052	130 451
Waste & scrap	1 548	64 789	255 308	638 516	542 702
Germany, Federal Republic of					
Metal	78 855	165 884	123 074	118 394	116 945
Waste & scrap	158 364	783 171	286 692	360 989	347 327
Greece					
Metal	1 635	2 413	2 160	2 830	2 524
Irish Republic					
Metal	£4 021 000	£4 030 000	£3 320 000	£3 940 000	£3 462 000
Italy					
Metal	199 393	350 224	284 821	340 478	355 302
Waste & scrap	1 200	2 000	7 855	4 000	2 500
Netherlands					
Metal	3 621	3 936	3 858	5 770	5 931
Waste & scrap	7 000	1 000	1 000	...	1 000
Portugal					
Metal	348	900	2 100	6 128	...
Spain					
Metal	5 932	9 436	11 957	18 911	20 011
Waste & scrap	25	406	1 000	1 000	...
Austria					
Metal	3 105	13 459	3 482	16 646	2 871
Czechoslovakia					
Metal (d)	* 300	* 600	* 400	* 600	* 800
Finland					
Metal	745	753	1 133	962	942
Malta					
Metal	3 424	1 792	720	2 060	1 611
Norway					
Metal	554	702	566	2 363	861
Waste & scrap	175	240	519	423	784
Sweden					
Metal	£12 589 000	£12 556 000	£12 897 000	£15 433 000	£15 212 000
Waste & scrap	£511 000	£454 000	£337 000	£304 000	£341 000
Switzerland					
Metal	909 709	968 810	1 202 144	1 403 258	1 198 349
Waste & scrap	...	64 199	35 840	66 809	57 175
Yugoslavia					
Metal	...	£1 808 000	£2 969 000	£3 973 000	(f) £1 647 000
Libya					
Metal	3 550	4 725	...	...	...
Reunion					
Metal	217	2 973	3 500	...	...
South Africa					
Metal	150	184	96	125	...
Waste & scrap	—	—	496	15 996	...
Tunisia					
Metal	115	—	183	268	274
Bermuda					
Metal	160	1 887	...	162	...
Canada					
Ores & concentrates (e)	1 060	1 976	1 220	625	703
Metal	59 940	51 525	52 627	47 906	30 388

Gold

Imports of Gold

kilograms

Country	1987	1988	1989	1990	1991
USA					
Ore (c)	2 259	3 976	2 427	5 625	3 601
Metal					
Unrefined (a)	43 058	32 672	54 818	29 955	31 237
Refined	75 367	57 597	96 967	64 755	147 050
Brazil					
Metal	61	4	535	1 117	369
Brunei					
Metal	183	...	...	...	...
China					
Metal (d)	* 2 700	* 9 900	* 5 500	* 4 900	* 2 500
Cyprus					
Metal	1 555	...	2 892	2 481	2 511
Hong Kong					
Metal	157 268	464 257	439 173	180 779	301 559
Waste & scrap	459	287	609	327	139
Indonesia					
Metal	—	2	6	392	8
Israel					
Metal	£100 356 000	£47 904 000	£57 098 000	...	...
Japan					
Metal	239 217	293 784	284 272	302 938	257 913
Waste & scrap	1 821	2 246	2 260	1 926	1 369
Jordan					
Metal	1 042	3 304	1 527	1 201	433
Korea, Republic of					
Ores & concentrates	4 007 468	417 259	5 292 311	354 692	593 595
Metal	24 467	7 396	13 755	20 407	22 427
Macao					
Metal	93	1 680	1 927	472	70
Malaysia					
Metal	6 324	22 592	71 274	116 544	116 289
Philippines					
Metal	103	117	133	433	30
Saudi Arabia					
Metal	13 534	13 400	70 299	128 603	118 509
Singapore					
Metal	4 850	6 466	7 817	11 811	10 083
Waste & scrap	800	398	411	467	331
Taiwan					
Metal	87 575	362 686	156 605	101 167	109 153
Thailand					
Metal	6 648	11 211	16 375	51 536	42 277
Australia					
Metal (b)	£59 838 000	£34 464 000	£72 777 000	£124 416 000	£272 978 000
New Zealand (b)					
Metal	141	51	388	2 704	309

Note(s):

- (1) In this table the term 'metal' includes both unwrought and partly worked gold and alloys but excludes gold coin
- (a) Including waste and scrap
- (b) Years ended 30 June of that stated
- (c) Au content
- (d) BGS estimates, based on known exports from certain countries
- (e) Au content of all ores and concentrates
- (f) Data for the Federal Republic of Yugoslavia only

Production of Iron Ore

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom	262 700	224 100	34 300	55 300	59 400
France	11 225 000	9 869 000	9 187 000	8 023 000	7 490 000
Germany, Federal Republic of (f)	247 300	70 000	102 000	84 000	120 000
Portugal (f)	27 250	23 300	13 170	13 360	* 15 000
Spain	4 499 599	4 212 276	4 563 300	3 012 000	3 120 000
Albania (b)	* 1 200 000	* 1 200 000	1 179 000	1 093 000	446 000
Austria	3 050 000	2 300 000	2 410 000	2 300 000	2 120 000
Bulgaria	1 850 000	1 826 000	1 613 000	1 079 293	594 000
Czechoslovakia	1 798 000	1 773 000	1 780 000	1 831 000	1 738 000
Finland	648 000	555 550	35 170	69 014	32 672
Norway	3 114 569	2 600 248	2 322 776	2 235 062	2 208 933
Poland	6 300	6 300	7 400	2 400	100
Romania	2 281 000	2 252 000	2 482 385	578 000	480 000
Soviet Union	251 000 000	250 000 000	241 000 000	236 000 000	199 300 000
Sweden	29 294 000	39 108 650	47 948 302	44 538 983	* 42 900 000
Turkey	5 365 794	5 480 916	4 518 174	4 924 874	5 334 502
Yugoslavia	5 983 000	5 545 155	5 079 691	4 132 173	(i) 2 574 000
Algeria	3 382 000	3 118 000	2 748 300	2 939 000	2 344 000
Egypt	2 047 578	2 112 026	2 562 351	2 405 000	2 371 000
Liberia	13 210 000	12 767 000	7 007 121	3 981 000	1 200 000
Mauritania	9 100 000	9 530 000	11 950 000	11 550 000	10 246 000
Morocco	279 378	156 416	158 780	50 000	130 000
Nigeria	240 000	313 192	66 396	307 528	* 350 000
South Africa (c)	22 008 032	25 247 678	29 958 256	30 290 945	29 075 422
Tunisia	295 000	325 117	279 994	290 708	295 000
Zimbabwe	1 328 393	1 020 900	1 142 995	1 258 582	1 136 338
Canada (g)	36 980 000	40 353 000	40 509 000	34 855 000	36 383 000
Cuba (h)	168 500	294 400	171 400	...	...
Mexico	7 522 900	8 431 000	8 141 000	9 384 900	9 682 500
USA	47 648 000	57 515 000	59 032 000	56 408 000	56 761 000
Argentina	567 047	673 707	635 389	* 800 000	* 300 000
Bolivia	—	* 53 000	14 254	125 264	101 642
Brazil (a)	134 493 672	146 004 330	158 340 531	152 256 900	149 986 400
Chile	6 690 168	7 865 712	8 760 684	8 247 908	8 414 443
Colombia	610 521	614 727	567 353	628 257	607 329
Peru	5 100 017	4 158 132	4 490 237	3 308 249	3 513 000
Venezuela	17 782 079	18 931 793	18 398 000	20 365 844	20 343 000
China	161 430 000	167 700 000	171 854 000	179 344 000	190 558 000
India	49 411 000	49 961 000	51 434 000	53 702 000	56 884 000
Indonesia (d)	193 986	202 778	142 654	142 143	173 242
Iran (e)	1 621 504	2 004 832	2 296 407	2 611 388	* 3 500 000
Japan	263 367	99 418	41 425	34 092	31 444
Korea, Dem. P.R. of	* 8 000 000	* 9 500 000	* 9 500 000	* 9 500 000	* 9 500 000
Korea, Republic of	469 500	390 000	344 300	298 300	221 525
Malaysia	161 287	128 654	105 773	293 186	354 869
Thailand	97 026	99 257	177 373	128 626	240 075
Australia	101 747 638	96 084 000	105 000 000	109 166 000	117 673 000
New Zealand (d)	2 294 370	2 351 593	2 366 635	2 296 153	2 264 849
World total	957 000 000	995 000 000	1 022 000 000	1 007 000 000	983 000 000

Note(s):

- (1) In addition to the countries listed, Vietnam is believed to produce iron ore
- (a) Including beneficiated and direct shipping ore
- (b) Nickeliferous iron ore
- (c) Including by-product magnetite
- (d) Including iron sand
- (e) Years ended 20 March following that stated
- (f) Including manganiferous iron ore
- (g) Including by-product iron ore
- (h) From nickel plant waste
- (i) Excluding data from August to December for the Republic of Croatia

Iron Ore

Exports of Iron Ore

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom	1 225	2 108	1 528	2 442	2 071
Belgium-Luxembourg					
Iron ore	2 771	6 960	11 373	15 790	12 612
Burnt pyrites	190 202	186 342	95 257	101 117	65 065
Denmark					
Iron ore	2 541	1 814	1 678	4 265	1 122
Burnt pyrites	2 727	2 283	1 969	—	—
France	3 739 520	3 646 269	3 461 892	3 280 365	3 152 726
Germany, Federal Republic of					
Iron ore	5 808	20 202	6 853	18 752	80 829
Burnt pyrites	19 028	17 526	29 290	18 883	26 438
Italy					
Iron ore	382	297	535	375	171
Burnt pyrites	45 296	21 073	38 469	27 897	27 151
Netherlands (b)	105 180	222 890	127 896	82 842	65 318
Spain					
Iron ore	1 991 261	2 037 453	1 768 432	1 632 737	2 219 306
Burnt pyrites	20 303	30 658	36 358	70 961	23 996
Norway					
Iron ore	2 530 392	1 757 308	1 987 150	2 112 730	2 098 540
Burnt pyrites	28 230	36 385	31 807	36 845	58 669
Soviet Union	45 433 000	43 063 000	29 281 000	26 254 000	(e) 21 957 000
Sweden	16 762 000	17 626 000	17 473 000	16 398 000	15 226 000
Yugoslavia					
Burnt pyrites	67 714	62 528	46 518	73 120	(d) 44 972
Algeria	60 591	20 585	—	2 375	13 300
Liberia	13 510 130	13 779 000	12 747 000	3 887 000	1 020 000
Mauritania	9 002 000	10 004 000	11 138 000	11 356 000	10 469 000
Morocco					
Iron ore	...	84 484	86 909	63 266	65 728
Burnt pyrites	108 181	—	—	—	1 700
South Africa	8 802 068	11 502 939	14 565 744	17 028 950	15 467 980
Tunisia	2 933	4 429	5 693	3 771	7 687
Canada	29 679 324	30 523 425	30 222 343	27 100 472	29 687 515
USA (b)	5 094 233	5 289 090	5 351 255	3 199 348	4 796 030
Bolivia	—	14 620	45 180	61 000	55 600
Brazil	95 331 958	112 814 864	118 472 323	113 496 703	113 622 721
Chile	5 384 125	6 681 784	7 017 429	6 909 717	7 263 904
Peru	4 428 860	4 560 643	4 047 700	3 305 201	2 582 000
Venezuela	11 699 908	12 289 357	14 434 960	13 620 344	13 385 242
India (c)	29 409 552	33 040 098	33 479 000	32 492 902	29 513 463
Korea, Dem. P.R. of (f)	* 942 000	* 1 088 000	* 519 000	* 599 000	* 830 000
Malaysia	1 849	1 429	2 003	10 559	3 900
Philippines					
Iron ore	4 016 908	4 873 530	4 352 282	4 740 768	4 776 273
Burnt pyrites	10 408	10 298	114	32 214	5 257
Australia	78 257 560	94 855 000	104 480 000	96 156 000	111 458 000
New Zealand (a)	1 790 950	1 831 806	1 236 274	1 223 284	1 115 922

(a) Years ended 30 June of that stated

(b) Including burnt pyrites

(c) Years ended 31 March following that stated

(d) Data for the Federal Republic of Yugoslavia only

(e) Data for the Russian Federation only

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

Imports of Iron Ore

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Iron ore	18 027 959	17 718 174	19 179 227	14 700 130	15 443 012
Burnt pyrites	168 170	216 312	283 826	235 746	137 155
Belgium-Luxembourg					
Iron ore	18 385 542	20 795 613	19 787 055	20 277 528	19 485 930
Burnt pyrites	59 736	55 473	60 198	70 935	3 197
Denmark					
Iron ore	7 657	2 670	6 311	2 733	2 544
Burnt pyrites	28 690	21 820	26 996	26 438	25 805
France					
Iron ore	15 055 320	18 738 262	19 907 292	18 692 622	18 215 067
Burnt pyrites	61 121	74 272	100 876	103 193	72 033
Germany, Federal Republic of					
Iron ore	39 583 086	45 169 473	47 170 629	43 729 850	43 288 212
Burnt pyrites	34 424	102 327	112 264	160 483	151 422
Greece					
Burnt pyrites	16 397	9 732	14 436	18 134	52 839
Italy (a)	16 522 832	16 413 191	18 324 063	17 202 319	17 854 447
Netherlands (a)	7 049 135	7 561 586	8 165 012	8 313 443	7 902 383
Portugal	764 088	477 569	688 421	449 480	466 000
Spain	5 766 867	5 555 921	6 935 369	6 704 810	7 596 585
Albania	21 500	35 400	54 200	25 500	...
Austria					
Iron ore	3 310 712	4 164 338	4 192 117	3 891 887	3 968 429
Burnt pyrites	27 441	11 467	12 144	16 249	7 593
Bulgaria	2 308 000	2 112 000	1 922 000	1 964 000	710 000
Czechoslovakia	15 150 000	14 619 000	14 831 000	14 200 000	12 078 000
Finland	2 261 376	2 336 526	3 015 823	3 058 362	3 085 141
German Democratic Republic (b)	2 525 000	2 375 000	2 343 000	* 1 500 000	—
Hungary	3 403 301	2 326 326	2 250 759	1 691 551	849 000
Iceland	17 163	22 682	16 818	18 000	16 844
Norway	20 637	193 657	23 398	12 296	(a) 28 937
Poland	17 116 000	16 644 000	13 441 000	12 006 000	8 700 000
Romania	16 410 000	13 900 000	13 626 000	11 341 000	7 290 000
Sweden	70 000	129 000	255 000	268 000	442 000
Switzerland (a)	8 860	12 551	10 890	14 130	20 390
Turkey	1 891 532	1 798 326	2 525 097	1 972 000	2 721 000
Yugoslavia	1 094 588	1 485 638	2 307 006	1 285 196	(d) 293 903
Egypt	538 931	862 602	545 673	...	...
Nigeria (a)	6 104	143 000	290 000	200 000	* 200 000
Tunisia	63 066	46 511	88 202	66 619	74 822
Canada	5 212 743	4 791 064	5 367 879	4 112 971	4 620 082
Mexico	44 872	484 449	153 639	1 853	57 033
Trinidad & Tobago	614 986	473 870	1 337 544	944 411	586 768
USA					
Iron ore	(a) 16 867 561	(a) 20 126 541	19 476 815	18 081 620	13 347 954
Burnt pyrites	...	...	120 505	8	4 577
Argentina	3 342 227	3 259 581	4 000 956	3 140 243	2 900 000
Paraguay					
Burnt pyrites	37 108	50 863	...	51 176	192 294
Abu Dhabi	21 000	40	...	20 956	23 364
China					
Iron ore	10 828 812	10 540 959	12 251 557	14 342 626	18 458 146
Burnt pyrites	66 895	—	341 063	—	91 287
India (e)	26 059	8 020	...	114 584	73 260
Indonesia					
Iron ore	90	128	273 338	158 996	158 277
Burnt pyrites	961 471	766 433	1 492 461	1 779 175	1 613 101
Japan	112 034 416	123 376 880	127 709 237	125 290 037	127 186 458
Korea, Republic of					
Iron ore	18 011 094	20 227 910	21 685 214	21 153 918	28 939 547
Burnt pyrites	9 831	—	—	29 167	9 927
Malaysia	819 111	449 461	912 163	* 800 000	1 159 980
Pakistan (c)	1 217 042	1 344 432	* 1 200 000	1 308 249	* 1 500 000
Philippines	3 790 544	3 055 329	3 847 004	3 665 202	4 265 051

Iron Ore

Imports of Iron Ore

tonnes

Country	1987	1988	1989	1990	1991
Qatar	613 705	* 700 000	792 218	863 511	743 475
Saudi Arabia	1 479 835	1 245 122	1 651 680	1 467 556	1 093 554
Singapore	1 140	443	1 036	4 566	1 631
Taiwan	6 140 854	8 477 333	8 370 538	7 761 819	8 433 068
Australia	42 156	468 728	1 844 000	2 760 000	2 946 000

(a) Including burnt pyrites

(b) Fe content of concentrates

(c) Years ended 30 June of that stated

(d) Data for the Federal Republic of Yugoslavia only

(e) Years ended 31 March following that stated

Production of Pig Iron

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom	12 017 400	13 055 900	12 637 800	12 319 200	11 883 400
Belgium	8 243 000	9 147 000	8 863 000	9 417 000	9 354 000
France	13 153 000	13 726 000	13 900 000	13 346 000	12 772 000
Germany, Federal Republic of	28 116 000	31 890 000	32 112 000	29 585 000	29 497 000
Italy	11 334 904	11 348 608	11 761 396	11 852 303	10 845 232
Luxembourg	2 305 100	2 519 200	2 683 800	2 645 200	2 463 000
Netherlands	4 574 700	4 993 800	5 163 100	4 959 900	4 696 500
Portugal	430 860	444 900	377 000	339 000	251 000
Spain	4 804 125	4 690 581	5 535 000	5 482 000	5 404 000
Austria	3 450 714	3 664 805	3 822 549	3 452 333	3 441 450
Bulgaria	1 657 647	1 483 000	1 499 000	1 142 607	* 1 100 000
Czechoslovakia	9 788 000	9 706 000	9 911 000	9 667 000	8 479 000
Finland	2 063 326	2 173 328	2 284 000	2 283 000	2 332 000
German Democratic Republic	2 754 500	2 786 000	2 732 400	2 163 000	—
Hungary	2 107 000	2 093 000	1 954 000	1 697 000	1 314 000
Norway	377 671	390 751	240 350	—	—
Poland	10 476 000	9 929 000	9 167 000	8 423 000	6 355 000
Romania	8 673 000	8 941 000	9 052 000	6 355 000	4 525 000
Soviet Union	113 877 000	114 558 000	114 000 000	110 167 000	90 953 000
Sweden	2 574 033	2 683 122	2 817 990	2 865 130	2 812 000
Switzerland	70 000	70 000	70 000	70 000	* 70 000
Turkey	4 437 873	4 915 555	3 930 240	5 308 726	4 992 563
Yugoslavia	2 868 000	2 916 000	2 899 000	2 313 000	(b) 1 258 000
Algeria	1 477 500	1 500 000	1 301 000	1 036 500	877 000
Egypt	146 764	131 598	112 410	108 024	* 125 000
Nigeria	130 772	140 000	130 000	112 000	108 000
South Africa	6 317 000	6 171 000	6 543 000	6 257 000	6 968 000
Tunisia	161 700	132 300	154 400	146 000	161 400
Zimbabwe	556 624	545 000	525 000	521 131	535 000
Canada	9 719 289	9 498 264	10 138 904	7 346 127	8 267 542
Mexico	5 262 520	5 364 271	5 393 487	6 189 919	5 424 000
Trinidad & Tobago	441 200	548 000	674 800	681 600	654 000
USA	44 034 000	50 861 000	50 978 000	50 058 000	44 533 000
Argentina	2 785 326	2 662 700	3 336 325	2 967 771	2 259 028
Brazil	21 145 872	23 649 551	24 620 700	21 401 000	22 920 500
Chile	616 757	775 961	678 623	675 406	703 356
Colombia	329 387	309 040	297 346	322 899	305 431
Paraguay	50 278	62 724	61 364	53 929	67 642
Peru	235 581	214 329	254 482	121 745	231 256
Venezuela	3 624 899	3 194 734	2 901 458	3 031 814	3 475 918
China	55 030 000	57 040 000	58 200 000	62 380 000	67 650 000
India	10 893 000	11 735 000	12 080 000	12 645 000	14 176 000
Iran (a)	975 706	1 012 311	1 170 842	1 768 611	1 952 000
Japan	73 418 000	79 295 000	80 197 000	80 144 351	79 985 000
Korea, Dem. P.R. of	* 5 900 000	* 5 900 000	* 5 900 000	* 5 900 000	* 6 000 000
Korea, Republic of	10 868 949	12 577 754	14 948 751	15 333 742	18 546 017
Pakistan	903 000	944 518	912 915	1 013 138	1 032 733
Taiwan	87 179	25 092	29 904	59 570	18 487
Australia	5 569 000	5 730 000	6 094 000	6 125 000	5 647 000
World total	510 800 000	538 100 000	545 000 000	532 300 000	507 400 000

Note(s):

- (1) The data in this table include sponge iron and direct reduced iron (DRI), where these have been separately identified
- (a) Years ended 20 March following that stated
- (b) Excluding data from August to December for the Republic of Croatia

Production of Steel Ingots and Castings

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom	17 413 700	18 950 000	18 740 000	17 840 700	16 474 400
Belgium	9 786 422	11 220 797	10 952 815	11 719 159	11 334 883
Denmark	606 000	650 000	624 000	610 000	632 000
France	17 693 000	19 122 000	19 335 000	19 016 000	18 434 000
Germany, Federal Republic of	36 577 000	41 023 000	41 073 000	38 434 000	42 169 000
Greece	907 000	959 000	957 000	999 000	980 000
Irish Republic	220 000	271 000	324 000	330 000	322 000
Italy	22 858 742	23 760 369	25 212 942	25 466 928	25 100 622
Luxembourg	3 301 860	3 660 890	3 720 920	3 560 290	3 379 440
Netherlands	5 082 100	5 517 900	5 680 600	5 411 800	5 171 300
Portugal	749 171	812 000	762 000	744 000	541 000
Spain	11 691 441	11 886 000	12 765 000	12 936 000	12 932 000
Austria	4 301 165	4 560 072	4 717 595	4 241 448	4 186 491
Bulgaria	3 045 000	2 875 000	2 899 000	2 184 453	1 615 000
Czechoslovakia	15 356 000	15 379 000	15 465 000	14 775 000	12 071 000
Finland	1 765 872	1 802 900	1 877 641	1 899 130	1 975 373
German Democratic Republic	8 242 700	8 131 200	7 828 800	5 546 000	—
Hungary	3 621 000	3 583 000	3 356 000	2 963 000	1 930 000
Norway	848 623	897 441	685 241	376 416	437 604
Poland	17 145 000	16 873 000	15 094 000	13 633 000	10 403 000
Romania	13 885 000	14 314 000	14 415 000	9 754 000	7 092 000
Soviet Union	161 887 000	163 037 000	160 096 000	154 414 000	132 839 000
Sweden	4 703 000	4 779 000	4 697 000	4 454 000	4 252 000
Switzerland	866 000	988 000	916 000	963 000	955 000
Turkey	7 043 745	8 009 073	7 853 543	9 412 894	9 397 697
Yugoslavia	4 366 087	4 487 156	4 500 111	3 608 285	(c) 2 176 000
Algeria	1 378 000	1 301 000	943 000	767 000	838 000
Angola	* 10 000	* 10 000	* 10 000	* 10 000	* 10 000
Egypt	1 433 000	2 025 000	2 114 000	2 247 000	2 556 000
Libya	* 10 000	* 10 000	* 10 000	492 000	718 000
Nigeria	136 552	139 344	* 150 000	131 390	137 000
South Africa	8 693 000	8 522 000	8 973 000	8 619 000	9 358 000
Tunisia	188 200	158 600	188 000	176 800	193 000
Zimbabwe	615 507	598 000	569 000	580 318	581 000
Canada	14 737 047	14 865 714	15 458 139	12 280 736	12 987 433
Cuba	401 500	320 500	314 200	255 000	* 200 000
Dominican Republic	87 800	75 327	54 855	36 000	39 299
Mexico	7 642 259	7 778 655	7 851 601	8 733 917	7 963 744
Trinidad & Tobago	375 600	361 200	340 100	364 500	439 700
USA	80 876 000	90 650 000	88 852 000	89 726 000	79 738 000
Argentina	3 632 800	3 623 546	3 882 758	3 635 635	2 971 670
Brazil	22 227 856	24 656 918	25 055 100	20 566 600	22 617 300
Chile	726 149	908 900	799 681	771 795	807 069
Colombia	689 498	712 274	711 368	701 406	651 980
Paraguay	13 167	62 273	54 679	47 798	60 862
Peru	495 516	429 689	363 881	269 950	403 766
Uruguay	30 428	29 971	37 150	38 172	41 245
Venezuela	3 297 499	3 165 192	2 941 824	2 997 549	3 304 299
Bangladesh (b)	82 081	70 036	86 274	75 029	57 520
China	56 280 000	59 430 000	61 587 000	66 350 000	71 000 000
Hong Kong	* 120 000	* 120 000	* 150 000	* 150 000	* 150 000
India	11 984 000	12 682 000	12 542 000	11 800 000	12 500 000
Indonesia	2 059 000	2 054 000	2 383 000	2 892 000	3 250 000
Iran	895 109	1 003 582	1 148 175	1 583 606	2 203 000
Israel	116 000	99 000	100 000	135 000	120 000
Japan	98 513 000	105 681 000	107 908 000	110 331 331	109 649 146
Jordan	217 000	* 200 000	176 500	...	...
Korea, Dem. P.R. of	* 6 730 000	* 6 830 000	* 6 930 000	* 7 000 000	* 7 000 000
Korea, Republic of	16 782 000	19 118 000	21 873 000	23 125 000	26 001 000
Malaysia	* 680 000	* 925 000	* 1 125 000	* 1 300 000	* 1 300 000
Pakistan	828 000	* 1 200 000	* 1 200 000	* 1 200 000	* 1 200 000
Philippines	* 450 000	* 500 000	* 550 000	* 600 000	* 650 000
Qatar	491 000	527 000	563 000	564 000	564 000
Saudi Arabia	1 365 000	1 614 000	1 768 000	1 790 000	1 783 000
Singapore	441 000	432 000	495 000	489 000	510 000
Syria	* 70 000	* 70 000	* 70 000	* 70 000	* 70 000

Production of Steel Ingots and Castings

tonnes

Country	1987	1988	1989	1990	1991
Taiwan	5 915 000	8 288 000	9 047 000	9 747 000	10 957 000
Thailand	534 172	552 000	689 421	684 678	711 134
Vietnam	69 500	74 100	* 75 000	...	...
Australia (a)	6 125 000	6 399 000	6 735 000	6 666 000	6 017 000
New Zealand	315 000	538 000	718 000	791 000	800 000
World total	733 000 000	776 000 000	782 000 000	766 000 000	730 000 000

Note(s):

(1) The figures in this table refer to crude steel and cast semi-manufactures are not included

(a) Including recovery from scrap

(b) Years ended 30 June of that stated

(c) Excluding data from August to December for the Republic of Croatia

Production of Ferro-alloys

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Ferro-manganese	92 400	107 300	142 700	143 400	178 400
Belgium					
Ferro-manganese	* 90 000	* 95 000	* 95 000	* 90 000	* 90 000
France					
Blast furnace ferro-alloys					
Spiegeleisen & ferro-manganese	295 821	323 945	346 295	319 930	237 679
Electric furnace ferro-alloys (h)					
Ferro-chrome & ferro-silico-chrome	55	12 000	17 000	25 000	23 100
Ferro-silico-manganese	18 441	* 60 000	67 000	62 000	63 400
Ferro-silicon	154 659	* 196 000	125 390	117 490	105 800
Ferro-titanium & Fe-W,Fe-Mo,Fe-V (a)	611	(c) ...	2 600	4 300	3 920
Other ferro-alloys	57 446	* 60 000	* 42 500	* 23 200	* 42 500
Silicon metal	* 70 000	70 000	72 000	63 500	63 600
Germany, Federal Republic of					
Blast furnace ferro-alloys					
Spiegeleisen & ferro-manganese (g)	196 000	274 000	305 000	* 350 000	* 325 000
Electric furnace ferro-alloys					
Ferro-chrome	* 50 000	* 60 000	* 65 000	* 55 000	* 71 000
Ferro-manganese & ferro-silico-manganese	* 25 000	* 35 000	* 45 000	* 35 000	* 30 000
Ferro-silicon	* 40 000	* 50 000	* 55 000	* 45 000	* 40 000
Other ferro-alloys	* 57 000	* 62 000	* 66 000	* 56 000	* 50 000
Greece					
Electric furnace ferro-alloys					
Ferro-chrome	43 287	44 147	43 579	30 345	—
Ferro-nickel	35 400	50 500	41 200	* 60 500	* 61 600
Italy					
Blast furnace ferro-alloys					
Spiegeleisen	491	251	—	—	—
Ferro-manganese	19 469	27 169	26 738	30 842	10 814
Electric furnace ferro-alloys					
Ferro-chrome	59 045	77 123	81 331	53 000	47 000
Ferro-manganese	17 067	12 280	14 220	11 000	14 000
Ferro-silico-manganese	75 192	66 959	46 868	84 000	103 000
Ferro-silicon	47 075	51 131	65 171	40 000	13 000
Ferro-titanium & ferro-silico-titanium	2 861	2 636	1 653	2 000	1 000
Calcium silicide	17 097	15 047	11 153	14 000	9 000
Silicon metal	16 500	* 18 000	* 19 000	13 000	6 000
Portugal					
Electric furnace ferro-alloys					
Ferro-manganese	* 17 000	* 10 000	13 170	14 080	16 070
Ferro-silico-manganese	* 8 000	* 5 000	...	...	...
Ferro-silicon	* 2 000	...	...	...	...
Silicon metal	* 3 000	* 2 500	...	...	...
Spain					
Electric furnace ferro-alloys					
Ferro-chrome	* 16 000	* 15 000	* 16 000	* 15 100	* 15 000
Ferro-manganese	* 50 000	* 48 000	* 50 000	* 52 220	* 50 000
Ferro-silico-manganese	* 35 000	* 38 000	* 40 000	* 38 440	* 40 000
Ferro-silicon	* 40 000	* 36 000	* 38 000	* 37 500	* 40 000
Other ferro-alloys	* 5 000	* 5 000	* 5 000	* 5 000	* 5 000
Silicon metal	11 800	10 700	11 500	* 9 000	* 9 000
Albania					
Electric furnace ferro-alloys					
Ferro-chrome	* 46 000	38 700	38 800	23 000	25 300
Austria					
Electric furnace ferro-alloys	15 000	20 000	15 000	* 12 000	* 12 000
Bulgaria					
Electric furnace ferro-alloys					
Ferro-manganese & ferro-silico-manganese	* 31 000	* 31 000	* 30 000	—	—
Ferro-silicon	* 10 000	* 15 000	* 14 000	* 14 000	* 14 000
Other ferro-alloys	* 1 000	* 1 000	* 1 000	* 1 000	* 1 000
Czechoslovakia					
Electric furnace ferro-alloys					
Ferro-chrome	29 018	29 183	29 844	31 866	* 30 000
Ferro-manganese	59 252	60 766	63 518	64 205	* 60 000
Ferro-silico-manganese	* 38 000	* 34 000	* 37 000	* 37 000	* 30 000
Ferro-silicon	21 030	22 730	20 997	20 474	* 15 000
Other ferro-alloys	* 9 000	* 10 000	* 10 000	* 10 000	* 10 000
Silicon metal	* 5 000	* 5 000	* 5 000	* 5 000	* 5 000

Production of Ferro-alloys

tonnes

Country	1987	1988	1989	1990	1991
Finland					
Electric furnace ferro-alloys					
Ferro-chrome & ferro-silico-chrome	155 019	154 827	135 997	155 495	195 612
German Democratic Republic					
Electric furnace ferro-alloys					
Ferro-chrome	* 22 000	* 23 000	* 22 000	* 21 000	—
Ferro-manganese & ferro-silico-manganese	* 68 000	* 69 000	* 68 000	* 65 000	—
Ferro-silicon	* 26 000	* 26 000	* 26 000	* 24 000	—
Other ferro-alloys	* 15 600	* 16 400	* 15 600	* 12 000	—
Silicon metal	* 3 400	* 3 600	* 3 400	* 3 000	—
Hungary					
Electric furnace ferro-alloys					
Ferro-silicon	9 342	10 074	10 224	11 270	3 977
Other ferro-alloys	* 2 000	* 1 000	* 1 000	* 1 000	* 1 000
Silicon metal	* 2 000	* 2 000	* 2 000	* 2 000	* 2 000
Iceland					
Electric furnace ferro-alloys					
Ferro-silicon	60 184	70 061	72 008	62 791	47 872
Norway					
Electric furnace ferro-alloys					
Ferro-chrome	—	—	—	* 30 000	* 90 000
Ferro-manganese	193 748	231 903	200 761	213 266	173 212
Ferro-silico-manganese	214 456	232 465	243 816	228 310	226 737
Ferro-silicon	369 761	382 279	401 116	460 431	377 455
Other ferro-alloys	21 540	17 035	* 14 000	* 14 000	* 14 000
Silicon metal	81 460	88 854	100 194	76 601	66 746
Poland					
Blast furnace ferro-alloys					
Spiegeleisen	2 500	1 078	906	140	—
Ferro-manganese	95 300	91 117	90 267	71 000	57 400
Electric furnace ferro-alloys					
Ferro-chrome	35 900	36 316	28 222	13 700	1 300
Ferro-manganese & ferro-silico-manganese	4 800	4 066	1 427	5 400	9 200
Ferro-silicon	77 100	82 114	83 210	88 600	60 100
Other ferro-alloys	* 60 000	65 632	60 718	33 100	39 600
Silicon metal	* 10 000	* 10 000	* 10 000	* 10 000	* 9 000
Romania					
Electric furnace ferro-alloys					
Ferro-chrome	* 42 000	* 42 000	* 42 000	* 42 000	* 30 000
Ferro-manganese	* 81 000	* 80 000	* 80 000	* 80 000	* 70 000
Ferro-silico-manganese	* 39 000	* 40 000	* 40 000	* 40 000	* 20 000
Ferro-silicon	* 50 000	* 50 000	* 50 000	* 50 000	* 30 000
Silicon metal	* 4 500	* 4 500	* 4 500	* 4 500	* 3 000
Soviet Union					
Blast furnace ferro-alloys					
Spiegeleisen	19 000	18 000	18 000	17 000	15 000
Ferro-manganese	593 000	604 000	609 000	600 000	550 000
Electric furnace ferro-alloys					
Ferro-chrome	* 806 200	* 925 400	* 860 800	* 850 000	* 800 000
Ferro-silico-chrome	* 13 500	* 14 000	* 14 000	* 14 000	* 12 000
Ferro-manganese	* 437 800	* 453 500	* 414 100	* 410 000	* 370 000
Ferro-silico-manganese	* 1 300 000	* 1 300 000	* 1 300 000	* 1 300 000	* 1 100 000
Ferro-nickel	* 90 000	* 90 000	* 90 000	* 90 000	* 85 000
Ferro-phosphorus	25 000	25 000	29 000	25 000	22 000
Ferro-silicon	* 1 867 400	* 1 911 800	* 1 872 600	* 1 860 000	* 1 800 000
Other ferro-alloys	* 150 000	* 160 000	* 160 000	* 160 000	* 140 000
Silicon metal	* 65 000	* 65 000	* 65 000	* 65 000	* 60 000
Sweden					
Electric furnace ferro-alloys					
Ferro-chrome	109 352	143 055	133 984	110 945	117 773
Ferro-silico-chrome	4 029	—	—	—	—
Ferro-silicon	19 949	20 622	20 996	18 670	21 145
Silicon metal	21 145	17 059	13 421	10 258	...
Switzerland					
Electric furnace ferro-alloys					
Ferro-silicon	* 3 000	* 3 000	* 3 000	* 3 000	* 3 000
Silicon metal	* 2 000	* 2 000	* 2 000	* 2 000	* 2 000
Turkey					
Electric furnace ferro-alloys					
Ferro-chrome	* 53 000	54 030	59 715	62 439	85 693
Ferro-silicon	4 400	5 200	4 970	5 225	1 736

Production of Ferro-alloys

tonnes

Country	1987	1988	1989	1990	1991
Yugoslavia					
Electric furnace ferro-alloys					
Ferro-chrome	56 276	93 349	90 429	82 687	* 60 000
Ferro-silico-chrome	6 240	3 688	3 815	4 199	* 3 000
Ferro-manganese	38 041	45 078	33 869	31 822	* 20 000
Ferro-silico-manganese	42 528	46 804	52 737	60 601	* 50 000
Ferro-nickel	9 556	15 047	17 102	11 850	(j) 11 775
Ferro-silicon	98 843	120 522	122 153	103 188	* 70 000
Other ferro-alloys	8 071	11 450	11 199	11 297	* 10 000
Silicon metal	31 915	25 830	15 897	12 661	* 10 000
Egypt					
Electric furnace ferro-alloys					
Ferro-silicon	7 702	7 806	* 7 800	7 922	* 7 900
South Africa					
Ferro-chrome (i)	965 071	993 685	1 035 973	1 022 026	1 126 718
Ferro-manganese	315 110	446 894	394 045	403 559	259 944
Ferro-silico-manganese	281 790	247 701	258 000	234 000	245 000
Ferro-silicon	82 519	87 247	92 804	78 150	68 332
Other ferro-alloys	* 1 000	* 1 000	* 2 000	* 1 000	* 1 000
Silicon metal	34 046	38 960	36 301	35 731	39 791
Zimbabwe					
Electric furnace ferro-alloys					
Ferro-chrome	186 947	224 000	173 000	222 102	* 200 000
Ferro-silico-chrome	21 000	29 000	25 000	16 612	* 17 000
Ferro-manganese	8 500	2 620	6 250	1 100	...
Ferro-silicon	...	...	2 290	1 640	...
Canada					
Electric furnace ferro-alloys					
Ferro-manganese (f)	* 170 000	* 190 000	* 185 000	* 185 000	* 45 000
Ferro-silicon	* 100 000	111 622	* 120 000	* 120 000	* 110 000
Silicon metal	* 30 000	* 30 000	* 30 000	* 30 000	* 30 000
Dominican Republic					
Electric furnace ferro-alloys					
Ferro-nickel	85 567	77 209	82 260	75 513	75 797
Mexico					
Electric furnace ferro-alloys					
Ferro-chrome	6 300	9 295	2 569	275	72
Ferro-silico-magnesium	420	550	—	—	—
Ferro-manganese	161 331	165 487	168 042	186 329	147 259
Ferro-silico-manganese	80 123	80 223	98 852	70 685	67 090
Ferro-silicon	18 060	16 553	9 474	6 998	5 836
Other ferro-alloys	281	149	79	87	105
USA					
Ferro-chrome	104 817	109 504	137 997	(i) 108 932	(i) 68 327
Ferro-silico-chrome (e)	1 899	10 141	8 847	...	...
Ferro-manganese (d) (f)	102 462	(c) ...	(c) ...	(c) ...	(c) ...
Ferro-nickel	—	—	682	7 333	14 251
Ferro-phosphorus	36 458	60 220	53 546	46 018	36 135
Ferro-silicon	324 096	449 328	475 255	433 726	338 154
Other ferro-alloys (b)	32 365	167 803	117 591	137 892	175 131
Silicon metal	135 559	149 094	136 531	140 792	145 275
Argentina					
Electric furnace ferro-alloys					
Ferro-manganese	21 407	19 737	24 441	24 344	26 337
Ferro-silico-manganese	11 746	11 610	21 160	21 805	14 564
Ferro-silicon	23 998	30 539	35 667	23 641	14 437
Other ferro-alloys	6 790	5 952	5 805	6 310	5 400
Silicon metal	13 900	15 800	* 10 000	* 10 000	* 10 000

