



British Geological Survey

World Mineral Statistics

1979-83

70th ANNIVERSARY ISSUE

BRITISH GEOLOGICAL SURVEY

Natural Environment Research Council

WORLD MINERAL STATISTICS 1979–83

Production: Exports: Imports

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1985 British Geological Survey

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First published 1985

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On 1 January 1984 the Institute of Geological Sciences was renamed the British Geological Survey. It continues to carry 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.

ISBN 0 11 884286 2

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Bibliographical reference

BRITISH GEOLOGICAL SURVEY. 1985. *World mineral statistics 1979-83: production: exports: imports.* (London: Her Majesty's Stationery Office.)

Compilers

Staff of Mineral Intelligence, Statistics and Economics
British Geological Survey, London

PREFACE

This issue of *World Mineral Statistics* is published on the 150th anniversary of the British Geological Survey. Coincidentally, it also marks 70 years of compilation of production and trade statistics relating to the more important mineral commodities produced and traded throughout the world.

The first volume in this continuously developing series was entitled *The Mineral Industry of the British Empire and Foreign Countries*. It was compiled by the staff of the Imperial Mineral Resources Bureau and covered about 40 commodities. In the preface to the first volume the Chairman of the Governors of the Bureau stated their belief that a scheme of uniform mineral statistics 'applicable in the first place to the British Empire' was a desirable objective. Standardisation and unambiguous description have remained the prime, and the most difficult to achieve, objectives of the compilation to the present day.

In 1949 a change of title was occasioned by the transfer of the Statistical Section of the Mineral Resources Division of the Colonial Geological Surveys from the Imperial Institute to the Colonial Office. The new title *Statistical Summary of the Mineral Industry* survived with minor changes until 1973. In the intervening period the Statistical Section had been moved from the Colonial Office to the Department of Technical Co-operation in 1961 and then, in 1965, had been incorporated in the Institute of Geological Sciences (renamed British Geological Survey in 1984). In 1974 it was realised that the contents of the annual required extensive revision, and after a break of three years the current title was first published in October 1978. However, there was no break in the run of statistics published; the new series overlapped the old by two years to help the transition for the reader.

The evolution of the statistical compilation over the past 70 years has followed the changes in the mineral industry and the world in which it operates. Many of the countries reported on in the earlier years have ceased to exist as nations and many new ones have emerged, particularly since the 1960s, with the result that over 170 countries now appear in the statistical tables compared with about 100 in the 1920s. The format decided upon by the Governors of the Bureau for the first volume clearly represented their proper interest in the mineral wealth of the Empire (and later the Commonwealth) in relation to the rest of the world. This emphasis persisted until the 1973 issue, the last of the *Statistical Summaries*. The change to an alphabetic ordering of countries within continental groups, starting with the first volume of *World Mineral Statistics*, acknowledged the worldwide interrelationships of the mineral industry, which now depend less upon traditional ties than upon direct economic factors. The metrication of the units of measurement was a further step in the quest for standardisation.

Thirty-nine commodities were listed on the contents page of the first volume; there are now 65. This is consonant with the changes in the mineral industry. Only two of the commodities in the early volumes have been dropped, namely abrasives (now nearly all synthesised) and nitrates (now predominantly derived from the atmosphere). Coverage of commodities such as lithium, magnesium, selenium and tellurium metals along with tantalum, niobium and zirconium minerals reflect the new importance of these in the modern world. Significant additions to the industrial minerals are bentonite and the sillimanite group. However, besides overall coverage, the style and proportion of the statistical accounts presented indicate the changing interest in the range of commodities. As a consequence of the increasing importance of supplies of metals and metallic ores, the treatment of these in the later volumes has become more comprehensive, but has also been simplified, largely by omitting the multiplicity of semi-manufactured forms and by concentrating attention on fundamental aspects of supply of the raw materials. This practice, made necessary by the increasing complexity of the industry, has also been carried over to other commodities. For example, the 49 pages devoted to 'Petroleum and Allied Products' in 1973 have been reduced to six pages in the recent volumes.

The statistical tables form a useful database for studies in the developing field of mineral economics. In this special issue, computer-generated plots have been introduced to illustrate production statistics for some of the major commodities. The reader will observe that the two OPEC oil price increases in 1973 and 1979 are immediately reflected in the production curve for petroleum, as might be expected. Additionally, five of the eight metals shown exhibit a distinct post-1973 disruption of steady growth rates. This might be seen as illustrating the dangers of forecasting by simple extrapolation; on the other hand, it is possible to believe that pre-1973 growth rates could be resumed given, say, a favourable trend in the economies of large developing countries. Coal has maintained a steady growth of over 2 per cent throughout the period, although a slight increase in the growth of production can be discerned subsequent to 1973. The plots included in this volume serve only to cast the current situation in a historical perspective, but it is hoped to amplify and refine the techniques of graphical presentation in the future.

In each new volume, account is taken of revisions and information received after publication of the previous issue, so that data for every year are as up to date as is practicable. The objective remains to present the latest official information obtainable from primary sources, that is, from the individual producing and trading countries, rather than to reproduce data from compilations made by other organisations working in the field of world mineral statistics. However, such sources have been fully consulted and the invaluable assistance and co-operation provided to the British Geological Survey by numerous national and international organisations is gratefully acknowledged.

In the field of trade, our staff have continued their efforts to fill gaps in the reported data by their own analyses of world trade statistics.

It is hoped that this current volume will again provide the reader with a comprehensive basis for interpreting the activities of the world-wide mineral industry, which were described in an earlier preface as 'essentially the end product of geology and the measure of the unceasing contribution of the geological sciences to man's material wealth and progress'.

G M Brown, FRS
Director

British Geological Survey
Keyworth
Nottingham NG12 5GG

March 1985

PRODUCTION-PRICE GRAPHS

Figure

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| 2 | Coal | Facing Coal production table |
| 3 | Copper | Facing Copper mine production table |
| 4 | Iron ore | Facing Iron Ore production table |
| 5 | Lead | Facing Lead mine production table |
| 6 | Manganese | Facing Manganese Ore production table |
| 7 | Nickel | Facing Nickel mine production table |
| 8 | Petroleum | Facing Crude Petroleum production table |
| 9 | Phosphate | Facing Phosphate Rock production table |
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EXPLANATORY NOTES

Coverage

World Mineral Statistics covers the majority of economically important, and internationally traded, mineral commodities; with few exceptions its range is the same as that in the *Statistical Summary of the Mineral Industry*, the predecessor of this series, which was discontinued in 1971. 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 *Mineral Intelligence, Statistics and Economics* files and is available for consultation.

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.

Production

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 excludes remelted material.

Canada Production of Canadian minerals is shown throughout by the official figures for 'sales and shipments'.

Trade

Federal Republic of Germany Data 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, Namibia 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.

Estimates for 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 the Virgin Islands (up to and including 1980), 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.

United Kingdom Export data for 1981 are estimates obtained by adding together the figures for the months when exports were fully processed (January and February, and September to December) and those from sampling (March to August). The figures may therefore be unreliable and should be used and interpreted with considerable caution.

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 of 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 2) 688.0, 689.1 & 9, and 699.9 (Antimony, Bismuth, Cadmium, Chromium, Cobalt, Manganese, Molybdenum, Tantalum-Niobium, Titanium, Tungsten, Vanadium and Zirconium) 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'.

Commodity Production-Price Graphs

These have been inserted adjacent to the relevant production tables. They are computer-generated plots of total annual world production against time. On the same horizontal time axis a specific price for the commodity has been plotted with reference to the right-hand vertical axis. Details of the price used are annotated below each plot. The production data have been taken from the current series of *World Mineral Statistics* and, pre-1970, from its predecessor, the *Statistical Summary*

of the Mineral Industry. It should be noted that although mine production and commodity prices are shown on the same plot, any inference about the relationship between the two curves is a matter for the reader.

The constant commodity prices are taken from *Commodity Trade and Price Trends*, published by the Johns Hopkins University Press for the World Bank. Permission to use these data is gratefully acknowledged.

The initial graphical analysis of the data was carried out using the MINITAB package, but the final plots were generated by an in-house program developed by support staff of the NERC Computing Service and run on the NERC Honeywell L66A DPS 300 mainframe computer.

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 Bureau of Mineral Resources, Geology and Geophysics of Australia; the Department of Mines 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 British Sulphur Corporation, the International Lead and Zinc Study Group, the International Tin Council, the UK Iron and Steel Statistics Bureau, ISMA Ltd, Samuel Montagu & Company Ltd, the UN Food and Agriculture Organization, and the UNCTAD Committee on Tungsten. 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*; Bureau de Documentation Minière, *Annales des Mines*; Engineering and Mining Journal, *Annual Review and Outlook*; Groupe IMETAL, *Annuaire Statistique Minemet*; Metallgesellschaft AG, *Metal Statistics*; Mining Journal, *Mining Annual Review*; 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 35.31467 = cubic feet
1 tonne of crude petroleum equals on average 7 barrels of crude petroleum.

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

STATISTICAL TABLES

Production of Bauxite

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------|-------------|-------------|-------------|-------------|-------------|
| France | 2 044 000 | 1 925 000 | 1 865 000 | 1 687 000 | 1 662 000 |
| Greece | 2 723 255 | 3 258 856 | 3 248 822 | 2 845 498 | 2 455 180 |
| Italy | 26 095 | 23 260 | 19 000 | 23 810 | 13 118 |
| Hungary | 2 976 000 | 2 950 000 | 2 914 000 | 2 627 000 | 2 917 000 |
| Romania | 500 000 | 450 000 | 400 000 | 380 000 | 420 000 |
| Soviet Union (a) | * 6 500 000 | * 6 400 000 | * 6 400 000 | * 6 400 000 | * 6 300 000 |
| Spain | 16 845 | 9 632 | 8 930 | 7 000 | 10 000 |
| Turkey | 155 163 | 546 546 | 589 727 | 508 391 | 306 350 |
| Yugoslavia | 3 012 000 | 3 138 383 | 3 249 000 | 3 668 000 | 3 500 000 |
| Ghana | 235 300 | 225 100 | 181 300 | 63 500 | 70 235 |
| Guinea | 13 379 000 | 13 911 000 | 12 822 000 | 11 827 000 | 12 986 000 |
| Sierra Leone | 583 262 | 673 969 | 609 625 | 632 000 | 785 200 |
| Zimbabwe | 5 076 | 4 281 | 5 139 | 7 533 | 23 145 |
| Dominican Republic (b) | 524 141 | 510 462 | 405 720 | 152 250 | — |
| Haiti (c) | 436 300 | 293 800 | 409 700 | 377 000 | — |
| Jamaica | 11 505 104 | 11 978 304 | 11 605 977 | 8 157 652 | 7 724 983 |
| USA (b) | 1 821 000 | 1 559 000 | 1 510 000 | 732 000 | 679 000 |
| Brazil (d) | 2 165 288 | 4 631 855 | 4 048 545 | 3 469 928 | 4 281 241 |
| Guyana | 3 354 000 | 3 052 000 | 2 395 900 | 1 783 100 | 1 087 300 |
| Suriname | 4 769 000 | 4 893 000 | 4 125 000 | 3 060 000 | 2 793 000 |
| China | * 1 500 000 | * 1 700 000 | * 1 800 000 | * 1 950 000 | * 1 900 000 |
| India | 1 952 000 | 1 785 000 | 1 955 000 | 1 954 261 | 1 849 461 |
| Indonesia | 1 051 905 | 1 249 123 | 1 203 380 | 700 247 | 777 869 |
| Malaysia | 386 520 | 920 356 | 700 866 | 589 000 | 501 790 |
| Australia | 27 583 429 | 27 178 974 | 25 441 392 | 23 625 042 | 24 540 000 |
| World total | 89 200 000 | 93 300 000 | 87 900 000 | 77 200 000 | 77 600 000 |

Note: In addition to the countries listed, Pakistan produces small amounts of bauxite

- (a) Includes nepheline concentrates and alunite
 (b) Dried bauxite equivalent
 (c) Years ended 30 September of that stated
 (d) Includes beneficiated and direct shipping ore

Production of Alumina

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-------------|-------------|-------------|-------------|-------------|
| United Kingdom | 88 100 | 101 700 | 90 361 | 88 103 | 93 100 |
| France | 1 238 450 | 1 339 411 | 1 235 921 | 1 086 700 | 1 009 150 |
| Germany, Federal Republic of | 1 538 925 | 1 607 902 | 1 650 636 | 1 509 866 | 1 580 223 |
| Greece | 496 000 | 504 751 | 490 168 | 403 634 | 410 000 |
| Irish Republic | — | — | — | — | 105 100 |
| Italy | 854 115 | 900 370 | 786 357 | 698 329 | 401 556 |
| Czechoslovakia | 64 200 | 147 525 | 149 283 | 151 219 | 152 456 |
| German Democratic Republic | 40 965 | 43 025 | 45 164 | 46 085 | 42 156 |
| Hungary | 802 025 | 805 000 | 792 000 | 710 000 | 835 512 |
| Romania | 502 000 | 534 000 | 558 000 | 514 000 | 500 000 |
| Soviet Union | * 3 200 000 | * 3 250 000 | * 3 800 000 | * 4 000 000 | * 4 175 000 |
| Spain | — | 58 000 | * 695 230 | 673 000 | 732 000 |
| Turkey | 75 143 | 137 519 | 131 400 | 84 204 | 57 420 |
| Yugoslavia | 836 428 | 1 058 366 | 1 037 227 | 1 017 000 | 1 010 000 |
| Guinea | 662 000 | 708 000 | 679 000 | 578 000 | 573 300 |
| Canada | 953 000 | 1 202 000 | 1 208 000 | 1 127 000 | 1 116 000 |
| Jamaica | 2 096 058 | 2 455 870 | 2 556 057 | 1 761 135 | 1 853 940 |
| USA | * 6 450 000 | * 6 810 000 | * 5 960 000 | * 4 130 000 | * 4 000 000 |
| Brazil | 449 100 | 516 967 | 496 639 | 606 177 | 786 648 |
| Guyana | 280 000 | 296 300 | 170 000 | 73 000 | — |
| Suriname | 1 312 000 | 1 444 000 | 1 248 000 | 1 052 000 | 1 154 000 |
| China | * 700 000 | * 700 000 | * 700 000 | * 800 000 | * 800 000 |
| India | 500 106 | 494 041 | 482 519 | 485 000 | 443 000 |
| Japan | 1 822 000 | 2 218 000 | 1 619 000 | 1 212 000 | 1 378 000 |
| Taiwan | 59 000 | 80 000 | 19 000 | — | — |
| Australia | 7 414 606 | 7 246 499 | 7 079 009 | 6 630 507 | 7 230 526 |
| World total | 32 400 000 | 34 700 000 | 33 700 000 | 29 400 000 | 30 400 000 |

Note: Where possible figures relate to the calcined equivalent weight (i.e. Al₂O₃) of alumina hydrate. In countries where all hydrate is destined for calcination, figures relate directly to calcined alumina