Production of Ferro-alloys

tonnes

Country	1987	1988	1989	1990	1991
Brazil					
Electric furnace ferro-alloys					
Ferro-calcium-silicon	25 673	31 519	33 020	27 520	13 511
Ferro-chrome	105 394	130 024	113 267	83 753	82 225
Ferro-silico-chrome	8 079	9 177	8 938	4 973	4 524
Ferro-silico-magnesium	17 575	17 000	15 864	10 340	7 309
Ferro-manganese	155 252	180 588	180 668	170 504	169 103
Ferro-silico-manganese	188 022	193 490	208 262	216 779	272 046
Ferro-molybdenum	422	427	332	69	47
Ferro-nickel	35 496	33 930	34 997	34 257	34 069
Ferro-niobium	10 880	19 106	16 378	16 643	18 959
Ferro-phosphorus	1 784	1 469	1 928	1 278	864
Ferro-silicon	231 159	267 538	286 994	229 408	186 005
Ferro-titanium	80	549	430	125	126
Ferro-vanadium	88	261	302	44	41
Other ferro-alloys	521	926	1 414	509	103
Silicon metal	39 982	79 287	116 779	131 614	90 581
Chile					
Electric furnace ferro-alloys					
Ferro-chrome	475	2 212	2 840	1 868	2 509
Ferro-manganese	6 614	6 899	7 250	3 587	6 779
Ferro-silico-manganese	1 232	681	180	985	1 676
Ferro-molybdenum	1 325	1 191	2 990	2 283	2 673
Ferro-silicon	4 655	5 686	6 370	4 662	5 516
Colombia					
Ferro-nickel	46 389	41 672	41 446	43 847	50 150
Venezuela					
Ferro-silico-manganese	28 000	33 760	32 387	30 594	30 590
Ferro-silicon	52 188	51 363	54 873	53 422	54 327
China					
Ferro-manganese	* 510 300	* 495 000	* 520 000	* 560 000	* 560 000
Ferro-silico-manganese	* 220 000	* 220 000	* 240 000	* 240 000	* 250 000
Ferro-silicon	* 591 200	* 787 600	* 900 000	* 920 000	* 950 000
Other ferro-alloys	* 524 500	* 581 400	* 722 000	* 720 000	* 790 000
India					
Electric furnace ferro-alloys					
Ferro-chrome	93 944	140 262	133 522	130 041	129 749
Ferro-silico-chrome	12 321	2 769	11 384	7 316	8 614
Ferro-manganese	173 259	138 331	149 139	203 311	200 902
Ferro-silico-manganese	37 504	52 895	75 469	60 426	58 672
Ferro-silicon	50 747	46 721	73 751	64 035	56 940
Other ferro-alloys	528	445	386	314	285
Silicon metal	1 445	686	* 800	2 045	747
Indonesia					
Electric furnace ferro-alloys					
Ferro-nickel	8 354	26 852	26 058	26 089	25 025
Japan					
Electric furnace ferro-alloys					
Ferro-calcium-silicon	1 419	1 360	808	514	410
Ferro-chrome	272 298	304 642	333 978	303 838	278 522
Ferro-manganese	332 286	378 351	394 055	452 434	463 722
Ferro-silico-manganese	91 896	106 970	122 192	77 465	87 229
Ferro-molybdenum	2 032	2 656	2 784	3 366	3 729
Ferro-nickel	203 143	242 276	275 341	234 311	295 422
Ferro-niobium	714	649	737	984	710
Ferro-silicon	73 706	73 767	74 936	62 599	62 362
Ferro-tungsten	96	91	77	46	61
Ferro-vanadium	2 639	3 776	3 127	3 706	3 847
Other ferro-alloys	1 384	1 761	3 578	3 462	3 560
Korea, Dem. P.R. of					
Ferro-manganese	* 70 000	* 70 000	* 70 000	* 70 000	* 70 000
Ferro-silicon	* 30 000	* 30 000	* 30 000	* 30 000	* 30 000
Other ferro-alloys	* 20 000	* 20 000	* 20 000	* 20 000	* 20 000
Korea, Republic of					
Electric furnace ferro-alloys					
Ferro-manganese	58 044	75 924	85 329	84 000	85 000
Ferro-silicon	12 646	8 909	4 582	2 000	2 000
Other ferro-alloys	90 382	89 966	101 818	99 000	100 000

Iron, Steel and Ferro-alloys

Production of Ferro-alloys

tonnes

Country	1987	1988	1989	1990	1991
Philippines					
Electric furnace ferro-alloys					
Ferro-chrome	* 47 000	* 59 000	* 69 000	* 62 000	* 18 000
Ferro-silicon	...	...	* 9 000	* 10 000	* 10 000
Taiwan					
Electric furnace ferro-alloys					
Ferro-manganese	16 971	25 822	30 623	43 631	40 110
Ferro-silico-manganese	28 309	30 745	26 510	20 587	12 801
Ferro-silicon	11 266	19 601	19 277	15 501	6 252
Thailand					
Electric furnace ferro-alloys					
Ferro-silico-manganese	3 346	3 532	4 831	4 511	3 938
Australia					
Electric furnace ferro-alloys					
Ferro-manganese	51 000	58 000	* 67 000	* 70 000	* 55 000
Ferro-silico-manganese	43 000	44 000	* 55 000	* 65 000	* 50 000
Ferro-silicon	18 000	* 18 000	* 20 000	* 20 000	* 20 000
New Caledonia					
Electric furnace ferro-alloys					
Ferro-nickel	108 170	136 203	132 261	117 800	119 808

(a) Ti, W, Mo, V content of ferro-titanium, ferro-tungsten, ferro-molybdenum and ferro-vanadium

(b) Including ferro-boron and other complex boron additive alloys, ferro-molybdenum, ferro-tungsten, ferro-vanadium, spiegeleisen, ferro-zirconium and other miscellaneous alloys

(c) Included with 'other ferro-alloys'

(d) Including manganese metal

(e) Including other chromium alloys and chromium metal

(f) Including ferro-silico-manganese

(g) Including ferro-silicon

(h) Including alumino-thermic ferro-alloys

(i) Including ferro-silico-chrome

(j) Excluding data from August to December for the Republic of Croatia

Exports of Iron, Steel and Ferro-alloys

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Pig iron	30 992	22 888	20 470	21 069	16 449
Sponge & powder	990	5 360	5 048	3 831	2 712
Ferro-aluminium,Fe-Si-Al & Fe-Si-Mn-Al	3 567	(c) ...	(c) ...	(c) ...	(c) ...
Ferro-chrome	953	648	850	776	1 607
Ferro-manganese	13 990	9 756	38 238	41 389	70 992
Ferro-silico-manganese	419	2 820	673	181	801
Ferro-molybdenum	4 298	6 661	6 853	5 282	5 083
Ferro-nickel	0	8	76	5	14
Ferro-niobium & ferro-niobium-tantalum	147	486	804	811	1 040
Ferro-silicon	2 547	2 387	2 072	1 670	3 725
Ferro-titanium & ferro-silico-titanium	8 390	11 857	11 241	11 244	9 241
Ferro-tungsten & ferro-silico-tungsten	11	1	21	4	31
Ferro-vanadium	146	38	60	231	79
Other ferro-alloys	3 659	5 716	5 931	8 341	11 141
Ingots, blooms, billets	1 664 869	1 690 357	1 485 518	1 309 675	1 401 463
Scrap	3 306 206	3 607 032	3 227 433	3 198 385	3 247 234
Belgium-Luxembourg					
Pig iron	10 697	15 096	19 596	13 167	5 519
Sponge & powder	972	4 599	3 408	2 200	2 120
Ferro-chrome	2 118	3 651	4 982	2 130	4 117
Ferro-manganese	21 297	24 332	45 843	22 624	34 671
Ferro-silico-manganese, Fe-Mo & Fe-V	27 267	(a) 13 529	(a) 8 940	(a) 3 609	(a) 7 934
Ferro-silicon	4 370	3 121	3 802	2 439	6 641
Ferro-titanium & ferro-silico-titanium	834	1 321	745	330	102
Other ferro-alloys	1 523	1 190	411	431	833
Ingots, blooms, billets	751 506	665 459	579 510	834 846	850 993
Scrap	704 546	912 898	1 049 884	869 401	1 045 097
Denmark					
Ingots, blooms, billets	2 531	2 428	1 019	6 109	15 514
Scrap	224 017	298 246	278 990	310 713	290 582
France					
Pig iron	54 082	54 513	40 340	10 350	7 654
Spiegeleisen	189	480	356	678	1 063
Sponge & powder	253	1 116	2 931	1 357	2 084
Ferro-aluminium,Fe-Si-Al & Fe-Si-Mn-Al	386	(c) ...	(c) ...	(c) ...	(c) ...
Ferro-chrome	16 784	48 263	12 895	21 658	22 779
Ferro-silico-chrome	9	9	4	136	—
Ferro-silico-magnesium	9 364	9 389	10 240	7 289	6 894
Ferro-manganese	21 076	31 963	21 586	25 657	57 673
Ferro-silico-manganese	14 830	26 290	45 002	51 138	56 408
Ferro-molybdenum	2 388	2 199	2 433	3 272	3 001
Ferro-nickel	6 352	3 720	4 325	3 240	1 801
Ferro-silicon	54 391	46 946	40 739	29 007	40 018
Ferro-titanium & ferro-silico-titanium	312	464	490	776	689
Ferro-vanadium	171	2	1	30	37
Ferro-silico-zirconium	1 939	1 809	1 221	197	1 111
Other ferro-alloys	21 956	29 693	28 785	23 813	17 704
Ingots, blooms, billets	855 421	966 753	887 352	1 072 482	1 255 209
Scrap	3 228 411	3 691 713	4 260 050	3 674 956	3 420 340
Germany, Federal Republic of					
Pig iron	499 115	389 558	408 299	599 402	390 561
Sponge & powder	37 888	40 202	38 199	29 962	21 627
Ferro-chrome	54 345	44 660	49 274	53 371	46 597
Ferro-silico-chrome	4 346	3 980	4 230	4 336	2 960
Ferro-silico-magnesium	(c) ...	5 630	6 628	5 441	4 433
Ferro-manganese	67 426	81 314	95 635	79 251	56 031
Ferro-silico-manganese	3 715	5 482	7 156	8 754	9 352
Ferro-molybdenum	196	214	261	401	288
Ferro-nickel	226	1 067	306	1 114	924
Ferro-niobium	484	927	913	591	769
Ferro-phosphorus	(c) ...	4 342	6 342	6 586	5 619
Ferro-silicon	64 482	80 618	70 524	66 481	57 914
Ferro-titanium & ferro-silico-titanium	636	1 211	1 311	1 011	1 575
Ferro-tungsten & ferro-silico-tungsten	78	33	28	41	86
Ferro-vanadium	3 020	2 977	2 672	2 498	2 181
Other ferro-alloys	8 259	2 147	3 933	2 620	6 483
Silicon metal	7 700	7 684	5 910	5 740	4 763
Ingots, blooms, billets	1 350 840	1 818 774	1 477 699	1 080 407	1 318 948
Scrap	4 521 210	4 891 361	5 054 061	5 198 929	7 251 020

Exports of Iron, Steel and Ferro-alloys

tonnes

Country	1987	1988	1989	1990	1991
Greece					
Ferro-chrome	51 460	30 609	46 605	25 120	16 484
Ferro-nickel	52 278	—	—	—	203
Ingots, blooms, billets	60 862	40 262	50 026	49 228	38 713
Irish Republic					
Scrap	26 249	32 411	33 827	26 045	18 048
Italy					
Pig iron	17 285	34 970	48 104	37 895	46 336
Sponge & powder	889	3 256	8 545	9 551	9 573
Ferro-chrome	18 210	25 221	34 721	15 681	4 015
Ferro-silico-chrome	1 295	1 439	298	1 089	558
Ferro-silico-magnesium	1 944	1 215	(c) ...	(c) ...	283
Ferro-manganese	3 606	5 120	4 125	3 974	7 904
Ferro-silico-manganese	9 856	3 291	9 463	13 541	26 816
Ferro-silicon	10 122	16 969	22 008	6 427	3 457
Ferro-titanium & ferro-silico-titanium	2 253	1 518	1 909	1 222	965
Ferro-vanadium	74	—	40	—	11
Other ferro-alloys	4 758	3 567	4 817	12 347	3 403
Silicon metal	6 256	5 224	6 200	4 348	2 875
Ingots, blooms, billets	95 047	169 148	366 385	484 524	253 036
Scrap	15 701	27 517	29 334	19 496	11 538
Netherlands					
Pig iron	9 806	3 737	2 045	828	2 719
Sponge & powder	502	215	586	452	722
Ferro-chrome	7 159	—	4 750	3 355	1 299
Ferro-manganese	1 125	112	3 117	132	272
Ferro-silico-manganese	279	303	—	—	—
Ferro-molybdenum	224	387	475	464	389
Ferro-silicon	1 224	363	959	325	342
Ferro-titanium & ferro-silico-titanium	2 294	1 375	1 571	208	424
Ferro-vanadium	—	58	46	—	—
Other ferro-alloys	325	1 208	721	203	339
Silicon metal	3 249	3 708	1 962	4 884	5 108
Ingots, blooms, billets	1 352 641	1 539 677	1 118 510	1 152 225	1 025 923
Scrap	2 225 779	2 649 981	2 815 350	2 620 517	3 530 954
Portugal					
Ferro-manganese	9 812	(c) ...	(c) ...	477	(c) ...
Ferro-silico-manganese	213	(c) ...	(c) ...	(c) ...	(c) ...
Ferro-silicon	12	(c) ...	(c) ...	8 139	3 916
Other ferro-alloys	2 655	4 025	266	348	371
Scrap	6 635	13 340	21 023	14 776	32 980
Spain					
Pig iron	742	61 304	62 568	8 559	133
Ferro-aluminium, Fe-Si-Al & Fe-Si-Mn-Al	515	(c) ...	(c) ...	(c) ...	(c) ...
Ferro-chrome	13 949	13 716	9 064	2 620	1 895
Ferro-manganese	13 103	14 268	24 190	20 441	16 248
Ferro-silico-manganese	7 132	8 470	12 386	21 074	12 650
Ferro-molybdenum	2 027	6	5	4	4
Ferro-silicon	4 579	13 700	11 392	9 826	7 425
Other ferro-alloys	1 284	1 221	500	211	227
Silicon metal	2 379	1 666	1 542	213	298
Ingots, blooms, billets	650 790	578 933	169 533	81 121	222 950
Scrap	15 790	56 960	28 897	22 644	25 486
Albania					
Ferro-chrome	26 600	36 600	39 100	31 300	...
Austria					
Pig iron	157	44	69	6 904	13 346
Ferro-alloys	13 322	18 792	19 638	22 049	19 808
Ingots & blooms	13 870	15 145	16 801	13 957	9 394
Scrap	92 200	47 222	95 982	342 438	503 860
Bulgaria					
Pig iron	67 300	6 000	...	7 000	6 000
Ferro-alloys	15 000	8 000	16 000	13 000	6 000
Ingots, blooms, billets	269 000	273 000	142 000	75 000	63 000
Scrap (f)	* 63 700	* 98 800	* 55 700	* 18 900	* 27 300

Exports of Iron, Steel and Ferro-alloys

tonnes

Country	1987	1988	1989	1990	1991
Czechoslovakia					
Ferro-chrome (f)	* 400	* 600	* 2 500	* 2 300	* 16 700
Ferro-manganese (f)	* 16 800	* 15 000	* 15 400	* 17 000	* 38 000
Other ferro-alloys (f)	* 4 900	* 2 000	* 2 600	* 6 000	* 4 800
Blooms	610 000	676 000	615 000	311 000	731 000
Scrap (f)	* 96 800	* 247 700	* 206 600	* 427 300	* 346 000
Finland					
Ferro-chrome & ferro-silico-chrome	89 530	90 148	77 338	105 199	118 172
Ingots, blooms, billets	(f)* 165 400	183 501	143 228	117 487	110 225
Scrap	252	1 660	1 265	1 765	57 090
German Democratic Republic					
Pig iron	7 000	5 000	5 000	* 5 000	—
Ferro-silicon (f)	* 5 300	* 10 000	* 9 800	* 18 100	—
Other ferro-alloys (f)	* 1 300	* 500	* 1 600	* 8 300	—
Ingots, blooms, billets (f)	* 798 000	* 970 800	* 932 500	* 792 400	—
Scrap (f)	* 40 600	* 86 800	* 115 400	* 108 300	—
Hungary					
Pig iron	—	—	42 484	18 329	3 000
Ferro-alloys	4 229	7 746	10 044	11 964	...
Ingots, blooms, billets	3 893	9 969	15 528	51 617	82 000
Scrap	106 850	151 311	111 472	220 356	382 000
Iceland					
Ferro-silicon	71 656	73 236	64 192	67 150	53 452
Scrap	7 668	4 508	3 655	4 435	86
Malta					
Scrap	10 566	9 803	10 713	...	...
Norway					
Pig iron	13 663	31 149	52 146	50 132	58 633
Ferro-chrome	4	—	4 077	55 126	85 645
Ferro-manganese	176 850	204 475	168 475	173 402	145 128
Ferro-silico-manganese	215 810	199 570	222 649	197 615	205 186
Ferro-silicon	334 761	365 882	361 468	400 627	371 616
Other ferro-alloys	11 125	13 313	15 531	14 598	12 559
Silicon metal	81 066	75 166	80 682	73 841	60 827
Ingots, blooms, billets	122 281	70 100	19 377	10 184	22 782
Scrap	11 897	21 373	19 977	12 146	15 662
Poland					
Pig iron & ferro-alloys	5 578	201 160	302 171	798 830	92 944
Ingots, blooms, billets	163 000	287 000	378 400	1 423 000	22 932
Scrap	96 980	346 956	439 935	425 000	1 243 089
Romania					
Ingots, blooms, billets (f)	* 8 000	* 56 200	* 14 500	* 6 600	* 1 800
Soviet Union					
Pig iron	5 963 000	6 141 279	6 516 801	6 276 170	(h) 3 198 000
Ferro-alloys	756 000	838 937	860 215	837 389	(h) 490 000
Ingots, blooms, billets (f)	* 1 572 700	* 1 934 000	* 1 692 200	* 1 619 100	* 1 578 000
Scrap	3 900 000	3 240 000	2 737 000	1 302 000	(h) 368 000
Sweden					
Pig iron	3 358	12 193	13 808	5 270	9 487
Sponge & powder	117 315	119 908	120 896	124 929	121 354
Ferro-chrome	78 862	96 031	99 347	93 305	18 879
Ferro-silico-chrome	3 774	—	—	0	—
Ferro-manganese	488	867	762	792	538
Ferro-silico-manganese	233	146	86	91	60
Ferro-molybdenum	18	27	229	90	112
Ferro-niobium	23	14	22	59	74
Ferro-silicon	12 507	14 931	13 681	13 301	11 648
Ferro-titanium	81	11	53	17	121
Ferro-vanadium	16	42	66	55	17
Other ferro-alloys	113	163	140	163	255
Silicon metal	...	14 554	12 229	...	...
Ingots, blooms, billets	402 238	430 403	330 964	239 482	338 092
Scrap	44 426	87 491	141 806	122 257	236 760
Switzerland					
Pig iron	211	1 618	1 160	528	155
Sponge & powder	574	620	582	515	556
Ferro-alloys	247	359	673	242	387
Ingots, blooms, billets	26 292	25 477	7 049	16 234	38 922
Scrap	87 361	78 092	66 836	66 058	70 198

Exports of Iron, Steel and Ferro-alloys

tonnes

Country	1987	1988	1989	1990	1991
Turkey					
Pig iron	121 762	101 548	31 890	179 091	192 918
Ferro-chrome	41 224	59 451	46 238	64 488	78 469
Ingots, blooms, billets	633 442	1 280 185	1 123 806	1 229 900	984 698
Scrap	5 169	7 407	4 431	6 586	9 749
Yugoslavia					
Pig iron	35 236	8 409	23 810	35 941	(g) —
Ferro-chrome	37 588	69 806	73 894	78 409	(g) —
Ferro-manganese	9 542	15 244	7 897	14 604	(g) —
Ferro-silico-manganese	38 561	33 741	43 110	54 834	(g) —
Ferro-nickel	(c) ...	12 818	15 650	11 479	(g) 11 622
Ferro-silicon	69 697	77 417	84 635	74 991	(g) —
Other ferro-alloys	13 499	4 351	5 066	4 158	(g) 59
Silicon metal	26 879	18 463	9 654	8 687	(g) —
Ingots, blooms, billets	204 997	141 314	70 621	111 971	(g) 15 898
Scrap	450 501	489 426	237 178	253 691	(g) 34 910
Algeria					
Pig iron	69 812	120 230	108 371	302 690	273 625
Scrap	150 638	142 267	71 028	10 293	30 889
Ivory Coast					
Scrap	...	11 233	...	...	...
Morocco					
Scrap	62 799	91 430	96 144	84 052	52 628
Senegal					
Scrap	7 116	7 893	13 150	10 934	...
South Africa					
Pig iron (f)	* 388 500	* 397 000	* 211 800	* 144 100	* 164 000
Ferro-chrome	829 869	948 400	950 479	907 100	967 208
Ferro-manganese	570 170	625 500	497 500	504 927	* 400 000
Ferro-silicon	37 462	40 601	24 373	26 376	17 409
Silicon metal	27 050	38 636	34 646	30 241	32 204
Ingots, blooms, billets (f)	* 663 900	* 425 100	* 426 400	* 499 800	* 364 000
Scrap (f)	* 70 400	* 55 200	* 62 800	* 31 500	* 78 300
Tunisia					
Scrap	244	16 198	1 805	5 220	5 217
Zimbabwe					
Pig iron	7 807	801	...	89	...
Ferro-chrome	210 636	195 442	...	195 699	(i) 184 719
Ferro-silico-chrome	31 329	24 213	...	22 084	...
Ingots, blooms, billets	283 662	261 351	...	210 814	237 583
Scrap	8 915	9 501	...	3 755	...
Canada					
Pig iron	448 251	358 237	418 406	215 177	84 254
Sponge & powder	52 104	216 634	50 524	39 445	33 542
Ferro-chrome	(c) ...	1 661	38	573	343
Ferro-manganese	23 103	26 592	21 893	15 041	13 657
Ferro-silico-manganese	(c) ...	65	1 589	7 734	17 530
Ferro-silicon	28 316	30 249	32 505	53 532	34 047
Other ferro-alloys	10 046	6 591	969	587	600
Silicon metal	...	20 638	16 564	14 811	13 072
Ingots, blooms, billets	104 756	180 608	293 291	327 343	306 994
Scrap	1 086 832	1 682 288	899 642	1 371 712	1 076 549
Cuba					
Scrap	168 868	* 60 000	* 90 000	* 90 000	...
Dominican Republic					
Ferro-nickel	78 372	82 877	81 852	78 094	75 028
Mexico					
Ferro-manganese	37 451	43 025	34 372	51 598	(c) ...
Ferro-silico-manganese	40 007	42 148	46 971	24 976	(c) ...
Other ferro-alloys	199	4 986	4 285	218	69 861
Ingots, blooms, billets	179 960	77 400	247 142	569 764	430 926
Scrap	44 053	21 124	30 297	41 139	...
Trinidad & Tobago					
Sponge	70 345	151 568	233 157	442 035	...
Ingots, blooms, billets	17 708	47 546	13 705	9 976	...

Exports of Iron, Steel and Ferro-alloys

tonnes

Country	1987	1988	1989	1990	1991
USA					
Pig iron	50 642	66 539	13 962	16 767	18 748
Sponge & powder	15 469	17 157	23 217	62 875	21 917
Ferro-chrome & ferro-silico-chrome	6 166	9 913	11 413	10 414	12 393
Ferro-manganese	2 686	3 219	8 301	8 105	15 334
Ferro-silico-manganese	746	4 406	5 127	2 707	3 861
Ferro-molybdenum	75	88	128	328	405
Ferro-phosphorus	31 508	19 380	22 588	6 003	2 934
Ferro-silicon	13 880	26 684	50 460	52 109	52 621
Ferro-vanadium	442	571	512	350	193
Other ferro-alloys	17 643	11 899	7 971	7 964	6 595
Silicon metal	8 341	9 674	4 976	9 478	9 190
Ingots, blooms, billets	67 190	55 914	355 376	452 642	640 504
Scrap	9 408 257	9 167 339	11 189 000	11 610 081	9 342 023
Argentina					
Ferro-silicon	14 121	16 202	17 429	12 784	...
Other ferro-alloys	2 390	5 414	5 907	19 259	...
Ingots, blooms, billets	132 360	177 639	410 836	228 835	115 111
Brazil					
Pig iron	2 047 420	2 538 069	2 992 389	3 490 235	2 497 476
Ferro-chrome	14 980	37 007	24 099	16 477	27 100
Ferro-manganese	50 049	50 727	28 985	65 292	61 190
Ferro-nickel	2 208	10 412	12 838	15 960	21 678
Ferro-niobium	11 069	14 352	15 996	13 539	13 557
Fe-silico-spiegeleisen & silico-manganese	55 208	60 419	66 859	91 975	128 393
Ferro-silicon	176 349	211 397	223 528	199 899	157 711
Other ferro-alloys	19 939	19 902	14 545	27 283	19 055
Silicon metal	30 267	65 996	90 086	116 773	84 750
Ingots, blooms, billets	3 420 355	4 669 658	5 624 235	3 522 523	4 438 689
Chile					
Ferro-alloys	5 376	7 512	8 680	5 881	6 505
Ingots, blooms, billets	37 413	22 740	1 998	68 282	72 202
Colombia					
Ferro-nickel	...	41 461	33 838	46 372	48 214
Venezuela					
Sponge & powder	216 212	376 762	659 390	453 649	...
Ferro-silico-manganese	903	4 462	4 650	9 476	5 967
Ferro-silicon	45 459	40 305	36 392	56 004	54 543
Ingots, blooms, billets	217 146	140 240	192 578	273 886	* 600 000
Bahrain					
Scrap	49 983	33 164	40 468	57 916	...
Brunei					
Scrap	4 370	...	...	...	...
China					
Pig iron	561 887	2 337 078	532 537	375 897	624 210
Ferro-chrome	(c) ...	(c) ...	(c) ...	11 463	29 768
Ferro-manganese	(c) ...	(c) ...	(c) ...	70 497	73 722
Ferro-silico-manganese	(c) ...	(c) ...	(c) ...	97 303	165 847
Ferro-molybdenum	(c) ...	(c) ...	(c) ...	6 629	4 957
Ferro-silicon	(c) ...	(c) ...	(c) ...	244 286	319 997
Ferro-titanium	(c) ...	(c) ...	(c) ...	749	125
Ferro-tungsten	(c) ...	(c) ...	(c) ...	6 031	3 589
Ferro-vanadium	(c) ...	(c) ...	(c) ...	548	100
Other ferro-alloys	264 974	459 869	193 259	10 822	24 309
Ingots, blooms, billets	131	17 752	77 067	520 982	851 312
Scrap	100 072	685 994	185 007	112 469	81 324
Cyprus					
Scrap (b)	4 543	...	33 822	14 644	12 988
Hong Kong					
Pig iron (b)	97	4 735	337	1 651	225
Ferro-manganese (b)	1 540	4 297	8 585	10 340	14 791
Ferro-silicon (b)	30 135	82 494	38 408	42 066	64 630
Other ferro-alloys (b)	6 524	9 753	18 697	33 079	47 787
Ingots, blooms, billets	13 174	34 934	7 444	1 643	3 123
of which: Re-exports	7 657	6 601	3 670	1 643	3 103
Scrap	345 259	428 310	474 286	479 971	489 570
India (d)					
Pig iron	606	871	...	719	579
Ferro-chrome	76 007	89 973	...	63 619	107 856
Ferro-manganese	1 614	3 400	...	19 574	19 656
Scrap	33 577	35 483	...	87 124	62 555

Exports of Iron, Steel and Ferro-alloys

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Country	1987	1988	1989	1990	1991
Indonesia					
Sponge & powder	75 117	138 315	53 686	67 990	86 588
Ferro-nickel	...	...	25 238	27 709	20 846
Ferro-silicon	151	829	4 322	2 646	180
Ingots, blooms, billets	26 524	41 180	31 452	55 531	229 374
Scrap	2 877	5 025	421	847	2 166
Iran					
Pig iron (f)	* 21 000	* 75 100	* 138 200	* 66 600	* 111 900
Israel					
Scrap (f)	* 3 600	* 2 500	* 2 800	* 10 700	* 2 200
Japan					
Pig iron	28 598	21 787	3 536	702	36
Sponge & powder	11 520	11 771	14 986	18 917	17 281
Ferro-chrome	4 883	4 450	1 123	2 811	1 928
Ferro-manganese	19 122	12 849	15 055	5 631	5 025
Ferro-silico-manganese	—	1 000	2 498	1 069	65
Ferro-nickel	1 885	15	62	—	0
Ferro-silicon	1 345	4 868	2 764	3 780	4 676
Ferro-vanadium	67	25	188	145	2
Other ferro-alloys	4 718	5 589	5 553	4 605	5 292
Ingots, blooms, billets	250 411	159 424	146 584	42 728	64 541
Scrap	377 397	415 616	586 786	396 403	361 704
Korea, Dem. P.R. of					
Pig iron (f)	* 96 800	* 64 400	* 47 600	* 24 800	* 28 100
Ingots, blooms, billets (f)	* 37 100	* 27 200	* 20 900	* 59 100	* 11 600
Scrap (f)	* 20 500	* 24 800	* 21 300	* 20 000	* 16 100
Korea, Republic of					
Pig iron	2 017	76 397	238	827	6 073
Ferro-manganese	5	—	2 209	1 429	6
Ferro-silico-manganese	—	—	1 622	940	—
Other ferro-alloys	114	302	300	752	...
Ingots, blooms, billets	193 060	353 291	804 078	331 064	435 773
Scrap	42 157	40 440	19 272	39 576	20 328
Kuwait					
Scrap	33 119	30 839	29 220	...	...
Macao					
Scrap	7 735	6 090	6 131	6 806	10 072
Malaysia					
Sponge & powder	605 817	428 005	402 152	...	515 961
Ingots, blooms, billets	18 003	49 533	118 300	...	19 591
Scrap	44 419	80 913	75 276	* 75 000	78 090
Pakistan (e)					
Pig iron	235 058	—	20 550	...	...
Scrap	660	1 709	3 842	2 091	...
Philippines					
Ferro-silicon	10 225	8 415	3 762	2 384	4 390
Other ferro-alloys	50 821	61 514	64 695	61 183	20 858
Scrap	1 313	1 974	1 673	2 538	1 713
Saudi Arabia					
Scrap	69 381	124 161	139 781	166 379	24 486
Singapore					
Pig iron	652	922	583	5 934	4 609
of which: Re-exports	641	853	583	5 641	4 589
Ferro-alloys	1 119	2 682	8 484	9 379	9 518
of which: Re-exports	1 119	2 682	8 484	9 377	8 485
Ingots & blooms	24 169	311	1 786	3 099	3 443
of which: Re-exports	11 705	291	1 669	2 586	821
Scrap	155 625	265 389	238 193	299 875	237 813
Sri Lanka					
Scrap	30 941	19 423	28 699	60 719	24 204
Taiwan					
Pig iron	1 511	1 581	580	701	290
Ferro-chrome	3	1 186	2 568	2 460	67
Ferro-manganese	100	1	274	62	9
Ferro-silicon	208	318	1 694	627	1 247
Other ferro-alloys	1 448	3 494	237	53	760
Ingots, blooms, billets	50 714	280 814	302 749	204 646	45 519
Scrap	97 755	75 239	51 724	68 427	68 498
Thailand					
Scrap	4 925	6 318	7 216	7 000	10 434

Exports of Iron, Steel and Ferro-alloys

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Country	1987	1988	1989	1990	1991
Australia					
Pig iron	164 939	24 789	24 000	—	—
Ferro-manganese	47 499	41 000	27 000	43 000	20 000
Other ferro-alloys	37 525	44 507	49 000	57 000	61 000
Ingots, blooms, billets	522 596	375 000	351 000	710 000	746 000
Scrap	873 716	999 747	875 000	1 173 000	1 410 000
Fiji					
Scrap	1 975	1 881	...	...	...
of which: Re-exports	722	1	...	...	...
New Caledonia					
Ferro-nickel	121 400	131 500	126 100	126 479	112 700
New Zealand (e)					
Ingots, blooms, billets	84 294	95 845	53 403	2 057	16 036
Scrap	3 308	2 412	30 265	10 000	68 833

Note(s):

- (1) In this table the term 'ingots, blooms, billets' corresponds to items 672.4,6,7 and 8 of the Standard International Trade Classification (Revision 3) which includes those of alloy and high carbon steel
- (a) Excluding ferro-molybdenum and ferro-vanadium
- (b) Re-exports
- (c) Included with 'other ferro-alloys'
- (d) Years ended 31 March following that stated
- (e) Years ended 30 June of that stated
- (f) BGS estimates, based on known imports into certain countries
- (g) Data for the Federal Republic of Yugoslavia only
- (h) Data for the Russian Federation only
- (i) Including ferro-silico- chrome

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Pig iron	105 419	192 706	225 051	207 495	110 866
Sponge & powder	17 158	19 739	18 444	16 927	16 890
Ferro-chrome & ferro-silico-chrome	110 093	103 334	112 025	69 764	76 381
Ferro-manganese	36 954	67 918	53 097	45 685	31 717
Ferro-silico-manganese	20 978	32 285	39 086	35 809	31 156
Ferro-molybdenum	663	600	638	502	227
Ferro-nickel	22 307	17 757	19 347	19 439	17 710
Ferro-niobium	559	536	459	472	511
Ferro-phosphorus	(d) ...	3 887	3 606	2 945	3 456
Ferro-silicon	77 547	74 087	86 594	99 511	82 864
Ferro-titanium & ferro-silico-titanium	727	929	625	1 464	1 122
Ferro-tungsten & ferro-silico-tungsten	114	94	89	189	95
Ferro-vanadium	666	565	821	631	674
Other ferro-alloys	13 424	11 535	7 897	7 244	9 613
Silicon metal	40 938	43 027	41 663	44 337	39 258
Ingots, blooms, billets	200 524	344 972	387 079	341 848	285 842
Scrap	72 635	91 733	102 726	81 876	95 803
Belgium-Luxembourg					
Pig iron	132 428	254 260	325 015	106 487	89 508
Spiegeleisen	425	109	54	42	3
Sponge & powder	1 859	10 331	11 047	8 742	7 290
Ferro-aluminium, Fe-Si-Al & Fe-Si-Mn-Al	540	(d) ...	(d) ...	(d) ...	(d) ...
Ferro-chrome	41 663	70 994	83 259	95 093	92 456
Ferro-silico-chrome	2 774	2 455	2 667	2 806	4 153
Ferro-manganese	59 331	64 233	50 938	47 496	64 373
Ferro-silico-manganese	47 411	44 216	38 859	44 363	46 312
Ferro-molybdenum	906	1 389	2 101	2 882	1 408
Ferro-nickel	3 818	9 037	13 818	20 934	23 235
Ferro-niobium	(d) ...	395	586	530	604
Ferro-phosphorus	(d) ...	28 247	6 260	518	1 082
Ferro-silicon	31 098	31 673	34 749	36 955	36 944
Ferro-titanium & ferro-silico-titanium	509	623	838	402	424
Ferro-vanadium	62	128	279	487	398
Other ferro-alloys	3 916	4 720	6 844	5 354	4 799
Ingots, blooms, billets	557 653	1 702 942	1 130 849	909 382	1 146 454
Scrap	1 583 802	1 902 586	1 974 729	1 885 114	2 003 383
Denmark					
Pig iron	77 687	113 331	120 269	109 313	107 625
Sponge & powder	887	2 073	2 550	2 624	2 261
Ferro-aluminium, Fe-Si-Al & Fe-Si-Mn-Al	533	(d) ...	(d) ...	(d) ...	(d) ...
Ferro-chrome & ferro-silico-chrome	73	47	149	113	50
Ferro-manganese	1 285	1 901	2 360	2 523	2 474
Ferro-silico-manganese	4 678	5 863	4 842	2 807	4 601
Ferro-silicon	2 998	3 696	4 475	3 629	3 725
Other ferro-alloys	223	578	1 288	1 155	984
Ingots, blooms, billets	14 187	19 460	102 633	40 542	10 055
Scrap	89 288	116 745	105 855	74 306	124 708
France					
Pig iron	385 667	278 480	272 949	313 046	355 607
Spiegeleisen	143	255	10	57	75
Sponge & powder	12 495	14 155	16 429	13 811	14 031
Ferro-aluminium, Fe-Si-Al & Fe-Si-Mn-Al	685	(d) ...	(d) ...	(d) ...	(d) ...
Ferro-chrome	195 857	181 077	180 031	210 925	191 798
Ferro-silico-chrome	1 639	225	107	205	196
Ferro-silico-magnesium	2 185	2 776	5 144	4 357	3 462
Ferro-manganese	59 384	64 119	86 508	83 503	78 707
Ferro-silico-manganese	53 572	51 409	45 141	43 734	60 285
Ferro-molybdenum	2 422	2 093	2 086	2 704	2 213
Ferro-nickel	41 838	54 373	47 359	46 932	38 403
Ferro-niobium	(d) ...	1 035	1 094	1 025	1 163
Ferro-phosphorus	(d) ...	2 874	3 423	3 244	2 861
Ferro-silicon	45 945	57 591	59 029	70 176	69 861
Ferro-titanium & ferro-silico-titanium	2 782	1 882	2 582	3 554	4 028
Ferro-tungsten & ferro-silico-tungsten	644	596	601	335	332
Ferro-vanadium	919	1 103	851	725	672
Other ferro-alloys	1 732	4 605	6 541	6 516	5 360
Silicon metal	9 850	13 067	13 662	13 619	13 825
Ingots, blooms, billets	626 393	585 446	551 950	477 143	521 444
Scrap	518 960	800 987	866 003	998 821	1 115 033