ALUMINIUM

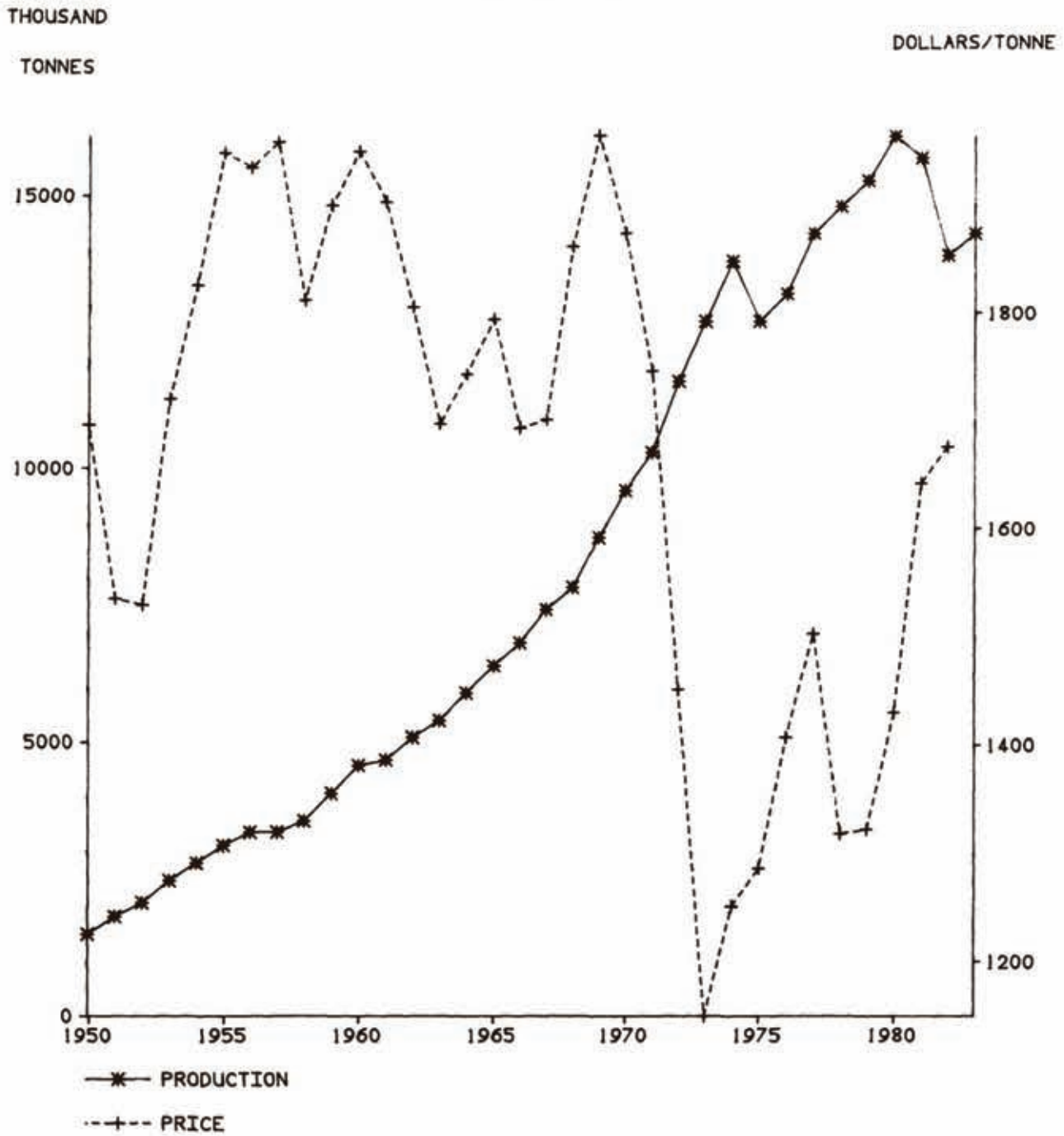


Figure 1 World production of primary aluminium from 1950 to 1983 compared with the yearly average producer price of aluminium ingot on the New York Market expressed in constant 1982 US dollars.

Constant commodity price taken from 'Commodity Trade and Price Trends' published by the Johns Hopkins University Press for the World Bank (1983-84 edition).

Production of Primary Aluminium

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-------------|-------------|-------------|-------------|-------------|
| United Kingdom | 359 474 | 374 446 | 339 183 | 240 806 | 252 525 |
| France | 395 090 | 431 945 | 435 609 | 390 413 | 360 800 |
| Germany, Federal Republic of | 741 946 | 730 669 | 728 896 | 722 754 | 743 376 |
| Greece | 145 040 | 146 777 | 148 230 | 136 612 | 137 210 |
| Italy | 270 185 | 291 199 | 269 495 | 232 861 | 195 694 |
| Netherlands | 257 719 | 258 621 | 261 983 | 250 925 | 235 421 |
| Austria | 92 694 | 94 393 | 94 219 | 93 908 | 94 200 |
| Czechoslovakia | 36 889 | 38 304 | 32 684 | 33 830 | 36 156 |
| German Democratic Republic | * 60 000 | * 62 000 | * 60 000 | * 58 000 | * 57 000 |
| Hungary | 71 879 | 73 498 | 74 253 | 74 221 | 74 039 |
| Iceland | 71 047 | 73 111 | 73 476 | 75 241 | 76 077 |
| Norway | 663 916 | 653 377 | 633 585 | 638 091 | 710 637 |
| Poland | 96 600 | 95 100 | 66 000 | 42 700 | 44 400 |
| Romania | 217 000 | 241 000 | 242 000 | 208 000 | 223 000 |
| Soviet Union | * 2 350 000 | * 2 420 000 | * 2 400 000 | * 2 400 000 | * 2 400 000 |
| Spain | 285 194 | 414 614 | 396 600 | 366 500 | 357 500 |
| Sweden | 81 955 | 81 195 | 81 795 | 81 324 | 84 935 |
| Switzerland | 82 974 | 86 302 | 82 221 | 75 256 | 75 974 |
| Turkey | 32 000 | 33 600 | 40 400 | 36 300 | 31 045 |
| Yugoslavia | 167 681 | 161 366 | 172 683 | 220 100 | 258 200 |
| Cameroon | 48 446 | 43 000 | 65 400 | 78 900 | 77 400 |
| Egypt | 101 200 | 120 000 | 142 000 | 141 000 | 140 200 |
| Ghana | 168 700 | 187 700 | 190 500 | 174 200 | 42 500 |
| South Africa | 86 300 | 86 600 | 83 701 | 107 100 | 163 800 |
| Canada | 860 286 | 1 068 198 | 1 115 691 | 1 064 800 | 1 091 200 |
| Mexico | 43 195 | 42 601 | 43 237 | 41 180 | 39 700 |
| USA | 4 556 878 | 4 653 585 | 4 489 000 | 3 274 000 | 3 353 000 |
| Argentina | 119 000 | 133 000 | 134 000 | 138 000 | 133 000 |
| Brazil | 238 310 | 290 730 | 256 418 | 299 054 | 400 744 |
| Suriname | 53 865 | 54 922 | 40 520 | 43 000 | 34 000 |
| Venezuela | 204 710 | 325 189 | 314 105 | 273 632 | 335 200 |
| Bahrain | 126 100 | 126 000 | 141 300 | 171 000 | 171 700 |
| China | * 360 000 | * 360 000 | * 360 000 | * 370 000 | * 380 000 |
| Dubai | — | 35 000 | 106 000 | 148 739 | 151 170 |
| India | 211 428 | 184 748 | 212 844 | 216 679 | 204 764 |
| Indonesia | — | — | — | 32 500 | 114 800 |
| Iran | 11 000 | 15 900 | 12 500 | 45 000 | 39 400 |
| Japan | 1 010 409 | 1 091 477 | 770 602 | 350 706 | 255 900 |
| Korea, Dem. P.R. of | * 10 000 | * 10 000 | * 10 000 | * 10 000 | * 10 000 |
| Korea, Republic of | 17 500 | 17 800 | 17 200 | 14 800 | 12 600 |
| Taiwan | 56 218 | 63 549 | 30 532 | 10 120 | — |
| Australia | 269 575 | 303 494 | 379 427 | 380 796 | 478 190 |
| New Zealand | 153 557 | 154 741 | 153 979 | 163 420 | 218 610 |
| World total | 15 200 000 | 16 100 000 | 15 700 000 | 13 900 000 | 14 300 000 |