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1987	1988	1989	1990	1991
Germany, Federal Republic of					
Pig iron	263 039	237 191	278 108	286 490	329 215
Spiegeleisen	491	384	—	—	—
Sponge & powder	25 438	29 846	30 771	27 751	32 985
Ferro-chrome	326 987	363 146	391 344	327 314	328 189
Ferro-silico-chrome	14 048	20 807	19 147	12 002	16 716
Ferro-silico-magnesium	(d) ...	2 527	4 414	4 121	2 885
Ferro-manganese	98 155	109 637	99 084	126 247	130 868
Ferro-silico-manganese	114 860	124 442	117 149	104 628	129 579
Ferro-molybdenum	5 954	7 285	8 098	7 934	8 205
Ferro-nickel	62 913	82 134	96 373	89 529	78 848
Ferro-niobium	2 401	2 532	2 579	2 158	2 628
Ferro-phosphorus	(d) ...	11 321	14 376	11 673	15 722
Ferro-silicon	198 127	217 871	209 066	224 201	192 881
Ferro-titanium & ferro-silico-titanium	4 603	5 434	5 390	5 120	5 459
Ferro-tungsten & ferro-silico-tungsten	645	1 343	1 400	1 479	657
Ferro-vanadium	1 772	2 068	2 692	2 720	2 385
Other ferro-alloys	9 519	8 445	9 480	6 365	6 295
Silicon metal	74 370	76 658	85 348	83 578	82 842
Ingots, blooms, billets	1 449 815	1 802 890	1 971 363	1 870 893	1 355 829
Scrap	1 195 750	1 477 132	1 336 498	1 117 563	835 073
Greece					
Pig iron	20 187	10 000	83 692	95 474	65 636
Ferro-manganese	3 795	—	6 507	4 991	4 298
Ferro-silico-manganese	5 913	3 710	7 157	8 261	6 509
Ferro-silicon	2 897	2 200	3 858	3 502	3 662
Other ferro-alloys	597	1 338	333	625	2 140
Ingots, blooms, billets	508 589	310 438	846 680	684 166	989 162
Scrap	734 234	425 451	428 486	525 948	928 733
Irish Republic					
Pig iron	558	3 027	322	553	189
Ferro-alloys	3 469	3 904	4 793	4 513	4 051
Ingots, blooms, billets	6 817	2 412	1 868	2 813	4 372
Scrap	148 594	179 594	220 254	217 004	201 633
Italy					
Pig iron	451 190	670 820	896 775	1 025 362	831 180
Spiegeleisen	713	136	134	351	547
Sponge & powder	103 428	205 139	282 626	305 122	224 995
Ferro-aluminium, Fe-Si-Al & Fe-Si-Mn-Al	1 465	(d) ...	(d) ...	(d) ...	(d) ...
Ferro-chrome	93 267	90 748	98 759	96 745	90 005
Ferro-silico-chrome	1 706	1 488	1 237	977	61
Ferro-silico-magnesium	2 646	3 013	(d) ...	(d) ...	5 851
Ferro-manganese	89 408	93 278	90 884	78 210	77 901
Ferro-silico-manganese	28 627	38 200	59 610	51 761	73 414
Ferro-molybdenum	2 376	2 489	2 776	2 953	2 901
Ferro-nickel	21 329	20 595	16 441	16 078	18 109
Ferro-niobium	1 155	1 165	1 187	761	1 069
Ferro-silicon	59 002	60 269	61 169	65 562	70 089
Ferro-titanium & ferro-silico-titanium	830	807	1 125	1 010	1 940
Ferro-tungsten & ferro-silico-tungsten	264	230	340	259	299
Ferro-vanadium	827	1 087	821	887	865
Other ferro-alloys	2 096	4 976	12 480	11 359	4 354
Silicon metal	18 400	16 261	22 499	19 144	16 781
Ingots, blooms, billets	1 222 883	2 001 890	1 799 746	1 788 367	1 513 236
Scrap	4 911 165	5 064 738	5 746 755	5 809 352	6 037 965
Netherlands					
Pig iron	48 433	63 364	67 384	61 336	58 484
Sponge & powder	2 872	2 054	4 797	4 691	2 586
Ferro-chrome	7 988	1 913	7 442	8 084	2 015
Ferro-silico-chrome	56	83	—	72	—
Ferro-manganese	14 274	18 764	17 969	17 450	17 100
Ferro-silico-manganese	6 987	7 261	6 360	7 050	2 794
Ferro-molybdenum	278	459	431	544	483
Ferro-nickel	67	109	36	100	19
Ferro-niobium	(d) ...	63	94	104	48
Ferro-phosphorus	(d) ...	461	281	254	896
Ferro-silicon	4 847	7 340	9 411	8 085	7 642
Ferro-titanium & ferro-silico-titanium	2 425	1 599	1 787	288	543
Ferro-tungsten & ferro-silico-tungsten	190	—	—	—	—
Ferro-vanadium	54	113	67	62	56
Other ferro-alloys	1 243	1 380	2 006	1 368	2 380
Silicon metal	5 651	6 935	5 432	8 824	8 880
Ingots, blooms, billets	100 037	86 257	79 324	77 461	72 363
Scrap	1 014 012	768 885	1 114 052	1 173 659	2 023 223

Imports of Iron, Steel and Ferro-alloys

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Country	1987	1988	1989	1990	1991
Portugal					
Pig iron	16 223	21 673	10 401	16 967	14 811
Ferro-silicon	3 253	3 502	3 164	6 328	6 637
Other ferro-alloys	1 309	8 977	9 307	11 090	6 732
Ingots, blooms, billets	3 746	8 557	12 271	14 450	6 398
Scrap	124 615	181 385	150 013	82 398	63 764
Spain					
Pig iron	114 700	138 379	175 041	204 566	200 898
Sponge & powder	47 262	35 009	36 238	60 077	109 465
Ferro-chrome	80 627	68 969	79 635	100 362	93 510
Ferro-silico-chrome	2 080	2 094	998	1 184	1 612
Ferro-manganese	14 129	9 065	8 472	15 893	19 462
Ferro-silico-manganese	14 535	9 995	4 929	19 450	31 231
Ferro-molybdenum	197	724	884	1 362	1 371
Ferro-nickel	24 632	24 597	19 459	32 041	29 916
Ferro-niobium	(d) ...	119	144	145	141
Ferro-phosphorus	(d) ...	1 175	1 909	1 398	1 486
Ferro-silicon	11 089	5 429	20 498	16 234	25 727
Ferro-titanium & ferro-silico-titanium	227	401	694	699	477
Ferro-tungsten & ferro-silico-tungsten	62	81	56	29	66
Ferro-vanadium	206	261	274	283	307
Other ferro-alloys	2 387	4 165	5 213	4 728	5 077
Silicon metal	308	1 354	813	1 903	3 813
Ingots, blooms, billets	145 783	95 725	247 317	94 572	130 305
Scrap	4 284 658	4 472 483	4 475 559	4 332 121	4 315 796
Albania					
Ferro-alloys	11 800	10 800	4 400	7 800	...
Austria					
Pig iron	33 157	42 274	66 875	49 187	34 710
Sponge & powder	6 036	6 686	6 602	6 909	6 380
Ferro-chrome	17 823	22 202	21 969	19 428	13 073
Ferro-silico-chrome	(d) ...	655	641	401	187
Ferro-manganese	18 777	23 887	23 899	22 182	16 651
Ferro-silico-manganese	(d) ...	6 907	5 103	5 419	11 475
Ferro-molybdenum	189	191	274	354	130
Ferro-nickel	2 770	1 305	1 369	1 456	7
Ferro-niobium & ferro-niobium-tantalum	268	275	306	46	120
Ferro-silicon	14 085	21 452	20 732	19 642	13 928
Ferro-titanium	455	487	414	311	344
Ferro-tungsten	444	648	888	795	203
Ferro-vanadium	69	177	286	137	168
Other ferro-alloys	8 622	1 955	2 092	1 733	1 755
Silicon metal	...	4 201	4 544	4 924	4 585
Ingots & blooms	100 163	222 415	204 440	328 694	309 605
Scrap	68 523	101 539	88 183	54 561	49 791
Bulgaria					
Pig iron	482 935	368 458	260 931	309 000	35 000
Ferro-manganese	4 000	3 000	6 000	8 000	5 000
Other ferro-alloys	25 000	24 000	25 000	29 000	3 000
Ingots, blooms, billets	310 000	...	232 000	46 000	20 000
Czechoslovakia					
Pig iron	717 000	675 000	671 000	668 000	101 000
Ferro-chrome & ferro-silico-chrome (g)	* 1 700	* 1 000	* 1 200	* 500	* 200
Ferro-titanium & ferro-silico-titanium (g)	* 800	* 800	* 600	* 400	* 50
Other ferro-alloys (g)	* 115 400	* 120 300	* 120 700	* 121 200	* 121 300
Ingots, blooms, billets	113 000	153 000	14 000	2 000	1 000
Scrap (g)	* 19 700	* 13 900	* 13 600	* 9 900	* 152 400
Finland					
Pig iron	12 982	8 937	18 638	52 285	8 414
Sponge & powder	327	1 696	531	638	446
Ferro-chrome & ferro-silico-chrome	1 944	1 863	1 992	2 163	2 013
Ferro-manganese	4 355	5 955	8 811	10 802	8 827
Ferro-silico-manganese	22 515	16 472	21 700	20 023	15 000
Ferro-molybdenum	624	639	784	844	820
Ferro-nickel	(d) ...	24 091	19 704	30 718	29 154
Ferro-silicon	9 994	8 422	10 826	13 123	11 612
Ferro-titanium & ferro-silico-titanium	487	387	343	419	205
Ferro-vanadium	205	211	199	289	98
Other ferro-alloys	31 100	979	959	1 025	1 047
Ingots, blooms, billets	30 197	76 839	162 894	150 928	129 438
Scrap	54 853	16 096	33 499	45 774	45 641

Imports of Iron, Steel and Ferro-alloys

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Country	1987	1988	1989	1990	1991
German Democratic Republic					
Pig iron	1 339 600	1 280 100	1 300 800	* 1 300 000	—
Sponge & powder (g)	* 18 800	* 14 100	* 11 800	* 6 500	—
Ferro-manganese	73 000	...	...	...	—
Other ferro-alloys	11 000	...	...	...	—
Ingots, blooms, billets	131 000	...	...	...	—
Scrap	903 000	900 000	900 000	* 900 000	—
Hungary					
Pig iron	261 512	351 122	344 366	213 605	98 000
Ferro-chrome	13 393	11 250	(d) ...	10 409	(d) ...
Ferro-manganese	36 292	36 416	(d) ...	30 675	(d) ...
Ferro-molybdenum	436	200	278	52	(d) ...
Ferro-silicon	6 871	8 146	(d) ...	13 257	(d) ...
Other ferro-alloys	14 170	14 662	66 528	* 10 000	30 000
Scrap	14 307	5 046	80 103	602 886	16 000
Malta					
Ingots, blooms, billets	5 275	6 124	6 786	...	...
Norway					
Pig iron	3 460	2 249	4 573	5 601	5 363
Sponge & powder	785	2 560	2 449	696	19 292
Ferro-chrome	652	719	1 021	854	639
Ferro-manganese	3 130	2 001	9 741	3 704	9 463
Ferro-silico-manganese	2 401	2 691	3	309	2 643
Ferro-silicon	630	1 477	2 928	1 625	5 357
Other ferro-alloys	304	399	430	578	976
Ingots, blooms, billets	3 072	7 673	61 256	170 550	135 533
Scrap	32 528	163 664	60 767	22 605	95 326
Poland					
Pig iron & ferro-alloys	1 420 314	1 369 961	1 292 699	1 361 240	108 653
Ingots, blooms, billets	16 000	29 000	23 000	11 400	1 482
Scrap	5 116	2 241	3 040	1 315	1 022
Romania					
Pig iron	99 800	93 000	98 000	95 000	5 000
Sponge & powder (g)	* 5 000	* 3 300	* 1 100	* 500	* 1 200
Ferro-alloys	133 600	126 300	138 400	123 000	15 000
Ingots, blooms, billets	...	...	...	206 000	79 000
Soviet Union					
Pig iron	29 574	105 894	—	4 120	...
Ferro-alloys	29 726	29 340	13 528	3 001	...
Scrap (g)	* 59 900	* 54 000	* 44 000	* 40 000	* 41 200
Sweden					
Pig iron	51 193	70 591	50 633	43 400	28 544
Sponge & powder	1 678	2 983	6 059	3 511	2 486
Ferro-chrome	50 593	44 625	41 554	46 069	38 772
Ferro-silico-chrome	2 611	2 455	2 453	1 379	1 369
Ferro-manganese	25 963	31 104	27 035	25 012	19 907
Ferro-silico-manganese	11 926	17 366	14 755	11 478	12 298
Ferro-molybdenum	1 431	2 033	3 478	3 292	2 513
Ferro-nickel	14 049	9 275	12 179	12 863	10 927
Ferro-niobium	291	266	371	368	342
Ferro-silicon	22 515	24 146	23 284	22 838	19 521
Ferro-titanium	1 475	1 886	1 391	1 634	1 140
Ferro-tungsten	372	697	860	705	241
Ferro-vanadium	1 105	1 098	1 151	1 040	892
Other ferro-alloys	1 227	2 426	2 798	2 949	2 331
Ingots, blooms, billets	136 936	122 357	119 821	87 180	53 551
Scrap	789 422	801 197	625 494	246 894	165 652
Switzerland					
Pig iron	34 282	42 596	46 556	46 886	34 712
Sponge & powder	4 478	4 941	5 255	5 313	4 884
Ferro-aluminium	557	373	573	806	682
Ferro-chrome	(d) ...	701	1 015	1 307	1 040
Ferro-manganese	(d) ...	4 568	4 646	5 372	3 820
Ferro-silico-manganese	(d) ...	6 375	7 664	7 318	8 828
Ferro-silicon	6 814	7 157	6 691	6 071	5 329
Other ferro-alloys	14 648	1 398	1 257	1 386	1 077
Silicon metal	364	2 214	3 759	4 421	4 301
Ingots, blooms, billets	14 451	97 977	121 259	124 340	88 912
Scrap	136 487	85 587	152 116	135 922	227 043

Imports of Iron, Steel and Ferro-alloys

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Country	1987	1988	1989	1990	1991
Turkey					
Pig iron	127 185	149 754	192 152	148 094	240 761
Sponge & powder	25 575	32 793	24 125	19 894	39 462
Ferro-manganese	41 707	35 965	51 081	32 047	30 099
Ferro-silico-manganese	28 049	31 892	27 975	48 830	49 750
Ferro-silicon	27 035	24 783	29 276	32 409	26 950
Other ferro-alloys	1 290	1 286	5 466	4 718	3 159
Ingots, blooms, billets	1 553 498	871 221	1 005 176	521 941	791 694
Scrap	2 831 269	3 036 709	4 422 413	3 649 790	4 442 548
Yugoslavia					
Pig iron	25 381	39 119	111 241	93 256	(b) 13 516
Sponge & powder	1 999	1 866	2 104	1 584	(b) 382
Ferro-chrome	432	6 067	3 481	2 970	(b) 987
Ferro-silico-chrome	18	677	3 053	3 963	(b) —
Ferro-manganese	1 078	1 561	2 997	6 856	(b) 1 078
Ferro-molybdenum	656	—	—	—	—
Ferro-phosphorus	682	—	—	—	—
Ferro-silicon	1 268	959	4 286	5 013	(b) 1 662
Ferro-tungsten	197	—	—	—	—
Ferro-vanadium	332	—	—	—	—
Other ferro-alloys	910	2 851	2 982	2 527	(b) 175
Ingots, blooms, billets	808 842	699 687	718 371	720 305	(b) 137 112
Scrap	704 528	749 456	665 019	412 800	(b) 53 055
Algeria					
Pig iron	9 691	16 352	3 319	3 768	7 454
Ferro-chrome	—	—	184	200	...
Ferro-manganese	2 170	7 322	3 569	464	...
Ferro-silico-manganese	170	200	390	29	...
Ferro-niobium	440	200	—	—	...
Ferro-silicon	2 784	5 687	4 626	6 861	4 323
Ferro-vanadium	50	70	30	18	...
Other ferro-alloys	14	259	235	144	1 853
Ingots, blooms, billets	9 289	277	5 928	2 588	23 379
Egypt					
Ferro-alloys	16 479	11 800	8 000	7 000	...
Ingots & billets	* 33 500	66 394	86 791	...	...
Scrap	1 992	11 772	34 029	...	...
Kenya					
Ingots & blooms	48 039	52 614	...	...	...
Scrap	4 683	435	...	...	...
Liberia					
Pig iron	2 967	...	...	...	...
Mauritius					
Pig iron & ingots	15 056	25 410	33 073	...	...
Morocco					
Pig iron	2 042	3 318	1 512	3 339	5 200
Ferro-chrome	...	60	80	69	11
Ferro-manganese & ferro-silico-manganese	153	186	126	188	249
Ferro-silicon	192	197	122	92	167
Ingots, blooms, billets	289 084	371 698	440 491	412 117	418 095
Scrap	2 000	36	81	2 320	1 856
Nigeria					
Pig iron	628	...	...	...	...
Ferro-manganese	2 515	3 000	3 500	4 000	...
Other ferro-alloys	457	...	...	...	...
Ingots & blooms	139 614	...	...	...	...
Rwanda					
Ingots	31 336	36 578	28 726	21 022	...
South Africa					
Sponge & powder	2 148	...	...	...	...
Ferro-chrome	7 354	...	...	...	...
Ferro-silico-magnesium	524	...	...	...	...
Ferro-molybdenum	694	699	...	...	...
Ferro-silicon	324	...	...	...	...
Ferro-titanium & ferro-silico-titanium	538	...	...	...	...
Other ferro-alloys	2 370	...	...	...	...
Scrap	10 757	...	...	...	...
Tanzania					
Pig iron & ferro-alloys	487	6 381	1 747
Ingots & blooms	3 697	3 802	17 228

Imports of Iron, Steel and Ferro-alloys

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Country	1987	1988	1989	1990	1991
Togo					
Ingots, blooms, billets	3 479	3 716	5 300	4 618	...
Tunisia					
Pig iron	1 376	2 351	3 202	5 640	2 567
Ferro-alloys	871	1 719	1 829	1 778	1 617
Ingots, blooms, billets	39 386	79 214	28 188	46 601	54 435
Scrap	1 753	598	3 022	2 183	1 880
Zimbabwe					
Ferro-manganese	137	147	300	546	...
Ferro-silicon	867	669	...	31	...
Other ferro-alloys	138	131	...	59	...
Canada					
Pig iron	9 794	9 022	15 196	3 667	23 199
Sponge & powder	7 060	8 555	5 989	5 752	6 225
Ferro-calcium-silicon	(d) ...	740	1 968	1 707	1 896
Ferro-chrome	44 118	48 879	48 550	43 202	46 255
Ferro-silico-chrome	(d) ...	2 914	2 441	1 192	895
Ferro-manganese & spiegeleisen	39 606	35 346	44 840	29 364	46 087
Fe-silico-manganese & silico-spiegeleisen	13 301	17 260	13 096	17 143	15 525
Ferro-molybdenum	223	345	1 150	581	544
Ferro-nickel	(d) ...	3 060	2 993	2 524	1 521
Ferro-niobium	(d) ...	1 196	1 066	1 108	1 466
Ferro-phosphorus	(d) ...	2 207	1 062	576	1 208
Ferro-silicon	12 367	20 275	20 925	20 504	21 944
Ferro-titanium & ferro-silico-titanium	545	643	438	533	302
Ferro-vanadium	208	271	371	300	187
Other ferro-alloys	14 324	7 134	4 029	2 340	1 705
Ingots, blooms, billets	725 656	1 346 115	653 858	277 327	147 468
Scrap	775 830	1 185 699	1 460 467	1 002 519	809 349
Costa Rica					
Ingots, blooms, billets	45 233	56 805	65 020	71 324	45 824
Cuba					
Pig iron	271 324	184 792	239 544	...	...
Scrap	* 90 000	* 90 000	* 90 000	* 75 000	...
El Salvador					
Ingots, blooms, billets	19 933	21 119	10 361	13 047	17 632
Scrap	1 302	3 241	24 932	14 129	11 017
Guatemala					
Ingots, blooms, billets	26 576	23 952	59 010	33 884	37 260
Jamaica					
Ingots, blooms, billets	16 468	23 307	32 030	12 086	...
Mexico					
Pig iron	9 171	28 882	51 073	51 707	...
Sponge & powder	2 059	2 662	368 467	305 300	...
Ferro-alloys	6 565	10 228	16 444	24 293	24 607
Ingots, blooms, billets	3 855	7 554	7 876	19 314	144 148
Scrap	464 079	834 539	656 304	737 234	* 700 000
Panama					
Ingots, blooms, billets	24 550	6 926	6 919	8 700	25 313
USA					
Pig iron	323 774	640 456	443 115	347 384	434 453
Sponge & powder	56 239	176 327	226 000	384 483	476 386
Ferro-chrome	295 017	422 813	343 734	415 882	402 767
Ferro-silico-chrome	7 581	9 710	6 803	3 801	5 301
Ferro-manganese	333 531	485 566	429 982	379 728	314 764
Ferro-silico-manganese	173 618	207 098	229 687	222 742	260 317
Ferro-molybdenum	1 515	2 288	1 410	1 401	1 454
Ferro-nickel	41 178	40 440	33 889	41 767	39 857
Ferro-niobium	2 803	2 957	3 880	2 919	3 282
Ferro-silicon	209 120	210 759	174 688	237 757	177 617
Ferro-titanium & ferro-silico-titanium	1 293	1 552	2 008	1 960	1 186
Ferro-tungsten & ferro-silico-tungsten	407	899	552	659	690
Ferro-vanadium	385	134	697	305	524
Ferro-zirconium	182	676	443	—	288
Other ferro-alloys	...	...	2 112	2 878	23 162
Silicon metal	31 162	42 191	45 204	66 344	43 206
Ingots, blooms, billets	2 096 366	2 111 496	1 997 432	2 146 494	1 872 859
Scrap	750 994	927 024	1 015 614	1 291 535	1 072 164

Imports of Iron, Steel and Ferro-alloys

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Country	1987	1988	1989	1990	1991
Argentina					
Pig iron	—	111 282	2 413	250	20 000
Ferro-chrome	3 792	2 799	(d) ...	(d) ...	(d) ...
Ferro-manganese	2 912	3 917	2 392	2 109	(d) ...
Ferro-silicon	61	204	49	62	(d) ...
Other ferro-alloys	226	141	2 765	2 466	4 300
Blooms & billets	...	119 674	80 930	...	44 364
Scrap	670	2 507	10 951	19 286	...
Brazil					
Sponge & powder	1 789	3 182	5 377	2 762	1 694
Ferro-chrome	1 336	199	2 229	13 293	10 170
Other ferro-alloys	302	474	1 246	6 243	14 837
Ingots, blooms, billets	422 064	338	349	950	219
Scrap	145 920	86 587	342 277	143 080	88 553
Colombia					
Ferro-chrome	(d) ...	705	589	520	674
Ferro-manganese	8 650	7 181	5 844	4 973	3 740
Ferro-silico-manganese	(d) ...	3 420	1 862	468	1 447
Ferro-silicon	2 506	2 935	3 125	1 747	2 367
Other ferro-alloys	3 653	833	2 920	779	1 044
Ingots, blooms, billets	6 833	4 972	49 972	28 407	9 858
Scrap	210 071	157 008	204 887	73 161	104 478
Ecuador					
Ingots, blooms, billets	121 167	155 198	153 190	126 214	142 925
Peru					
Ferro-chrome	454	167	523	475	360
Ferro-manganese	1 869	1 821	1 306	1 660	493
Ferro-silico-manganese	1 896	607	3	458	347
Ferro-silicon	402	565	275	544	717
Scrap	90 151	127 157	66 800	67 400	...
Suriname					
Ferro-alloys	5 907	2 125	5 099	7 637	...
Ingots, blooms, billets	1 793	2 058	2 712	3 564	...
Scrap	8 197	2 600	6 759	6 680	...
Uruguay					
Ferro-alloys	644	598	908	632	512
Ingots, blooms, billets	19 507	9 551	9 009	2 520	2 599
Venezuela					
Sponge & powder	128 066	111 696	331 422	105 494	...
Ferro-chrome	698	852	701	405	531
Ferro-manganese	41 028	37 948	30 403	26 476	16 028
Ferro-vanadium	1 110	373	522	462	239
Other ferro-alloys	1 056	1 102	285	267	1 366
Silicon metal	2 109	4 180	3 921	1 575	...
Ingots, blooms, billets	30 977	46 623	97 818	5 288	...
Scrap	277 273	383 797	122 027	150 000	...
Abu Dhabi					
Scrap	3 997	10 690	...	7 600	2 021
Bahrain					
Blooms & billets	30 468	30 122	49 531	42 772	...
Bangladesh (a)					
Pig iron	97 783	54 249	27 352	79 222	...
Ferro-alloys	22 210	108 964	9 824	28 272	...
Scrap	—	4 405	45 983	76 111	...
China					
Pig iron	1 472 680	869 911	686 053	1 307 132	363 037
Ferro-alloys	993	710	5 499	373	6 890
Ingots, blooms, billets	364 781	151 137	193 479	446 694	324 768
Scrap	497 583	154 393	119 923	183 353	238 924
Cyprus					
Pig iron	502	...	1 940	1 077	137
Hong Kong					
Pig iron	6 961	7 892	3 711	2 332	6 723
Ferro-manganese	2 442	8 731	8 923	12 189	14 089
Ferro-silicon	34 911	96 300	35 836	39 514	60 641
Other ferro-alloys	7 770	13 433	21 319	36 455	49 435
Ingots, blooms, billets	127 032	189 684	108 297	139 318	143 112
Scrap	43 600	86 071	76 445	81 961	140 641

Imports of Iron, Steel and Ferro-alloys

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Country	1987	1988	1989	1990	1991
India (e)					
Pig iron	87 322	164 771	356 000	244 744	205 126
Sponge & powder	55 255	157 716	...	56 426	3 053
Ferro-chrome & ferro-silico-chrome	833	48	...	207	194
Ferro-manganese & ferro-silico-manganese	241	95	...	273	88
Ferro-nickel	55 370	20 545	...	16 119	14 928
Ferro-silicon	442	858	...	1 930	954
Other ferro-alloys	481	1 295	...	980	1 710
Ingots, blooms, billets	161 350	39 109	...	32 913	18 400
Scrap	1 870 497	2 120 305	2 046 000	3 152 368	1 515 437
Indonesia					
Pig iron	18 287	125 082	176 604	168 259	106 456
Sponge & powder	54 130	75 903	105 593	158 786	184 477
Ferro-manganese	13 647	6 760	21 438	17 719	27 531
Ferro-silico-manganese	6 493	9 754	11 298	13 841	21 403
Ferro-silicon	3 933	331	1 401	7 879	8 991
Other ferro-alloys	6 266	355	343	810	1 290
Ingots, blooms, billets	206 872	321 261	362 889	756 620	517 136
Scrap	461 513	584 708	703 413	1 177 669	1 187 093
Iran (f)					
Ferro-alloys	3 130	5 743	15 269	...	...
Ingots, blooms, billets	681 774	307 003	643 651	37 985	...
Israel					
Ferro-alloys (g)	* 1 000	* 700	* 700	* 1 500	* 900
Ingots, blooms, billets	81 899	41 537	63 703	253 872	...
Scrap (g)	* 6 000	* 1 400	* 1 200	* 1 300	* 5 600
Japan					
Pig iron	1 301 780	2 823 811	2 212 128	3 184 495	3 226 332
Sponge & powder	137 217	39 395	48 563	81 140	141 856
Ferro-chrome	427 711	473 707	477 080	441 672	578 073
Ferro-silico-chrome	7 166	17 511	14 018	6 690	10 622
Ferro-manganese	27 425	27 383	21 786	43 268	32 563
Ferro-silico-manganese	150 740	158 410	274 282	195 282	241 271
Ferro-molybdenum	1 018	1 486	1 322	1 600	1 975
Ferro-nickel	29 935	48 664	52 073	41 941	45 925
Ferro-niobium	1 779	3 360	3 590	3 516	4 526
Ferro-phosphorus	(d) ...	8 198	7 838	6 591	9 262
Ferro-silicon	387 454	539 846	406 901	476 482	484 772
Ferro-titanium & ferro-silico-titanium	(d) ...	2 569	1 968	2 260	2 498
Ferro-tungsten & ferro-silico-tungsten	368	488	743	835	416
Ferro-vanadium	186	595	238	431	807
Other ferro-alloys	10 201	14 309	13 124	12 130	14 031
Silicon metal	113 498	132 840	135 422	131 310	138 206
Ingots, blooms, billets	437 507	559 218	727 731	1 022 601	1 307 894
Scrap	2 358 164	1 790 558	1 157 107	1 048 189	820 643
Jordan					
Pig iron	16 647	3 348	14 952	219	—
Ingots, blooms, billets	131 856	169 992	136 463	185 433	189 525
Scrap	3 797	1 256	1 244	9 961	4 948
Korea, Dem. P.R. of					
Ferro-manganese (g)	* 6 700	* 1 500	* 2 000	* 12 000	* 10 400
Other ferro-alloys (g)	* 18 200	* 16 400	* 7 600	* 9 100	* 8 600
Korea, Republic of					
Pig iron	672 919	2 780 749	1 063 395	980 970	773 336
Sponge & powder	5 837	7 510	18 983	101 305	247 328
Ferro-chrome	13 752	16 290	60 775	76 931	90 148
Ferro-manganese	4 409	3 743	4 296	7 868	9 046
Ferro-silico-manganese	(d) ...	(d) ...	2 572	4 420	9 424
Ferro-molybdenum	541	946	1 030	919	879
Ferro-nickel	364	946	18 882	18 541	23 617
Ferro-silicon	43 395	68 440	63 890	67 781	82 533
Ferro-vanadium	319	492	226	377	444
Other ferro-alloys	4 878	6 847	3 838	5 354	10 859
Silicon metal	4 465	4 554	4 988	6 921	7 320
Ingots & blooms	927 978	631 587	394 082	1 135 774	2 162 806
Scrap	3 518 698	3 892 465	4 062 390	3 875 997	3 261 377

Imports of Iron, Steel and Ferro-alloys

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Country	1987	1988	1989	1990	1991
Malaysia					
Pig iron	917	46 597	66 165	110 283	100 109
Spiegeleisen	2 059	3 015	4 070	1 082	3 346
Ferro-manganese	5 193	17 221	7 611	15 873	9 007
Ferro-silico-manganese	(d) ...	5 396	5 851	4 999	5 277
Ferro-silicon	2 345	4 424	6 074	6 419	5 553
Other ferro-alloys	5 416	1 047	2 199	1 447	3 392
Ingots, blooms, billets	129 454	127 858	149 860	224 662	345 665
Scrap	221 707	488 551	718 172	* 725 000	1 010 549
Pakistan (a)					
Pig iron	689	1 431	...	3 321	...
Ferro-manganese	9 650	16 611	...	15 464	...
Ferro-silicon	5 007	10 775	...	8 664	...
Other ferro-alloys	54 370	1 503	...	1 869	...
Ingots, blooms, billets	29 279	25 905	...	35 031	...
Scrap	255 039	659 009	...	321 846	...
Philippines					
Pig iron	69 810	73 395	55 660	63 759	47 876
Ferro-manganese	2 297	3 963	5 674	2 524	2 072
Ferro-silico-manganese	—	1 219	3 373	918	796
Ferro-silicon	554	159	329	1 037	316
Other ferro-alloys	563	325	720	590	389
Ingots, blooms, billets	466 537	552 892	843 766	669 499	549 314
Scrap	108 994	93 803	152 045	64 679	127 771
Qatar					
Scrap	9 973	13 812	13 041	3 242	5 453
Saudi Arabia					
Pig iron	7 927	1 850	45 728	4 687	19 730
Ingots, blooms, billets	6 180	11 166	5 758	45 249	18 748
Scrap	36 263	540 553	191 021	312 970	488 290
Singapore					
Pig iron	72 285	115 846	174 822	72 838	131 320
Sponge & powder	467	2 117	4 440	19 313	7 292
Ferro-manganese	1 960	1 184	3 876	2 403	3 135
Ferro-silicon	3 958	4 347	11 995	9 618	11 181
Other ferro-alloys	5 627	9 890	330	384	458
Ingots & blooms	169 840	172 602	260 686	164 955	244 252
Scrap	126 698	182 054	196 577	220 910	148 592
Sri Lanka					
Ingots, blooms, billets	41 888	32 358	...	39 685	45 490
Syria					
Pig iron	1 731	...	...	408	...
Ingots, blooms, billets	14 425	...	...	38 725	...
Scrap	23 502	...	...	12 881	...
Taiwan					
Pig iron	629 271	738 696	583 082	578 375	853 410
Sponge & powder	8 278	9 028	16 063	114 042	47 225
Ferro-chrome	15 904	51 194	41 341	35 182	57 246
Ferro-manganese	18 865	23 895	18 982	21 120	19 348
Ferro-silico-manganese	(d) ...	(d) ...	3 991	12 430	31 272
Ferro-molybdenum	(d) ...	(d) ...	328	434	433
Ferro-niobium	(d) ...	(d) ...	163	431	324
Ferro-silicon	19 406	33 591	23 556	36 207	41 412
Ferro-vanadium	(d) ...	(d) ...	159	330	396
Other ferro-alloys	887	1 454	1 709	1 059	2 162
Silicon metal	3 280	5 331	...	11 266	18 017
Ingots, blooms, billets	966 982	2 130 564	2 251 534	2 461 379	3 837 135
Scrap	943 592	1 255 740	1 552 971	1 286 723	2 262 211
Thailand					
Pig iron	38 655	92 954	80 216	103 869	78 381
Sponge & powder	4 567	18 242	11 542	14 304	522
Ferro-chrome	121	697	333	505	472
Ferro-manganese	3 586	6 769	6 723	6 783	5 484
Ferro-silico-manganese	1 321	1 277	817	901	1 411
Ferro-silicon	4 870	7 609	6 009	6 452	7 634
Other ferro-alloys	437	225	335	380	305
Ingots, blooms, billets	47 247	160 568	268 682	979 645	891 557
Scrap	903 323	1 158 249	1 081 294	1 101 356	501 015

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1987	1988	1989	1990	1991
Australia					
Pig iron (a)	7 801	5 185	15 984	26 571	...
Sponge & powder (a)	3 692	4 590	4 528	4 702	3 352
Ferro-chrome (a)	11 436	12 201	9 459	4 748	5 446
Ferro-manganese (a)	(c) 3 285	(c) 4 780	3 712	5 058	4 611
Ferro-silico-manganese (a)	462	646	292	205	232
Ferro-molybdenum (a)	196	314	178	18 453	228
Ferro-nickel (a)	905	1 102	(d) ...	(d) ...	(d) ...
Ferro-silicon (a)	13 211	10 792	14 098	21 508	19 331
Other ferro-alloys (a)	(c) 1 354	(c) 1 930	2 042	2 022	1 457
Ingots & billets	122 794	132 649	185 000	94 000	241 000
Scrap (a)	1 508	13 772	1 967	2 019	2 208
Fiji					
Ingots, blooms, billets	3 963	5 744	...	...	...
New Zealand (a)					
Pig iron	117	100	96	5 473	157
Ferro-manganese	1 260	1 388	1 018	1 749	1 934
Ferro-silicon	1 636	1 806	2 353	2 213	3 003
Other ferro-alloys	1 642	1 677	2 021	2 012	1 555
Ingots, blooms, billets	44	10 350	116	17 170	2 309
Scrap	3 366	3 066	71	223	10

Note(s):

- (1) In this table the term 'ingots, blooms, billets' corresponds to items 672.4,6,7 and 8 of the Standard International Trade Classification (Revision 3) which includes those of alloy and high carbon steel
- (a) Years ended 30 June of that stated
- (b) Data for the Federal Republic of Yugoslavia only
- (c) Including powder
- (d) Included with 'other ferro-alloys'
- (e) Years ended 31 March following that stated
- (f) Years ended 20 March following that stated
- (g) BGS estimates, based on known exports from certain countries

Lead

Mine Production of Lead

tonnes (metal content)

Country	1987	1988	1989	1990	1991
United Kingdom	691	1 185	2 161	1 377	241
France	2 199	2 000	1 060	1 141	1 745
Germany, Federal Republic of (a)	24 500	17 900	9 300	8 600	7 300
Greece	20 600	25 900	25 100	26 200	31 700
Irish Republic	33 800	32 500	32 100	35 300	39 900
Italy	12 202	16 503	14 600	15 600	14 000
Spain	81 629	74 672	62 783	61 472	49 200
Austria	6 437	3 315	2 345	2 187	1 915
Bulgaria	60 700	60 000	49 500	45 200	40 600
Czechoslovakia	2 849	2 814	2 670	2 997	3 375
Finland	2 401	1 924	2 552	2 424	2 531
Greenland	21 000	23 000	24 000	16 000	—
Norway	3 071	2 957	3 841	3 017	3 517
Poland	48 800	64 000	65 900	61 300	65 300
Romania	* 37 500	* 36 200	* 39 400	* 25 100	* 16 200
Soviet Union	* 510 000	* 520 000	* 500 000	* 490 000	* 460 000
Sweden	95 141	91 579	88 967	98 259	87 000
Turkey	9 094	10 212	14 138	18 400	15 300
Yugoslavia	106 670	103 286	105 161	99 148	84 500
Algeria	2 000	2 300	1 700	1 100	1 100
Congo	430	760	—	—	—
Kenya	...	700	500	700	600
Morocco	75 185	72 076	67 329	66 900	70 300
Namibia	23 692	24 446	23 389	19 386	16 058
Nigeria	* 100	—	—	100	—
South Africa	93 642	90 233	78 171	69 417	76 262
Tunisia	2 100	2 200	1 700	1 780	800
Zambia	12 380	12 356	12 300	12 094	9 800
Canada	423 207	366 564	276 065	241 277	276 528
Honduras	3 728	11 195	5 936	4 237	8 719
Mexico	177 161	171 337	163 017	174 139	158 831
USA	318 700	394 000	420 200	496 500	476 900
Argentina	26 069	28 549	26 650	23 365	24 213
Bolivia	9 118	12 531	15 728	19 913	20 810
Brazil	11 472	13 802	14 155	9 291	7 273
Chile	829	1 359	1 241	1 120	1 050
Peru (a)	203 950	149 037	192 213	187 827	199 811
China	267 300	311 600	341 400	315 300	319 700
India	29 000	23 300	25 000	25 500	25 000
Iran (b)	20 000	17 000	10 500	9 300	15 100
Japan	28 024	22 090	18 595	18 727	18 329
Korea, Dem. P.R. of	* 90 000	* 90 000	* 70 000	* 60 000	* 80 000
Korea, Republic of	13 998	14 457	16 535	14 857	12 633
Myanmar	4 600	6 000	5 200	2 300	4 800
Thailand	34 286	42 998	36 008	32 431	24 332
Australia	489 150	462 170	495 000	565 000	579 000
World total	3 400 000	3 400 000	3 400 000	3 400 000	3 400 000

(a) Recoverable

(b) Years ended 20 March following that stated

Production of Refined Lead

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom	346 954	373 845	349 983	329 378	311 014
Belgium (a)	108 030	126 561	109 442	106 809	110 684
France	245 924	257 916	267 300	270 476	297 779
Germany, Federal Republic of	340 400	345 100	349 900	348 700	362 500
Greece	2 700	15 100	8 099	—	—
Irish Republic	10 000	11 700	12 000	15 000	11 600
Italy	168 300	177 700	180 800	170 900	207 600
Netherlands	40 300	39 500	41 500	44 100	35 100
Portugal	7 000	7 000	7 000	5 000	4 000
Spain	122 700	120 800	113 300	124 000	110 400
Austria	22 841	25 047	24 042	23 511	22 679
Bulgaria	* 100 600	* 101 000	* 101 500	* 66 600	* 56 200
Czechoslovakia	26 008	26 045	26 008	23 665	17 835
German Democratic Republic	62 100	39 600	40 100	45 500	—
Poland	89 800	90 700	78 200	64 800	50 776
Romania	43 200	* 43 400	* 41 100	* 20 700	* 17 200
Soviet Union	* 775 000	* 795 000	* 750 000	* 730 000	* 670 000
Sweden	92 858	85 373	75 396	76 137	88 003
Switzerland	2 500	1 500	1 500	5 700	5 200
Turkey	10 000	11 000	7 000	9 000	8 500
Yugoslavia	112 417	109 888	97 237	82 000	(c) 69 186
Algeria	4 000	4 000	4 000	5 000	4 000
Kenya	2 100	2 200	2 300	2 400	* 2 000
Morocco	64 900	71 000	66 200	66 900	72 700
Namibia	40 634	44 447	44 183	35 129	33 367
Nigeria	2 300	3 800	3 700	4 900	* 4 500
South Africa	34 500	36 200	36 900	31 200	30 500
Zambia	7 979	6 385	4 600	4 700	3 500
Zimbabwe	* 3 000	* 3 000	* 3 000	* 1 000	* 2 800
Canada	230 661	268 076	242 845	183 645	212 366
Jamaica	* 500	* 1 000	* 1 000	—	—
Mexico	238 800	238 100	235 000	234 700	216 100
Trinidad & Tobago	* 700	—	* 1 000	* 1 500	* 1 500
USA (b)	1 031 765	1 090 483	1 253 052	1 290 479	1 194 559
Argentina	32 173	28 840	24 500	20 100	25 000
Brazil	71 720	71 092	64 516	56 624	* 45 000
Colombia	* 4 500	* 5 000	* 4 800	* 5 200	* 4 600
Peru	70 792	56 523	73 402	69 305	75 922
Venezuela	18 500	13 100	14 200	14 000	15 000
China	246 400	241 400	341 400	363 900	* 370 000
India	30 466	28 722	34 729	38 800	47 800
Indonesia	7 000	7 000	10 000	16 000	* 21 000
Iran	10 000	10 000	9 000	10 000	8 000
Japan	338 500	339 971	333 359	327 153	332 263
Korea, Dem. P.R. of	* 55 000	* 45 000	* 70 000	* 65 000	* 65 000
Korea, Republic of	89 926	92 444	66 013	62 761	48 520
Malaysia	9 000	15 000	16 000	16 000	24 000
Myanmar (d)	4 093	3 198	2 717	1 550	2 300
Pakistan	* 2 000	* 2 000	* 3 000	* 3 000	* 3 000
Philippines	9 200	11 400	13 600	12 100	16 700
Sri Lanka	* 1 000	* 1 000	* 500	* 500	* 500
Taiwan	66 400	67 300	58 200	26 600	17 000
Thailand	11 366	15 614	18 711	15 861	15 700
United Arab Emirates	* 1 500	* 1 000	* 2 000	* 2 000	* 5 000
Australia	216 660	204 000	210 000	223 000	239 400
New Zealand	4 000	5 000	5 000	5 000	5 000
World total	5 700 000	5 800 000	6 000 000	5 800 000	5 600 000

Note(s):

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

(a) Including alloys

(b) Excluding Pb content of primary antimonial lead

(c) Excluding data from August to December for the Republic of Croatia

(d) Years ended 31 March following that stated

Lead

Exports of Lead

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Ores & concentrates	1 658	1 290	5 295	1 424	873
Unwrought	87 348	93 038	80 270	88 530	89 666
Unwrought alloys	25 322	17 912	29 127	29 476	27 561
Scrap	21 394	17 177	29 320	20 663	23 910
Belgium-Luxembourg					
Unwrought	54 935	55 869	62 218	43 424	46 123
Unwrought alloys	9 633	5 662	6 919	7 038	7 713
Scrap	23 362	19 025	19 341	14 077	20 689
Denmark					
Unwrought	174	935	464	134	235
Unwrought alloys	174	371	445	1 009	169
Scrap	13 275	14 122	13 980	14 392	16 370
France					
Unwrought	53 054	51 760	52 180	40 707	47 775
Unwrought alloys	27 865	24 115	21 396	21 670	24 438
Scrap	8 330	5 456	12 692	9 389	4 029
Germany, Federal Republic of					
Ore	10 770	4 729	237	—	4
Unwrought	53 555	64 406	55 935	41 861	38 768
Unwrought alloys	34 238	31 422	28 336	29 896	35 657
Scrap	11 604	9 725	11 020	14 813	23 479
Greece					
Ore	33 000	—	—	—	5 100
Unwrought (a)	3 064	1 000	10 098	52	102
Irish Republic					
Ores & concentrates	56 218	49 516	58 501	59 881	66 540
Unwrought (a)	83	353	103	74	644
Scrap	3 761	3 651	4 596	4 776	3 520
Italy					
Ore	16 512	14 418	30 518	19 660	12 725
Unwrought	16 047	38 983	25 434	10 360	25 372
Unwrought alloys	4 448	2 359	1 530	2 561	4 640
Scrap	153	702	1 392	1 287	2 654
Netherlands					
Unwrought	12 160	6 382	7 220	5 585	5 037
Unwrought alloys	10 462	9 731	13 012	12 093	12 826
Scrap	16 173	20 917	21 649	26 534	25 768
Portugal					
Ore	1 065	987	992	1 140	1 730
Spain					
Ore	65 913	69 589	59 890	56 468	50 858
Unwrought (a)	18 250	14 219	18 077	19 600	7 876
Scrap	3 976	824	796	825	3 522
Austria					
Unwrought	1 935	(a) 7 272	(a) 4 658	(a) 4 830	(a) 2 377
Scrap	4 227	1 601	3 554	10 727	1 632
Bulgaria					
Unwrought (a) (f)	* 6 800	* 8 900	* 5 200	* 4 500	* 6 800
Czechoslovakia					
Ores & concentrates (f)	* 5 600	* 5 800	* 5 800	* 6 300	* 7 800
Finland					
Ore	4 850	4 277	5 677	2 629	4 632
Unwrought (a)	660	184	316	183	47
Scrap	6 709	9 751	11 546	13 934	10 977
Greenland					
Ores & concentrates	27 925	34 314	35 564	27 573	—
Hungary					
Scrap	1 813	1 837	1 332	3 650	...
Norway					
Ore	6 026	4 378	6 680	6 567	7 367
Scrap	8 308	9 080	10 166	9 797	10 054
Poland					
Ores & concentrates	5 768	17 011	24 078	...	...
Unwrought	5 424	10 810	7 310	8 265	17 588
Soviet Union					
Unwrought (a) (f)	* 21 300	* 19 800	* 31 300	* 38 100	* 54 400
Sweden					
Ore	56 820	60 885	71 419	80 258	60 502
Unwrought	52 213	57 117	36 806	40 601	54 695
Unwrought alloys	14 072	12 415	12 314	11 077	10 483
Scrap	2 217	3 379	875	253	531

Exports of Lead

Lead

tonnes

Country	1987	1988	1989	1990	1991
Switzerland					
Unwrought	2 855	(a) 3 484	(a) 2 111	(a) 1 584	(a) 943
Scrap	11 232	14 799	14 526	13 402	16 679
Turkey					
Ore (e)	1 954	2 909	6 810	5 303	755
Yugoslavia					
Concentrates	727	7 000	17 038	16 039	(i) 5 639
Unwrought	21 051	(a) 21 757	(a) 27 897	(a) 31 015	(a) (i) 13 159
Unwrought alloys	2 787	...	...	...	...
Algeria					
Ore	3 471	5 303	3 680	2 913	...
Morocco					
Ore	30 556	43 487	31 663	30 432	14 908
Unwrought	63 410	62 528	62 004	59 596	60 690
Namibia					
Unwrought	41 537	42 534	44 652	35 581	35 045
South Africa					
Concentrates (b)	90 790	91 470	81 541	82 508	84 225
Unwrought (f)	* 13 900	* 13 400	* 12 100	* 10 300	* 4 600
Scrap (f)	* 1 500	* 200	* 100	* 50	* 300
Tunisia					
Ore	2 000	5 000	1 500	3 700	1 500
Unwrought	60	240	1 055	(a) 922	(a) 680
Scrap	1 592	407	980	1 429	—
Zambia					
Unwrought	6 229	3 528	1 103	30	1 300
Canada					
Ore (b)	207 938	(g) 199 830	(g) 168 743	(g) 219 248	(g) 190 672
Unwrought	100 206	199 588	123 357	116 133	114 838
Scrap	21 971	9 214	15 686	17 950	5 238
Honduras					
Ores & concentrates (b)	3 728	11 195	5 416	4 237	8 719
Mexico					
Ores & concentrates	15 770	12 567	6 671	3 080	4 616
Unwrought	86 602	105 228	94 399	111 680	97 344
Scrap	3 099	2 291	1 402	934	...
USA					
Ores & concentrates (b)	106 596	143 007	173 762	175 235	186 350
of which: Re-exports	97 832	122 105	116 724	118 635	98 488
Unwrought	3 425	6 419	23 846	53 134	73 902
Unwrought alloys	1 041	1 137	4 725	7 048	22 433
Scrap	52 944	81 888	51 933	72 000	89 539
Argentina					
Ores & concentrates	19 727	9 812	19 635	23 899	17 300
Bolivia					
Ore	14 312	19 600	35 055	35 233	32 667
Chile					
Ores & concentrates	137	5 291	1 489	1 147	...
Peru					
Ores & concentrates	253 224	179 574	206 436	219 750	266 653
Unwrought (a)	42 804	31 749	57 001	58 480	57 802
China					
Ore	79 756	58 829	19 198	1 978	5 451
Unwrought (a)	23 460	11 856	1 839	37 980	15 935
Hong Kong					
Unwrought	11 561	5 691	2 071	17 380	2 135
of which: Re-exports	11 537	5 627	1 926	17 035	2 115
Scrap	3 523	3 266	3 476	2 737	6 740
Indonesia					
Unwrought	—	20	4 668	10 863	8 215
Unwrought alloys	—	—	237	5 740	8 463
Iran (c)					
Ore	30 000	19 675	19 130	3 500	...
Japan					
Unwrought (a)	17 113	1 286	1 407	1 425	906
Scrap	18 201	23 998	23 971	25 528	25 261

Lead

Exports of Lead

tonnes

Country	1987	1988	1989	1990	1991
Korea, Dem. P.R. of					
Unwrought (a) (f)	* 14 100	* 11 500	* 6 000	* 4 800	* 14 700
Korea, Republic of					
Ore	4 606	—	4 560	12 350	750
Unwrought (a)	8 713	3 504	5 493	4 635	5 968
Scrap	710	1 068	1 234	2 433	4 067
Myanmar (d)					
Unwrought	4 571	3 350	1 243	1 652	...
Saudi Arabia					
Scrap	5 346	17 638	20 124	20 407	3 689
Singapore					
Unwrought (a)	8 608	23 072	7 494	16 897	11 964
of which: Re-exports	8 216	22 113	6 688	16 859	11 894
Scrap	9 690	8 131	7 535	5 210	7 429
of which: Re-exports	921	519	164	357	173
Taiwan					
Unwrought	4 234	4 422	8 650	3 521	1 171
Unwrought alloys	11 796	26 458	10 654	13 170	6 786
Thailand					
Ore	51 247	59 665	48 984	34 379	34 586
Australia					
Ores & concentrates	125 863	181 000	114 000	126 000	134 000
Unwrought					
Base bullion (b)	178 300	191 112	* 175 000	* 188 000	188 000
Refined (a)	133 150	159 387	140 000	176 117	160 000
Scrap (h)	30 993	37 312	30 737	28 868	30 255

Note(s):

(1) In this table the term 'unwrought' lead corresponds to item 685.1 of the Standard International Trade Classification (Revision 3) and comprises base bullion, pigs, unwrought bars, etc.

(a) Including alloys

(b) Pb content

(c) Years ended 20 March following that stated

(d) Years ended 31 March following that stated

(e) Complex lead-zinc ore

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

(g) Including Pb content of zinc concentrates

(h) Years ended 30 June of that stated

(i) Data for the Federal Republic of Yugoslavia only

Imports of Lead

Lead

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Ores & concentrates	25 382	39 222	30 117	37 158	...
Unwrought	183 831	210 321	216 033	185 666	203 136
Unwrought alloys	2 804	5 466	3 276	5 072	1 324
Scrap	10 456	8 837	8 704	16 192	5 512
Belgium-Luxembourg					
Ore	107 072	114 018	101 958	101 231	82 066
Unwrought	30 810	24 451	27 099	22 577	24 743
Unwrought alloys	10 315	12 109	10 341	9 602	7 859
Scrap	10 317	12 357	12 383	12 098	18 703
Denmark					
Unwrought	9 329	4 595	2 566	2 175	2 910
Unwrought alloys	6 080	4 033	2 797	3 667	2 420
Scrap	323	152	680	826	723
France					
Ore	183 927	190 105	186 920	175 294	182 263
Unwrought	32 412	34 823	35 299	37 043	32 317
Unwrought alloys	10 148	12 081	12 391	17 414	10 482
Scrap	20 640	21 444	31 541	40 087	69 056
Germany, Federal Republic of					
Ore	226 010	235 442	222 361	205 979	175 821
Unwrought	79 908	87 138	109 792	112 265	141 134
Unwrought alloys	27 855	25 476	28 071	30 235	26 037
Scrap	44 995	30 397	29 934	27 641	24 321
Greece					
Ore	12 501	—	—	—	—
Unwrought (a)	4 877	6 844	9 707	17 602	10 386
Irish Republic					
Unwrought (a)	1 297	1 030	1 940	4 553	12 269
Scrap	8 473	10 141	13 106	11 371	9 851
Italy					
Ore	70 867	96 713	112 015	79 409	127 314
Unwrought	93 310	102 477	95 800	107 619	65 972
Unwrought alloys	16 310	14 230	13 278	15 783	17 611
Scrap	18 507	16 168	7 697	9 118	3 614
Netherlands					
Unwrought	26 918	28 876	29 601	32 898	36 124
Unwrought alloys	9 104	5 808	5 767	6 179	7 738
Scrap	14 021	19 317	19 554	20 185	21 236
Portugal					
Unwrought (a)	23 773	27 839	21 805	22 991	26 723
Spain					
Ore	40 866	57 867	58 214	42 335	53 158
Unwrought	8 895	4 785	7 199	6 083	15 215
Unwrought alloys	4 475	5 364	5 868	6 567	6 524
Scrap	698	6 865	7 880	11 680	4 635
Austria					
Ore	1 152	6 884	17 947	17 836	6 588
Unwrought	31 476	(a) 36 714	(a) 38 902	(a) 41 770	(a) 46 382
Scrap	3 787	3 023	2 637	3 453	3 439
Bulgaria					
Ore (f)	* 18 000	* 25 500	* 23 600	* 12 500	* 7 000
Czechoslovakia					
Unwrought (a)	23 000	20 000	18 000	...	...
Finland					
Unwrought	12 926	7 869	8 081	9 231	7 449
Unwrought alloys	5 029	4 221	5 146	4 572	4 867
German Democratic Republic					
Unwrought (a) (f)	* 10 900	* 30 700	* 20 800	* 11 300	—
Scrap (f)	* 9 700	* 5 500	* 11 300	* 3 800	—
Hungary					
Unwrought & semi-manufactures	5 225	9 267	7 416	5 072	...
Norway					
Unwrought	6 317	6 865	8 283	4 539	1 978
Unwrought alloys	7 151	3 300	3 415	1 888	390
Poland					
Unwrought	2 838	—	—	...	...
Soviet Union					
Ore (f)	* 25 400	* 17 200	* 14 300	* 12 800	* 8 000
Unwrought (a) (f)	* 12 600	* 13 400	* 100	* 100	* 100

Lead

Imports of Lead

tonnes

Country	1987	1988	1989	1990	1991
Sweden					
Ore	—	3 301	1	—	4 001
Unwrought	594	2 228	1 395	2 793	1 592
Unwrought alloys	3 197	658	986	963	480
Scrap	18 551	23 287	17 359	19 979	29 506
Switzerland					
Unwrought	8 075	(a) 9 803	(a) 7 174	(a) 7 893	(a) 9 612
Turkey					
Unwrought (a)	13 629	15 753	10 039	13 714	18 938
Scrap	2 773	2 036	2 345	713	1 651
Yugoslavia					
Concentrates	12 042	33 696	6 044	6 173	(h) 1 088
Unwrought (a)	10 878	18 083	32 121	26 938	(h) 2 267
Scrap	3 905	1 272	3 127	7 144	(h) 744
Algeria					
Unwrought	11 430	6 951	7 324	4 247	12 302
Unwrought alloys	4 784	3 399	3 162	5 050	7 030
Egypt					
Unwrought & scrap	16 368	19 071	8 406	8 000	...
Madagascar					
Unwrought (a)	208	100	174	81	363
Morocco					
Ore	...	...	36 052	29 519	28 571
Unwrought alloys	...	283	205	177	858
Mozambique					
Unwrought	394	...	...	...	...
Namibia					
Concentrates (b)	34 986	24 820	19 771	20 997	14 753
Nigeria					
Unwrought (a)	1 283	1 000	1 500	1 500	...
South Africa					
Ore	15 110	30 971	21 493	31 298	...
Unwrought	1 378	2 421	455	223	...
Unwrought alloys	...	1 218	308	38	...
Scrap	296	3 088	1 387	5 271	...
Tunisia					
Unwrought	3 038	3 713	4 079	(a) 3 764	(a) 4 497
Canada					
Ores & concentrates (b) (g)	...	14 565	28 392	45 105	14 828
Unwrought	12 559	14 690	11 130	11 682	7 921
Scrap	74 152	36 741	26 660	34 831	58 044
Cuba					
Unwrought	2 200	2 100	1 500	—	1 000
Mexico					
Ores & concentrates	...	22 846	36 797	15 058	...
Unwrought & scrap	2 344	4 530	1 750	2 692	...
USA					
Ores & concentrates (b)	229 858	235 034	204 802	144 226	133 639
Unwrought					
Base bullion	10 905	6 586	5 189	2 864	281
Other	174 430	132 073	96 674	78 802	102 322
Alloys	14 457	16 268	21 319	12 819	15 184
Scrap	6 088	6 938	11 261	12 251	4 021
Brazil					
Ore	38 095	25 047	38 503	34 031	30 672
Unwrought (a)	15 581	2 642	2 261	2 638	15 153
Scrap	25 192	31 135	18 865	31 291	18 208
Chile					
Unwrought (a)	2 005	2 563	1 877	1 774	2 370
Colombia					
Unwrought (a)	1 430	2 633	2 616	2 231	2 052
Uruguay					
Unwrought	1 926	1 848	1 900	2 000	944
Venezuela					
Unwrought (a)	9 018	8 721	5 503	6 740	9 320
Scrap	5 756	6 217	1 244	1 931	801

Imports of Lead

Lead

tonnes

Country	1987	1988	1989	1990	1991
China					
Unwrought (a)	4 575	4 577	36 374	1 773	168
Scrap	(f)* 1 500	(f)* 2 400	(f)* 6 200	665	511
Hong Kong					
Unwrought (a)	12 006	7 781	5 544	18 327	2 583
Scrap	524	1 461	2 241	3 949	4 923
India (c)					
Ore	8 607	20 530	...	33 794	19 340
Unwrought	24 297	35 007	30 300	38 829	23 243
Unwrought alloys	13 465	2 316	...	1 073	906
Scrap	2 579	9 949	...	7 107	2 302
Indonesia					
Unwrought	8 620	10 070	10 126	12 996	16 948
Unwrought alloys	6 888	5 269	4 172	2 498	5 755
Scrap	—	752	11 988	35 822	46 424
Iran (d)					
Unwrought	11 330	6 673	...	...	...
Israel					
Unwrought	3 340	1 318	1 041	...	...
Japan					
Ore	294 728	279 537	298 964	279 535	304 054
Unwrought	39 398	51 991	59 917	71 499	72 566
Unwrought alloys	10 006	23 783	23 176	27 542	39 973
Korea, Dem. P.R. of					
Unwrought (a) (f)	* 8 900	* 4 400	* 2 100	* 1 600	* 3 200
Korea, Republic of					
Unwrought	37 649	76 109	85 701	93 117	119 169
Unwrought alloys	10 030	11 072	11 287	14 263	18 895
Scrap	45 891	53 902	41 971	47 711	17 434
Malaysia					
Unwrought (a)	13 552	14 798	20 492	25 368	24 670
Scrap	1 755	4 558	2 541	...	6 078
Pakistan (e)					
Unwrought (a)	3 935	3 525	...	5 159	...
Philippines					
Unwrought (a)	8 739	4 723	8 362	3 769	6 303
Scrap	9 069	12 394	13 959	15 243	85
Singapore					
Unwrought (a)	16 206	26 405	12 247	37 190	12 953
Scrap	1 425	3 913	4 387	3 044	5 005
Syria					
Unwrought & scrap	1 176	1 200	1 200	112	...
Taiwan					
Unwrought	16 525	16 317	23 634	58 325	74 720
Unwrought alloys	4 422	2 608	2 752	5 706	6 998
Scrap	79 653	80 956	72 741	34 251	11 350
Thailand					
Unwrought	12 643	12 037	13 879	12 747	19 512
Unwrought alloys	811	939	1 437	1 591	6 017
Scrap	3 686	11 790	11 212	7 592	16 293
Australia					
Ores & concentrates (e)	21 175	59 489	27 551	21 793	47 304
New Zealand (e)					
Unwrought (a)	4 144	3 544	3 321	2 406	2 178

Note(s):

(1) In this table the term 'unwrought' lead corresponds to item 685.1 of the Standard International Trade Classification (Revision 3) and comprises base bullion, pigs, unwrought bars, etc.

(a) Including alloys

(b) Pb content

(c) Years ended 31 March following that stated

(d) Years ended 20 March following that stated

(e) Years ended 30 June of that stated

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

(g) Including Pb content of zinc concentrates

(h) Data for the Federal Republic of Yugoslavia only

Lithium

Production of Lithium Minerals

tonnes

Country	1987	1988	1989	1990	1991
Portugal					
Lepidolite	9 380	14 109	18 264	7 614	* 10 000
Soviet Union	* 55 000	* 55 000	* 55 000	* 55 000	* 50 000
Namibia	927	1 642	1 398	1 268	1 152
Zimbabwe	14 959	15 073	20 647	19 053	9 186
Canada	* 11 300	* 11 300	* 8 700	* 9 200	* 11 300
USA (a) (b)	* 4 000	* 4 000	* 4 500	...	...
Argentina	178	119	104	* 120	* 110
Brazil					
Amblygonite	52	25	159	* 100	* 100
Petalite	2 946	1 115	1 133	* 1 200	* 1 200
Spodumene	505	331	296	* 300	* 300
Chile (c)	6 139	7 332	7 508	9 082	8 575
China	* 15 000	* 15 000	* 15 000	* 15 000	* 15 500
Australia					
Spodumene	16 621	27 396	* 40 000	* 40 000	* 40 000
World total (a)	* 7 400	* 7 900	* 8 700	* 8 800	* 8 500

(a) Li content

(b) Mostly spodumene

(c) Carbonate

Exports of Lithium

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Oxides	199	201	221	275	269
Carbonate	432	548	734	594	607
Belgium-Luxembourg					
Oxides	—	99	—	41	83
France					
Oxides	36	100	3	1	20
Germany, Federal Republic of					
Metal	49	...	...	...	...
Oxides	909	712	745	724	609
Carbonate	1 444	1 371	1 819	1 685	1 670
Netherlands					
Oxides	—	17	40	18	80
Carbonate	132	64	61	36	50
Spain					
Lithium minerals	96	392	187	—	—
Soviet Union					
Oxides (a)	* 180	* 30	* 150	* 340	* 230
Carbonate (a)	* 400	* 300	* 400	* 600	* 200
Yugoslavia					
Carbonate	...	138	130	17	(c) —
Namibia					
Lithium minerals	314	2 220	1 515	1 210	1 019
South Africa					
Lithium minerals (a)	* 100	* 400	...	...	...
Zimbabwe					
Lithium minerals	18 053	17 976	...	20 149	20 714
USA					
Oxides	2 917	3 788	4 731	3 147	3 079
Carbonate	5 783	7 168	9 068	9 333	9 380
Chile					
Carbonate	6 063	7 153	8 102	8 228	8 262
China					
Oxides (a)	* 600	* 800	* 600	* 1 000	* 1 100
Carbonate (a)	* 1 300	* 1 400	* 1 000	* 1 600	* 1 500
Australia					
Lithium minerals (b)	...	...	29 593	35 664	34 489

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

(b) Years ended 30 June of that stated

(c) Data for the Federal Republic of Yugoslavia only

Lithium

Imports of Lithium

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Metal	51	...	...	...	...
Oxides	625	630	692	764	3 526
Carbonate	1 742	2 066	1 958	1 932	2 019
Belgium-Luxembourg					
Oxides	225	198	151	143	163
Carbonate	249	271	312	326	399
France					
Oxides	415	388	378	371	389
Carbonate	578	624	778	805	714
Germany, Federal Republic of					
Metal	22	...	...	...	...
Oxides	1 515	1 631	966	779	1 538
Carbonate	5 034	4 368	5 972	5 490	6 362
Italy					
Metal	45	...	...	...	...
Oxides	396	369	154	184	342
Carbonate	702	626	926	956	846
Netherlands					
Oxides	68	65	165	181	137
Carbonate	514	469	513	666	595
Spain					
Lithium minerals	803	325	606	622	797
Oxides	206	127	139	197	109
Carbonate	282	313	415	333	336
Finland					
Carbonate	...	93	97	121	3
Sweden					
Carbonate	...	100	101	98	124
Yugoslavia					
Carbonate	...	168	134	37	(b) 0
South Africa					
Lithium minerals	623	...	...	...	...
Oxides	151	138	102	135	...
Canada					
Carbonate	1 260	1 522	1 561	1 587	1 184
USA					
Lithium minerals	16 487	14 361	...	...	...
Carbonate	...	...	3 326	4 197	3 110
Brazil					
Oxides	471	503	401	256	...
Carbonate	118	237	207	291	...
Japan					
Metal	81	...	...	...	...
Oxides	888	935	1 020	1 036	1 025
Carbonate	3 096	3 318	3 933	3 835	4 136
Korea, Republic of					
Oxides	588	152	129	149	194
Carbonate	309	513	455	621	694
Taiwan					
Carbonate	...	...	216	230	181
Australia					
Oxides (a)	145	221	141	159	101

(a) Years ended 30 June of that stated

(b) Data for the Federal Republic of Yugoslavia only

Production of Manganese ore

tonnes

Country		1987	1988	1989	1990	1991
Greece	(50%)	4 024	3 725	3 034	5 400	5 000
Italy	(30%)	3 802	9 701	5 899	6 654	8 300
Austria (e)		57 486	44 273	46 483	43 141	39 925
Bulgaria	(30%)	38 000	35 000	32 000	39 000	* 45 400
Czechoslovakia	(17%) (d)	* 900	* 900	* 900	* 900	...
Hungary	(30%)	69 964	80 983	84 247	60 000	57 966
Romania	(22%)	* 65 000	* 65 000	* 60 000	* 55 000	* 50 000
Soviet Union	(35%)	9 400 000	9 100 000	9 100 000	8 500 000	* 8 000 000
Turkey	(40%)	* 8 000	* 8 900	* 8 900	* 8 900	* 8 900
Yugoslavia	(34%)	41 297	40 100	38 770	50 863	* 39 900
Gabon	(50%)	2 403 174	2 254 135	2 592 407	2 422 968	1 620 388
Ghana	(40%)	253 600	230 900	334 200	246 869	319 727
Morocco	(50%)	42 500	30 100	32 000	49 450	59 000
South Africa						
Metallurgical	(40%)	3 148 002	3 896 810	4 805 343	4 318 306	3 098 613
Chemical	(55%)	146 310	125 717	78 680	83 784	47 447
Zambia	(45%)	—	502	351	721	662
Mexico	(38%)	385 300	443 600	394 400	359 800	208 400
USA	(10%) (a)	17 315	* 8 000	* 8 000	* 8 000	...
Argentina	(30%)	6 393	9 339	5 532	* 5 000	* 5 000
Brazil	(40%) (b)	2 067 385	1 990 646	2 225 413	* 2 500 000	* 2 000 000
Chile	(33%)	31 803	43 655	43 806	39 697	43 767
China	(30%)	2 600 000	3 200 000	3 330 000	4 060 000	* 4 200 000
India	(35%) (c)	1 275 111	1 332 629	1 334 214	1 393 000	1 385 000
Indonesia	(50%)	9 360	10 278	9 076	9 472	9 885
Iran	(30%) (f)	62 784	74 630	80 953	54 404	65 000
Philippines	(48%)	445	2 251	1 326	14 600	4 064
Thailand	(45%)	9 148	7 947	11 044	16 652	11 032
Australia	(48%)	1 853 279	1 986 000	2 119 000	1 932 000	1 294 000
World total		24 000 000	25 000 000	26 800 000	26 300 000	22 600 000

Note(s):

- (1) Estimated average manganese content is given in parentheses for each country, relating where possible to the later years
- (2) In addition to the countries listed, Colombia, Cuba and Vietnam are believed to produce manganese ore
- (a) Shipments of manganese ore only
- (b) Including beneficiated and direct shipping ore
- (c) Including ore grading 54% to less than 35% Mn
- (d) Manganese ore
- (e) Mn content of domestic iron ore
- (f) Years ended 20 March following that stated

Manganese

Exports of Manganese

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Ore (a)	323	419	778	394	491
Metal	(c)* 500	1 813	2 520	1 697	...
Belgium-Luxembourg					
Ore	737	1 431	4 282	335	12 857
Metal	1 760	1 778	2 206	2 489	1 881
France					
Ore (a)	107 069	95 584	94 956	52 873	87 341
Metal	5 575	7 294	6 823	4 825	3 961
Germany, Federal Republic of					
Ore (a)	2 172	2 934	5 978	11 066	6 807
Metal	461	407	1 012	1 502	1 679
Italy					
Ore	(a) 484	(a) 667	(a) 572	48	88
Netherlands					
Ore	51 917	57 035	56 447	45 429	48 876
Metal	1 100	1 313	1 780	1 983	2 050
Portugal					
Ore	19 468	—	4 240	8 348	8 226
Bulgaria					
Ore	11 100	12 200	14 000	83 000	7 000
Hungary					
Ore	12 035	8 400	...	...	...
Norway					
Ore	5	10 000	8 000	31 027	27 772
Soviet Union					
Ore	714 000	982 000	895 000	128 000	(f) 249 898
Sweden					
Metal	119	273	150	60	112
Turkey					
Ore	28	—	10 271	11 671	30
Yugoslavia					
Ore	1 060	—	946	5 046	(e) —
Gabon					
Ore	2 290 300	2 381 900	2 244 000	2 205 000	1 833 000
Ghana					
Ore	239 487	294 960	284 000	295 000	(c)* 286 000
Morocco					
Ore	43 927	47 371	45 843	44 584	44 108
South Africa					
Ore	1 561 846	2 735 023	2 974 999	2 160 002	1 661 518
Metal	31 109	...	36 500	32 154	...
Mexico					
Ore	158 132	169 127	127 227	65 263	22 717
USA					
Ore	70 743	67 498	51 880	82 928	211 252
Metal	5 626	9 496	5 350	6 100	5 305
Brazil					
Ore	715 842	1 048 546	1 034 735	923 916	854 006
China					
Ore	41 182	40 250	28 769	27 998	19 498
Metal	(c)* 1 800	(c)* 3 500	(c)* 7 000	42 524	34 600
India (d)					
Ore (b)	225 781	307 656	...	317 504	265 291
Indonesia					
Ore (a)	5 000	5 720	16 020	67 027	3 004
Japan					
Ore	(b) 1 853	929	55	80	49
Singapore					
Ore	21 772	15 833	9 598	9 699	10 412
of which: Re-exports	21 772	15 833	9 598	6 411	1 482

Exports of Manganese Manganese
tonnes

Country	1987	1988	1989	1990	1991
Australia Ore	1 306 000	1 553 000	* 1 620 000	* 1 600 000	* 975 000

Note(s):

- (1) Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys
- (a) Including manganiferous iron ore
- (b) Including ferruginous manganese ore
- (c) BGS estimates, based on known imports into certain countries
- (d) Years ended 31 March following that stated
- (e) Data for the Federal Republic of Yugoslavia only
- (f) Data for the Russian Federation only

Manganese

Imports of Manganese

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Ore (b)	120 550	195 457	275 509	318 303	355 271
Metal	2 484	2 859	4 574	4 274	3 726
Belgium-Luxembourg					
Ore	75 549	232 668	308 522	164 337	138 151
Metal	3 421	3 207	3 439	3 166	2 781
Denmark					
Ore	543	410	477	184	264
Metal	17	57	833	1 672	434
France					
Ore (b)	702 453	1 485 591	850 594	754 626	719 715
Metal	2 124	2 198	3 376	3 274	3 220
Germany, Federal Republic of					
Ore (b)	378 627	514 446	546 351	368 591	252 537
Metal	5 489	7 150	9 113	9 581	11 492
Greece					
Ore	15	82	24	22 751	24 491
Metal	160	278	181	229	274
Irish Republic					
Ore (b)	26 343	27 467	36 977	22 729	32 476
Italy					
Ore (b)	452 653	280 344	390 049	348 450	240 852
Metal	1 836	2 680	1 978	2 248	2 069
Netherlands					
Ore	124 983	53 425	55 961	71 157	65 905
Metal	1 710	2 203	2 362	2 263	1 750
Portugal					
Ore (c)	92 572	2 410	2 166	10 258	12 024
Spain					
Ore	202 286	199 519	328 520	262 314	56 007
Metal	614	679	782	959	991
Austria					
Ore	472	270	528	801	488
Metal	...	402	429	429	1 484
Bulgaria					
Ore	65 000	46 700	20 000	...	...
Czechoslovakia					
Ore	438 000	484 000	871 000	951 000	217 000
Finland					
Ore	2 218	1 266	16 828	17 830	8 452
German Democratic Republic					
Ore (a)	23 800	27 400	26 600	...	—
Hungary					
Ore	420	140	...	260	...
Norway					
Ore	628 173	847 235	724 558	713 174	498 782
Metal	1 641	1 263	1 355	1 294	1 288
Poland					
Ore	682 259	693 211	575 223	105 000	153 000
Romania					
Ore	212 000	205 000	205 000	224 000	43 000
Sweden					
Ore	11 139	11 683	13 398	217	27 531
Metal	2 064	1 593	2 040	1 254	1 862
Switzerland					
Metal	...	493	685	629	519
Turkey					
Ore	1 618	1 496	1 107	1 408	1 314
Yugoslavia					
Ore	88 173	138 587	128 877	131 645	(g) —
Cameroon					
Ore	3 180	2 800	2 360	2 500	...
Ivory Coast					
Ore	...	2 750	...	...	...
Kenya					
Ore (b)	2 363	3 150	...	...	...
South Africa					
Ore	3 931	5 381	6 780	8 631	...
Zimbabwe					
Ore	18 419	248	...	8 896	...