Exports of Bauxite, Alumina and Aluminium

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|-----------|-----------|-----------|-----------|
| United Kingdom | | | | | |
| Bauxite | 2 813 | 2 953 | 2 155 | 3 870 | 1 100 |
| Alumina | 11 204 | 9 892 | 8 850 | 8 595 | 8 272 |
| Alumina hydrate | 22 358 | 32 786 | 30 772 | 28 423 | 29 656 |
| Unwrought | 88 914 | 74 195 | 65 994 | 60 943 | 71 197 |
| Unwrought alloys | 118 071 | 117 335 | 102 544 | 58 573 | 61 189 |
| Scrap | 28 187 | 35 693 | 38 008 | 60 351 | 78 865 |
| Belgium-Luxembourg | | | | | |
| Bauxite | 4 531 | 1 787 | 654 | 1 216 | 1 699 |
| Alumina | 1 152 | 744 | 660 | 469 | 757 |
| Unwrought | 820 | 4 167 | 17 166 | 4 273 | 7 100 |
| Unwrought alloys | 10 022 | 15 415 | 12 500 | 9 480 | 9 909 |
| Scrap | 33 532 | 36 800 | 38 469 | 40 444 | 46 757 |
| Denmark | | | | | |
| Bauxite | 51 989 | 46 483 | 19 424 | 2 366 | 414 |
| Unwrought | 4 032 | 105 | 133 | 2 | 27 |
| Unwrought alloys | 5 936 | 6 880 | 7 511 | 8 283 | 8 959 |
| Scrap | 11 581 | 11 883 | 12 440 | 11 781 | 15 002 |
| France | | | | | |
| Bauxite | 12 471 | 10 768 | 6 620 | 92 369 | 68 651 |
| Alumina | 257 371 | 267 408 | 159 532 | 196 038 | 178 490 |
| Alumina hydrate | 69 530 | 79 306 | 79 376 | 84 994 | 91 241 |
| Unwrought | 75 592 | 84 059 | 89 456 | 95 359 | 67 557 |
| Unwrought alloys | 82 006 | 93 319 | 100 882 | 87 324 | 93 161 |
| Scrap | 39 790 | 47 219 | 48 988 | 60 757 | 90 365 |
| Germany, Federal Republic of | | | | | |
| Bauxite | 21 985 | 22 645 | 22 885 | 33 744 | 43 934 |
| Alumina | 298 443 | 333 433 | 402 156 | 253 697 | 331 964 |
| Alumina hydrate | 157 368 | 146 091 | 180 931 | 184 972 | 210 476 |
| Unwrought | 67 653 | 61 141 | 78 731 | 75 076 | 80 873 |
| Unwrought alloys | 180 213 | 162 539 | 174 240 | 180 344 | 240 272 |
| Scrap | 52 224 | 69 144 | 69 922 | 67 719 | 77 723 |
| Greece | | | | | |
| Bauxite | 1 808 505 | 2 340 172 | 1 587 714 | 1 441 203 | 1 410 510 |
| Alumina | 266 882 | 203 175 | 159 000 | 130 000 | 110 500 |
| Unwrought | 73 805 | 60 244 | 69 224 | 66 609 | 55 085 |
| Scrap | 349 | 1 013 | 426 | 93 | 884 |
| Irish Republic | | | | | |
| Alumina | 1 580 | 1 543 | 1 925 | 2 309 | 31 667 |
| Unwrought (a) | 2 523 | 2 206 | 2 173 | 1 876 | 2 537 |
| Scrap | 2 151 | 3 526 | 2 365 | 3 479 | 4 246 |
| Italy | | | | | |
| Bauxite | 27 565 | 24 129 | 18 229 | 8 240 | 5 053 |
| Alumina | 392 949 | 398 630 | 222 113 | 256 578 | 160 980 |
| Alumina hydrate | 24 947 | 25 379 | 9 087 | 13 410 | 13 355 |
| Unwrought | 13 045 | 3 510 | 20 758 | 30 624 | 10 487 |
| Unwrought alloys | 9 350 | 8 256 | 29 047 | 23 490 | 30 795 |
| Scrap | 1 644 | 2 406 | 3 168 | 3 381 | 5 721 |
| Netherlands | | | | | |
| Bauxite | 26 323 | 13 441 | 12 502 | 4 268 | 3 490 |
| Alumina | 59 128 | 51 339 | 40 318 | 46 957 | 51 825 |
| Alumina hydrate | 358 | 517 | 12 | 49 | 58 |
| Unwrought | 219 367 | 233 644 | 220 103 | 223 807 | 302 356 |
| Unwrought alloys | 140 032 | 131 692 | 131 893 | 126 995 | 130 925 |
| Scrap | 67 297 | 74 331 | 74 778 | 73 669 | 80 201 |
| Austria | | | | | |
| Unwrought | 10 306 | 9 797 | 24 968 | 27 635 | 30 153 |
| Scrap | 38 864 | 32 736 | 56 371 | 51 406 | 59 547 |
| Bulgaria | | | | | |
| Unwrought (a)(f) | * 4 150 | * 4 800 | * 3 600 | * 3 600 | * 6 100 |
| Czechoslovakia | | | | | |
| Unwrought (a)(f) | * 16 500 | * 10 100 | * 8 500 | * 15 400 | * 19 500 |
| Finland | | | | | |
| Unwrought (a) | 1 338 | 3 887 | 4 643 | 6 306 | 10 679 |
| German Democratic Republic | | | | | |
| Unwrought (a)(f) | * 26 100 | * 22 600 | * 25 400 | * 26 600 | * 23 400 |

Exports of Bauxite, Alumina and Aluminium

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------|-------------|-------------|--------------|--------------|--------------|
| Hungary | | | | | |
| Bauxite | 595 687 | 541 943 | 498 322 | 467 375 | 431 033 |
| Alumina | 691 989 | 686 171 | 626 404 | 542 286 | 658 672 |
| Alumina hydrate | 9 455 | 7 667 | 6 930 | 9 667 | 6 200 |
| Unwrought | 80 556 | 84 216 | 85 741 | 48 363 | 57 822 |
| Scrap | 10 970 | 9 372 | 8 709 | 8 740 | 6 498 |
| Iceland | | | | | |
| Unwrought (a) | 76 226 | 67 318 | 63 817 | 61 532 | 106 904 |
| Norway | | | | | |
| Unwrought | 339 149 | 295 283 | 338 668 | 332 013 | 330 131 |
| Unwrought alloys | 226 155 | 225 897 | 184 993 | 212 759 | 307 208 |
| Scrap | 23 841 | 18 591 | 20 677 | 21 858 | 27 517 |
| Portugal | | | | | |
| Scrap | 4 000 | 3 322 | 4 402 | 4 187 | ... |
| Romania | | | | | |
| Unwrought | 65 000 | 93 500 | 98 200 | 76 100 | ... |
| Soviet Union | | | | | |
| Unwrought | * 560 000 | * 560 000 | * 600 000 | * 600 000 | * 600 000 |
| Spain | | | | | |
| Alumina | 69 | 88 | 23 907 | 7 377 | 2 610 |
| Unwrought | 35 772 | 72 318 | 111 129 | 98 962 |) 165 927 |
| Unwrought alloys | 7 098 | 34 464 | 51 552 | 46 220 |) |
| Sweden | | | | | |
| Bauxite | 730 | 27 | 5 | 673 | 5 |
| Alumina | 132 | 569 | 621 | 740 | 632 |
| Unwrought | 9 775 | 2 451 | 2 958 | 2 317 | 2 392 |
| Unwrought alloys | 9 786 | 15 276 | 34 796 | 32 904 | 36 772 |
| Scrap | 1 628 | 2 516 | 2 345 | 2 446 | 5 053 |
| Switzerland | | | | | |
| Alumina | 1 189 | 1 311 | 301 | 320 | 239 |
| Unwrought & scrap | 47 376 | 44 953 | 44 982 | 52 981 | 56 825 |
| Turkey | | | | | |
| Bauxite | 2 600 | 9 400 | 109 417 | 31 686 | 57 332 |
| Alumina | 1 500 | 74 600 | 63 018 | ... | ... |
| Yugoslavia | | | | | |
| Bauxite | 524 928 | 246 821 | 266 055 | 599 695 | 552 051 |
| Alumina | 46 365 | 428 066 | 613 172 | 503 044 |) 515 606 |
| Alumina hydrate | 417 387 | 225 358 | 19 955 | 7 342 |) |
| Unwrought | 41 639 | 50 546 | 58 171 | 90 106 |) 143 634 |
| Unwrought alloys | 4 540 | 3 325 | 300 | 939 |) |
| Scrap | 352 | 276 | 177 | 508 | 1 674 |
| Cameroon | | | | | |
| Unwrought | 30 518 | 9 708 | 44 500 | 55 400 | 52 400 |
| Egypt | | | | | |
| Unwrought & scrap | 41 240 | 33 310 | 76 466 | 51 719 | ... |
| Ghana | | | | | |
| Bauxite | 205 795 | 223 000 | 151 000 | 36 000 | ... |
| Unwrought (a) | 107 412 | 166 200 | 134 300 | 174 200 | 65 300 |
| Guinea | | | | | |
| Bauxite (f) | * 8 800 000 | * 9 300 000 | * 10 300 000 | * 10 200 000 | * 10 900 000 |
| Alumina (f) | * 400 000 | * 350 000 | * 207 000 | * 150 000 | * 320 000 |
| Sierra Leone | | | | | |
| Bauxite | 770 294 | 730 905 | 631 145 | 606 000 | ... |
| South Africa | | | | | |
| Unwrought (a) | * 29 400 | * 12 600 | * 3 300 | * 16 000 | * 110 800 |
| Canada | | | | | |
| Alumina (b) | 26 543 | 39 541 | 44 100 | 28 366 | 46 001 |
| Unwrought | 552 150 | 784 818 | 726 073 | 896 450 | 925 449 |
| Scrap | 70 464 | 78 615 | 78 603 | 62 796 | 81 425 |
| Dominican Republic | | | | | |
| Bauxite | 634 729 | 585 828 | 389 516 | 140 555 | — |
| Haiti (e) | | | | | |
| Bauxite | 609 057 | 579 440 | 428 811 | 377 051 | ... |
| Jamaica | | | | | |
| Bauxite | 6 469 155 | 6 145 848 | 5 370 601 | 4 079 504 | 3 120 123 |
| Alumina | 2 061 202 | 2 361 139 | 2 545 149 | 1 752 755 | 1 904 270 |

Exports of Bauxite, Alumina and Aluminium

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|-----------|-----------|-----------|-----------|
| USA | | | | | |
| Bauxite | 32 905 | 38 539 | 85 964 | 120 145 | 80 086 |
| of which: Re-exports | 9 361 | 10 172 | 45 043 | 71 429 | 5 980 |
| Alumina | 547 915 | 828 770 | 732 202 | 582 563 | 583 669 |
| Alumina hydrate | 36 791 | 38 107 | 19 288 | 11 629 | 12 426 |
| Unwrought | 117 774 | 504 935 | 233 796 | 309 659 | 333 042 |
| Unwrought alloys | 64 917 | 144 114 | 48 739 | 54 473 | 27 785 |
| Scrap | 279 373 | 403 779 | 219 042 | 194 444 | 262 592 |
| Argentina | | | | | |
| Unwrought | 29 422 | 66 088 | 82 180 | 83 065 | 57 000 |
| Brazil | | | | | |
| Bauxite | 516 154 | 2 679 429 | 4 126 328 | 2 991 302 | 3 988 633 |
| Guyana | | | | | |
| Bauxite, dried | 1 027 383 | 1 010 211 | 1 011 297 | 690 320 | — |
| Bauxite, calcined | 550 273 | 602 974 | 496 187 | 372 818 | — |
| Alumina | 133 990 | 220 013 | 152 041 | 65 074 | — |
| Alumina hydrate | 12 595 | 9 771 | — | — | — |
| Suriname | | | | | |
| Bauxite | 1 736 954 | 1 767 000 | 1 268 000 | 497 000 | 449 000 |
| Alumina | 1 186 000 | 1 328 875 | 1 165 000 | 1 043 000 | 1 143 000 |
| Unwrought | 63 512 | 45 608 | 31 576 | 61 000 | 29 000 |
| Venezuela | | | | | |
| Unwrought | 102 707 | 209 068 | 233 945 | 228 614 | 292 200 |
| Bahrain | | | | | |
| Unwrought (a) | 130 234 | 77 546 | 74 793 | 166 014 | 191 705 |
| China | | | | | |
| Bauxite (f) | * 262 000 | * 533 100 | * 494 900 | * 345 000 | * 330 000 |
| Alumina (f) | * 22 000 | * 36 000 | * 31 000 | * 20 400 | * 13 800 |
| Unwrought (a)(f) | * 1 000 | * 6 000 | * 41 100 | * 50 000 | * 14 300 |
| Hong Kong | | | | | |
| Bauxite (Re-exports) | 8 760 | 17 440 | 11 538 | 8 120 | 18 110 |
| Alumina (Re-exports) | 7 | 636 | 90 | 9 | 105 |
| Alumina hydrate (Re-exports) | 1 389 | 1 940 | 2 152 | 3 106 | 2 418 |
| Unwrought (Re-exports) | 5 980 | 10 365 | 16 401 | 48 910 | 25 150 |
| Scrap | 8 210 | 10 206 | 14 533 | 16 810 | 19 179 |
| India | | | | | |
| Bauxite | 43 708 | 71 025 | 115 345 | — | — |
| Alumina | 97 029 | 78 503 | 56 372 | — | — |
| Unwrought (a)(c) | 343 | 179 | 18 | — | — |
| Indonesia | | | | | |
| Bauxite | 1 091 032 | 1 112 622 | 956 369 | 746 784 | 786 311 |
| Japan | | | | | |
| Bauxite | 1 000 | 0 | 40 | 17 | 260 |
| Alumina | 205 841 | 393 882 | 361 947 | 273 130 | 481 669 |
| Alumina hydrate | 53 742 | 46 662 | 50 152 | 66 589 | 87 530 |
| Unwrought | 1 764 | 4 067 | 8 319 | 4 223 | 500 |
| Unwrought alloys | 6 182 | 3 577 | 3 841 | 2 458 | 1 179 |
| Scrap | 292 | 858 | 453 | 630 | 637 |
| Malaysia | | | | | |
| Bauxite | 470 151 | 718 300 | 642 450 | 418 050 | — |
| Scrap | 2 518 | 3 018 | 3 283 | 3 191 | — |
| Singapore | | | | | |
| Alumina | 882 | 1 789 | 2 421 | 691 | 1 476 |
| of which: Re-exports | 879 | 1 214 | 392 | 690 | 1 466 |
| Unwrought | 3 226 | 4 053 | 3 052 | 5 861 | 13 454 |
| of which: Re-exports | 3 161 | 3 882 | 3 013 | 5 675 | 12 048 |
| Scrap | 22 517 | 6 438 | 6 196 | 7 450 | 8 789 |
| Taiwan | | | | | |
| Alumina | 104 | 3 740 | 1 366 | 4 498 | 3 427 |

Exports of Bauxite, Alumina and Aluminium

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-----------------|-------------|-------------|-------------|-------------|-------------|
| Australia | | | | | |
| Bauxite | * 5 700 000 | * 5 800 000 | * 4 800 000 | * 4 650 000 | * 4 100 000 |
| Alumina | 6 534 193 | 6 994 275 | 6 509 249 | 5 976 727 | 6 381 201 |
| Unwrought (a) | 76 000 | 46 456 | 79 174 | 155 821 | 220 989 |
| Scrap | 10 965 | 14 000 | 13 910 | 26 788 | 25 443 |
| New Zealand (d) | | | | | |
| Unwrought (a) | 143 257 | 119 557 | 135 283 | 115 066 | 162 613 |
| Scrap | 1 583 | 2 573 | 2 264 | 2 034 | 3 399 |

Notes:

- 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 2) 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) Years ended 30 September of that stated
 (f) BGS estimates, based on known imports into certain countries