Imports of Manganese

tonnes

Country	1987	1988	1989	1990	1991
Canada					
Ore (a)	80 957	124 282	79 047	62 831	7 324
Metal	2 085	4 086	5 225	4 268	3 712
Mexico					
Ore	44 669	140 333	167 578	137 416	...
Trinidad & Tobago					
Ore	3 158	2 111	3 071	2	—
USA					
Ore	301 732	443 581	587 818	308 650	220 914
Metal	8 132	10 957	14 731	12 972	15 883
Argentina					
Ore	60 353	78 395	66 325	97 301	73 800
Brazil					
Ore	0	32 749	6 937	11	296
Metal	1 605	1 710	1 736	959	946
Colombia					
Ore	12 589	9 576	3 359	7 777	9 447
Venezuela					
Ore	62 259	80 413	64 702	31 629	97 006
China					
Ore	235 999	276 690	424 803	357 021	560 947
Hong Kong					
Ore	665	629	580	959	762
India (e)					
Ore	1 152	4 860	...	3 471	3 087
Metal	567	1 095	...	4 978	1 994
Indonesia					
Ore (b)	1 998	1 680	1 370	2 803	2 705
Israel					
Ore (d)	* 1 500	* 1 300	* 1 300	* 1 700	* 1 100
Japan					
Ore	(c) 1 580 662	(b) 1 922 113	(b) 1 939 002	(b) 1 646 743	(b) 1 663 589
Metal	...	9 893	10 739	13 687	17 931
Korea, Dem. P.R. of					
Ore (d)	* 61 000	* 134 500	* 49 000	* 49 100	* 42 200
Korea, Republic of					
Ore	373 880	391 811	508 323	393 118	442 785
Metal	...	697	823	891	1 158
Malaysia					
Ore	1 170	933	985	...	1 233
Pakistan (f)					
Ore	27 722	173	...	587	...
Philippines					
Ore (b)	3 594	3 209	22 244	20 224	15 002
Saudi Arabia					
Ore	26 124	19 509	8 535	5 737	98 385
Singapore					
Ore	45 512	51 062	26 180	80 014	46 630
Sri Lanka					
Ore	1 299	198	...	—	—
Taiwan					
Ore	131 704	170 943	196 032	141 392	125 004
Australia					
Ore (f)	1 618	2 035	2 393	1 008	860
Metal (f)	732	1 794	2 634	1 346	1 246

Note(s):

- (1) Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys
- (a) Mn content
- (b) Including manganiferous iron ore
- (c) Including ferruginous manganese ore
- (d) BGS estimates, based on known exports from certain countries
- (e) Years ended 31 March following that stated
- (f) Years ended 30 June of that stated
- (g) Data for the Federal Republic of Yugoslavia only

Mercury

Production of Mercury

kilograms

Country	1987	1988	1989	1990	1991
Spain	1 570 971	1 614 586	967 083	713 300	52 100
Czechoslovakia	164 000	168 000	131 000	126 000	75 000
Finland	217 134	97 026	202 470	109 176	110 435
Soviet Union	* 1 650 000	* 1 650 000	* 1 500 000	* 1 400 000	* 1 200 000
Turkey	210 519	97 359	96 000	47 000	25 000
Yugoslavia	67 000	70 000	51 000	37 000	* 35 000
Algeria	705 000	662 000	587 000	637 000	431 000
Mexico	345 000	345 000	651 000	735 000	720 000
USA	* 74 000	* 419 000	* 454 000	562 000	58 000
China	* 900 000	* 900 000	1 208 000	930 000	* 1 000 000
World total	5 900 000	6 000 000	5 800 000	5 300 000	3 700 000

Exports of Mercury

kilograms

Country	1987	1988	1989	1990	1991
United Kingdom	64 487	66 572	128 462	176 377	108 335
Belgium-Luxembourg	3 000	2 600	5 400	36 500	50 100
Denmark	7 100	4 200	1 700	6 200	—
France	32 400	323 800	105 000	38 000	112 000
Germany, Federal Republic of	137 700	72 900	121 800	75 600	374 200
Italy	54 900	38 700	68 000	21 000	67 900
Netherlands	50 000	96 000	74 000	154 000	68 000
Spain	702 000	699 000	696 000	475 000	832 000
Austria	1 700	2 900	700	700	1 500
Finland	224 000	94 000	188 000	103 000	110 000
Norway	73 000	63 000	29 000	259 000	8 000
Sweden	7 000	8 000	59 000	45 000	79 000
Switzerland	19 845	2 960	3 832	32 575	11 263
Turkey	100 740	182 812	306 011	...	...
Yugoslavia	22 000	27 000	5 000	2 000	(c) 0
Algeria	607 501	527 848	857 012	400 610	679 000
Canada	...	48 701	14	33 165	50 858
Mexico	137 000	142 377	91 189	23 186	...
USA	(a)* 185 000	(a)* 137 000	222 560	311 622	588 204
China	(a)* 1 236 000	(a)* 847 000	(a)* 321 000	329 713	62 940
Hong Kong (b)	242 503	80 993	73 468	116 121	123 783
Japan	200 365	191 150	205 027	103 997	8 676
Singapore	21 445	2 542	5 844	7 405	5 995
of which: Re-exports	21 445	2 542	5 844	7 304	5 945
Taiwan	—	44	139 068	3 510	49 859

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

(b) Re-exports

(c) Data for the Federal Republic of Yugoslavia only

Mercury

Imports of Mercury

kilograms

Country	1987	1988	1989	1990	1991
United Kingdom	435 615	311 020	89 178	51 090	39 472
Belgium-Luxembourg	115 200	161 500	91 700	74 000	87 200
Denmark	14 900	6 300	6 800	3 700	14 800
France	123 400	130 700	129 000	107 000	109 000
Germany, Federal Republic of	343 400	256 100	263 500	188 700	191 900
Greece	1 000	3 091	6 000	4 000	4 000
Irish Republic	1 400	7 452	14 385	48 521	15 647
Italy	144 300	194 300	189 000	92 000	75 900
Netherlands	83 000	104 000	110 000	106 000	83 000
Portugal	7 600	10 000	27 000	15 000	14 000
Spain	98 000	198 000	33 000	79 000	210 000
Austria	7 000	7 300	3 800	5 900	6 600
Finland	2 000	2 000	...	1 000	1 000
German Democratic Republic (a)	* 335 000	* 112 000	* 300 000	* 10 000	—
Hungary	60 000	65 000	70 000	27 000	...
Norway	8 000	4 000	...	...	3 000
Poland (a)	...	* 49 500	...	...	...
Romania (a)	* 69 000	* 17 000	* 3 000	* 15 000	* 1 000
Sweden	11 000	31 000	13 000	14 000	9 000
Switzerland	17 691	16 025	18 154	15 781	12 949
Yugoslavia	23 000	48 000	29 000	48 000	(e) ...
Egypt	18 000	16 000	69 000	...	...
Morocco	...	4 293	466	9 296	10 269
South Africa	114 200	58 368	96 700	119 040	...
Tunisia	10 706	10 368	11 636	6 357	1 189
Canada	33 000	36 238	32 442	53 890	12 027
USA	653 302	326 563	131 219	14 951	55 433
Argentina	45 000	57 000	98 000	58 000	...
Brazil	271 412	202 970	336 515	219 106	154 000
Colombia	28 000	30 408	59 110	44 720	84 000
Peru	44 814	25 114	65 000	11 713	20 675
Uruguay	33 700	4 300	1 000	7 000	300
Venezuela	104 149	66 416	23 114	8 000	...
Hong Kong	253 964	158 219	80 363	128 746	115 526
India (d)	237 753	298 897	...	426 515	482 901
Indonesia	192 285	55 207	77 402	41 583	86 280
Iran (b)	4 170	38 309	25 651	...	...
Israel (a)	* 1 500	* 300	* 3 000	* 1 000	* 6 000
Japan	75 309	39 911	61 955	33 830	44 815
Korea, Dem. P.R. of (a)	...	* 1 000	* 3 000	* 3 000	* 3 000
Korea, Republic of	28 509	33 791	31 178	27 161	30 287
Malaysia	8 520	4 260	27 550	...	5 170
Myanmar (d)	6 096	...	203	16	...
Pakistan (c)	109 429	45 092	...	61 035	...
Philippines	65 966	132 451	62 370	92 729	120 813
Saudi Arabia	—	87 975	32 218	139 615	—
Singapore	45 335	55 576	150 733	18 742	85 589
Sri Lanka	917	400	...	1 339	837
Taiwan	8 511	18 321	18 418	10 808	13 599
Thailand	11 269	11 193	21 828	...	10 654
Australia (c)	64 589	60 574	83 339	73 558	73 557

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

(b) Years ended 20 March following that stated

(c) Years ended 30 June of that stated

(d) Years ended 31 March following that stated

(e) Data for the Federal Republic of Yugoslavia only

Mine Production of Molybdenum

tonnes (metal content)

Country	1987	1988	1989	1990	1991
Bulgaria	* 200	* 200	* 190	231	* 200
Soviet Union	* 11 500	* 11 500	* 11 500	* 11 000	* 10 000
Turkey	* 100	* 100	* 100	* 100	* 100
Niger	8	* 15	* 13	* 10	* 10
Canada	12 509	12 494	14 073	11 994	11 329
Mexico	4 400	4 456	4 189	3 114	2 597
USA	34 073	43 051	63 105	61 611	53 364
Chile	16 941	15 515	16 550	13 830	14 434
Peru	3 352	2 382	3 013	2 509	3 046
China	* 12 000	* 14 400	* 15 700	* 15 700	* 16 000
Iran	874	1 181	1 305	889	* 500
Japan	* 100	* 100	* 100	* 100	* 100
Korea, Republic of	327	144	132	103	144
Mongolia	1 526	1 547	1 574	2 011	* 1 700
World total	98 000	107 000	132 000	123 000	114 000

Note(s):

- (1) In addition to the countries listed, Australia, India, Democratic P.R. of Korea and Romania are believed to produce molybdenum

Molybdenum

Exports of Molybdenum

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Ores & concentrates	2 269	2 551	2 465	3 060	875
Metal	763	489	347	397	452
Oxides	1 044	459	676	557	112
Belgium-Luxembourg					
Ores & concentrates	12 890	16 519	16 102	17 695	14 560
Metal	142	151	139	196	80
Oxides	53	55	76	195	214
France					
Ores & concentrates	2 115	1 267	1 273	693	235
Metal	295	310	293	271	256
Germany, Federal Republic of					
Ores & concentrates	3 417	2 213	2 057	2 499	2 195
Metal	849	874	949	861	4 142
Oxides	761	566	394	493	779
Italy					
Metal	35	55	237	153	170
Netherlands					
Ores & concentrates	8 694	15 953	17 403	15 984	14 248
Metal	422	266	355	200	193
Oxides	1 455	2 211	1 193	1 451	1 057
Austria					
Metal	1 266	1 640	1 651	1 656	1 390
Sweden					
Ores & concentrates	2 747	1 725	2 647	2 952	3 602
Metal	13	21	3	3	1
Canada					
Ores & concentrates (a)	14 253	13 978	16 140	11 062	10 199
Mexico					
Ores & concentrates (a)	4 237	4 542	4 656	22 693	...
USA					
Ores & concentrates (a)	18 430	23 500	51 270	41 568	33 616
Metal	1 596	1 654	1 672	1 356	1 412
Oxides	...	...	1 408	787	1 571
Chile					
Ores & concentrates	25 813	24 815	24 468	26 268	27 338
Oxides	...	690	794	1 078	1 170
Peru					
Ores & concentrates	6 203	4 279	5 190	4 574	5 507
China					
Ores & concentrates	(b)* 7 600	(b)* 3 300	(b)* 1 300	370	1 311
Metal	(b)* 40	(b)* 90	(b)* 60	178	232
Oxides	...	...	...	381	895
Japan					
Metal	81	62	93	91	72
Korea, Republic of					
Ores & concentrates	126	—	—	—	—

Note(s):

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

(a) Mo content

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

Imports of Molybdenum

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Ores & concentrates	15 756	19 882	23 196	18 224	14 212
Metal	315	337	295	377	399
Oxides	135	256	146	160	218
Belgium-Luxembourg					
Ores & concentrates	24 787	28 512	31 950	32 706	26 865
Metal	480	292	339	205	319
Oxides	180	190	122	160	152
France					
Ores & concentrates	8 632	9 614	9 406	9 993	8 451
Metal	233	391	408	510	413
Oxides	157	140	152	126	292
Germany, Federal Republic of					
Ores & concentrates	16 305	17 329	16 450	15 929	14 733
Metal	828	1 272	1 375	1 284	1 031
Oxides	107	544	448	361	306
Italy					
Ores & concentrates	2 870	2 789	2 631	2 697	2 630
Metal	195	182	194	129	200
Oxides	32	173	76	37	82
Netherlands					
Ores & concentrates	15 985	17 697	25 577	22 205	19 111
Metal	202	163	260	167	134
Oxides	27	10	18	18	27
Spain					
Ores & concentrates	4 991	2 720	2 609	2 335	2 014
Metal	43	56	53	56	52
Austria					
Ores & concentrates	...	9 542	9 969	8 977	6 764
Metal	121	130	256	307	303
Oxides	1 706	2 852	2 486	2 419	1 760
Czechoslovakia					
Ores & concentrates (a)	* 800	* 1 900	* 2 000	* 1 600	* 600
Finland					
Ores & concentrates	1 074	1 245	1 256	1 792	1 306
Metal	4	6	10	14	4
Sweden					
Ores & concentrates	7 402	7 870	7 577	8 122	8 378
Metal	262	274	372	263	228
Oxides	236	234	243	201	471
Switzerland					
Metal	23	17	17	17	19
Yugoslavia					
Metal	20	20	26	24	(d) 2
South Africa					
Metal	15	19	12	15	...
Oxides	481	518	355	326	...
Canada					
Metal	(b) 161	159	59	77	47
Oxides	193	188	124	176	305
USA					
Ores & concentrates	1 784	668	620	1 055	273
Metal	444	473	512	417	522
Oxides	4 142	721	422	643	987
Argentina					
Oxides	677	805	841	...	...
Brazil					
Ores & concentrates	3 093	3 094	3 784	2 128	4 722
Metal	60	68	75	1 319	65
Oxides	740	615	731	295	...

Molybdenum

Imports of Molybdenum

tonnes

Country	1987	1988	1989	1990	1991
Japan					
Ores & concentrates	17 115	22 987	23 106	24 408	25 298
Metal	380	662	606	528	504
Oxides	468	351	352	335	567
Korea, Republic of					
Ores & concentrates	522	13 520	559	745	1 450
Metal	32	58	182	358	79
Malaysia					
Metal	9	61	263	365	207
Philippines					
Metal	4	9	35	21	41
Singapore					
Metal	4	7	164	49	73
Taiwan					
Metal	105	127	134	139	130
Australia					
Ores & concentrates (c)	88	85	21	113	96
Metal (c)	7	42	128	104	140
Oxides (c)	—	190	127	86	33

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
- (b) Exports from the USA
- (c) Years ended 30 June of that stated
- (d) Data for the Federal Republic of Yugoslavia only

Mine Production of Nickel

tonnes (metal content)

Country	1987	1988	1989	1990	1991
Greece (d)	9 202	13 131	10 719	15 728	16 005
Albania	9 238	10 139	11 204	8 843	4 000
Finland	10 038	11 070	9 958	10 812	10 332
German Democratic Republic	1 689	1 367	1 479	872	—
Norway	386	382	445	2 200	2 200
Soviet Union	* 195 000	* 205 000	* 205 000	* 212 000	* 200 000
Yugoslavia	* 3 500	* 5 600	* 6 300	* 4 900	* 3 200
Botswana	16 528	22 539	21 309	19 022	19 294
South Africa (a)	29 248	29 217	28 100	28 200	26 885
Zimbabwe	10 393	11 489	11 634	11 442	11 313
Canada	193 391	216 589	200 899	196 225	192 259
Cuba	35 221	42 145	44 765	39 292	32 246
Dominican Republic (d)	32 500	29 300	31 300	28 700	29 100
USA	—	—	—	330	5 523
Brazil	22 092	18 667	18 826	18 788	* 20 000
Colombia	22 800	19 200	21 200	23 100	22 800
China	* 26 000	* 26 000	29 500	27 300	30 400
Indonesia	57 200	59 800	64 184	68 583	70 400
Myanmar (b)	* 50	* 100	* 100	* 100	...
Philippines	8 510	10 349	18 049	15 818	13 800
Australia	74 554	58 000	62 000	65 800	65 400
New Caledonia (c)	57 470	71 242	96 150	85 047	99 664
World total	820 000	860 000	890 000	880 000	870 000

(a) Refined nickel and nickel in matte

(b) Ni content of nickel speiss. Years ended 31 March following that stated

(c) Ni and Co content

(d) Ni content of ferro-nickel

Nickel

Smelter/Refinery Production of Nickel

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom	29 500	28 000	26 100	26 500	28 600
France	6 690	9 124	8 632	8 539	7 455
Greece	9 200	13 131	10 719	15 728	16 005
Albania	4 000	5 000	1 900	2 143	827
Czechoslovakia	* 3 700	3 500	2 500	2 600	2 433
Finland	17 689	16 343	13 090	17 136	13 146
German Democratic Republic	3 100	2 600	2 700	1 300	—
Norway	44 564	52 545	54 885	57 811	58 730
Soviet Union	* 210 000	* 215 000	* 225 000	* 230 000	* 210 000
Yugoslavia	3 500	5 600	6 300	4 900	3 200
South Africa	29 200	29 200	28 100	28 200	26 885
Zimbabwe	16 700	18 300	18 600	18 800	18 200
Canada	131 300	135 200	129 100	126 800	120 300
Cuba	18 186	23 831	26 261	21 126	18 756
Dominican Republic (a)	29 100	32 400	28 900	30 600	...
USA	—	...	347	3 701	7 065
Brazil	13 862	13 101	13 727	13 419	13 840
Colombia	19 344	16 877	16 935	18 425	20 190
China	25 500	25 500	34 300	27 500	28 000
Indonesia	1 700	4 900	5 000	5 000	5 300
Japan	96 924	102 573	105 900	100 200	114 200
Korea, Republic of	—	—	5 000	8 200	11 400
Taiwan	8 200	10 500	10 000	10 400	11 200
Australia	44 529	37 400	43 500	43 100	49 400
New Caledonia	29 531	37 352	36 285	32 278	34 411
World total	800 000	840 000	850 000	850 000	850 000

Note(s):

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

(a) Shipments of ferro-nickel (Ni content)

Exports of Nickel

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Mattes, sinters etc.	1 285	762	450	255	700
Unwrought	16 786	15 999	11 818	14 327	15 377
Unwrought alloys	1 779	2 565	2 682	3 799	3 083
Scrap	5 030	4 185	4 772	5 070	5 880
Oxides	98	218	109	66	16
Belgium-Luxembourg					
Unwrought	59	461	1 684	273	349
Unwrought alloys	312	908	871	516	597
Scrap	991	1 396	1 206	2 191	1 130
Denmark					
Scrap	87	612	303	110	148
France					
Unwrought	5 754	6 510	6 006	6 371	4 638
Unwrought alloys	1 086	528	256	1 666	253
Scrap	2 865	4 582	3 863	4 118	4 615
Oxides	15	66	15	9	8
Germany, Federal Republic of					
Mattes, sinters etc.	1 187	1	0	143	2
Unwrought	5 838	6 215	4 825	4 661	4 362
Unwrought alloys	3 589	3 142	2 924	3 723	3 794
Scrap	6 492	9 989	8 041	9 765	11 063
Oxides	95	88	68	107	197
Irish Republic					
Unwrought (a)	7	260	90	99	85
Scrap	208	330	315	410	241
Italy					
Unwrought (a)	378	845	484	1 631	3 851
Scrap	281	602	472	309	365
Netherlands					
Mattes, sinters etc. (b)	* 5 400	* 4 200	* 9 500	* 9 800	* 8 400
Unwrought (a)	650	400	1 558	365	3 194
Scrap	3 433	6 740	6 367	5 500	6 123
Oxides (b)	* 200	* 150	* 300	* 250	* 250
Spain					
Scrap	64	166	349	125	256
Albania					
Unwrought	1 500	1 500	1 900	2 000	...
Austria					
Scrap	104	123	311	184	113
Finland					
Ores & concentrates	...	6 039	31 448	26 296	1 266
Unwrought	13 309	10 458	9 456	10 515	6 791
Oxides	...	311	456	474	476
Norway					
Ore	8 991	6 914	11 513	21 578	23 452
Unwrought	44 125	50 789	54 824	58 605	56 655
Scrap	91	86	100	85	53
Soviet Union					
Mattes, sinters etc. (b)	* 400	* 7 900	* 15 700	* 27 300	* 13 400
Unwrought (a) (b)	* 56 800	* 62 000	* 72 600	* 77 100	* 98 700
Sweden					
Unwrought (a)	78	1 802	133	95	62
Scrap	740	642	769	542	947
Switzerland					
Unwrought	(g) 122	(a) 662	(a) 194	(a) 63	(a) 64
Scrap	369	440	302	276	347
Yugoslavia					
Scrap	83	14	1	80	(i) 121
Botswana					
Mattes, sinters etc.	49 016	60 739	56 118	48 500	48 800
South Africa					
Unwrought (a)	17 741	17 737	16 412	21 167	17 934
Scrap (b)	* 400	* 500	* 1 100	* 1 900	* 1 800
Zimbabwe					
Unwrought (a)	15 832	16 928	15 000	13 740	11 517

Nickel

Exports of Nickel

tonnes

Country	1987	1988	1989	1990	1991
Canada					
Ores, concentrates, mattes etc. (c)	77 275	67 888	65 517	68 671	75 109
Unwrought	96 165	(a)* 67 000	(a) 62 674	(a) 65 861	(a) 61 961
Scrap	7 663	7 155	7 936	5 594	4 232
Cuba					
Oxide, sinter & sulphide (e)	36 130	* 43 000	* 46 000	* 40 600	* 30 400
USA					
Mattes, sinters etc.	...	...	760	8 268	6 959
Unwrought (a)	1 825	2 080	3 977	4 426	4 768
Scrap	10 489	11 626	14 753	21 458	21 502
China					
Unwrought (a) (b)	* 9 700	* 5 200	* 3 000	* 500	* 200
Hong Kong					
Unwrought (a) (f)	6 228	4 979	5 301	2 509	4 980
Scrap	956	526	252	56	55
Oxides (f)	76	39	81	101	63
Indonesia					
Ore	992 877	1 253 611	1 081 531	1 364 752	1 697 110
Mattes, sinters etc.	49 496	58 769	38 166	35 069	42 284
Israel					
Scrap (b)	* 100	* 400	* 400	* 300	* 500
Japan					
Unwrought (a)	228	544	128	147	81
Oxides	...	163	186	245	1 102
Korea, Republic of					
Unwrought (a)	42	—	1 152	1 330	837
Scrap	639	881	1 392	2 221	7 567
Philippines					
Ores & concentrates	483 417	489 055	601 144	511 054	626 573
Unwrought (a)	—	—	—	—	198
Singapore					
Unwrought (f)	1 483	2 436	5 521	633	1 220
Scrap	142	97	140	174	69
of which: Re-exports	30	38	12	7	2
Taiwan					
Unwrought	1 140	2 431	(a) 1 403	(a) 1 421	(a) 105
Scrap	2 180	3 891	3 111	3 041	2 346
Australia (d)	* 68 400	* 61 800	* 55 900	* 69 100	* 71 300
New Caledonia					
Ores	1 019 729	1 301 864	2 087 000	2 263 000	2 067 000
Mattes, sinters etc.	9 900	14 000	14 600	14 400	11 600
New Zealand					
Scrap (h)	162	22	591	80	159

Note(s):

- (1) In this table the term 'unwrought' nickel corresponds to item 683.1 of the Standard International Trade Classification (Revision 3) 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
(c) Ni content
(d) BGS estimates; unwrought metal and Ni content of ores, concentrates, matte etc., based on known imports into certain countries
(e) Ni-Co content (mainly nickel)
(f) Re-exports
(g) Including mattes, sinters etc.
(h) Years ended 30 June of that stated
(i) Data for the Federal Republic of Yugoslavia only

Imports of Nickel

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Mattes, sinters etc.	39 957	46 834	41 792	48 861	44 929
Unwrought	17 031	15 248	17 140	18 018	16 621
Unwrought alloys	1 127	2 326	1 836	990	667
Scrap	4 503	6 332	6 493	6 372	5 766
Oxides	2 709	2 695	818	195	113
Belgium-Luxembourg					
Ore	2 350	2 273	2 317	1 459	439
Mattes, sinters etc.	1 791	4 445	6 358	7 826	5 310
Unwrought	5 418	9 238	9 133	8 240	9 650
Unwrought alloys	1 228	128	65	116	139
Scrap	627	1 390	2 388	572	908
Oxides	274	126	163	166	137
Denmark					
Unwrought (a)	249	140	117	131	150
France					
Mattes, sinters etc.	11 697	14 019	14 083	13 404	11 690
Unwrought	22 712	20 375	23 963	27 423	21 853
Unwrought alloys	4 872	4 687	3 033	4 455	4 468
Scrap	580	837	1 167	2 042	2 835
Oxides	61	173	204	288	176
Germany, Federal Republic of					
Mattes, sinters etc.	13 104	14 585	11 936	11 196	11 337
Unwrought (a)	57 342	56 399	57 458	57 383	51 950
Scrap	6 987	11 775	12 508	8 046	10 781
Oxides	280	331	271	378	377
Greece					
Unwrought (a)	203	105	194	100	173
Irish Republic					
Unwrought (a)	398	515	615	639	694
Italy					
Mattes, sinters etc.	6 743	6 978	10 520	11 158	8 590
Unwrought	15 616	16 258	15 420	14 297	20 244
Unwrought alloys	849	698	1 342	1 319	1 004
Scrap	220	119	42	44	149
Oxides	440	110	114	120	283
Netherlands					
Mattes, sinters etc. (e)	* 5 900	* 11 700	* 3 200	* 3 700	* 13 700
Unwrought	1 834	1 472	2 924	1 373	1 295
Unwrought alloys	83	62	756	14	11
Scrap	2 773	3 138	2 962	2 797	3 732
Oxides	145	196	211	200	226
Portugal					
Unwrought (a)	331	279	267	286	230
Spain					
Mattes, sinters etc.	1 503	503	426	342	280
Unwrought (a)	4 270	7 895	10 766	11 040	9 665
Austria					
Mattes, sinters etc.	405	672	835	843	597
Unwrought (a)	2 814	2 735	2 370	2 709	2 506
Scrap	949	626	271	201	504
Czechoslovakia					
Unwrought (a)	7 460	5 352	6 092	8 123	...
Finland					
Ore	12 516	7 582	11 286	26 917	20 093
Mattes, sinters etc.	4 514	5 778	5 417	6 040	5 538
Unwrought (a)	2 313	3 140	4 045	3 051	5 476
Scrap	3 216	5 761	5 738	4 754	4 882
Norway					
Mattes, sinters etc.	92 110	119 220	110 432	128 467	133 194
Unwrought (a)	64	19	53	302	52
Sweden					
Ore	—	2 866	2 212	1 055	—
Mattes, sinters etc.	3 515	2 319	1 872	2 330	2 380
Unwrought	10 628	13 622	12 412	12 123	10 039
Unwrought alloys	177	554	1 371	410	1 291
Scrap	6 048	11 013	11 029	8 492	9 939

Nickel

Imports of Nickel

tonnes

Country	1987	1988	1989	1990	1991
Switzerland					
Unwrought	(f) 1 157	(a) 664	(a) 1 087	(a) 1 407	(a) 1 194
Scrap	29	85	51	64	77
Yugoslavia					
Unwrought (a)	1 627	1 681	884	988	(h) 161
South Africa					
Mattes, sinters etc.	469	2	351	—	...
Canada					
Ores & concentrates (b)	(g) 23 533	1 202	716	33	8
Mattes, sinters etc.	...	4 207	2 522	13 085	23 299
Unwrought (a)	3 348	1 682	3 786	4 084	10 063
Scrap	...	14 544	13 480	9 314	14 717
Mexico					
Unwrought (a)	—	998	1 258	1 885	1 610
USA					
Slurry, mattes, sinters etc.	5 335	6 687	303	1 055	5 157
Unwrought (a)	103 314	106 867	111 608	108 940	104 062
Scrap	6 865	8 384	10 280	7 945	7 469
Oxides	804	806	749	615	575
Argentina					
Unwrought	844	322	262	317	500
Brazil					
Unwrought (a)	1 712	1 493	4 017	2 821	3 437
Colombia					
Unwrought	164	164	284	164	191
Venezuela					
Unwrought	327	243	184	242	196
China					
Unwrought (a)	209	2 471	526	35	4 568
Hong Kong					
Unwrought (a)	6 220	7 026	6 079	3 836	8 068
India (c)					
Mattes, sinters etc.	3 884	3 265	...	5 408	4 964
Unwrought	5 322	6 052	...	4 571	3 248
Unwrought alloys	750	58	...	14	5
Scrap	632	969	...	401	200
Japan					
Ore	2 926 857	3 265 651	3 827 905	3 337 710	4 002 388
Mattes, sinters etc.	54 610	62 658	59 923	62 291	67 267
Unwrought	42 352	34 093	37 973	44 069	50 822
Unwrought alloys	261	235	282	314	376
Scrap	3 089	3 578	2 241	3 843	4 155
Oxides	...	290	283	269	272
Korea, Dem. P.R. of					
Unwrought (a) (e)	* 1 900	* 600	* 100	* 150	* 100
Korea, Republic of					
Mattes, sinters etc.	...	...	6 600	10 479	16 103
Unwrought (a)	4 961	5 259	8 165	6 571	13 280
Scrap	554	2 077	1 781	2 439	2 366
Malaysia					
Unwrought (a)	111	170	158	311	478
Singapore					
Unwrought	1 493	4 042	3 355	671	706
Scrap	284	208	185	277	224
Taiwan					
Mattes, sinters etc.	11 256	17 539	9 923	6 035	7 280
Unwrought	6 364	3 900	(a) 7 061	(a) 11 153	(a) 13 145
Scrap	383	155	7	14	82
Oxides	...	300	335	398	432
Thailand					
Unwrought (a)	775	567	2 788	927	812

Imports of Nickel

tonnes

Country	1987	1988	1989	1990	1991
Australia					
Mattes, sinters etc. (d)	1 416	0	107	508	0
Unwrought (d)	1 287	282	76	170	291
Unwrought alloys (d)	50	257	243	334	285
Scrap (d)	355	243	160	70	38
New Zealand (d)					
Unwrought (a)	64	25	45	67	36

Note(s):

- (1) In this table the term 'unwrought' nickel corresponds to item 683.1 of the Standard International Trade Classification (Revision 3) 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) Ni content
- (c) Years ended 31 March following that stated
- (d) Years ended 30 June of that stated
- (e) BGS estimates, based on known exports from certain countries
- (f) Including mattes, sinters etc.
- (g) Including scrap
- (h) Data for the Federal Republic of Yugoslavia only

Production of Crude Petroleum

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom	117 658 000	109 455 000	87 306 000	87 992 000	86 833 000
Denmark (e)	4 552 394	4 700 061	5 416 303	5 933 019	7 003 426
France	3 234 621	3 358 000	3 243 000	3 023 000	2 950 000
Germany, Federal Republic of	3 800 000	3 937 000	3 770 000	3 606 000	3 385 000
Greece	1 238 153	1 141 922	926 593	836 013	848 594
Italy	3 904 542	4 839 213	4 568 424	4 623 694	4 353 000
Netherlands	4 291 000	3 909 000	3 391 000	3 533 000	3 258 000
Spain	1 639 994	1 482 034	1 038 008	795 000	1 067 000
Albania	* 3 000 000	2 482 000	2 135 000	1 067 000	1 002 000
Austria	1 060 367	1 175 186	1 157 891	1 148 593	1 279 882
Bulgaria	85 000	77 000	73 000	60 000	58 000
Czechoslovakia	147 000	143 000	144 000	123 000	140 000
German Democratic Republic	* 60 000	* 60 000	* 60 000	—	—
Hungary	1 914 000	1 947 000	1 966 000	1 974 000	1 893 000
Norway	49 316 000	56 125 000	74 528 000	81 745 000	94 181 000
Poland	149 000	163 000	159 000	163 000	158 000
Romania	9 504 000	9 389 000	9 173 000	7 930 000	6 788 000
Soviet Union	624 177 000	624 324 000	607 121 000	571 000 000	515 416 000
Turkey	2 629 263	2 563 891	2 876 537	3 719 956	4 520 030
Yugoslavia	3 867 000	3 681 147	3 392 445	3 144 526	(f) 2 160 000
Algeria	48 000 000	49 357 000	51 370 000	56 673 000	58 454 000
Angola	17 968 000	24 606 000	25 000 000	25 780 000	24 751 000
Benin	350 000	250 000	200 000	295 000	195 000
Cameroon	8 602 000	8 688 000	8 642 000	8 292 000	7 709 000
Congo	6 316 848	7 038 074	7 969 388	8 015 900	7 855 500
Egypt	43 178 000	44 523 000	42 626 000	43 407 000	45 576 000
Gabon	7 980 000	8 812 000	10 998 000	13 754 000	14 982 000
Ivory Coast	1 200 000	548 000	350 000	315 000	60 000
Libya	46 790 000	49 250 000	53 694 000	65 990 000	73 968 000
Nigeria	63 670 000	68 530 000	83 129 000	90 736 000	96 455 000
Tunisia	5 005 000	4 908 000	4 916 000	4 502 000	5 195 000
Zaire	1 559 836	1 464 000	1 358 000	1 411 000	1 380 000
Barbados	68 181	58 617	53 430	62 369	62 382
Canada	81 322 400	85 596 900	82 606 600	82 235 200	81 963 600
Cuba	894 500	716 800	718 400	736 000	817 000
Guatemala	191 167	185 182	184 221	199 630	187 648
Mexico	135 267 715	133 903 176	133 947 324	136 484 511	143 480 935
Trinidad & Tobago	7 995 579	7 793 355	7 697 400	7 790 100	7 424 600
USA	415 571 000	405 168 000	378 937 000	366 095 000	369 181 000
Argentina	22 675 290	23 829 749	24 368 512	25 545 968	26 108 344
Bolivia	1 000 800	840 470	868 306	914 639	1 034 000
Brazil	29 641 987	28 979 383	30 977 843	32 825 392	32 478 773
Chile	1 583 985	1 295 716	1 169 392	1 038 015	942 613
Colombia	19 835 000	19 358 000	20 839 000	22 647 000	21 927 000
Ecuador	8 893 681	15 418 451	14 199 445	14 500 000	14 800 000
Peru	8 064 014	6 982 151	6 425 929	6 355 000	5 657 000
Suriname	136 518	199 500	225 619	229 959	246 598
Venezuela	95 256 500	99 629 000	99 839 000	111 775 000	124 340 000
Abu Dhabi	43 015 775	34 563 636	* 45 000 000	* 50 000 000	* 65 000 000
Bahrain	2 099 590	2 141 257	2 128 825	2 084 000	2 100 137
Brunei	7 015 000	6 352 000	6 449 000	6 544 000	8 049 000
China (a)	134 140 000	137 046 000	137 641 000	138 306 000	140 990 000
Dubai	19 600 000	18 903 000	20 706 000	20 902 000	20 861 000
India	30 128 000	31 580 000	33 693 000	33 309 000	31 287 000
Indonesia	63 384 096	64 053 453	68 031 754	70 185 234	71 038 899
Iran	114 700 000	112 900 000	144 347 000	157 084 000	166 731 000
Iraq	102 400 000	127 700 000	139 185 000	100 681 000	14 876 000
Israel	15 143	19 522	16 876	11 494	8 575
Japan	645 200	631 180	584 736	576 581	800 933
Kuwait	61 439 000	71 504 000	91 886 000	58 729 000	9 567 000
Malaysia	24 600 000	26 700 000	28 800 000	30 600 000	30 987 000
Myanmar (d)	831 700	643 900	737 800	710 900	764 600
Neutral Zone (c)	20 200 000	16 600 000	19 300 000	16 300 000	5 200 000

Production of Crude Petroleum

tonnes

Country	1987	1988	1989	1990	1991
Oman	28 982 542	30 905 619	31 887 616	34 097 108	35 324 604
Pakistan	2 030 343	2 213 000	2 530 000	2 925 000	3 054 000
Philippines	289 000	300 000	257 700	237 093	149 760
Qatar	15 900 000	16 900 000	19 300 000	21 200 000	20 500 000
Ras al Khaimah	490 000	500 000	498 000	37 000	40 000
Saudi Arabia	212 200 000	256 500 000	257 300 000	321 928 000	410 047 000
Sharjah	3 130 000	1 927 000	1 681 000	1 802 000	1 922 000
Syria	12 000 000	14 160 000	16 998 000	20 292 000	24 644 000
Taiwan	* 100 000	125 000	140 000	100 000	99 000
Thailand	1 600 000	1 500 000	1 153 200	1 294 495	1 322 581
Vietnam	175 000	747 000	1 022 000	2 482 000	3 900 000
Yemen, Republic of (g)	* 700 000	8 300 000	9 410 000	9 931 000	9 804 000
Australia	29 076 240	27 492 622	25 937 279	30 547 662	28 835 416
New Zealand (b)	1 291 930	1 555 310	1 743 600	1 796 880	1 877 200
World total	2 847 000 000	2 947 000 000	3 014 000 000	3 046 000 000	3 014 000 000

Note(s):

(1) The figures shown in this table exclude natural gasoline

(a) Including oil from shale and coal

(b) Petroleum condensate

(c) Neutral zone of Kuwait and Saudi Arabia

(d) Years ended 31 March following that stated

(e) Sales

(f) Excluding data from August to December for the Republic of Croatia

(g) Yemen Arab Republic and People's Dem. Rep. of Yemen were unified on 22 May 1990 as the Republic of Yemen

Production of Natural Gas

million m³

Country	1987	1988	1989	1990	1991
United Kingdom	47 641	45 753	44 755	49 551	55 228
Belgium	38	27	20	—	—
France	3 875	3 207	3 073	2 964	3 370
Germany, Federal Republic of	15 871	14 783	14 650	14 554	21 890
Irish Republic	1 669	2 017	2 300	2 320	2 400
Italy	16 218	16 511	16 766	17 000	17 400
Netherlands	74 247	65 610	71 715	72 238	81 666
Spain	750	952	1 623	1 330	1 320
Albania	* 450	* 800	* 700	* 700	* 140
Austria	1 167	1 265	1 323	1 288	1 329
Bulgaria	13	10	9	14	10
Czechoslovakia	785	944	865	1 227	592
German Democratic Republic	13 075	11 936	10 262	* 8 500	—
Hungary	7 126	6 272	6 176	4 932	5 043
Norway	29 868	29 778	30 745	27 642	27 425
Poland	5 781	5 713	5 368	3 866	4 130
Romania	37 418	36 804	32 951	29 200	24 810
Soviet Union	727 000	770 000	796 000	815 300	810 530
Turkey	297	99	174	212	203
Yugoslavia	2 887	3 015	2 871	2 659	(g) 1 878
Algeria	39 400	44 900	48 400	50 640	54 760
Angola	450	450	430	460	580
Egypt	6 280	6 920	7 740	8 110	9 080
Gabon	70	100	90	100	100
Libya	5 000	5 500	6 000	6 200	6 750
Morocco	74	83	63	60	40
Nigeria	3 700	3 800	4 700	3 710	4 750
Tunisia	441	430	427	378	387
Canada	99 381	113 724	119 623	123 228	129 598
Mexico	* 26 000	26 046	* 26 100	26 730	26 521
Trinidad & Tobago	4 569	4 956	5 050	* 5 500	* 6 000
USA (e)	468 253	482 112	488 749	504 300	502 700
Argentina	18 905	22 315	22 570	22 800	* 23 000
Bolivia	2 678	2 783	2 934	3 004	2 950
Brazil	3 101	3 365	3 601	3 569	3 480
Chile	960	1 848	1 806	1 921	1 649
Colombia	4 060	4 140	4 130	4 280	4 400
Peru	865	810	704	* 600	* 500
Venezuela	18 587	18 794	18 660	20 726	21 902
Abu Dhabi	13 070	12 920	15 600	15 270	18 600
Afghanistan (c)	2 800	3 000	300	300	300
Bahrain	5 846	6 169	6 435	6 170	6 315
Bangladesh (d)	3 549	4 113	4 413	4 754	4 893
Brunei	8 151	8 469	8 300	8 462	7 850
China	13 890	14 260	15 049	15 298	16 073
Dubai	2 600	2 440	2 280	2 890	2 980
India	6 334	8 833	8 778	10 245	11 532
Indonesia	49 044	52 320	55 938	61 137	65 599
Iran	16 000	20 000	22 200	23 710	26 000
Iraq	3 750	5 730	6 100	4 180	1 100
Israel	45	41	38	33	27
Japan	2 168	2 097	2 010	2 043	2 134
Kuwait (a)	5 300	6 490	8 160	5 230	500
Malaysia	15 500	16 450	17 160	18 520	21 150
Myanmar (b)	1 187	1 107	1 125	953	950
Oman	1 523	1 595	1 644	1 749	1 817
Pakistan	11 633	12 594	13 450	14 290	15 130
Qatar	6 136	6 470	6 090	6 720	9 300
Ras al Khaimah	350	300	200	40	40
Saudi Arabia (a)	26 800	29 100	29 800	30 500	32 000
Sharjah	3 750	2 980	3 900	3 900	4 320
Syria	620	720	1 000	2 920	3 500
Taiwan	1 057	1 157	1 158	1 129	766
Thailand	5 059	5 993	5 986	6 520	8 080

Production of Natural Gasmillion m³

Country	1987	1988	1989	1990	1991
Australia	(f) 15 023	15 383	17 806	20 620	21 694
New Zealand	4 317	4 700	4 809	4 793	5 273
World total	1 900 000	2 000 000	2 100 000	2 100 000	2 100 000

Note(s):

- (1) So far as possible the figures in this table exclude flared or reinjected gas
- (a) Including one-half of the output of the Neutral Zone
- (b) Years ended 31 March following that stated
- (c) Years ended 20 March following that stated
- (d) Years ended 30 June of that stated
- (e) Dry gas
- (f) Including ethane
- (g) Excluding data from August to December for the Republic of Croatia

Exports of Crude Petroleum

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom	80 616 236	63 804 707	49 228 876	54 162 184	51 694 907
Denmark	1 741 057	1 801 566	2 385 236	2 727 597	4 051 480
France	20 644	132 669	18 945	20 594	30 099
Germany, Federal Republic of	1 101 194	1 175 249	1 155 060	1 100 013	120 400
Greece	1 105 000	450 000	419 310	416 623	532 827
Italy	619 306	626 155	741 036	814 846	499 208
Netherlands	1 024 625	930 293	1 051 752	1 316 126	1 190 242
Hungary	2 076 000	2 483 000	2 700 000	2 344 000	...
Norway	41 746 707	48 104 368	65 133 948	68 331 921	82 196 498
Soviet Union	136 607 000	144 196 000	127 330 000	108 551 000	(d) 56 476 000
Sweden	140 000	—	56 000	—	84 005
Algeria	25 555 165	27 265 805	30 001 664	31 441 296	32 004 000
Angola	16 967 000	20 592 000	20 516 000	22 127 000	23 200 000
Benin	* 264 000	* 275 000	...	...	...
Cameroon	769 858	1 117 000	2 157 658	2 091 000	* 2 050 000
Congo	3 388 758	4 520 920	6 665 717	6 175 000	6 175 000
Egypt	10 023 000	7 086 378	5 359 525	* 6 500 000	* 6 500 000
Gabon	6 872 000	7 229 000	8 665 000	11 983 000	13 870 000
Libya	39 091 000	42 951 000	42 083 000	49 225 000	* 55 100 000
Nigeria	53 354 442	55 247 000	67 909 000	76 508 000	80 210 000
Tunisia	3 711 464	3 186 593	4 350 989	3 372 222	3 422 500
Zaire	1 588 824	1 451 700	1 210 000	1 210 000	...
Bahamas (b)	8 607 368	6 836 821	9 110 554	7 933 551	...
Canada	32 635 978	37 376 510	34 170 001	31 977 809	39 300 009
Cuba (b)	1 320 000	* 1 150 000	1 140 000	* 800 000	...
Guatemala	154 569	134 516	155 167	188 681	124 683
Mexico	69 536 100	65 303 238	67 749 332	67 625 194	70 774 000
Netherlands Antilles	552 000	1 229 000	2 058 000	1 924 000	1 152 000
Trinidad & Tobago	3 881 794	3 638 257	3 713 463	4 471 381	* 4 000 000
USA	968 231	639 503	512 369	1 086 434	310 185
Argentina	83 200	200 984	315 928	1 038 185	* 1 000 000
Colombia	7 809 177	7 785 588	8 809 001	10 305 978	9 109 615
Ecuador	5 400 000	7 400 000	7 300 000	7 700 000	8 300 000
Peru	152 967	249 322	48 480	130 000	...
Venezuela	53 757 000	50 900 000	51 600 000	65 000 000	72 300 000
Brunei	6 815 332	6 153 000	6 261 000	7 056 000	7 010 000
China	27 225 373	26 045 339	24 388 350	23 978 675	22 237 537
Indonesia	39 133 463	36 653 795	39 147 075	37 855 428	39 553 728
Iran (a)	* 73 315 000	* 60 153 000	* 78 765 000	* 87 610 000	* 98 096 000
Iraq	86 597 000	94 993 000	107 258 000	75 724 000	—
Kuwait	30 684 000	31 630 000	40 949 000	27 719 000	* 4 300 000
Malaysia	18 111 170	19 937 235	21 456 162	22 110 000	22 653 604
Oman	26 869 000	28 910 000	29 459 000	29 459 000	31 232 000
Qatar	12 231 000	14 639 000	15 938 578	16 510 630	15 751 141
Saudi Arabia	121 105 806	153 239 867	157 880 887	209 413 267	309 829 937
Singapore	111 289	1 551 062	185 460	19 059	686
of which: Re-exports	97 893	1 476 407	14 764	488	498
Syria	4 280 051	3 794 152	6 949 194	9 152 973	* 11 700 000
United Arab Emirates	62 375 000	64 681 000	79 349 000	85 548 000	* 100 700 000
Australia	5 670 400	5 596 000	4 067 600	8 373 300	7 526 800
New Zealand (c)	92 979	214 346	290 597	659 949	921 251