Imports of Bauxite, Alumina and Aluminium

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|-----------|-----------|-----------|-----------|
| United Kingdom | | | | | |
| Bauxite, uncalcined | 257 172 | 241 585 | 231 919 | 301 911 | 241 391 |
| Bauxite, calcined | 155 585 | 167 571 | 93 652 | 91 186 | 79 059 |
| Alumina | 596 323 | 806 343 | 630 422 | 449 340 | 481 114 |
| Alumina hydrate | 13 510 | 3 733 | 5 734 | 7 694 | 7 768 |
| Unwrought | 75 131 | 74 063 | 56 347 | 75 569 | 66 645 |
| Unwrought alloys | 110 349 | 97 360 | 67 000 | 79 264 | 96 992 |
| Scrap | 6 282 | 5 792 | 4 038 | 4 085 | 10 896 |
| Belgium-Luxembourg | | | | | |
| Bauxite | 40 903 | 35 936 | 33 050 | 26 574 | 34 802 |
| Alumina | 7 303 | 7 059 | 7 595 | 7 699 | 8 347 |
| Alumina hydrate | 16 566 | 14 460 | 16 040 | 15 188 | 18 251 |
| Unwrought | 175 774 | 183 376 | 184 525 | 197 133 | 205 986 |
| Unwrought alloys | 76 997 | 69 124 | 60 430 | 70 311 | 83 008 |
| Scrap | 26 556 | 33 316 | 39 095 | 51 240 | 53 086 |
| Denmark | | | | | |
| Bauxite | 89 385 | 90 555 | 68 507 | 16 | 18 |
| Alumina | 772 | 1 379 | 1 398 | 1 145 | 996 |
| Alumina hydrate | 2 392 | 2 689 | 3 656 | 2 377 | 3 004 |
| Unwrought | 11 323 | 5 101 | 1 384 | 1 274 | 1 189 |
| Unwrought alloys | 9 787 | 16 819 | 17 183 | 20 882 | 23 548 |
| Scrap | 1 377 | 2 270 | 2 623 | 2 904 | 3 294 |
| France | | | | | |
| Bauxite | 1 720 059 | 1 358 030 | 1 989 144 | 1 253 080 | 1 078 856 |
| Alumina | 16 154 | 21 924 | 15 635 | 62 912 | 75 660 |
| Alumina hydrate | 22 033 | 22 720 | 18 330 | 17 294 | 15 456 |
| Unwrought | 168 745 | 187 996 | 175 779 | 214 044 | 252 132 |
| Unwrought alloys | 146 357 | 144 638 | 124 596 | 137 946 | 142 509 |
| Scrap | 52 228 | 56 675 | 60 592 | 59 550 | 60 016 |
| Germany, Federal Republic of | | | | | |
| Bauxite | 3 694 216 | 4 177 043 | 3 910 619 | 3 532 830 | 3 156 141 |
| Alumina | 458 120 | 440 704 | 468 675 | 489 597 | 486 393 |
| Alumina hydrate | 1 712 | 1 437 | 1 854 | 2 599 | 2 084 |
| Unwrought | 317 937 | 379 019 | 315 287 | 372 252 | 345 497 |
| Unwrought alloys | 193 525 | 229 734 | 184 760 | 193 078 | 246 643 |
| Scrap | 164 414 | 174 773 | 160 984 | 173 592 | 192 452 |
| Greece | | | | | |
| Bauxite | 5 877 | 6 502 | ... | 30 | 789 |
| Alumina | 285 | 146 | 133 | 185 | 261 |
| Alumina hydrate | 347 | 73 | 202 | 218 | 99 |
| Unwrought | 367 | 153 | 2 840 | 3 970 | 2 119 |
| Irish Republic | | | | | |
| Bauxite | — | 3 | 24 | 111 673 | 562 997 |
| Alumina | 3 536 | 3 998 | 4 289 | 4 043 | 13 026 |
| Unwrought (a) | 7 888 | 5 486 | 2 522 | 2 757 | 2 002 |
| Italy | | | | | |
| Bauxite | 2 287 342 | 2 298 753 | 1 709 124 | 1 578 079 | 1 181 847 |
| Alumina | 164 816 | 161 711 | 152 665 | 48 782 | 253 675 |
| Alumina hydrate | 14 974 | 18 476 | 17 146 | 20 764 | 51 916 |
| Unwrought | 126 721 | 172 029 | 108 835 | 107 719 | 129 076 |
| Unwrought alloys | 109 925 | 122 787 | 99 996 | 103 434 | 125 422 |
| Scrap | 97 408 | 123 463 | 93 640 | 94 223 | 108 485 |
| Netherlands | | | | | |
| Bauxite | 193 695 | 196 261 | 145 039 | 126 673 | 135 623 |
| Alumina | 562 993 | 585 774 | 598 990 | 566 795 | 504 045 |
| Alumina hydrate | 24 577 | 18 126 | 23 570 | 25 448 | 27 344 |
| Unwrought | 127 852 | 185 830 | 132 576 | 164 876 | 244 837 |
| Unwrought alloys | 39 479 | 30 001 | 28 773 | 30 626 | 39 800 |
| Scrap | 33 468 | 44 713 | 39 589 | 41 782 | 48 280 |
| Austria | | | | | |
| Bauxite | 40 231 | 41 706 | 36 655 | 24 945 | 27 762 |
| Alumina | 192 829 | 225 671 | 266 526 | 212 331 | 210 953 |
| Alumina hydrate | 7 628 | 6 756 | 7 888 | 7 653 | 6 847 |
| Unwrought | 30 663 | 35 182 | 33 160 | 43 909 | 52 156 |
| Scrap | 44 137 | 52 632 | 68 023 | 67 352 | 68 354 |
| Bulgaria | | | | | |
| Unwrought (a)(f) | * 3 500 | * 9 600 | * 15 700 | * 7 000 | * 14 800 |

Imports of Bauxite, Alumina and Aluminium

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-----------------------------------|-------------|-------------|-------------|-------------|-------------|
| Czechoslovakia | | | | | |
| Bauxite | 436 274 | 465 716 | 454 000 | 474 000 | 469 000 |
| Alumina (f) | * 29 000 | * 29 500 | * 32 300 | * 20 400 | * 19 900 |
| Unwrought (a) | 88 000 | 93 000 | 82 000 | 66 000 | 88 000 |
| Finland | | | | | |
| Bauxite | 4 044 | 4 131 | 3 925 | 5 588 | 4 152 |
| Alumina | 429 | 708 | 876 | 791 | 727 |
| Alumina hydrate | 27 409 | 28 551 | 30 522 | 26 933 | 19 888 |
| Unwrought | 21 073 | 23 048 | 26 080 | 24 241 | 23 642 |
| Unwrought alloys | 3 818 | 3 689 | 2 670 | 2 975 | 2 628 |
| Scrap | 3 849 | 2 475 | 6 100 | 8 668 | 22 608 |
| German Democratic Republic | | | | | |
| Bauxite | 133 800 | 120 600 | 67 200 | 109 900 | 103 700 |
| Alumina (f) | * 97 000 | * 99 500 | * 101 800 | * 101 200 | * 101 200 |
| Unwrought (a)(f) | * 37 500 | * 49 400 | * 53 800 | * 44 600 | * 51 100 |
| Hungary | | | | | |
| Unwrought | 180 187 | 187 865 | 154 499 | 137 087 | 163 000 |
| Iceland | | | | | |
| Alumina | 142 469 | 145 906 | 134 167 | 117 331 | 144 482 |
| Norway | | | | | |
| Bauxite | 20 641 | 6 894 | 0 | 3 297 | 4 480 |
| Alumina | 1 165 392 | 1 441 859 | 1 208 258 | 1 108 901 | 1 400 162 |
| Alumina hydrate | 41 105 | 37 608 | 34 630 | 28 082 | 33 447 |
| Unwrought | 3 155 | 7 330 | 8 202 | 7 819 | 1 570 |
| Unwrought alloys | 5 746 | 9 068 | 6 614 | 13 110 | 9 664 |
| Scrap | 124 | 2 503 | 148 | 1 164 | 1 724 |
| Poland | | | | | |
| Bauxite | 95 074 | 83 146 | 39 436 | 41 015 | 34 400 |
| Alumina | 283 038 | 287 206 | 240 400 | 206 716 | 210 434 |
| Unwrought | ... | 88 742 | 64 533 | 83 826 | 83 465 |
| Portugal | | | | | |
| Alumina | 6 285 | 4 665 | 8 387 | 7 625 | ... |
| Unwrought | 21 803 | 27 494 | 42 534 | 49 440 | 33 400 |
| Romania | | | | | |
| Bauxite (f) | * 668 560 | * 1 051 500 | * 453 400 | * 580 500 | * 534 600 |
| Alumina (f) | * 13 705 | * 10 000 | * 20 400 | * 11 700 | * 13 700 |
| Soviet Union | | | | | |
| Bauxite | * 3 500 000 | * 3 500 000 | * 3 700 000 | * 4 100 000 | * 4 600 000 |
| Alumina | * 1 000 000 | * 1 200 000 | * 1 300 000 | * 1 300 000 | * 1 300 000 |
| Spain | | | | | |
| Bauxite | 142 818 | 349 384 | 825 545 | 919 062 | 1 464 593 |
| Alumina | 559 221 | 706 573 | 228 724 | 37 281 | 21 185 |
| Unwrought | 6 496 | 1 279 | 8 744 | 14 493 |) 12 392 |
| Unwrought alloys | 656 | 1 884 | 4 894 | 3 828 |) |
| Scrap | 4 080 | 5 630 | 5 768 | 8 534 | 10 143 |
| Sweden | | | | | |
| Bauxite | 67 573 | 65 313 | 40 967 | 49 838 | 45 459 |
| Alumina | 150 290 | 191 699 | 167 874 | 156 815 | 145 430 |
| Alumina hydrate | 49 299 | 43 255 | 47 624 | 47 761 | 57 345 |
| Unwrought | 23 319 | 22 267 | 21 994 | 30 101 | 31 281 |
| Unwrought alloys | 13 437 | 14 624 | 16 716 | 15 585 | 18 381 |
| Scrap | 5 840 | 3 479 | 2 960 | 2 654 | 2 816 |
| Switzerland | | | | | |
| Bauxite | 6 995 | 5 533 | 772 | 379 | 1 254 |
| Alumina | 151 287 | 174 110 | 171 709 | 135 364 | 149 241 |
| Unwrought & scrap | 41 184 | 54 162 | 37 574 | 48 076 | 57 751 |
| Turkey | | | | | |
| Alumina | 138 | 79 | 207 | 330 | 258 |
| Unwrought | 13 022 | 11 163 | 34 237 | 35 102 | 59 953 |
| Yugoslavia | | | | | |
| Bauxite | 63 883 | 217 595 | 394 180 | 175 645 | 158 762 |
| Alumina | 1 367 | 1 284 | 60 623 | 35 539 | 101 362 |
| Unwrought | 40 655 | 58 342 | 50 571 | 31 050 |) 37 538 |
| Unwrought alloys | 564 | 297 | 1 262 | 340 |) |
| Cameroon | | | | | |
| Alumina | 67 183 | 86 472 | ... | 73 718 | ... |
| Egypt | | | | | |
| Unwrought & scrap | 1 857 | 1 590 | 495 | 54 | ... |

Imports of Bauxite, Alumina and Aluminium

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-----------------------|------------|------------|------------|------------|-----------|
| Ghana | | | | | |
| Alumina | 247 931 | ... | ... | ... | ... |
| Madagascar | | | | | |
| Unwrought & scrap | 589 | 348 | 144 | 120 | ... |
| Morocco | | | | | |
| Bauxite | 810 | 519 | 6 931 | 8 142 | ... |
| Alumina | 1 853 | 2 399 | 2 044 | 2 378 | ... |
| Unwrought (a) | 331 | 1 060 | 1 083 | 1 216 | ... |
| Nigeria | | | | | |
| Unwrought (a) | 3 156 | ... | ... | ... | ... |
| South Africa | | | | | |
| Bauxite | 23 699 | 24 742 | 15 304 | 26 966 | 17 196 |
| Alumina | 174 109 | 164 725 | 180 066 | 277 232 | 357 892 |
| Unwrought | 620 | 282 | 2 417 | 661 | 443 |
| Scrap | 405 | 1 809 | 9 160 | 2 678 | 6 070 |
| Tanzania | | | | | |
| Unwrought (a) | 2 111 | 2 959 | 4 541 | ... | ... |
| Canada | | | | | |
| Bauxite | 2 149 636 | 3 504 369 | 2 734 711 | 2 574 762 | 2 329 910 |
| Alumina | 952 584 | 983 972 | 1 020 568 | 939 282 | 1 063 181 |
| Unwrought | 23 985 | 9 908 | 14 297 | 24 380 | 30 581 |
| Scrap | 30 681 | 30 724 | 33 414 | 36 756 | 54 666 |
| Mexico | | | | | |
| Bauxite | 61 593 | 90 098 | 63 945 | 43 259 | ... |
| Alumina | 96 767 | 87 790 | 104 796 | 90 012 | ... |
| Alumina hydrate | 18 501 | 16 063 | 24 169 | 13 451 | ... |
| Unwrought & scrap (a) | 65 285 | 70 146 | 67 542 | 39 758 | ... |
| Panama | | | | | |
| Unwrought (a) | 1 226 | 1 254 | 816 | 1 340 | 500 |
| USA | | | | | |
| Bauxite, crude dried | 14 239 807 | 13 896 210 | 13 856 785 | 11 049 652 | 7 903 178 |
| Bauxite, calcined | 266 736 | 377 812 | 353 417 | 190 042 | 208 998 |
| Alumina | 4 028 592 | 4 522 107 | 4 148 427 | 3 158 578 | 3 904 559 |
| Unwrought | 238 359 | 245 177 | 359 200 | 340 453 | 396 895 |
| Unwrought alloys | 279 016 | 281 467 | 285 264 | 275 815 | 345 606 |
| Scrap | 61 975 | 54 251 | 74 384 | 67 434 | 88 442 |
| Argentina | | | | | |
| Bauxite | 21 629 | 18 527 | 6 138 | ... | ... |
| Alumina | 220 852 | 246 541 | 286 671 |) 261 702 | ... |
| Alumina hydrate | 8 834 | 5 148 | 9 200 | |) |
| Brazil | | | | | |
| Bauxite | 15 574 | 13 175 | 14 970 | 8 598 | 5 020 |
| Alumina | 70 615 | 64 107 | 26 857 | 86 995 | 202 824 |
| Unwrought | 45 008 | 38 797 | 18 034 | 5 520 | 849 |
| Unwrought alloys | 6 809 | 7 905 | 10 207 | 5 247 | 2 109 |
| Scrap | 22 764 | 11 145 | 5 340 | 3 750 | 4 127 |
| Colombia | | | | | |
| Bauxite | 4 738 | 3 841 | 5 922 | 2 150 | 5 050 |
| Alumina | 523 | 778 | 857 | 2 413 | 2 947 |
| Unwrought (a) | 16 364 | 13 444 | 15 734 | 14 265 | 17 967 |
| Ecuador | | | | | |
| Unwrought | 3 757 | 4 471 | 1 919 | ... | ... |
| Peru | | | | | |
| Bauxite | 4 967 | 6 661 | 7 341 | 3 664 | 6 527 |
| Alumina | 2 661 | 2 707 | 1 260 | 750 | 571 |
| Unwrought | 2 746 | 5 409 | 4 761 | 3 852 | 3 304 |
| Uruguay | | | | | |
| Bauxite | 1 590 | 4 432 | 4 068 | 3 411 | 3 250 |
| Alumina | 1 288 | 799 | 638 | 290 | 505 |
| Unwrought | 3 680 | 3 329 | 1 979 | 628 | 937 |
| Venezuela | | | | | |
| Bauxite | 66 747 | 34 290 | 32 695 | 66 910 | ... |
| Alumina | 360 194 |) 503 846 | 696 667 | 592 664 | ... |
| Alumina hydrate | 23 655 | | | 10 435 | ... |
| Unwrought | 8 023 | 97 | 467 | 924 | 300 |
| Bahrain | | | | | |
| Alumina | 300 676 | 234 690 | 248 974 | 1 030 695 | 298 246 |