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

(b) Re-exports

(c) Years ended 30 June of that stated

(d) Data for the Russian Federation only

Imports of Crude Petroleum

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom	33 109 328	32 885 988	36 339 792	43 748 921	45 655 480
Belgium-Luxembourg	23 872 531	23 207 014	24 608 187	23 562 511	28 775 995
Denmark	4 286 750	4 476 516	4 226 890	4 079 612	4 864 862
France	63 054 333	66 351 077	66 676 889	70 267 015	73 392 448
Germany, Federal Republic of	63 840 159	72 036 951	66 326 900	72 400 222	90 119 452
Greece	16 639 408	4 200 010	7 095 710	8 008 909	9 824 216
Irish Republic	1 528 804	1 348 043	1 429 924	1 989 428	1 726 241
Italy	67 023 444	63 393 108	67 978 000	72 710 934	73 204 325
Netherlands	48 512 517	51 394 231	51 285 070	49 659 179	53 008 915
Portugal	7 890 708	7 947 544	9 823 383	10 595 000	9 473 000
Spain	44 850 096	45 019 884	49 918 012	49 350 695	50 921 769
Austria	6 232 912	5 630 832	5 943 879	6 796 999	7 000 545
Bulgaria	12 972 000	13 196 000	13 950 000	10 844 000	* 5 000 000
Czechoslovakia	17 760 000	17 014 000	17 632 000	13 581 000	11 383 000
Finland	10 685 513	8 937 400	8 840 411	8 973 190	9 925 143
German Democratic Republic	20 949 000	20 514 000	21 040 000	17 638 000	—
Hungary	8 499 143	7 261 969	6 320 991	6 224 091	...
Norway	2 781 082	1 187 345	929 749	1 624 245	1 664 901
Poland	14 169 000	14 966 000	14 985 000	13 008 000	...
Romania	21 366 000	20 957 000	21 809 000	16 206 000	9 400 000
Soviet Union	13 990 000	19 845 000	13 336 000	8 218 000	1 250 000
Sweden	15 411 383	14 414 742	15 781 358	16 928 391	16 326 656
Switzerland	3 895 006	3 845 408	3 013 434	3 054 292	4 528 655
Turkey	19 691 963	21 636 806	18 584 000	19 842 000	17 528 000
Yugoslavia	11 092 210	12 061 042	11 688 739	11 995 890	(c) 3 839 942
Ethiopia	778 513	767 275	759 758	702 734	...
Ghana	884 622	1 369 218	1 040 000	1 070 000	...
Ivory Coast	2 407 356	1 941 717	2 065 000	2 214 000	* 2 200 000
Kenya	2 102 564	2 010 836	2 100 000	2 101 000	2 240 000
Liberia	365 000	370 000	380 000	385 000	...
Madagascar	244 099	420 000	154 185	207 861	339 807
Morocco	4 836 221	5 001 294	5 644 575	5 838 151	5 048 466
Senegal	859 800	1 165 046	1 619 112	771 478	...
Sierra Leone	278 000	285 000	287 000	295 000	...
Somalia	* 248 000	* 250 000	* 251 000	* 258 000	...
South Africa	16 000 000	16 100 000	16 300 000	17 300 000	...
Sudan	1 115 000	1 023 000	1 027 000	1 050 000	...
Tanzania	509 773	624 705	703 963	* 710 000	...
Tunisia	423 199	4	553 150	396 058	117 779
Zaire	* 117 000	115 000	119 000	125 000	...
Zambia	698 429	636 542	7 273	1 293 674	537 304
Bahamas	8 443 299	4 772 058	9 304 173	7 401 300	4 300 400
Barbados	167 023	185 754	209 904	217 000	...
Canada	19 856 397	21 415 133	25 816 113	29 051 388	28 117 457
Costa Rica	634 243	602 869	677 744	422 169	362 853
Cuba	7 894 000	8 500 000	8 410 000	7 675 000	* 6 000 000
Dominican Republic	* 1 450 000	* 1 500 000	* 1 500 000	1 515 000	...
El Salvador	701 005	710 125	563 858	438 932	490 699
Guatemala	522 043	* 500 000	* 500 000	545 018	672 019
Honduras	294 373	389 816	461 416	...	356 824
Jamaica	659 335	739 822	877 547	1 154 950	...
Martinique	551 342	493 023	595 164	862 404	627 319
Netherlands Antilles	9 867 000	10 458 000	9 924 000	11 195 000	17 485 000
Nicaragua	530 000	550 000	560 000	565 000	261 406
Panama	1 347 741	951 948	955 927	1 209 192	1 142 112
Trinidad & Tobago	248 729	673 632	307 490	736 724	1 570 244
USA	237 962 288	257 447 206	290 198 569	303 073 018	289 626 171
Brazil	30 945 630	31 700 745	29 180 116	28 245 531	25 292 900
Chile	2 962 172	4 226 840	4 633 645	5 379 166	5 677 432
Paraguay	255 079	243 108	300 210	289 111	272 263
Peru	147 401	1 073 242	958 000	800 773	692 044
Uruguay	1 131 831	1 155 122	759 127	1 212 743	1 940 049

Imports of Crude Petroleum

tonnes

Country	1987	1988	1989	1990	1991
Bahrain	9 759 000	9 959 000	10 050 000	10 243 000	* 10 400 000
Bangladesh (a)	1 000 449	1 212 079	1 018 546	2 192 210	...
China	* 500 000	854 536	3 262 838	2 922 711	5 972 471
Cyprus	615 889	707 000	680 197	624 485	767 829
India (b)	17 930 000	17 810 000	19 600 000	20 637 000	23 994 000
Indonesia	4 184 629	4 309 647	4 657 022	6 586 034	7 336 844
Israel	6 696 000	7 271 000	7 184 000	7 288 000	...
Japan	164 125 425	171 247 941	183 249 914	201 320 242	211 531 290
Jordan	2 537 871	2 482 403	2 453 260	2 688 111	2 324 092
Korea, Dem. P.R. of (d)	* 1 237 000	* 1 202 000	* 1 073 000	* 1 598 000	* 1 102 000
Korea, Republic of	29 241 798	32 942 770	40 067 228	41 297 050	55 577 825
Lebanon	1 250 000	1 300 000	1 300 000	1 250 000	...
Malaysia	1 563 128	1 526 793	1 020 056	1 004 000	1 084 177
Pakistan	3 714 220	3 809 857	3 671 000	3 515 677	...
Philippines	8 945 688	9 473 386	9 777 864	10 730 785	6 433 527
Singapore	31 489 670	34 885 597	37 344 978	43 129 467	45 455 676
Sri Lanka	1 778 853	1 720 591	...	1 663 556	1 636 799
Syria	2 786 617	1 879 000	1 000 000	250 000	* 150 000
Taiwan	19 244 855	19 952 499	21 388 499	20 545 150	22 396 898
Thailand	8 160 754	8 040 644	10 503 857	10 119 567	10 718 398
Yemen, Republic of (e)	3 400 000	3 450 000	3 570 000	3 444 000	* 3 600 000
Australia	7 254 000	8 197 000	12 447 000	10 732 000	13 859 000
New Zealand (a)	1 599 407	2 305 756	2 619 645	3 290 907	3 315 764

(a) Years ended 30 June of that stated

(b) Years ended 31 March following that stated

(c) Data for the Federal Republic of Yugoslavia only

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

(e) Yemen Arab Republic and People's Dem. Rep. of Yemen were unified on 22 May 1990 as the Republic of Yemen

Mine Production of Platinum Group Metals

kilograms (metal content)

Country	1987	1988	1989	1990	1991
Finland					
Platinum (a)	69	54	67	72	59
Palladium (a)	120	106	107	104	101
German Democratic Republic					
Platinum (a)	* 2 000	...	...	...	—
Palladium (a)	* 350	...	...	...	—
Soviet Union					
Platinum	* 31 100	* 32 000	* 32 000	* 31 000	* 30 000
Palladium	* 93 300	* 95 500	* 95 500	* 94 000	* 91 500
Yugoslavia					
Platinum (a)	22	23	23	21	(d) 22
Palladium (a)	132	142	199	130	(d) 155
Ethiopia (c)	1	2	* 2	* 2	* 2
South Africa (a)	127 980	131 722	133 684	141 913	142 861
Zimbabwe					
Platinum	18	28	25	21	19
Palladium	29	45	43	31	30
Canada (b)					
Platinum	4 354	5 393	4 244	4 829	* 4 800
Palladium	5 910	5 643	4 442	5 044	* 5 000
Other platinum metals	666	1 505	1 184	1 336	* 1 300
USA					
Platinum	* 1 030	* 1 490	* 1 680	* 2 050	* 1 730
Palladium	* 2 580	* 3 980	* 5 100	* 6 170	* 6 050
Colombia	680	810	973	1 316	1 603
Japan					
Platinum (a)	753	647	1 031	1 425	988
Palladium (a)	1 417	1 170	821	1 047	1 053
Australia					
Platinum	84	73	* 100	* 100	* 100
Palladium	451	360	* 400	* 400	* 400
World total	273 000	283 000	284 000	293 000	288 000

Note(s):

- (1) Wherever possible, figures relate to quantities of platinum group metals thought to be recovered from ores originating in the country stated
- (2) Figures for metal production are only given for countries where recovery is thought to be based predominantly on domestic materials or on imported materials which have not been recorded as mine production elsewhere in the table
- (3) In addition to the countries listed, Bulgaria, China, Indonesia, Papua New Guinea and Philippines are believed to produce platinum group metals
- (a) Metal production
- (b) Platinum metals content of concentrates (produced from Ni-Cu ores), residues and matte exported
- (c) Years ended 6 July of that stated
- (d) Excluding data from August to December for the Republic of Croatia

Platinum Metals

Exports of Platinum Group Metals

kilograms

Country	1987	1988	1989	1990	1991
United Kingdom					
Platinum	27 388	37 487	34 473	45 347	50 722
Palladium	14 865	32 795	30 086	30 371	39 113
Other platinum metals	6 485	5 796	9 580	6 169	5 564
Waste & scrap	25 925	1 198	3 773	1 550	1 452
Belgium-Luxembourg					
Platinum	2 405	3 646	3 730	3 760	4 107
Platinum metals	6 880	16 201	11 397	11 154	15 645
Waste & scrap	£3 384 000	£4 433 000	£5 360 000	£4 576 000	£5 486 000
Denmark					
Platinum & platinum metals	57	285	81	453	244
Waste & scrap	1 810	373	1 574	918	178
of which: Re-exports	1 638	274	468	...	...
France					
Platinum	4 417	6 930	7 164	6 595	5 340
Platinum metals	7 066	4 370	5 070	6 778	4 863
Waste & scrap	179 129	449	171 352	14 163	96 621
Germany, Federal Republic of					
Platinum	13 189	15 183	17 119	15 546	14 003
Palladium	5 192	8 490	9 293	10 727	12 193
Other platinum metals	5 546	2 377	2 192	2 326	2 098
Waste & scrap	277	20 545	42 588	36 628	120 506
Irish Republic					
Platinum & platinum metals	997	2 006	608	284	1 948
Italy					
Platinum	966	1 200	...	1 577	6 346
Platinum metals	2 105	662	...	441	43 565
Netherlands					
Platinum	1 232	1 560	1 872	2 040	1 998
Platinum metals	534	482	313	206	310
Waste & scrap	8 000	18 000	10 000	3 000	54 000
Portugal					
Platinum & platinum metals	399	400	400	330	...
Spain					
Platinum & platinum metals	78	330	97	1 246	715
Austria					
Platinum & platinum metals	740	1 201	766	1 255	1 058
Czechoslovakia					
Waste & scrap (a)	* 22 500	...	* 14 100	* 13 600	* 4 000
Norway					
Platinum & platinum metals	1 975	1 579	2 465	3 307	3 509
Soviet Union					
Platinum & platinum metals (a)	* 78 000	* 81 700	* 76 200	* 90 000	* 134 100
Sweden					
Platinum & platinum metals	£749 000	£1 307 000	£2 608 000	£2 833 000	£952 000
Switzerland					
Platinum & platinum metals	37 741	63 335	42 238	44 636	56 764
Waste & scrap	...	59 614	12 332	11 525	9 021
Yugoslavia					
Platinum & platinum metals	£1 463 000	£614 000	£431 000	£296 000	(f) —
Waste & scrap	£3 354 000	£3 311 000	£309 000	£5 407 000	(f) —
South Africa					
Platinum & platinum metals (d)	130 171	130 854	137 278	135 581	141 120
Waste & scrap (a)	* 3 500	* 20 700	* 4 600	* 19 100	* 21 300
Canada					
Ores & concentrates (b)	7 763	12 494	10 148	10 323	7 921
Platinum metals	4 506	4 657	9 772	7 060	6 353
USA					
Ores & concentrates (b)	172	156	173	415	863
Platinum	5 675	9 524	9 299	9 047	14 275
of which: Re-exports	3 114	1 898	884	1 537	1 574
Palladium	6 855	9 106	13 155	11 247	13 894
of which: Re-exports	1 132	718	150	360	259
Other platinum metals	6 205	4 379	1 717	2 232	1 068
of which: Re-exports	1 847	1 002	53	480	161
Waste & scrap	10 545	12 103	15 064	34 487	11 427

Exports of Platinum Group Metals

kilograms

Country	1987	1988	1989	1990	1991
Colombia					
Platinum	...	728	4	379	...
China					
Platinum & platinum metals	1 227	158	871	1 129	160
Hong Kong					
Platinum & platinum metals (c)	2 642	2 067	1 101	1 131	2 071
Japan					
Platinum	388	7 188	3 055	5 021	3 363
Platinum metals	2 268	1 639	1 451	2 180	2 554
Korea, Republic of					
Waste & scrap	8 741	3 979	6 335	6 362	13 999
Malaysia					
Waste & scrap	...	14 310	10 610	...	10 250
Singapore					
Platinum & platinum metals (c)	369	218	869	904	51
Taiwan					
Platinum & platinum metals	839	4 539	11 425	11 519	9 307
Australia					
Platinum & platinum metals (e)	546	929	1 271	744	44 169

Note(s):

(1) In this table the term 'Platinum' and/or 'Platinum metals' includes unwrought, partly worked and alloys

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

(b) Platinum metals content

(c) Re-exports

(d) Sales

(e) Years ended 30 June of that stated

(f) Data for the Federal Republic of Yugoslavia only

Platinum Metals

Imports of Platinum Group Metals

kilograms

Country	1987	1988	1989	1990	1991
United Kingdom					
Ores & concentrates	...	75 240	46 787	49 487	42 283
Platinum	10 425	26 437	29 225	35 654	39 357
Palladium	10 575	28 438	17 242	21 916	21 782
Other platinum metals	5 004	4 342	4 923	6 288	5 039
Waste & scrap	18 577	35 456	382 547	310 763	253 915
Belgium-Luxembourg					
Platinum	1 268	1 519	1 282	3 398	1 375
Platinum metals	477	719	718	1 817	4 731
Waste & scrap	£8 533 000	£11 211 000	£13 772 000	£17 605 000	£11 764 000
Denmark					
Platinum & platinum metals	726	473	634	673	603
France					
Platinum	5 436	6 514	6 746	8 530	8 393
Platinum metals	5 132	5 336	6 163	7 451	7 299
Waste & scrap	2 780	50 380	39 913	35 133	2 209
Germany, Federal Republic of					
Platinum	23 888	21 492	24 813	21 973	19 245
Palladium	17 081	27 461	21 889	26 211	26 578
Other platinum metals	5 127	3 151	3 331	2 786	2 699
Waste & scrap	122 240	86 762	103 755	105 543	46 443
Greece					
Platinum & platinum metals	228	514	438	347	248
Irish Republic					
Platinum & platinum metals	2 267	3 842	479	659	560
Italy					
Platinum	3 246	10 533	2 705	4 296	10 499
Platinum metals	4 025	5 346	5 289	10 081	5 249
Waste & scrap	3 900	1 500	1 581	5 000	4 000
Netherlands					
Platinum	892	1 158	1 094	917	945
Platinum metals	2 356	2 465	3 059	2 238	2 304
Waste & scrap	12 000	14 000	1 000	1 000	...
Portugal					
Platinum & platinum metals	690	700	49	247	...
Spain					
Platinum & platinum metals	1 165	1 842	2 064	4 816	1 611
Waste & scrap	325	338	...	...	1 000
Austria					
Platinum & platinum metals	2 420	2 512	2 429	2 794	3 041
Bulgaria					
Platinum & platinum metals (e)	* 700	* 700	* 500	* 300	* 200
Czechoslovakia					
Platinum & platinum metals (e)	* 100	* 500	* 600	* 1 000	* 600
Finland					
Platinum & platinum metals	334	954	134	758	124
German Democratic Republic					
Platinum & platinum metals (e)	* 1 700	* 2 300	* 2 200	* 2 700	—
Hungary					
Platinum & platinum metals	(e)* 300	(e)* 400	100	100	...
Norway					
Platinum & platinum metals	786	728	595	411	942
Poland					
Platinum & platinum metals (e)	* 1 400	* 800	* 800	* 50	...
Romania					
Platinum & platinum metals (e)	* 250	* 450	* 290	* 360	* 50
Sweden					
Platinum & platinum metals	3 000	2 000	2 000	1 000	3 000
Switzerland					
Platinum & platinum metals	48 225	23 735	33 743	41 639	71 075
Waste & scrap	...	4 617	2 135	5 112	4 252
Turkey					
Platinum & platinum metals	321	227	1 000	4 000	7 000
Yugoslavia					
Platinum & platinum metals	£1 442 000	£1 863 000	£2 145 000	£1 673 000	(g) £56 000
Algeria					
Platinum & platinum metals	51	61	51	234	...
South Africa					
Platinum & platinum metals	411	1 295	78	176	...

Imports of Platinum Group Metals

kilograms

Country	1987	1988	1989	1990	1991
Canada					
Platinum & platinum metals (c)	3 377	10 893	6 108	6 275	5 350
Mexico					
Platinum & platinum metals	13	70	33	26	...
USA					
Ores & concentrates (d)	64	30	12	109	31
Platinum	36 413	46 789	49 240	52 277	50 200
Platinum metals					
Palladium	52 275	52 881	51 133	51 992	60 239
Rhodium	6 603	7 359	7 105	13 098	6 553
Other	3 751	4 585	3 628	3 264	3 170
Waste & scrap	19 438	12 761	2 162	4 614	4 019
Argentina					
Platinum	9	2	...	...	...
Palladium	87	94	...	...	...
Other platinum metals	335	111	...	...	...
Brazil					
Platinum	155	277	...	310	...
Palladium	863	662	458	297	...
China					
Platinum & platinum metals	2 620	4 863	2 589	7 360	9 406
Hong Kong					
Platinum & platinum metals	1 683	3 318	2 085	2 595	5 047
India (a)					
Platinum & platinum metals	217	166	...	210	126
Indonesia					
Platinum & platinum metals	245	3	1 173	41	1 163
Iran (f)					
Platinum & platinum metals	—	£5 000	£10 000	...	...
Israel					
Platinum metals	£1 247 000	£1 288 000	£1 364 000	...	...
Japan					
Platinum	52 801	68 459	53 516	61 851	71 162
Platinum metals	53 964	58 595	61 145	64 305	72 175
Waste & scrap	6 688	4 537	5 294	5 295	24 775
Jordan					
Platinum	40	32	31	11	—
Korea, Republic of					
Platinum & platinum metals	465	804	1 130	1 748	2 709
Malaysia					
Platinum & platinum metals	10 651	7 890	4 857	6 629	3 435
Qatar					
Platinum & platinum metals	1 061	675	—	—	—
Singapore					
Platinum & platinum metals	1 055	865	1 530	4 871	3 747
Taiwan					
Platinum & platinum metals	1 053	1 678	3 596	1 712	2 254
Thailand					
Platinum & platinum metals	443	9 221	17 750	72 059	27 222
Australia					
Platinum metals (b)	5 297	3 310	6 295	11 486	4 821
New Zealand (b)					
Platinum & platinum metals	61	28	17	55	23

Note(s):

- (1) In this table the term 'Platinum' and/or 'Platinum metals' includes unwrought, partly worked and alloys
- (a) Years ended 31 March following that stated
- (b) Years ended 30 June of that stated
- (c) Derived from Canadian ores and concentrates exported for treatment
- (d) Platinum metals content
- (e) BGS estimates, based on known exports from certain countries
- (f) Years ended 20 March following that stated
- (g) Data for the Federal Republic of Yugoslavia only

Rare Earths

Production of Rare Earth Minerals

tonnes

Country	1987	1988	1989	1990	1991
Soviet Union					
Monazite (a)	...	...	* 1 500	* 1 500	* 1 500
Madagascar					
Bastnaesite	* 10	* 10	* 10	* 10	* 10
South Africa					
Monazite	* 1 200	* 1 200	* 1 200	1 317	* 1 300
Zaire					
Monazite	97	168	175	124	* 120
USA					
Bastnaesite (a)	16 710	11 533	20 787	22 713	16 465
Monazite (a) (b)	* 450	* 450	* 450	* 2 100	* 1 500
Brazil					
Monazite	4 332	2 817	1 910	* 2 000	* 2 000
China (a)	15 100	29 640	25 220	16 480	16 150
India					
Monazite (d)	* 4 000	* 4 000	* 4 300	* 4 500	* 4 500
Malaysia					
Monazite	2 908	2 920	2 948	3 323	1 981
Xenotime	31	47	131	165	5
Sri Lanka					
Monazite	100	* 200	* 200	* 200	* 200
Thailand					
Monazite	458	590	631	377	134
Xenotime	30	101	35	14	3
Australia					
Monazite	12 813	10 897	13 000	6 000	6 000
World total (c)	82 200	94 800	104 500	89 400	75 600
World total (REO content)	* 49 300	* 56 800	* 62 600	* 53 500	* 45 300

Note(s):

- (1) With the exception of the data for the Soviet Union, USA and China, figures in this table refer to gross tonnage of rare earth concentrates
 - (2) Rare earth minerals are believed to be produced, on a small scale, in Indonesia, Democratic P.R. of Korea and Mozambique
- (a) REO content. Assumed to be 60% of concentrates produced
 (b) Nominal capacity
 (c) Expressed as grossed up weight of concentrates produced
 (d) Years ended 31 March following that stated

Exports of Rare Earths

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Cerium compounds	351	582	607	679	466
Other rare earth compounds	59	86	70	102	145
Ferro-cerium & other pyrophoric alloys	6	121	54	10	113
Metals	64	28	100	84	42
France					
Ferro-cerium & other pyrophoric alloys	124	98	124	103	108
Metals	131	30	1	42	24
Germany, Federal Republic of					
Rare earth compounds	214	223	210	249	328
Ferro-cerium & other pyrophoric alloys	85	94	131	189	173
Metals	14	6	12	6	9
Italy					
Metals	138	780	22	42	36
Austria					
Cerium compounds	...	576	522	697	590
Other rare earth compounds	...	1 740	1 059	1 071	957
Metals	351	430	358	273	470
Norway					
Rare earth compounds	...	1 353	549	598	114
Soviet Union					
Rare earth compounds (b)	* 400	* 1 000	* 1 000	* 1 400	* 2 000
Metals (b)	...	* 200	* 300	* 400	* 500
South Africa (a)					
Rare earth compounds	£200	£2 100	£6 200	£7 900	...
USA					
Ores & concentrates	4 534	7 360	...	...	* 800
Cerium compounds	...	...	1 437	1 730	1 378
Other rare earth compounds	...	...	3 375	2 230	2 161
Ferro-cerium & other pyrophoric alloys	72	89	* 31	83	83
Metals	...	...	426	211	59
Brazil					
Rare earth compounds	523	780	799	246	...
Ferro-cerium & other pyrophoric alloys	324	260	198	44	...
Metals	103	107	187	234	...
China					
Rare earth compounds	(b)* 6 000	(b)* 7 400	(b)* 6 400	3 093	4 671
Ferro-cerium & other pyrophoric alloys	(b) * 300	* 200	* 200	* 200	* 150
Metals	(b)* 250	(b)* 420	(b)* 520	1 327	2 393
Hong Kong					
Ferro-cerium & other pyrophoric alloys (c)	140	112	97	116	88
Japan					
Cerium compounds	...	482	903	648	396
Other rare earth compounds	...	322	165	154	199
Ferro-cerium & other pyrophoric alloys	25	...	...	...	...
Malaysia					
Ores & concentrates	1 024	173	660	212	—
Thailand					
Ores & concentrates	428	165	488	220	—
Ferro-cerium & other pyrophoric alloys	0	37	54	18	11
Australia					
Ores & concentrates	10 491	10 000	20 000	11 000	9 000

Note(s):

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

(a) Values shown are for the common customs area

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

(c) Re-exports

Rare Earths

Imports of Rare Earths

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Cerium compounds	240	655	355	269	315
Other rare earth compounds	884	215	169	323	366
Ferro-cerium & other pyrophoric alloys	4	111	384	23	41
Metals	57	54	77	22	78
Belgium-Luxembourg					
Cerium compounds	127	92	249	249	342
Other rare earth compounds	12	3	41	3	44
Ferro-cerium & other pyrophoric alloys	8	49	26	45	38
Metals	32	54	45	147	54
Denmark					
Ferro-cerium & other pyrophoric alloys	15	16	9	6	5
France					
Cerium compounds	167	661	356	638	740
Other rare earth compounds	1 798	3 012	2 599	364	999
Ferro-cerium & other pyrophoric alloys	62	57	37	37	627
Metals	188	228	291	302	243
Germany, Federal Republic of					
Cerium compounds	1 133	1 246	1 131	1 577	1 746
Other rare earth compounds	851	1 611	1 503	1 871	1 400
Ferro-cerium & other pyrophoric alloys	17	23	45	30	16
Metals	138	143	117	163	154
Italy					
Ferro-cerium & other pyrophoric alloys	8	29	22	24	39
Metals	67	70	61	59	26
Netherlands					
Cerium compounds	1 382	351	112	395	435
Other rare earth compounds	1 389	1 090	2 902	2 651	2 578
Ferro-cerium & other pyrophoric alloys	11	25	29	44	21
Metals	14	1	4	12	0
Spain					
Rare earth compounds	272	280	248	257	186
Ferro-cerium & other pyrophoric alloys	47	48	46	41	43
Metals	14	12	17	68	129
Austria					
Cerium compounds	...	1 510	1 531	1 200	504
Other rare earth compounds	...	179	121	15	23
Metals	2	111	245	255	995
Norway					
Rare earth compounds	...	56	70	48	9
Metals	...	282	257	248	75
Turkey					
Rare earth compounds	33	123	126	230	87
Yugoslavia					
Ferro-cerium & other pyrophoric alloys	3	191	409	300	(b) 75
Metals	...	66	61	1	(b) —
South Africa					
Rare earth compounds (a)	£83 000	£80 000	£140 000	£136 000	...
Canada					
Cerium compounds	...	201	278	311	303
Other rare earth compounds	...	240	158	255	649
USA					
Ores & concentrates	1 122	1 924	774	800	...
Cerium compounds	209	695	251	359	545
Other rare earth compounds	313	234	9 295	6 504	7 962
Ferro-cerium & other pyrophoric alloys	96	108	84	93	93
Metals	186	198	294	183	226
Argentina					
Rare earth compounds	41	67	...	...	...
Brazil					
Cerium compounds	247	262	127	207	...
Other rare earth compounds	15	14	96	356	...

Imports of Rare Earths

tonnes

Country	1987	1988	1989	1990	1991
Hong Kong					
Ferro-cerium & other pyrophoric alloys	217	178	170	228	189
Indonesia					
Rare earth compounds	58	21	27	26	11
Ferro-cerium & other pyrophoric alloys	22	17	107	...	...
Japan					
Cerium compounds	260	3 089	3 520	2 349	2 832
Other rare earth compounds	8 674	11 466	8 192	6 544	7 637
Ferro-cerium & other pyrophoric alloys	52	...	...	...	...
Metals	278	468	337	180	436
Korea, Republic of					
Cerium compounds	158	2 300	621	604	452
Other rare earth compounds	25	249	54	74	107
Ferro-cerium & other pyrophoric alloys	39	25	17	30	...
Metals	19	35	4	121	9
Malaysia					
Ores & concentrates	878	62	143	...	830
Saudi Arabia					
Ferro-cerium & other pyrophoric alloys	40	45	37	43	488
Singapore					
Ferro-cerium & other pyrophoric alloys	75	41	...	...	...
Taiwan					
Rare earth compounds	...	...	498	340	442
Ferro-cerium & other pyrophoric alloys	22	24	31	34	32
Metals	34	31	2	56	52
Thailand					
Ferro-cerium & other pyrophoric alloys	75	19	40	70	73

Note(s):

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

(a) Values shown are for the common customs area

(b) Data for the Federal Republic of Yugoslavia only

Silver

Mine Production of Silver

kilograms (metal content)

Country	1987	1988	1989	1990	1991
United Kingdom	2 031	2 113	1 689	2 695	565
France	20 724	22 200	21 950	22 190	28 450
Germany, Federal Republic of	30 900	* 20 000	* 8 500	8 000	7 200
Greece	51 900	61 300	61 200	62 600	70 200
Irish Republic	7 200	5 500	7 200	8 800	10 500
Italy	14 000	16 000	14 000	14 000	13 600
Portugal	887	877	815	1 007	42 600
Spain	214 467	220 477	250 684	270 000	180 000
Bulgaria	* 80 000	* 71 000	* 59 000	* 54 000	* 37 300
Czechoslovakia	* 34 000	* 25 000	* 24 000	* 26 000	* 28 000
Finland	33 216	28 428	34 832	28 989	26 643
German Democratic Republic	* 60 000	* 60 000	59 700	20 000	—
Greenland	13 200	14 300	14 700	9 200	—
Poland	831 000	1 063 000	1 003 000	832 000	899 000
Romania	* 20 000	* 23 000	* 20 000	* 24 000	* 17 000
Soviet Union	* 1 550 000	* 1 580 000	* 1 500 000	* 1 380 000	* 1 270 000
Sweden	254 107	207 804	227 715	242 685	253 000
Turkey	8 800	22 500	35 000	26 500	39 400
Yugoslavia (a)	151 129	138 957	133 018	105 300	(c) 92 000
Algeria	* 3 700	* 3 000	* 3 000	* 2 000	* 3 500
Ghana	* 435	* 100	1 100	1 100	1 200
Morocco	162 000	221 000	228 500	218 000	218 600
Namibia	95 000	108 000	108 000	91 635	91 900
South Africa	210 366	201 215	181 698	160 719	171 555
Tunisia	700	* 1 000	1 000	* 1 000	* 1 000
Zaire	36 767	74 000	70 000	84 000	* 50 000
Zambia	29 879	29 333	19 802	18 500	14 200
Zimbabwe	25 348	21 896	22 332	21 151	19 380
Canada	1 452 483	1 483 816	1 370 737	1 501 451	1 338 799
Dominican Republic	33 995	44 153	21 786	22 861	21 955
Honduras	23 388	49 483	40 957	30 866	42 033
Mexico	2 414 954	2 358 907	2 306 091	2 323 978	2 206 891
Nicaragua	888	571	1 124	1 095	1 540
USA	1 240 950	1 661 452	2 007 436	2 125 000	1 855 000
Argentina	59 665	79 415	83 126	75 798	69 851
Bolivia	141 772	231 766	267 086	310 543	337 010
Brazil	61 095	* 70 000	64 000	* 60 000	* 50 000
Chile	499 761	506 501	545 412	654 603	676 339
Colombia	5 198	6 562	6 847	6 631	8 037
Peru (b)	2 054 463	1 551 600	1 839 900	1 761 700	1 769 700
China	* 125 000	* 145 000	* 165 000	* 150 000	* 180 000
India	37 943	40 958	35 499	32 200	31 900
Indonesia	50 485	61 538	62 396	66 723	67 989
Iran	* 28 000	* 30 000	* 41 000	* 38 000	* 47 500
Japan	281 020	251 971	155 792	149 920	170 676
Korea, Dem. P.R. of	* 300 000	* 310 000	* 300 000	* 280 000	* 300 000
Korea, Republic of	71 026	48 865	53 428	16 400	3 100
Malaysia	15 776	10 775	12 877	12 556	13 440
Mongolia	22 800	22 200	20 500	27 500	...
Myanmar (a) (d)	9 331	6 843	5 910	3 421	6 532
Oman	1 600	1 900	8 500	10 300	8 700
Philippines	53 452	54 634	47 998	47 518	38 414
Saudi Arabia	—	—	2 700	3 000	15 400
Taiwan	9 856	8 388	6 491	3 926	—
Thailand	...	* 10 000	* 15 000	* 20 500	* 20 000
Australia	1 119 300	1 134 332	1 075 000	1 173 000	1 180 000
Fiji	815	988	1 055	775	500
New Zealand	...	1 845	4 837	4 914	11 371
Papua New Guinea	62 871	70 423	93 671	114 543	124 484
World total	14 132 000	14 497 000	14 775 000	14 766 000	14 211 000

(a) Smelter and/or refinery production

(b) Recoverable

(c) Excluding data from August to December for the Republic of Croatia

(d) Years ended 31 March following that stated

Exports of Silver

kilograms

Country	1987	1988	1989	1990	1991
United Kingdom					
Metal	1 512 544	1 020 309	1 443 948	2 847 757	1 873 934
Waste & scrap	218 293	...	...	...	...
Belgium-Luxembourg					
Metal	952 194	1 000 838	1 298 145	1 283 609	1 149 307
Denmark					
Metal	38 537	54 463	38 716	43 220	41 215
of which: Re-exports	37 051	46 748	33 222	37 420	36 091
France					
Metal	568 832	532 610	613 769	1 015 259	1 098 455
Waste & scrap	145 969	137 952	279 853	269 666	213 990
Germany, Federal Republic of					
Metal	1 504 420	1 481 780	2 071 003	1 817 287	1 431 971
Waste & scrap	1 271 124	...	...	...	...
Greece					
Metal	57 309	4	1 046	2	336
Italy					
Metal	28 300	54 387	148 100	357 700	479 315
Netherlands					
Metal	93 457	113 272	101 100	105 970	95 918
Portugal					
Metal	118	2 500	300	426	6 000
Spain					
Metal	181 503	164 560	160 601	192 024	280 485
Austria					
Metal	238 663	171 174	38 888	50 403	144 442
Finland					
Metal	43 000	31 000	31 000	26 000	25 000
German Democratic Republic					
Metal (d)	* 217 100	* 133 800	* 264 100	* 138 900	—
Norway					
Metal	32 355	27 116	33 225	33 339	33 633
Poland					
Metal	619 000	691 000	672 000	678 000	...
Sweden					
Metal	319 000	301 000	317 000	297 000	306 000
Switzerland					
Metal	767 286	779 761	879 115	1 767 463	2 376 014
Yugoslavia					
Metal	111 000	116 000	114 000	74 000	(f) 35 000
Morocco					
Metal	146 374	158 154	...	201 024	199 542
Namibia					
Metal	103 000	105 000	110 785	90 325	89 000
South Africa					
Metal	189 273	190 712	170 783	158 773	130 260
Canada					
Ores & concentrates (e)	488 617	448 069	527 205	620 147	509 095
Metal	556 967	1 140 548	1 025 355	1 269 762	994 267
Dominican Republic					
Metal	33 995	44 153	21 786	22 861	21 955
Honduras					
Concentrates (e)	23 388	49 483	37 176	30 866	42 033
Mexico					
Ores & concentrates	...	4 749 987	5 144 072	2 374 656	...
Metal	1 595 000	1 565 233	1 912 392	1 904 028	1 789 000
USA					
Ores & concentrates (b)	472	25 450	607	21 929	229
Metal	512 104	588 436	708 179	922 921	1 472 712
Waste & scrap	425 425	498 085	782 099	1 258 484	837 440
Bolivia					
Ores & concentrates	766 687	1 117 593	1 628 049	1 232 102	769 016
Metal	—	3 550	35 568	46 376	41 353
Chile					
Metal	335 300	336 390	358 080	439 536	426 657

Silver

Exports of Silver

kilograms

Country	1987	1988	1989	1990	1991
Peru					
Metal	428 678	282 084	534 100	496 000	588 000
Venezuela					
Metal	9 362	1 199	20 318	...	...
China					
Metal	21 490	3 420	2 450	7 153	11 721
Hong Kong					
Metal	35 720	45 332	42 361	31 126	55 009
of which: Re-exports	33 930	43 682	42 150	30 769	54 969
Waste & scrap	224 511	154 151	37 568	31 576	1 448
of which: Re-exports	642	117 678	30 128	31 114	1 447
Japan					
Metal	71 148	91 303	582 431	153 660	205 795
Waste & scrap	2 000	22 000	59 000	12 000	7 717
Korea, Dem. P.R. of					
Metal (d)	* 66 200	* 100 300	* 14 900	* 24 400	* 17 400
Korea, Republic of					
Ores & concentrates	—	—	81 000	—	—
Metal	142 752	81 472	85 883	100 411	79 700
Malaysia					
Metal	4 630	816	1 219	...	8 451
Myanmar (c)					
Metal	11 115	7 465	4 012	4 432	...
Philippines					
Metal	4 903	32 566	30 732	28 374	21 096
Singapore					
Metal	8 155	76 105	122 372	136 782	125 636
of which: Re-exports	8 155	76 105	122 372	135 679	121 948
Taiwan					
Metal	544	17 513	32 036	703	793
Waste & scrap	90 182	20 750	...	...	...
Australia					
Metal (a)	284 977	258 247	43 899	225 989	235 092
Fiji					
Metal	745	1 019	...	...	...
New Zealand (a)					
Metal	1 129	1 801	9 001	12 688	10 278
Papua New Guinea					
Metal	62 871	70 423	93 671	114 543	124 484

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) Years ended 30 June of that stated
(b) Ag content
(c) Years ended 31 March following that stated
(d) BGS estimates, based on known imports into certain countries
(e) Ag content of all ores and concentrates
(f) Data for the Federal Republic of Yugoslavia only

Imports of Silver

kilograms

Country	1987	1988	1989	1990	1991
United Kingdom					
Metal	1 327 114	1 251 280	920 008	708 813	1 216 043
Waste & scrap	332 705	...	...	...	...
Belgium-Luxembourg					
Ores & concentrates	...	450 100	183 100	145 700	609 000
Metal	1 250 291	909 309	933 163	895 133	872 042
Denmark					
Metal	96 760	111 733	79 130	114 601	104 658
France					
Metal	549 185	699 415	734 708	941 867	976 214
Waste & scrap	92 650	50 804	193 028	320 519	353 886
Germany, Federal Republic of					
Metal	1 366 252	1 381 466	2 075 274	1 656 536	1 553 968
Waste & scrap	4 003 601	...	...	...	...
Greece					
Metal	41 890	36 842	91 664	98 830	85 703
Italy					
Metal	806 700	652 254	635 900	1 173 900	1 518 320
Netherlands					
Metal	126 606	136 982	121 373	157 741	142 552
Portugal					
Metal	78 763	85 700	98 300	104 673	111 000
Spain					
Metal	223 990	299 859	515 588	1 041 478	1 304 167
Austria					
Metal	197 399	175 794	164 580	117 967	172 198
Bulgaria					
Metal (f)	* 2 500	* 6 400	* 5 700	* 1 100	* 9 500
Czechoslovakia					
Metal (f)	* 9 900	* 21 400	* 10 900	* 13 600	* 12 600
Faeroe Islands					
Metal	309	209	191	112	144
Finland					
Metal	104 000	114 000	185 000	149 000	77 000
German Democratic Republic					
Metal (f)	* 288 000	* 263 200	* 432 400	* 241 200	—
Iceland					
Metal	900	500	600	532	700
Malta					
Metal	824	1 116	993	1 367	1 674
Norway					
Metal	59 165	54 994	49 368	81 111	49 247
Sweden					
Metal	160 000	175 000	192 000	249 000	142 000
Switzerland					
Metal	1 646 764	1 211 052	1 879 370	2 045 272	2 563 258
Turkey					
Metal (b)	15 359	10 155	18 000	68 000	30 000
Yugoslavia					
Metal	19 000	16 000	10 000	11 000	(h) 1 000
Algeria					
Metal	13 398	15 829	22 028	6 870	...
Gabon					
Metal	...	...	...	147	...
Ivory Coast					
Metal	...	612	...	...	...
Madagascar					
Metal	176	...	117	2	19
Morocco					
Metal	1 000	1 270	...	1 064	11 286
Senegal					
Metal	52	...	169	...	...
South Africa					
Metal	23 058	23 254	23 124	14 113	...
Tunisia					
Metal	448	1 966	3 349	4 486	5 622

Silver

Imports of Silver

kilograms

Country	1987	1988	1989	1990	1991
Canada					
Ores & concentrates (g)	154 858	208 677	204 873	338 923	163 335
Metal	140 970	115 100	231 801	110 734	152 633
Costa Rica					
Metal	2 022	299	1 049	868	339
Jamaica					
Metal	1 065	827	299	75	...
Panama					
Metal	817	818	788	1 423	1 670
Trinidad & Tobago					
Metal	461	...	798	773	...
USA					
Ores & concentrates (c)	413 730	510 356	...	...	...
Metal	2 399 649	2 539 335	3 223 002	2 766 020	2 690 038
Waste & scrap	129 164	173 674	90 753	507 649	1 451 874
Argentina					
Metal	16 251	...	...	...	...
Brazil					
Metal	179 641	157 461	433 737	242 297	...
Chile					
Metal	1 159	2 019	2 330	2 007	...
Colombia					
Metal	...	1 485	1 121	3 124	...
Ecuador					
Metal	4 000	...	...	...	...
Venezuela					
Metal	39 429	44 071	10 573	...	...
Abu Dhabi					
Metal	20	1 621	...	2 681	4 277
China					
Metal	17 852	27 136	21 304	7 936	15 802
Cyprus					
Metal	8 585	...	10 187	14 227	11 174
Hong Kong					
Metal	59 655	82 787	171 607	130 021	239 980
Waste & scrap	3 441	5 147	1 342	13	534
India (a)					
Metal	3 486	4 216	...	21 035	34 528
Indonesia					
Metal	60	235	1 000	7 742	6 447
Iran (d)					
Metal	6 152	10 669	10 494	...	...
Israel					
Metal (f)	* 28 800	* 27 200	* 30 900	* 33 100	* 43 700
Japan					
Ores & concentrates	4 032 000	7 207 000	9 142 000	6 390 000	8 998 000
Metal	657 190	1 014 731	1 265 202	1 547 669	1 050 491
Waste & scrap	1 320	20 798	37 732	111 678	263 655
Jordan					
Metal	—	258	283	—	187
Korea, Republic of					
Metal	11 276	66 760	129 056	122 949	287 487
Malaysia					
Metal	78 718	136 598	123 519	111 746	59 614
Philippines					
Metal	7	227	471	753	777
Saudi Arabia					
Metal	—	2 155	6 007	4 835	4 911
Singapore					
Metal	140 172	290 690	544 274	1 119 919	734 866
Taiwan					
Metal	99 516	139 630	128 930	120 985	143 048
Thailand					
Metal	57 516	63 790	87 221	85 552	236 295

Imports of Silver

Silver
kilograms

Country	1987	1988	1989	1990	1991
Australia					
Metal (e)	31 001	10 907	402	913	137
New Zealand (e)					
Metal	39 682	23 890	38 697	37 351	29 274

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) Years ended 31 March following that stated
- (b) Including gilt
- (c) Ag content
- (d) Years ended 20 March following that stated
- (e) Years ended 30 June of that stated
- (f) BGS estimates, based on known exports from certain countries
- (g) Ag content of all ores and concentrates
- (h) Data for the Federal Republic of Yugoslavia only

Production of Tantalum and Niobium Minerals

tonnes

Country		1987	1988	1989	1990	1991
Spain						
Tantalite	(— , 25%)	* 10	* 11	* 11	* 10	* 8
Namibia						
Tantalite	(— , 14%)	14	7	6	4	0
Nigeria						
Columbite	(43%, 6%)	48	56	44	45	* 45
Rwanda						
Columbite-tantalite	(30%, 23%)	12	7	64	110	* 110
Zaire						
Columbite-tantalite	(27%, 27%)	57	34	48	36	57
Zimbabwe						
Columbite-tantalite	(11%, 28%)	37	66	32	35	31
Canada						
Pyrochlore	(42%, —)	4 600	5 600	5 800	5 700	5 600
Tantalite	(3%, 30%)	—	37	253	287	310
Brazil						
Pyrochlore	(42%, —)	18 323	35 670	28 398	* 31 000	* 32 000
Columbite-tantalite	(20%, 30%)	446	402	480	310	290
Djalmaite	(1%, 50%)	17	16	13	...	...
Malaysia						
Columbite	(40%, 14%)	228	—	—	4	—
Struverite	(— , 10%)	141	40	242	316	401
Thailand						
Columbite-tantalite	(17%, 25%)	183	124	109	9	3
Struverite	(— , 6%)	423	788	99	122	...
Australia						
Columbite-tantalite	(20%, 33%)	121	277	555	529	703
World total concentrates		25 000	43 000	36 000	39 000	40 000
Nb content		* 9 900	* 17 500	* 14 700	* 15 700	* 16 100
Ta content		* 300	* 300	* 500	* 500	* 500

Note(s):

- (1) Niobium and tantalum minerals are believed to be produced also in the Soviet Union and China, and minor quantities in Argentina, Burundi, French Guiana and Zambia
- (2) The figures in this table refer to gross tonnage of tantalum and niobium concentrates
- (3) Estimated average niobium and tantalum contents are given in the form (Nb%,Ta%) for each country and each mineral, relating where possible to the later years
- (4) Niobium and tantalum are also recovered from tin slags. This source is particularly important in the case of tantalum and in recent years is believed to have accounted for over 60% of all tantalum recovered
- (5) No detailed information on the production of tantalum bearing tin slags is available but the major producers are Thailand and Malaysia, with small amounts from Australia, Brazil, Nigeria, Portugal, South Africa and Zaire

Exports of Tantalum and Niobium

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Tantalum	18	38	48	39	79
Niobium	16	...	...	...	...
France					
Tantalum	21	25	27	27	33
Germany, Federal Republic of					
Niobium & tantalum ores	6	95	157	364	124
Tantalum	93	115	130	93	95
Niobium	113	...	...	...	...
Italy					
Tantalum	16	5	17	12	3
Netherlands					
Tantalum	15	—	20	1	0
Austria					
Tantalum	18	38	31	56	34
Nigeria					
Columbite	126	...	...	...	...
Zaire					
Columbite-tantalite	119	...	...	...	...
Canada					
Niobium & tantalum ores (a)	* 5 100	* 4 100	* 5 200	* 4 700	* 5 200
Tantalum	...	255	67	5	2
USA					
Tantalum ores & concentrates	54	97	9	576	11
Tantalum	296	357	500	313	328
Niobium	* 60	* 55	...	...	...
Brazil					
Columbite-tantalite	187	346	215	156	54
Japan					
Tantalum	18	30	22	28	33
Malaysia					
Columbite & tantalite	136	23	192	...	140
Tin slags	14 444	19 585	11 381	3 636	45
Singapore					
Tantalum ores & concentrates (b)	12	125	...	...	...
Tin slags	1 378	1 463	544	1 491	424
of which: Re-exports	242	690	200	1 100	117
Taiwan					
Tantalum	21	140	30	21	16
Thailand					
Columbite & tantalite	61	243	335	68	—
Tin slags	935	2 110	1 061	800	...
Australia					
Columbite-tantalite (c)	309	397	241	231	421
Tantalum (c)	...	...	275	123	1 117

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

(b) Re-exports

(c) Years ended 30 June of that stated

Tantalum and Niobium

Imports of Tantalum and Niobium

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Niobium & tantalum ores	65	1 120	2 270	1 432	1 721
Tantalum	63	66	84	84	133
Niobium	21	...	...	...	...
Belgium-Luxembourg					
Niobium & tantalum ores	1 845	534	24	13	32
Tantalum	36	55	23	14	9
France					
Tantalum	44	45	30	34	35
Niobium	40	...	...	...	...
Germany, Federal Republic of					
Niobium & tantalum ores (a)	1 142	...	...	...	...
Tantalum	178	202	218	196	144
Niobium	18	...	...	...	...
Italy					
Tantalum	3	5	4	1	2
Niobium	56	...	...	...	...
Austria					
Tantalum	54	68	65	42	92
USA					
Tantalum concentrates	292	639	1 787	1 047	930
Niobium concentrates	2 078	1 689	2 227	1 950	1 607
Tantalum	112	236	111	99	139
Niobium	23	20	9	2	1
Japan					
Tantalum ores & concentrates	35	...	...	...	...
Niobium ores & concentrates	1 336	1 010	816	1 171	1 347
Tantalum	48	107	64	55	76
Singapore					
Tantalum ores & concentrates	10	201	...	...	...
Tin slags	9 749	2 993	2 085	136	3

Note(s):

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

(a) Including other ores

Mine Production of Tin

tonnes (metal content)

Country	1987	1988	1989	1990	1991
United Kingdom	4 033	3 419	3 846	3 389	2 326
Portugal	64	57	63	1 422	3 125
Spain	77	66	56	49	19
Czechoslovakia	500	* 600	500	336	10
German Democratic Republic	2 391	2 474	2 413	1 806	—
Soviet Union	* 15 000	* 16 000	* 16 000	* 15 000	* 13 500
Namibia	1 097	1 187	1 120	921	17
Niger	94	102	63	38	30
Nigeria	156	245	279	338	* 300
Rwanda	243	168	767	734	* 700
South Africa	1 438	1 377	1 306	1 140	1 042
Zaire	2 226	1 943	1 642	1 555	—
Zimbabwe	1 037	855	849	839	796
Canada	3 397	3 840	3 599	4 035	* 4 500
Mexico	369	274	159	5	12
USA	* 100	* 100	* 100	* 100	* 100
Argentina	186	446	405	123	...
Bolivia	8 128	10 758	15 849	17 249	16 830
Brazil	28 523	44 102	50 232	39 149	29 253
Peru (a)	5 263	4 378	5 069	5 134	6 559
China	* 28 000	* 30 000	* 33 000	* 35 800	* 33 700
Indonesia	26 093	30 590	31 256	31 290	33 418
Japan	86	—	—	—	—
Laos	* 260	* 240	* 276	* 300	228
Malaysia	30 388	28 866	32 034	28 468	20 710
Mongolia	100	200	200	200	300
Myanmar	939	529	567	500	500
Thailand	14 750	13 982	14 668	14 385	10 755
Vietnam	* 800	* 700	* 800	* 800	* 800
Australia	7 691	7 009	7 709	7 425	5 703
World total	183 000	205 000	225 000	213 000	185 000

(a) Recoverable

Tin

Smelter Production of Tin

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom	12 135	9 014	3 584	6 122	1 661
Netherlands	3 834	3 478	4 529	6 100	5 000
Portugal	13	20	50	100	100
Spain	1 671	246	1 409	1 349	1 700
Czechoslovakia	545	515	562	613	118
German Democratic Republic	3 214	3 322	3 470	2 862	—
Soviet Union	* 17 000	* 16 000	* 14 000	* 13 000	* 12 000
Nigeria	561	427	358	320	200
South Africa	1 688	2 410	2 300	2 100	2 100
Zaire	90	118	60	—	—
Zimbabwe	1 037	855	849	838	796
Mexico	1 730	1 423	4 752	5 004	2 262
USA	3 905	1 467	* 1 000	—	—
Argentina	146	188	186	50	50
Bolivia (a)	2 667	5 481	9 718	13 364	14 659
Brazil	28 841	41 857	44 240	37 580	30 934
China	* 25 000	* 24 000	30 500	35 800	36 000
Indonesia	24 200	28 365	29 916	30 389	30 415
Japan	895	846	808	816	716
Korea, Republic of	1 834	2 500	2 400	2 500	2 300
Malaysia	44 363	47 403	50 900	49 002	42 722
Myanmar	309	110	171	286	157
Singapore	1 100	900	600	* 600	* 200
Thailand	15 438	14 675	14 571	15 512	11 255
Vietnam	526	573	659	1 774	1 700
Australia	563	439	424	312	268
World total	193 000	207 000	222 000	226 000	197 000

(a) Refined, including alloys

Exports of Tin					Tin
					tonnes
Country	1987	1988	1989	1990	1991
United Kingdom					
Concentrates	3 840	5 424	1 944	1 426	1 445
Unwrought	14 763	13 981	5 371	5 661	2 897
Unwrought alloys	2 818	2 352	1 277	1 107	1 078
Scrap	529	374	613	448	1 882
Belgium-Luxembourg					
Unwrought	2 023	2 122	2 734	2 766	2 767
Unwrought alloys	1 083	1 978	1 258	873	707
Scrap	64	60	53	14	48
Denmark					
Unwrought (a)	125	48	12	13	8
Scrap	200	390	528	686	905
France					
Unwrought	92	167	48	130	19
Unwrought alloys	56	38	123	28	80
Scrap	300	468	442	258	324
Germany, Federal Republic of					
Unwrought	538	521	610	893	1 099
Unwrought alloys	1 367	1 039	1 230	1 505	861
Scrap	276	282	369	316	1 078
Irish Republic					
Scrap	2 132	1 495	1 782	1 858	1 683
Italy					
Unwrought (a)	131	184	160	1 021	242
Scrap	72	61	162	75	78
Netherlands					
Unwrought	1 706	1 103	1 507	1 677	1 082
Unwrought alloys	782	806	968	876	795
Scrap	197	380	611	367	685
Spain					
Unwrought (a)	6	5	230	408	167
Scrap	275	84	120	0	80
Sweden					
Unwrought	102	62	74	33	18
Unwrought alloys	81	95	98	101	113
Switzerland					
Unwrought	97	(a) 110	(a) 128	(a) 109	(a) 64
Scrap	41	39	84	86	70
Namibia					
Concentrates	1 632	1 770	1 686	1 322	16
Niger					
Concentrates (b)	180	162	98	40	20
Nigeria					
Unwrought (a)	250	70	135	110	100
Rwanda					
Concentrates	183	...	977	1 028	1 050
South Africa					
Unwrought (a)	526	205	345	254	—
Zaire					
Concentrates	3 328	2 122	2 171	* 1 500	* 1 500
Canada					
Concentrates (b)	(e) 2 783	3 593	2 790	2 828	3 716
Scrap	...	1 003	3 205	529	460
Jamaica					
Scrap	480	355	249	299	...
USA					
Unwrought (a)	1 915	1 573	1 036	2 327	2 999
of which: Re-exports	597	363	132	1 669	2 297
Scrap	28 136	39 102	17 191	22 629	12 221
Argentina					
Tin-silver ore	185	1 005	126	200	...
Bolivia					
Concentrates	20 239	11 404	13 379	8 256	6 706
Unwrought	1 849	6 071	9 463	12 852	14 276
Brazil					
Unwrought (a)	21 027	33 637	33 994	27 641	18 110

Tin

Exports of Tin

tonnes

Country	1987	1988	1989	1990	1991
Peru					
Concentrates (b)	4 661	4 139	* 3 410	* 4 600	* 6 000
China					
Concentrates	16 710	23 855	21 828	9 583	11 295
Unwrought (a)	15 894	10 717	9 874	10 135	15 692
Hong Kong					
Concentrates (d)	6 912	16 248	18 449	9 088	9 097
Unwrought	2 176	3 149	6 048	4 511	7 105
of which: Re-exports	1 819	3 074	5 810	4 269	7 097
Indonesia					
Concentrates	1 545	1 139	766	368	339
Unwrought (a)	24 241	26 990	29 714	28 995	27 704
Japan					
Unwrought (a)	87	119	484	311	276
Korea, Republic of					
Unwrought (a)	205	553	332	169	416
Scrap	53	—	747	482	435
Malaysia					
Unwrought (a)	50 318	49 586	50 255	52 703	44 449
Scrap	217	505	396	...	422
Myanmar					
Concentrates (c)	750	561	600	250	...
Singapore					
Concentrates (d)	10 421	7 560	3 259	1 301	1 359
Unwrought	29 820	27 673	27 954	26 856	26 953
of which: Re-exports	28 300	26 422	26 659	24 904	26 235
Scrap	77	228	471	277	275
of which: Re-exports	15	144	355	59	33
Thailand					
Unwrought	13 561	9 925	11 562	11 834	6 255
Unwrought alloys	108	2 792	2	47	—
Australia					
Concentrates	13 794	14 383	15 461	14 952	9 660
Unwrought (a)	271	216	251	188	452
Scrap (f)	277	757	526	335	462

Note(s):

- (1) In this table the term 'unwrought' tin corresponds to item 687.1 of the Standard International Trade Classification (Revision 3) and comprises ingots, pigs, unwrought bars, sticks, etc.
- (a) Including alloys
- (b) Sn content
- (c) Years ended 31 March following that stated
- (d) Re-exports
- (e) Including scrap
- (f) Years ended 30 June of that stated

Imports of Tin

Tin
tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Concentrates	26 280	20 239	18 504	13 443	3 616
Unwrought	2 905	2 084	4 675	3 824	4 714
Unwrought alloys	2 327	2 467	3 092	2 272	2 166
Scrap	446	517	1 207	720	2 153
Belgium-Luxembourg					
Concentrates	35	54	57	755	170
Unwrought	1 859	2 549	1 945	2 122	2 558
Unwrought alloys	289	201	321	209	184
Scrap	238	646	566	652	1 248
Denmark					
Unwrought	46	68	35	40	12
Unwrought alloys	189	182	109	81	57
Scrap	3	25	109	15	1
France					
Unwrought	7 320	8 041	8 133	8 290	8 195
Unwrought alloys	288	484	617	490	381
Germany, Federal Republic of					
Concentrates	144	3 780	695	115	45
Unwrought	17 937	19 867	18 926	19 777	19 650
Unwrought alloys	1 547	1 642	1 870	1 808	1 511
Scrap	365	351	421	485	653
Greece					
Unwrought (a)	380	357	484	676	597
Irish Republic					
Unwrought (a)	95	70	59	153	69
Italy					
Unwrought	6 123	6 112	5 890	6 974	5 392
Unwrought alloys	458	562	333	190	85
Netherlands					
Concentrates	5 593	5 608	9 280	10 586	6 180
Unwrought	2 486	2 579	2 714	2 358	2 263
Unwrought alloys	627	719	1 105	697	463
Scrap	444	309	458	393	476
Portugal					
Unwrought (a)	786	776	641	536	748
Spain					
Concentrates	1 848	1 273	2 354	1 989	1 878
Unwrought (a)	1 838	2 266	2 431	2 752	3 224
Austria					
Unwrought	512	(a) 501	(a) 492	(a) 560	(a) 686
Czechoslovakia					
Unwrought (a)	2 819	2 558	2 619	2 424	2 100
Finland					
Unwrought (a)	142	111	132	63	42
Hungary					
Unwrought & semi-manufactures	1 674	950	657	372	550
Norway					
Unwrought	396	417	448	420	434
Unwrought alloys	85	85	83	102	80
Poland					
Unwrought	2 713	3 520	2 987	890	767
Soviet Union					
Concentrates (e)	* 2 500	* 800	* 100	...	...
Unwrought (a) (e)	* 8 100	* 6 700	* 1 000	...	...
Sweden					
Unwrought	458	487	454	433	311
Unwrought alloys	22	62	89	381	221
Scrap	128	153	125	167	164
Switzerland					
Unwrought	1 011	(a) 994	(a) 983	(a) 1 220	(a) 941
Turkey					
Unwrought (a)	1 051	897	1 053	1 436	1 174
Yugoslavia					
Unwrought (a)	1 071	1 458	1 134	1 110	(g) 206
Algeria					
Unwrought (a)	310	538	565	138	* 250
Egypt					
Unwrought & scrap	190	297	312	* 300	* 300
Morocco					
Unwrought (a)	127	122	138	170	127

Tin

Imports of Tin

tonnes

Country	1987	1988	1989	1990	1991
Canada					
Unwrought	3 791	4 115	3 959	3 760	3 337
Mexico					
Concentrates	7 042	3 415	13 081	8 732	6 764
Scrap	140	467	432	265	...
USA					
Concentrates (b)	2 967	2 837	216	—	2
Unwrought	41 150	43 632	34 235	33 810	29 102
Unwrought alloys	1 610	1 924	6 373	6 335	8 430
Scrap	1 453	916	976	1 114	1 055
Argentina					
Unwrought	726	551	696	544	* 600
Chile					
Unwrought	497	389	435	298	537
Colombia					
Unwrought (a)	325	327	398	397	321
Peru					
Unwrought (a)	312	130	173	152	130
Venezuela					
Unwrought (a)	1 015	1 471	487	491	* 800
Hong Kong					
Concentrates	7 985	18 308	20 457	8 710	8 367
Unwrought (a)	4 655	6 152	6 877	7 022	9 425
India (f)					
Unwrought (a)	2 150	2 944	1 927	2 089	1 540
Scrap	2 488	2 729	...	2 163	972
Iran (d)					
Unwrought	452	176	193	410	826
Japan					
Unwrought	31 997	32 004	32 673	32 771	34 349
Unwrought alloys	1 591	3 513	3 010	3 526	4 329
Korea, Republic of					
Concentrates	3 698	4 123	3 691	4 228	2 535
Unwrought (a)	4 296	4 924	10 380	6 050	6 606
Malaysia					
Concentrates	31 408	40 030	42 398	* 38 000	51 038
Unwrought (a)	805	1 469	1 041	1 936	4 689
Philippines					
Unwrought (a)	797	733	671	850	975
Singapore					
Concentrates	12 064	8 846	3 831	4 214	1 350
Unwrought	11 021	5 764	2 506	3 846	5 272
Scrap	536	621	510	365	376
Taiwan					
Unwrought (a)	4 409	5 343	4 588	5 165	7 349
Australia					
Unwrought (a) (c)	616	378	577	905	772
New Zealand (c)					
Unwrought (a)	156	264	73	103	96

Note(s):

(1) In this table the term 'unwrought' tin corresponds to item 687.1 of the Standard International Trade Classification (Revision 3) and comprises ingots, pigs, unwrought bars, sticks, etc.

(a) Including alloys

(b) Sn content

(c) Years ended 30 June of that stated

(d) Years ended 20 March following that stated

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

(f) Years ended 31 March following that stated

(g) Data for the Federal Republic of Yugoslavia only

Production of Titanium Minerals					Titanium tonnes
Country	1987	1988	1989	1990	1991
Portugal					
Ilmenite	141	59	111	43	* 40
Norway					
Ilmenite	852 323	898 035	929 830	788 522	625 416
Soviet Union					
Ilmenite	* 455 000	* 460 000	* 460 000	* 430 000	* 400 000
Rutile	* 10 000	* 10 000	* 10 000	* 9 500	* 9 000
Sierra Leone					
Ilmenite	5 600	42 118	62 310	54 639	60 371
Rutile	113 111	126 332	128 198	144 401	154 800
South Africa (c)	317 000	* 350 000	415 000	403 000	484 000
Canada (a)					
Ilmenite (b)	* 3 000 000	* 2 800 000	* 3 400 000	* 3 200 000	* 2 000 000
USA					
Ilmenite	* 240 000	* 240 000	* 240 000	* 240 000	* 240 000
Rutile	* 25 000	25 000	25 000	29 000	27 000
Brazil					
Ilmenite	169 303	142 167	144 212	114 117	* 120 000
Rutile	392	1 514	2 613	1 814	* 2 000
China					
Ilmenite	* 145 000	* 150 000	271 000	184 000	* 185 000
India					
Ilmenite	* 140 000	* 140 000	* 160 000	* 160 000	* 160 000
Rutile	* 7 000	* 5 000	* 5 000	* 5 000	* 5 000
Malaysia					
Ilmenite	509 202	486 305	520 127	501 585	308 061
Sri Lanka					
Ilmenite	128 500	97 085	101 354	74 350	62 823
Rutile	7 200	13 759	5 589	7 580	3 085
Thailand					
Ilmenite	26 278	16 455	16 955	10 554	17 071
Leucoxene	800	1 798	30	120	4
Australia					
Ilmenite	1 498 087	1 610 000	1 696 000	1 602 000	1 476 000
Rutile	246 263	231 000	243 000	245 000	193 000
Leucoxene	11 290	12 946	18 000	19 000	20 000
World total					
Ilmenite (Wt. of concs)	8 100 000	8 200 000	9 100 000	8 500 000	7 000 000
Rutile (Wt. of concs)	460 000	464 000	484 000	500 000	470 000
All forms (TiO ₂ content)	* 4 063 000	* 4 110 000	* 4 598 000	* 4 309 000	* 3 727 000

Note(s):

- (1) The figures in this table refer to gross tonnage of titanium concentrates
- (2) Some ilmenite is converted to synthetic rutile in Australia, India, Japan, Taiwan and USA
- (a) Canada produces some ilmenite which is sold as such and not processed into slag, but tonnages are small
- (b) Processed into slag. In 1991 Canada produced 701 000 tonnes (80% TiO₂)
- (c) Ti content of titanium minerals and slag

Titanium

Exports of Titanium

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Ilmenite	16 187	33	1	33	—
Metal	2 036	3 089	4 592	4 702	3 846
Oxides	158 537	165 607	169 012	144 693	171 552
Belgium-Luxembourg					
Metal	213	243	293	250	225
Oxides	71 343	100 548	108 579	96 997	109 956
France					
Titanium minerals	1 785	481	4 735	38	867
Metal	881	2 143	3 115	2 725	1 940
Oxides	156 571	160 887	167 340	147 471	167 779
Germany, Federal Republic of					
Ilmenite	348	1 112	1 380	288	741
Other titanium minerals	3 494	2 634	3 467	2 828	2 157
Metal	1 415	2 370	3 778	2 240	2 113
Oxides	235 606	236 833	229 693	187 494	220 186
Italy					
Titanium minerals	31	1 280	440	10 589	22
Metal	156	454	900	693	939
Oxides (b)	* 23 000	* 29 400	* 36 800	* 25 000	* 26 200
Netherlands					
Ilmenite	3 087	2 426	1 975	1 689	1 618
Other titanium minerals	64 248	52 808	46 833	28 637	27 786
Metal	48	104	289	176	167
Oxides	33 891	40 508	41 526	28 639	(f) 1 046
Spain					
Oxides	26 836	21 943	23 811	17 441	17 226
Czechoslovakia					
Oxides (b)	* 3 500	* 2 500	* 3 700	* 3 400	* 5 400
Finland					
Oxides (b)	* 52 800	* 55 000	* 58 200	* 49 500	* 43 100
Norway					
Titanium minerals	715 915	692 879	678 364	576 419	387 682
Oxides (b)	* 14 900	* 12 900	* 18 800	* 13 400	* 18 500
Soviet Union					
Metal (b)	* 700	* 3 200	* 5 100	* 1 900	* 2 800
Sweden					
Metal	402	445	536	768	451
Oxides	651	637	426	925	1 787
Switzerland					
Metal	...	174	235	256	355
Oxides	(f) 128	918	1 566	766	595
Yugoslavia					
Oxides	19 794	20 932	22 410	15 358	(a) —
Sierra Leone					
Rutile	115 000	114 000	140 000	142 000	143 900
South Africa					
Titanium minerals (b)	...	* 55 500	* 91 500	* 103 700	* 114 100
Titanium slag (b)	...	* 379 400	* 494 000	* 426 000	* 528 000
Canada					
Titanium minerals & slag (b)	* 1 058 700	* 1 172 900	* 1 169 600	* 949 800	* 752 100
Metal	(d) 493	440	480	1 038	681
Oxides	(d) 15 905	32 470	44 536	48 039	48 243
Mexico					
Oxides	...	20 547	21 111	25 472	...
USA					
Titanium minerals	4 024	10 162	20 138	20 060	28 960
Metal	10 899	11 162	13 695	16 011	12 420
Oxides	120 896	123 326	213 566	270 943	190 360
Brazil					
Titanium minerals	6 600	...	2 643	2 690	597
China					
Metal	(b)* 400	(b)* 900	(b)* 800	634	115
Oxides	(b)* 10 400	(b)* 25 400	(b)* 23 400	11 870	12 806
Hong Kong					
Oxides (c)	4 784	13 210	14 544	8 698	9 030
India (e)					
Ilmenite	42 352	119 108	...	82 430	98 150

Exports of Titanium

tonnes

Country	1987	1988	1989	1990	1991
Japan					
Metal	7 073	10 759	13 584	13 188	8 551
Oxides	78 441	81 495	86 433	90 979	92 568
Korea, Republic of					
Titanium minerals	43 593	147 350	146 708	136 440	111 135
Oxides	3 215	3 921	5 936	5 952	6 521
Malaysia					
Ilmenite	302 587	367 363	352 192	203 504	202 743
Singapore					
Oxides	1 461	2 683	3 452	1 542	18 595
of which: Re-exports	1 189	2 623	3 131	1 233	3 130
Sri Lanka					
Ilmenite	105 000	94 700	115 300	205	20
Rutile	—	5 982	4 500	6 760	140
Taiwan					
Oxides	12	501	767	4 900	2 259
Thailand					
Ilmenite	31 658	2 909	40 474	13 033	14 168
Australia					
Ilmenite	1 045 497	1 046 000	1 001 000	1 041 000	977 000
Rutile	256 781	238 000	252 000	186 000	175 000
Leucoxene	10 685	12 976	23 000	26 000	11 000
Oxides	(b)* 28 900	(b)* 26 500	(g) 38 673	(g) 67 129	(g) 56 415

Note(s):

- (1) So far as possible, the term 'oxides', as used in this table, includes oxides and oxide based pigments classified under Standard International Trade Classification (Revision 3) items 522.56 and 533.1
- (2) Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys
- (a) Data for the Federal Republic of Yugoslavia only
- (b) BGS estimates, based on known imports into certain countries
- (c) Re-exports
- (d) Imports into the USA
- (e) Years ended 31 March following that stated
- (f) Excluding oxide based pigments
- (g) Years ended 30 June of that stated

Titanium

Imports of Titanium

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Ilmenite	293 474	299 561	380 392	247 902	197 930
Other titanium minerals	122 735	157 342	108 965	126 713	98 686
Titanium slag	37 666	47 825	46 483	55 930	57 866
Metal	12 626	16 686	15 967	17 840	13 043
Oxides	37 193	41 452	48 560	38 818	46 502
Belgium-Luxembourg					
Ilmenite	67 450	72 379	78 549	48 900	68 835
Other titanium minerals	65 255	29 728	36 592	56 806	18 398
Metal	877	1 640	1 162	789	691
Oxides	33 859	35 655	45 800	40 997	49 136
Denmark					
Oxides	11 632	13 389	15 224	12 085	12 031
France					
Ilmenite	62 971	101 730	61 493	46 628	36 093
Other titanium minerals	132 942	144 675	139 535	151 715	79 224
Titanium slag	115 508	120 457	167 709	110 535	139 624
Metal	2 638	3 716	6 017	5 288	3 566
Oxides	48 200	60 241	66 233	60 023	69 876
Germany, Federal Republic of					
Ilmenite	465 354	449 361	459 017	494 344	398 534
Other titanium minerals	18 075	20 988	16 955	22 798	16 589
Titanium slag	239 572	244 726	255 792	262 990	247 401
Metal	3 126	5 185	6 616	5 986	4 299
Oxides	97 672	121 803	138 118	120 096	133 197
Greece					
Oxides	9 200	10 149	14 507	12 172	14 526
Irish Republic					
Oxides	1 791	1 553	1 419	1 315	1 194
Italy					
Ilmenite	119 145	46 967	45 208	...	25
Other titanium minerals	6 105	1 602	4 878	985	4 066
Titanium slag	77 930	84 753	120 460	81 687	61 867
Metal	3 409	3 858	3 494	3 961	3 273
Oxides	62 446	71 264	83 575	67 266	76 226
Netherlands					
Ilmenite	5 204	4 766	2 062	3 420	10 136
Other titanium minerals	59 251	75 071	34 939	56 579	47 760
Titanium slag	46 919	46 157	50 197	—	—
Metal	344	353	771	787	474
Oxides	32 187	43 856	50 163	53 018	46 443
Portugal					
Oxides	12 193	8 189	5 383	12 817	13 480
Spain					
Ilmenite	133 841	138 556	140 167	94 142	110 629
Other titanium minerals	2 100	4 269	1 815	2 331	3 575
Metal	449	533	806	1 508	1 535
Oxides	13 839	19 636	27 492	24 915	32 400
Austria					
Metal	...	2 613	2 074	641	312
Oxides	12 708	15 793	18 267	14 294	13 877
Bulgaria					
Titanium minerals (b)	* 3 800	* 3 000	* 3 100	* 1 900	* 1 300
Oxides (b)	* 1 800	* 2 100	* 2 200	* 500	* 400
Czechoslovakia					
Oxides (b)	* 3 200	* 3 000	* 2 900	* 2 000	* 1 900
Finland					
Titanium minerals (b)	* 48 900	* 43 100	* 22 000	* 46 100	* 52 400
Oxides	3 580	2 330	3 027	3 717	3 934
German Democratic Republic					
Oxides (b)	* 22 400	* 25 100	* 25 000	* 15 100	—
Norway					
Oxides	7 309	7 693	9 287	7 801	7 544
Romania					
Titanium minerals (b)	* 8 600	* 4 800	* 8 200	* 3 200	* 1 900
Oxides (b)	* 2 800	* 2 000	* 2 600	* 6 000	* 1 100
Soviet Union					
Titanium minerals (b)	* 3 000	* 34 000	* 24 400	* 12 000	* 6 400
Oxides (b)	* 11 600	* 15 300	* 16 500	* 11 700	* 10 600

Imports of Titanium

Titanium

tonnes

Country	1987	1988	1989	1990	1991
Sweden					
Titanium minerals	2 405	1 376	1 809	1 203	663
Metal	500	551	1 007	1 134	691
Oxides	25 532	26 731	28 290	25 572	25 713
Switzerland					
Oxides	(a) 2 004	18 552	22 088	17 470	17 190
Turkey					
Titanium minerals	4 527	3 219	1 576	3 208	4 456
Oxides	22 198	15 873	17 919	23 367	23 752
Yugoslavia					
Titanium minerals	48 463	46 058	52 518	23 701	(h) —
Oxides	4 570	5 014	5 744	3 604	(h) 934
Algeria					
Oxides	12 206	7 821	8 654	11 628	7 932
Egypt					
Oxides	1 085	2 296	2 148	...	...
Kenya					
Oxides	785	524	...	...	...
Morocco					
Oxides	3 716	3 517	2 418	2 423	4 600
South Africa					
Oxides	786	1 384	1 020	729	...
Zimbabwe					
Oxides	1 192	...	...	...	...
Canada					
Titanium minerals (g)	19 311	32 061	58 246	27 523	43 304
Metal	392	1 637	2 621	2 541	1 614
Oxides	30 618	22 412	21 046	18 194	30 558
Mexico					
Ilmenite	44 562	29 101	60 531	121 952	...
Rutile sand	1 484	2 064	1 413	1 509	...
USA					
Ilmenite	308 524	418 976	459 403	374 725	240 897
Rutile (c)	225 650	260 087	264 895	274 605	263 188
Titanium slag	418 633	434 645	386 146	373 409	385 236
Metal	3 984	6 648	7 769	5 608	4 389
Oxides	174 290	185 758	166 378	147 592	165 974
Argentina					
Titanium minerals	1 780	2 015	1 032	...	...
Brazil					
Ilmenite	10 000	50 000	105 000	25 000	* 50 000
Rutile	3 026	3 491	3 006	1 706	1 443
Oxides	17 274	17 516	34 316	22 602	21 005
Chile					
Oxides	4 530	3 883	4 797	4 834	5 313
Colombia					
Oxides	...	8 193	8 972	8 643	8 742
Uruguay					
Oxides	5 958	3 881	...	...	1 047
Venezuela					
Oxides	19 751	18 602	6 136	10 380	15 765
China					
Metal	(b)* 300	(b)* 300	(b)* 500	80	399
Oxides	(b)* 19 400	(b)* 16 100	19 214	27 319	25 176
Hong Kong					
Oxides	11 308	20 906	24 014	16 046	18 233
India (d)					
Oxides	13 137	10 315	...	17 002	8 476
Indonesia					
Oxides	14 182	12 088	18 055	22 277	22 499
Iran (f)					
Oxides	2 529	3 098	4 341	...	...
Israel					
Oxides	...	4 904	3 563	3 575	...

Titanium

Imports of Titanium

tonnes

Country	1987	1988	1989	1990	1991
Japan					
Titanium minerals	570 377	642 209	616 090	757 595	576 003
Titanium slag	88 387	...	...	...	...
Metal	...	924	1 062	786	1 084
Oxides	45 677	48 980	71 306	65 170	61 061
Jordan					
Oxides	1 922	2 203	1 402	1 449	1 968
Korea, Republic of					
Rutile sand	6 822	6 940	6 806	8 068	7 431
Titanium minerals	57 096	55 177	62 102	31 804	92 054
Metal	341	486	757	1 633	1 592
Oxides	28 688	37 048	41 785	40 686	45 895
Malaysia					
Titanium minerals	3 759	20 662	5 399	...	23 058
Oxides	8 755	10 299	15 980	...	19 172
Pakistan (e)					
Oxides	3 416	3 677	...	5 070	...
Philippines					
Titanium minerals	1 305	1 550	1 535	1 427	1 007
Oxides	10 537	7 934	14 945	12 852	12 033
Saudi Arabia					
Oxides	5 775	6 427	5 102	7 125	7 977
Singapore					
Oxides	8 508	11 100	14 976	5 784	14 726
Taiwan					
Titanium minerals	...	...	19 096	18 617	20 014
Oxides	47 505	48 703	56 933	56 878	67 250
Thailand					
Rutile	1 400	2 033	3 230	3 222	3 889
Other titanium minerals	—	141	1 043	2 575	5 184
Oxides	2 210	15 122	21 884	20 952	24 759
Australia					
Titanium minerals (e)	...	...	33 146	22 033	38
Oxides (e)	964	1 202	1 369	2 153	1 506
New Zealand (e)					
Oxides	8 192	6 505	6 839	8 015	6 428

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 Standard International Trade Classification (Revision 3) items 522.56 and 533.1
- (3) Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys
- (a) Excluding oxide based pigments
- (b) BGS estimates, based on known exports from certain countries
- (c) Including synthetic rutile
- (d) Years ended 31 March following that stated
- (e) Years ended 30 June of that stated
- (f) Years ended 20 March following that stated
- (g) Ti content
- (h) Data for the Federal Republic of Yugoslavia only

Mine Production of Tungsten

Country	1987	1988	1989	1990	1991
United Kingdom	—	27	28	42	9
Portugal (c)	1 209	1 379	1 385	1 407	970
Spain	80	81	57	27	...
Austria	970	950	1 177	1 043	994
Czechoslovakia	* 45	* 50	* 50	25	* 25
Soviet Union	* 9 200	* 9 200	* 9 300	* 8 800	* 8 000
Sweden	336	352	80	—	—
Turkey	384	393	* 400	* 400	* 400
Rwanda	85	41	105	156	175
Uganda	30	75	32	48	98
Zaire (b)	21	20	16	* 20	* 20
Mexico	213	206	170	183	194
USA	34	350	400	400	200
Bolivia	638	924	1 118	1 014	1 065
Brazil (a)	800	738	679	513	233
Peru	259	654	974	1 118	981
China	* 20 000	* 25 000	30 360	32 370	* 30 000
India	26	19	12	12	* 20
Japan	216	226	252	218	240
Korea, Dem. P.R. of	* 500	* 500	* 500	* 500	* 500
Korea, Republic of	2 375	2 029	1 701	1 361	780
Mongolia	* 1 000	* 1 000	* 1 000	* 1 000	* 1 000
Myanmar (b)	493	307	464	* 300	* 300
Thailand (c)	652	605	560	269	227
Australia (c)	1 150	1 281	1 371	1 086	237
World total	41 000	46 000	52 000	52 000	47 000

(a) Mainly scheelite

(b) Including tin-wolframite concentrates

(c) Wolframite and scheelite

Tungsten

Exports of Tungsten

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Tungsten ore	597	449	41	24	0
Metal	483	467	766	876	1 080
Carbide	623	378	463	461	169
Belgium-Luxembourg					
Metal	197	204	158	156	148
France					
Tungsten ore	242	99	0	7	3
Metal	414	431	443	275	298
Carbide	169	198	331	189	153
Germany, Federal Republic of					
Metal	1 225	1 034	1 444	1 895	2 167
Italy					
Metal	240	158	130	131	327
Netherlands					
Tungsten ore	82	165	74	214	—
Metal	813	598	1 104	804	415
Portugal					
Tungsten ore	2 048	2 384	1 930	2 216	2 878
Spain					
Tungsten ore	140	87	115	—	132
Austria					
Tungsten ore	60	66	—	19	—
Metal	823	1 119	1 318	1 032	1 047
Sweden					
Tungsten ore	265	688	598	110	217
Metal	84	96	10	12	17
Carbide	70	53	22	9	24
Switzerland					
Metal	33	89	92	94	74
Turkey					
Tungsten ores & concentrates	832	433	1 800	36	11 096
Rwanda					
Tungsten ores & concentrates	45	25	159	283	* 200
Zaire					
Tungsten ore	53	18	* 20	* 20	* 20
Mexico					
Tungsten ores & concentrates	633	465	321	333	493
USA					
Tungsten ores & concentrates	2	153	151	89	8
Metal	1 637	1 810	2 088	2 264	1 846
Ammonium paratungstate (a)	285	174	189	374	770
Carbide	388	619	1 374	1 080	839
Bolivia					
Tungsten ore	1 827	1 478	1 972	1 716	2 083
Peru					
Tungsten ores & concentrates	598	1 006	1 432	...	...
China					
Tungsten ores & concentrates	23 117	27 290	30 901	16 450	6 071
Metal	337	408	791	336	420
Ammonium paratungstate	...	...	...	8 265	9 197
Hong Kong					
Tungsten ore (c)	3 692	2 008	3 925	2 516	1 836
Japan					
Metal	269	312	588	733	1 279
Korea, Republic of					
Tungsten ore	466	203	48	—	46
Metal	288	328	526	265	538
Carbide	499	574	704	690	633
Myanmar (b)					
Tungsten ores & concentrates	823	592	550	* 600	* 500

Exports of Tungsten					Tungsten
					tonnes
Country	1987	1988	1989	1990	1991
Singapore					
Tungsten ore (c)	1 166	708	614	713	1 401
Metal	86	165	120	138	133
of which: Re-exports	28	10	43	17	10
Thailand					
Tungsten ore	1 179	1 069	864	590	840
Australia					
Wolframite ores & concentrates	146	3	...	...	...
Scheelite ores & concentrates	1 909	2 202	(d) 1 887	(d) 1 810	(d) 1 272

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) W content
 - (b) Years ended 31 March following that stated
 - (c) Re-exports
 - (d) Including wolframite ores and concentrates

Tungsten

Imports of Tungsten

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Tungsten ore	311	20	85	111	38
Metal	424	792	624	717	577
Carbide	467	584	473	294	237
Belgium-Luxembourg					
Metal	232	345	305	229	460
Carbide	298	309	276	164	166
Denmark					
Carbide	266	...	...	...	...
France					
Metal	230	256	215	262	470
Carbide	160	293	288	257	268
Germany, Federal Republic of					
Tungsten ore	3 454	4 105	4 819	1 394	566
Metal	1 463	1 443	1 813	1 609	2 225
Carbide	501	642	980	887	876
Italy					
Tungsten ore	156	41	40	22	0
Metal	128	135	229	276	127
Carbide	443	394	467	343	253
Netherlands					
Tungsten ore	380	436	310	453	—
Metal	555	423	778	771	337
Spain					
Metal	37	33	44	50	35
Austria					
Tungsten ore	2 215	1 249	807	691	439
Metal	838	925	2 583	1 112	678
Finland					
Metal	29	39	28	51	7
Poland					
Tungsten concentrates	1 440	820	—	—	—
Soviet Union					
Tungsten concentrates	* 11 600	* 11 600	* 9 700	* 9 700	* 3 900
Sweden					
Tungsten ore	268	756	659	314	410
Metal	172	233	261	247	162
Carbide	310	198	585	475	18
Switzerland					
Metal	61	75	71	83	88
Turkey					
Metal	66	71	34	25	25
Yugoslavia					
Metal	17	38	13	13	(f) 1
South Africa					
Tungsten ores & concentrates	367	436	296	220	...
Metal	16	32	45	34	...
Carbide	104	69	184	157	...
Canada					
Metal	(d) 87	218	209	128	144
Carbide	220	487	357	290	290
Mexico					
Metal	69	74	177	198	39
USA					
Tungsten ore	7 908	14 853	15 679	11 854	14 411
Metal	1 290	1 856	2 212	1 725	3 443
Ammonium paratungstate (a)	1 512	655	431	462	842
Carbide	558	633	703	736	486
Hong Kong					
Tungsten ore	1 278	1 419	3 658	2 031	516
India (c)					
Tungsten ore	343	468	* 400	358	406
Metal	105	51	...	59	72
Israel					
Metal	139	253	...	...	...

Imports of Tungsten

Tungsten

tonnes

Country	1987	1988	1989	1990	1991
Japan					
Tungsten ore	1 938	2 785	2 316	2 589	1 200
Metal	283	465	378	348	591
Korea, Dem. P.R. of					
Tungsten ore (e)	* 900	* 150	* 250	* 450	* 100
Korea, Republic of					
Tungsten ores & concentrates	—	—	2 115	3 007	3 412
Metal	120	67	78	64	64
Malaysia					
Metal	102	281	335	628	160
Singapore					
Tungsten ore	1 175	764	685	978	1 334
Metal	105	130	154	117	128
Taiwan					
Metal	118	96	132	624	132
Australia (b)					
Metal	25	49	105	82	41

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) W content
- (b) Years ended 30 June of that stated
- (c) Years ended 31 March following that stated
- (d) Exports from the USA
- (e) BGS estimates, based on known exports from certain countries
- (f) Data for the Federal Republic of Yugoslavia only

Vanadium

Mine Production of Vanadium

tonnes (metal content)

Country	1987	1988	1989	1990	1991
Soviet Union	* 9 600	* 9 600	* 9 600	* 9 000	* 8 500
South Africa	15 943	17 632	18 568	17 106	15 478
USA	* 1 900	* 1 900	* 2 200	* 1 800	* 1 000
China	* 4 500	* 4 500	* 4 500	* 4 500	* 4 500
World total	31 900	33 600	34 900	32 400	29 500

Note(s):

(1) This table includes vanadium in slag products but excludes vanadium recovered as a byproduct of the refining and burning of heavy oils

Exports of Vanadium

Country	1987	1988	1989	1990	1991
United Kingdom					
Metal	142	24	44	22	31
Belgium-Luxembourg					
Vanadiferous residues	3 095	3 080	2 765	4 433	7 107
Pentoxide	291	116	202	66	18
Vanadium-titanium pig iron	46	—	36	—	—
Denmark					
Vanadium-titanium pig iron	17	8	37	38	348
France					
Vanadiferous residues	96	529	134	132	177
Pentoxide	11	269	84	35	43
Vanadium-titanium pig iron	196	—	—	6	100
Metal	0	58	1	3	29
Germany, Federal Republic of					
Vanadiferous residues	3 742	195	871	171	1 507
Pentoxide	504	447	155	220	46
Vanadium-titanium pig iron	75	75	90	150	51
Metal	312	369	408	401	239
Italy					
Vanadiferous residues	657	3 163	1 887	...	36
Finland					
Pentoxide (a)	* 1 500	...	...	...	...
Soviet Union					
Vanadiferous residues	* 10 000	10 890	10 510	6 600	...
South Africa					
Pentoxide (b)	26 251	28 281	29 950	21 989	20 561
USA					
Pentoxide	1 369	1 342	3 171	2 570	1 805
China					
Pentoxide (a)	* 4 500	* 4 900	* 3 800	* 3 400	* 2 100

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 imports into certain countries
- (b) Includes V₂O₅ content of vanadiferous residues

Vanadium

Imports of Vanadium

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Pentoxide	255	104	256	226	135
Metal	238	235	232	257	193
Belgium-Luxembourg					
Vanadiferous residues	12 087	61	5 498	—	—
Pentoxide	4 194	3 717	5 929	5 657	3 329
France					
Pentoxide	127	88	252	282	178
Vanadium-titanium pig iron	—	75	75	—	1
Metal	111	141	90	85	15
Germany, Federal Republic of					
Vanadiferous residues	32 439	27 933	32 559	25 923	23 624
Pentoxide	1 554	1 623	1 454	597	260
Metal	40	59	25	19	46
Italy					
Vanadiferous residues	1 538	806	430	184	478
Pentoxide	95	84	71	40	74
Spain					
Pentoxide	216	42	1	2	6
Austria					
Vanadiferous residues	...	21 137	22 827	18 908	26 058
Pentoxide	...	2 258	1 917	972	804
Turkey					
Pentoxide	137	109	...	...	...
Vanadium-titanium pig iron	2 670	895	...	...	...
Canada					
Pentoxide	1 410	1 468	1 263	838	851
USA					
Vanadiferous residues	22 251	17 834	45 636	50 464	4 793
Pentoxide	463	688	448	1 004	352
Metal	0	13	256	115	102
Brazil					
Pentoxide	998	979	937	481	...
Japan					
Pentoxide	2 763	5 339	4 313	4 796	4 613
Metal	...	173	154	104	136

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

Mine Production of Zinc

tonnes (metal content)

Country	1987	1988	1989	1990	1991
United Kingdom	6 522	5 502	5 771	6 673	1 078
France	31 339	31 100	25 010	23 921	27 122
Germany, Federal Republic of	98 900	75 600	63 900	58 100	54 000
Greece	20 700	21 200	24 600	26 700	30 000
Irish Republic	177 000	176 500	168 800	166 400	187 500
Italy	33 200	37 900	44 000	42 400	37 400
Spain	272 556	281 724	269 723	257 500	264 600
Austria	16 983	19 134	15 749	17 661	16 354
Bulgaria	44 200	44 100	39 700	34 700	29 100
Czechoslovakia	6 900	6 600	6 600	7 400	7 800
Finland	55 104	63 879	62 009	53 923	57 310
Greenland	69 000	77 000	72 000	48 000	—
Norway	22 356	17 528	16 634	17 546	18 886
Poland	185 800	220 000	204 000	178 000	176 000
Romania	* 58 300	* 58 000	* 55 500	* 36 000	* 26 800
Soviet Union	* 950 000	* 960 000	* 940 000	* 870 000	* 540 000
Sweden	229 353	200 393	173 515	164 128	155 300
Turkey	42 223	37 447	39 194	39 066	32 500
Yugoslavia	74 000	71 200	88 930	83 788	74 000
Algeria	8 600	6 700	6 400	4 300	4 300
Morocco	10 165	10 935	17 296	18 400	27 300
Namibia	39 508	37 250	42 760	40 507	35 638
South Africa	112 686	89 551	77 334	74 792	64 425
Tunisia	5 900	9 000	9 500	7 400	5 100
Zaire	84 841	75 700	72 800	61 800	42 400
Zambia	35 400	27 450	23 500	37 564	24 800
Canada	1 481 544	1 347 424	1 216 139	1 203 161	1 156 582
Honduras	16 644	23 475	33 676	28 971	38 280
Mexico	271 480	262 228	284 058	298 991	301 685
USA	232 900	256 400	288 300	543 200	546 600
Argentina	35 648	36 849	43 155	38 664	39 178
Bolivia	39 292	56 957	74 789	103 849	129 778
Brazil	132 962	155 531	178 439	158 025	* 160 000
Chile	19 618	19 182	18 370	25 146	30 998
Peru (a)	612 477	485 429	597 412	583 934	627 824
China	458 200	527 300	620 400	618 900	710 000
India	53 300	59 100	65 200	70 000	97 100
Iran	36 000	25 000	25 000	14 800	31 100
Japan	165 675	147 217	131 794	127 273	133 004
Korea, Dem. P.R. of	* 130 000	* 150 000	* 110 000	* 100 000	* 120 000
Korea, Republic of	23 530	21 820	23 202	22 792	22 039
Myanmar	1 700	1 600	1 400	1 700	1 000
Philippines	1 128	1 435	1 345	100	—
Saudi Arabia	...	1 500	2 600	2 500	4 000
Thailand	63 112	77 719	76 335	74 759	86 900
Australia	778 386	760 308	803 000	933 000	1 024 000
World total	7 200 000	7 100 000	7 200 000	7 300 000	7 200 000

(a) Recoverable

Zinc

Production of Slab Zinc

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom	81 360	76 028	79 773	93 309	100 651
Belgium (a)	308 580	323 758	306 022	356 533	385 053
France	290 812	304 032	287 344	264 132	299 497
Germany, Federal Republic of	380 100	356 300	353 500	337 600	345 700
Italy	247 000	242 117	246 000	248 100	256 000
Netherlands	207 111	211 019	202 962	(b) 208 537	(b) 211 082
Portugal	5 800	5 500	5 000	5 500	2 100
Spain	213 600	245 400	246 400	252 700	262 200
Austria	24 963	26 321	27 473	28 313	16 310
Bulgaria	89 922	82 023	94 996	75 457	46 100
Finland	158 831	149 758	154 230	163 063	172 020
German Democratic Republic	* 21 100	* 20 000	* 18 500	* 12 700	—
Norway	116 593	122 203	120 510	124 804	124 586
Poland	176 500	173 566	163 727	132 131	126 067
Romania	45 960	39 631	29 849	11 500	8 700
Soviet Union	* 1 020 000	* 1 035 000	* 1 020 000	* 920 000	* 800 000
Turkey	20 200	22 500	24 200	20 100	17 400
Yugoslavia	118 067	127 524	119 394	113 705	(c) 87 372
Algeria	19 000	20 000	28 000	23 600	29 500
South Africa	96 051	85 193	84 997	92 300	91 500
Zaire	54 875	61 400	54 000	38 203	28 200
Zambia	21 025	20 220	12 900	10 800	6 600
Canada	609 909	703 206	669 677	591 786	660 552
Mexico	184 755	192 529	193 279	199 295	189 082
USA	343 934	329 786	358 209	358 412	377 354
Argentina	34 289	35 448	34 267	34 217	38 566
Brazil	148 036	143 974	162 255	154 086	163 000
Peru	144 619	119 739	137 800	117 634	154 572
China	383 100	425 400	620 400	763 100	576 700
India	68 899	68 940	71 572	79 100	85 600
Japan	665 618	678 175	664 507	687 461	730 829
Korea, Dem. P.R. of	* 130 000	* 160 000	* 120 000	* 110 000	* 130 000
Korea, Republic of	186 016	225 987	241 743	257 043	285 830
Thailand	66 868	64 694	62 674	63 257	68 400
Australia	312 075	302 000	294 000	303 000	324 000
World total	7 000 000	7 200 000	7 300 000	7 300 000	7 200 000

(a) Including alloys

(b) Sales

(c) Excluding data from August to December for the Republic of Croatia

Exports of Zinc

Country	1987	1988	1989	1990	1991
United Kingdom					
Ores & concentrates	8 852	9 330	13 363	21 927	2 398
Unwrought	4 197	7 089	8 896	7 671	15 469
Unwrought alloys	9 440	6 610	7 442	11 414	14 763
Scrap	22 461	25 079	30 256	25 636	25 919
Belgium-Luxembourg					
Ore	21 564	52 277	84 368	50 881	40 128
Unwrought	157 485	154 652	166 242	136 794	130 677
Unwrought alloys	55 943	46 392	35 969	45 160	72 480
Scrap	8 408	15 674	20 167	18 881	14 450
Denmark					
Unwrought (a)	279	96	67	681	215
Scrap	5 035	5 631	5 040	4 916	4 272
France					
Ore	49 307	31 190	26 823	24 620	12 208
Unwrought	70 507	66 222	71 426	74 081	81 443
Unwrought alloys	5 628	9 291	14 345	9 393	5 008
Scrap	12 233	23 086	28 844	19 411	21 098
Germany, Federal Republic of					
Ore	* 174 800	* 135 100	* 125 500	* 70 600	35 456
Unwrought	93 628	109 226	97 171	75 000	73 921
Unwrought alloys	16 060	18 733	22 112	22 832	28 335
Scrap	17 993	29 468	29 165	26 419	28 825
Greece					
Ores & concentrates	49 240	40 300	46 833	53 391	53 541
Scrap	665	198	810	232	733
Irish Republic					
Ores & concentrates	352 778	347 856	341 516	319 139	357 817
Italy					
Ore	14 900	21 325	20 230	20 918	1 079
Unwrought	57 892	50 803	45 243	51 151	34 771
Unwrought alloys	2 169	1 546	3 606	5 430	5 186
Scrap	6 540	4 750	7 584	3 857	2 476
Netherlands					
Unwrought	182 548	179 807	161 996	156 814	140 255
Unwrought alloys	2 529	3 834	5 181	5 605	8 339
Scrap	17 542	23 652	29 290	23 621	21 473
Spain					
Ore	79 481	109 613	140 647	133 263	105 880
Unwrought (a)	105 532	146 231	147 646	137 077	144 472
Austria					
Unwrought	4 704	(a) 7 066	(a) 6 360	(a) 5 626	(a) 1 850
Scrap	2 338	2 399	2 539	2 527	2 652
Bulgaria					
Unwrought (a) (b)	* 19 400	* 16 000	* 23 200	* 21 200	* 21 600
Czechoslovakia					
Ore (b)	* 7 400	* 2 800	* 1 900	* 6 000	* 4 000
Finland					
Ore	—	1 608	2 690	9	—
Unwrought	108 189	122 720	134 006	134 959	148 919
Unwrought alloys	26 160	5 417	4 487	5 138	4 458
Scrap	1 385	2 595	4 424	5 172	6 795
Greenland					
Ores & concentrates	113 804	136 392	130 494	95 544	—
Hungary					
Scrap	2 045	1 937	2 281	3 153	...
Norway					
Ore	7 185	4 796	6 831	5 708	5 561
Unwrought	98 931	94 932	100 709	106 122	109 278
Unwrought alloys	7 265	5 912	4 212	8 032	3 982
Scrap	590	1 083	2 179	1 299	2 675
Poland					
Unwrought	19 080	25 191	17 651	26 800	17 900
Soviet Union					
Unwrought (a) (b)	* 28 000	* 48 200	* 36 200	* 31 800	* 19 200
Sweden					
Ore	461 033	373 196	327 410	313 305	322 221
Unwrought (a)	1 257	833	201	855	225
Scrap	4 574	3 170	4 628	5 371	5 891

Zinc

Exports of Zinc

tonnes

Country	1987	1988	1989	1990	1991
Switzerland					
Unwrought	1	(a) 411	(a) 386	(a) 916	(a) 364
Scrap	868	1 192	1 208	1 238	1 267
Turkey					
Ores & concentrates	12 858	28 692	11 524	12 755	16 615
Unwrought	1 174	922	...	3	1
Yugoslavia					
Concentrates	—	1 735	4 117	13 330	(g) —
Unwrought (a)	53 083	58 820	42 638	53 429	(g) 8 630
Algeria					
Unwrought (a)	3 236	20 676	22 094	14 252	12 984
Morocco					
Ore	23 797	23 098	35 332	33 325	36 082
Namibia					
Concentrates	66 618	78 656	86 931	79 840	65 517
South Africa					
Ores & concentrates (c)	15 506	19 648	15 351	10 975	3 737
Unwrought	—	272	234	1 816	3 900
Tunisia					
Ore	15 256	17 510	19 425	17 700	10 000
Zaire					
Unwrought	46 115	38 813	...	37 500	* 30 200
Zambia					
Unwrought	36 098	12 798	39 519	6 067	6 300
Canada					
Ore (c)	613 180	814 737	608 590	700 910	571 501
Unwrought	(a) 441 220	539 061	495 177	452 914	520 533
Unwrought alloys	...	17 759	13 819	3 409	8 130
Scrap	24 501	16 942	11 583	38 295	33 327
Honduras					
Ores & concentrates (c)	16 644	23 475	27 983	28 971	38 280
Mexico					
Ores & concentrates	157 516	142 328	162 937	238 982	252 253
Unwrought	71 522	80 543	90 871	93 291	88 890
USA					
Ore (c)	158 803	195 533	255 394	380 932	490 216
of which: Re-exports	141 882	161 944	176 517	160 486	151 511
Unwrought (a)	3 572	5 605	8 104	7 043	6 333
Scrap	82 280	95 147	97 703	88 475	73 179
Argentina					
Ores & concentrates	7 679	5 115	6 877	11 855	7 000
Unwrought	—	—	11 263	14 005	14 400
Bolivia					
Ore	82 297	115 659	169 873	210 366	267 599
Brazil					
Unwrought	—	6 511	20 216	34 202	49 032
Chile					
Concentrates	39 204	34 352	39 754	49 672	59 848
Peru					
Concentrates	863 850	693 582	764 531	981 407	876 052
Unwrought (a)	80 480	51 381	91 260	64 677	94 726
China					
Ores & concentrates	37 220	108 175	115 266	76 228	76 960
Unwrought (a)	95 338	13 838	20 109	16 711	6 284
Hong Kong					
Unwrought (a)	68 391	29 924	37 922	57 606	57 816
of which: Re-exports	68 391	29 788	37 431	56 576	56 799
Scrap	109	1 105	3 912	9 536	9 333
of which: Re-exports	—	368	1 171	5 596	7 327
Indonesia					
Scrap	516	507	109	271	—
Iran (d)					
Ore	58 800	57 772	35 968	...	...
Japan					
Unwrought	51 854	21 129	17 862	21 254	18 147
Unwrought alloys	1 383	5 513	4 065	4 400	4 242
Scrap	3 233	5 017	5 973	8 519	8 141

Exports of Zinc

Zinc
tonnes

Country	1987	1988	1989	1990	1991
Korea, Dem. P.R. of					
Unwrought (a) (b)	* 68 900	* 99 900	* 74 500	* 54 400	* 57 900
Korea, Republic of					
Unwrought (a)	38 032	70 657	73 583	56 310	27 626
Malaysia					
Scrap	1 175	385	492	...	1 139
Myanmar (e)					
Concentrates	9 050	6 500	9 000	5 500	...
Philippines					
Concentrates	2 128	2 885	3 931	1 284	—
Scrap	495	622	888	866	514
Saudi Arabia					
Scrap	7 504	2 637	2 606	3 138	911
Singapore					
Unwrought	5 576	31 751	40 378	22 604	12 920
of which: Re-exports	4 822	30 980	39 412	22 210	11 954
Scrap	538	926	2 366	1 364	1 001
Taiwan					
Unwrought (a)	200	4 368	8 387	2 210	1 040
Thailand					
Unwrought (a)	17 616	12 967	13 837	6 059	10
Australia					
Ores & concentrates	865 984	979 652	1 004 000	1 217 000	1 406 000
Unwrought	240 689	207 000	203 000	244 000	253 000
Scrap (f)	1 089	3 420	3 125	3 665	4 023
New Zealand (f)					
Scrap	791	1 179	1 046	876	389

Note(s):

(1) In this table the term 'unwrought' zinc corresponds to item 686.1 of the Standard International Trade Classification (Revision 3) and comprises blocks, pigs, slabs, etc.

(a) Including alloys

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

(c) Zn content

(d) Years ended 20 March following that stated

(e) Years ended 31 March following that stated

(f) Years ended 30 June of that stated

(g) Data for the Federal Republic of Yugoslavia only

Zinc

Imports of Zinc

tonnes

Country	1987	1988	1989	1990	1991
United Kingdom					
Ores & concentrates	177 233	187 826	207 603	278 301	207 171
Unwrought	114 248	134 000	127 344	123 641	120 120
Unwrought alloys	7 242	4 957	6 312	4 682	1 987
Scrap	4 601	6 487	6 578	5 028	2 634
Belgium-Luxembourg					
Ore	588 803	611 709	605 123	626 045	692 011
Unwrought (a)	40 535	41 017	41 712	35 156	46 464
Scrap	14 070	20 247	18 513	20 354	17 870
Denmark					
Unwrought	10 205	12 065	10 917	13 651	13 587
Unwrought alloys	2 472	2 169	2 228	2 295	2 752
Scrap	474	898	88	244	182
France					
Ore	512 825	523 738	533 365	595 386	630 641
Unwrought	70 364	88 328	83 591	88 933	82 204
Unwrought alloys	30 968	22 834	25 435	21 566	22 033
Scrap	8 880	10 029	11 418	9 753	5 971
Germany, Federal Republic of					
Ore	664 024	604 455	595 494	592 604	624 814
Unwrought	159 908	180 163	186 489	222 750	270 008
Unwrought alloys	11 308	12 925	15 623	19 519	22 584
Scrap	16 546	28 916	30 539	25 349	17 855
Greece					
Unwrought (a)	15 410	17 827	20 167	22 319	17 198
Irish Republic					
Unwrought (a)	1 603	1 877	2 830	1 769	2 031
Scrap	393	188	347	254	108
Italy					
Ore	441 883	429 581	392 304	400 711	411 633
Unwrought	63 654	58 760	75 609	76 905	71 238
Unwrought alloys	16 198	12 502	14 200	15 380	16 653
Scrap	5 086	9 657	11 164	5 840	5 577
Netherlands					
Ore	439 522	478 840	419 139	465 923	410 911
Unwrought	26 499	36 072	36 108	25 493	24 831
Unwrought alloys	1 449	1 343	1 272	694	1 128
Scrap	7 788	4 176	8 144	5 055	5 664
Portugal					
Unwrought (a)	13 549	13 131	13 112	17 653	17 416
Scrap	1 813	2 542	456	2 418	2 240
Spain					
Ore	33 743	33 398	48 764	142 988	130 553
Unwrought	3 739	4 467	6 235	3 986	6 542
Unwrought alloys	3 180	2 034	3 293	4 003	4 966
Scrap	1 282	2 164	1 887	1 511	2 332
Austria					
Ore	16 688	15 326	26 184	19 376	12 206
Unwrought	10 282	(a) 16 243	(a) 13 441	(a) 16 298	(a) 27 613
Scrap	383	355	1 030	808	1 023
Bulgaria					
Ore (h)	* 45 600	* 50 900	* 57 600	* 74 200	* 41 500
Czechoslovakia					
Unwrought (a)	57 000	54 000	62 000	...	...
Finland					
Ore	195 806	187 411	154 442	266 689	236 902
Unwrought (a)	95	63	550	110	573
German Democratic Republic					
Ore (h)	* 80 200	* 76 800	* 58 500	* 39 100	—
Unwrought (a) (h)	* 29 500	* 36 000	* 25 400	* 17 400	—
Hungary					
Unwrought (g)	27 567	26 358	19 186	12 911	...
Iceland					
Unwrought (a)	92	131	129	171	167
Malta					
Unwrought (a)	109	179	162	...	...
Norway					
Ore	171 939	99 332	84 719	158 829	160 116
Unwrought (a)	855	510	1 429	935	435
Scrap	3 959	1 722	3 064	1 607	5 619

Imports of Zinc

Country	1987	1988	1989	1990	1991
Poland					
Unwrought	2 994	2 486	2 542	...	...
Romania					
Unwrought (a) (h)	* 2 100	* 2 300	...	* 1 200	* 1 200
Soviet Union					
Ore	(h)* 88 800	(h)* 52 100	(h)* 75 100	(h)* 42 200	(j) 32 214
Unwrought (a) (h)	* 38 800	* 62 700	* 31 700	* 10 000	* 1 000
Sweden					
Unwrought	36 111	39 718	40 192	40 304	33 364
Unwrought alloys	3 502	3 598	3 014	3 042	2 091
Scrap	270	117	107	92	205
Switzerland					
Unwrought	23 386	(a) 20 379	(a) 20 030	(a) 26 122	(a) 22 229
Scrap	123	0	80	36	8
Turkey					
Unwrought	33 616	19 371	(a) 16 152	(a) 29 841	(a) 20 714
Yugoslavia					
Concentrates	71 147	61 144	54 079	55 430	(i) 19 187
Unwrought (a)	4 048	44 291	84 155	50 515	(i) 2 865
Algeria					
Ores & concentrates	100 820	32 598	60 501	25 837	...
Egypt					
Unwrought (b)	7 158	10 641	9 901	...	...
Ivory Coast					
Unwrought	...	2 509	...	...	...
Kenya					
Unwrought (a)	10 015	8 689	...	...	...
Morocco					
Unwrought (a)	19 177	2 923	4 242	5 700	5 132
Nigeria					
Unwrought (a)	1 875	...	...	...	...
South Africa					
Unwrought	2 429	(a) 5 390	(a) 13 300	(a) 5 528	...
Scrap	1 802	261	201	299	...
Tanzania					
Unwrought (a)	999	859	81 529	...	...
Tunisia					
Unwrought	1 168	2 348	4 112	(a) 4 063	(a) 4 554
Canada					
Ores & concentrates (c)	(b) 31 949	34 538	34 469	170 918	176 805
Unwrought	11 032	8 027	4 707	9 482	4 687
Scrap	...	2 474	1 379	1 614	655
Costa Rica					
Unwrought (a)	4 551	4 549	5 467	4 741	3 623
El Salvador					
Unwrought (a)	844	1 140	253	737	683
Guatemala					
Unwrought (a)	2 823	3 352	1 515	834	550
Honduras					
Unwrought (a)	1 534	246	1 029	...	1 551
Jamaica					
Unwrought	981	815	708	...	...
USA					
Ore (c)	425 516	405 710	388 596	240 785	170 616
Unwrought (a)	705 991	740 868	712 186	632 477	549 369
Scrap	4 025	5 727	9 291	31 720	31 596
Argentina					
Unwrought	5 867	1 880	1 000	1 742	...
Brazil					
Ores & concentrates	95 245	94 238	92 027	75 054	112 500
Unwrought (a)	49 207	7 486	9 462	3 172	11 555
Chile					
Unwrought (a)	9 687	9 250	9 173	4 697	4 748

Zinc

Imports of Zinc

tonnes

Country	1987	1988	1989	1990	1991
Colombia					
Unwrought (a)	14 212	18 903	14 890	8 750	14 104
Ecuador					
Unwrought (a)	87 418	53 692	2 695	2 649	3 909
Uruguay					
Unwrought	1 950	1 882	1 487	1 455	1 717
Venezuela					
Unwrought	18 633	21 228	5 277	9 272	12 727
Unwrought alloys	8 237	12 694	6 595	4 369	4 156
China					
Unwrought (a)	68 153	61 985	19 198	4 141	11 705
Hong Kong					
Unwrought	66 435	20 866	25 458	38 777	27 210
Unwrought alloys	29 217	44 633	29 779	36 041	60 588
Scrap	599	1 176	3 647	6 407	6 592
India (d)					
Ores & concentrates	10 935	22 537	...	42 155	15 073
Unwrought	87 119	74 932	29 900	74 158	38 365
Unwrought alloys	3 690	2 052	...	1 537	231
Scrap	4 293	2 808	...	551	638
Indonesia					
Unwrought (a)	49 176	51 705	44 447	55 315	56 722
Scrap	654	936	476	195	326
Iran (e)					
Unwrought	5 065	4 751	6 466	16 749	...
Israel					
Unwrought	(b) 7 833	(a) 7 956	(a) 7 240	...	...
Japan					
Ore	974 026	1 068 407	1 028 985	1 186 231	1 156 089
Unwrought	105 319	112 772	132 746	140 470	142 194
Unwrought alloys	11 566	17 530	17 968	14 333	12 342
Scrap	4	764	759	409	338
Jordan					
Unwrought	981	692	1 005	1 121	868
Korea, Dem. P.R. of					
Ores & concentrates (h)	* 19 600	* 16 600	* 36 400	* 7 800	* 19 100
Korea, Republic of					
Ores & concentrates	408 138	456 345	449 999	485 327	468 242
Unwrought (a)	36 387	20 453	20 345	25 283	22 353
Scrap	10 007	12 881	2 890	543	327
Macao					
Unwrought	1 504	4 071	2 503	620	128
Malaysia					
Unwrought	8 815	17 518	15 994	18 167	22 223
Unwrought alloys	9 695	6 451	...	6 915	8 150
Pakistan (f)					
Unwrought	14 766	15 385	...	29 396	...
Philippines					
Unwrought (a)	21 091	27 556	29 981	29 485	31 038
Saudi Arabia					
Unwrought	6 822	9 443	6 683	6 662	(a) 9 123
Singapore					
Unwrought	26 496	45 365	52 520	56 210	36 039
Scrap	574	520	737	550	1 042
Sri Lanka					
Unwrought (a)	1 422	1 571	...	1 319	1 603
Taiwan					
Unwrought	64 459	63 574	56 908	72 279	125 946
Unwrought alloys	19 659	18 109	13 910	13 449	30 790
Scrap	110 814	151 681	163 383	155 345	134 190
Thailand					
Unwrought	2 554	1 398	1 362	827	5 260
Unwrought alloys	2 238	2 435	1 421	3 910	5 988

Imports of Zinc Zinc
tonnes

Country	1987	1988	1989	1990	1991
Australia					
Ores & concentrates (f)	26 318	...	20 359	32 295	23 767
New Zealand (f)					
Unwrought (a)	20 403	17 061	19 148	25 550	17 428

Note(s):

- (1) In this table the term 'unwrought' zinc corresponds to item 686.1 of the Standard International Trade Classification (Revision 3) and comprises blocks, pigs, slabs, etc.
- (a) Including alloys
- (b) Including scrap
- (c) Zn content
- (d) Years ended 31 March following that stated
- (e) Years ended 20 March following that stated
- (f) Years ended 30 June of that stated
- (g) Including semi-manufactures
- (h) BGS estimates, based on known exports from certain countries
- (i) Data for the Federal Republic of Yugoslavia only
- (j) Data for the Russian Federation only

Other Mineral Commodities

Production of Germanium Metal

tonnes

Country	1987	1988	1989	1990	1991
Austria	7	6	6	5	—
Soviet Union	* 11	* 12	* 12	* 12	* 15
USA (a)	* 25	* 21	* 20	* 18	* 15
China	* 6	* 6	* 6	* 10	* 10
Japan	5	4	3	3	3

Note(s):

(1) Significant quantities of germanium are also believed to be recovered from imported or domestic material in Belgium, France, Federal Republic of Germany and to a lesser extent in Italy

(a) Including production of secondary metal

Production of Primary Magnesium Metal

tonnes

Country	1987	1988	1989	1990	1991
France	13 605	13 776	14 600	14 600	14 000
Italy	7 626	5 589	5 768	5 937	3 919
Norway	56 853	50 317	52 872	48 222	44 300
Soviet Union	* 86 000	* 90 000	* 85 000	* 90 000	* 85 000
Yugoslavia	5 932	6 176	6 106	5 788	(a) 5 360
Canada	9 373	8 000	7 200	26 726	35 500
USA	124 396	141 983	152 066	139 333	131 288
Brazil	5 488	5 866	5 613	8 700	7 800
China	* 3 000	* 3 200	3 658	5 900	6 000
Japan	8 180	9 012	12 075	12 843	11 559

(a) Excluding data from August to December for the Republic of Croatia

Production of Selenium Metal

tonnes

Country	1987	1988	1989	1990	1991
Belgium	* 230	* 250	* 250	* 250	* 250
Germany, Federal Republic of	* 100	* 100	* 100	* 110	* 110
Finland	20	24	27	37	37
German Democratic Republic	* 25	* 25	...	...	—
Sweden	31	20	23	29	* 25
Yugoslavia	66	61	55	59	(b) 64
Zambia	27	24	21	23	22
Canada	430	321	213	389	227
Mexico	29	13	20	12	3
USA	227	286	253	287	260
Chile (a)	46	30	52	37	66
Peru	11	5	9	9	13
Japan	481	471	471	495	537

Note(s):

(1) In addition to the countries listed, India, and Soviet Union are believed to produce selenium metal

(a) Exports

(b) Excluding data from August to December for the Republic of Croatia

Production of Tellurium Metal

tonnes

Country	1987	1988	1989	1990	1991
Canada	13	19	8	12	16
USA	42	53	69	36	50
Peru	7	4	8	8	14
Japan	53	55	51	50	57

Note(s):

(1) In addition to the countries listed, Australia, Federal Republic of Germany and Soviet Union are believed to produce tellurium metal

Mine Production of Uranium

tonnes (metal content)

Country	1987	1988	1989	1990	1991
Belgium	54	50	51	45	45
France	3 376	3 370	3 334	2 935	2 479
Portugal	126	142	129	111	9
Spain	223	228	228	164	195
Soviet Union	...	...	...	* 10 500	* 10 500
Yugoslavia	70	79	85	* 50	* 50
Gabon	794	930	890	709	678
Namibia	3 540	3 510	3 186	3 325	2 450
Niger	2 968	2 962	2 980	2 832	2 964
South Africa	3 965	3 886	2 931	2 438	1 725
Canada	12 437	12 461	11 427	8 770	8 161
USA	5 000	5 051	5 308	3 430	3 040
Argentina	95	142	52	9	21
Brazil	104	15	30	35	* 30
India	127	* 120	* 210	* 210	* 200
Australia	3 780	3 532	3 800	3 530	3 776
World total	46 700	46 500	45 100	39 100	36 300
World total (U ₃ O ₈ equivalent)	55 100	54 800	53 300	46 100	42 900

Note(s):

(1) In addition to the countries listed, China, Czechoslovakia, Israel and Japan are believed to produce uranium

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BGS \$45 net

Iron ore Iron and steel Kaolin Lead Lithium Magnesite Magnesium Manganese Mercury Mica Molybdenum Natural gas Nepheline syenite Nickel Niobium Perlite Petroleum Phosphates Platinum Potash Pyrites Rare earths Salt Seleni... (repeated text)