Imports of Bauxite, Alumina and Aluminium

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|---------------------|-------------|-------------|-----------|-----------|------------|
| China | | | | | |
| Unwrought (a) | (f)* 66 700 | (f)* 67 300 | 57 772 | 169 566 | 283 756 |
| Hong Kong | | | | | |
| Bauxite | 9 400 | 15 092 | 11 602 | 10 172 | 17 504 |
| Alumina | 243 | 979 | 86 | 321 | 10 |
| Alumina hydrate | 1 422 | 2 100 | 2 141 | 3 527 | 2 298 |
| Unwrought | 30 515 | 40 469 | 38 020 | 72 204 | 55 796 |
| Scrap | 468 | 1 074 | 580 | 672 | 1 083 |
| India (c) | | | | | |
| Alumina | 494 | 439 | 496 | ... | ... |
| Unwrought | 40 654 | 85 546 | 31 325 |) 4 000 | ... |
| Unwrought alloys | 19 | 283 | 0 | |) |
| Indonesia | | | | | |
| Alumina | 14 358 | 19 316 | 39 859 | 66 109 | ... |
| Unwrought | 15 150 | 14 131 | 21 161 | 33 677 | ... |
| Iran (e) | | | | | |
| Alumina | 569 | 1 293 | 44 377 | 34 550 | ... |
| Unwrought | 1 776 | 7 464 | 29 051 | 4 762 | 27 400 |
| Israel (b) | | | | | |
| Alumina | 983 | 1 554 | 1 769 | ... | (f)* 1 300 |
| Unwrought | 19 073 | 19 738 | 14 200 | 13 757 | 14 365 |
| Japan | | | | | |
| Bauxite | 4 597 104 | 5 707 708 | 4 352 440 | 3 439 361 | 3 579 739 |
| Alumina | 758 631 | 731 245 | 639 355 | 154 288 | 34 529 |
| Alumina hydrate | 2 162 | 3 857 | 1 139 | 1 518 | 680 |
| Unwrought | 748 438 | 750 080 | 943 623 | 1 220 404 | 1 309 192 |
| Unwrought alloys | 135 459 | 160 005 | 185 699 | 226 162 | 294 540 |
| Scrap | 181 531 | 275 696 | 204 863 | 181 667 | 302 025 |
| Korea, Dem. P.R. of | | | | | |
| Unwrought (a)(f) | * 3 100 | * 6 400 | * 6 000 | * 3 900 | * 2 600 |
| Korea, Republic of | | | | | |
| Bauxite | 1 860 | 2 247 | 4 907 | 5 334 | 6 095 |
| Alumina | 63 329 | 59 327 | 65 856 | 56 952 | 69 682 |
| Unwrought (a) | 82 803 | 73 818 | 98 583 | 302 267 | 333 797 |
| Scrap | 5 308 | 3 862 | 5 699 | 7 299 | 6 089 |
| Malaysia | | | | | |
| Alumina | 10 241 | 6 877 | 5 547 | 3 194 | ... |
| Unwrought (a) | 14 488 | 16 482 | 14 931 | 23 078 | ... |
| Pakistan (d) | | | | | |
| Unwrought | 4 451 | 3 229 | 701 | 6 413 | 3 059 |
| Scrap | 10 044 | 11 905 | 13 483 | 11 525 | 14 426 |
| Philippines | | | | | |
| Bauxite | 9 909 | 8 219 | 12 592 | 3 762 | 3 119 |
| Alumina | 2 743 | 1 201 | 1 395 | 644 | 1 998 |
| Unwrought (a) | 28 412 | 17 651 | 10 407 | 18 471 | 14 843 |
| Saudi Arabia | | | | | |
| Bauxite | 31 | — | 39 509 | 114 856 | 142 686 |
| Unwrought | 1 373 | 7 382 | 7 852 | 6 318 | 14 447 |
| Singapore | | | | | |
| Bauxite | 11 000 | 400 | 19 | 0 | 340 |
| Alumina | 7 583 | 8 186 | 6 625 | 10 792 | 9 605 |
| Unwrought | 6 038 | 9 092 | 8 432 | 11 085 | 18 829 |
| Scrap | 384 | 433 | 394 | 642 | 639 |
| Syria | | | | | |
| Unwrought & scrap | 1 289 | 592 | 3 457 | 653 | ... |
| Taiwan | | | | | |
| Bauxite | 209 618 | 260 438 | 106 754 | 30 373 | 36 805 |
| Alumina | 63 652 | 57 915 | 37 612 | 17 024 | 3 744 |
| Alumina hydrate | 3 876 | 1 111 | 1 711 | 1 569 | 1 308 |
| Unwrought | 52 860 | 58 320 | 47 752 | 88 569 | 139 145 |
| Scrap | 13 768 | 19 255 | 16 847 | 15 775 | 25 766 |
| Thailand | | | | | |
| Bauxite | 10 191 | 205 | 8 964 | 285 | 3 557 |
| Alumina | 1 469 | 1 456 | 1 325 | 1 078 | 1 762 |
| Alumina hydrate | 7 399 | 11 560 | 8 635 | 10 773 | 9 646 |
| Unwrought | 38 467 | 40 209 | 46 865 | 55 010 | 60 569 |
| Unwrought alloys | 4 739 | 4 699 | 4 909 | 3 840 | 4 337 |
| Scrap | 1 142 | 81 | 96 | 59 | — |

Imports of Bauxite, Alumina and Aluminium

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-----------------|---------|---------|---------|---------|---------|
| Australia | | | | | |
| Alumina | 4 210 | 3 967 | 3 619 | 3 663 | 2 672 |
| Unwrought (a) | 4 330 | 10 221 | 9 261 | 13 700 | 5 225 |
| Scrap | 1 463 | 2 243 | 3 008 | 3 527 | 2 711 |
| New Zealand (d) | | | | | |
| Alumina | 320 599 | 265 290 | 325 738 | 346 055 | 335 757 |
| Unwrought | 263 | 390 | 622 | 7 436 | 6 000 |

Notes:

- 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 2) 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) Figures may be incomplete as value only given in Israeli trade return for imports from some countries
 (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

Mine Production of Antimony

tonnes (metal content)

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------|----------|----------|----------|----------|----------|
| France | — | — | 150 | 332 | 111 |
| Italy | 950 | 713 | 696 | 339 | — |
| Austria | 655 | 691 | 667 | 711 | 705 |
| Czechoslovakia | 530 | 820 | 739 | * 700 | * 900 |
| Soviet Union | * 7 500 | * 7 000 | * 6 500 | * 6 500 | * 6 500 |
| Spain | 501 | 625 | 646 | 461 | 489 |
| Turkey | 495 | 977 | 838 | 1 237 | 1 180 |
| Yugoslavia | 2 037 | 1 680 | 1 455 | 1 517 | 950 |
| Algeria | * 60 | — | — | — | — |
| Morocco | 850 | 550 | 482 | 860 | 454 |
| South Africa | 11 651 | 13 067 | 9 810 | 9 134 | 6 302 |
| Zimbabwe | 158 | 150 | 137 | 195 | 74 |
| Canada | 3 025 | 2 394 | 1 714 | 214 | 233 |
| Guatemala | 638 | 539 | 487 | 498 | * 500 |
| Honduras | 45 | 23 | 19 | 9 | * 10 |
| Mexico | 2 872 | 2 176 | 1 800 | 1 565 | 2 519 |
| USA | 844 | 327 | 914 | (c) 456 | (c) 760 |
| Bolivia | 13 019 | 15 465 | 15 301 | 13 978 | 9 951 |
| Brazil | 73 | 46 | 40 | — | — |
| Peru (a) | 546 | 344 | 235 | 296 | 225 |
| Burma | 680 | 440 | 350 | — | — |
| China | * 10 000 | * 10 000 | * 11 000 | * 12 000 | * 13 000 |
| Malaysia | 307 | 133 | 191 | 128 | 134 |
| Pakistan | 31 | 39 | 51 | — | — |
| Thailand | 3 625 | 3 603 | 1 480 | 823 | 1 474 |
| Australia (b) | 1 539 | 1 356 | 1 126 | 1 146 | 528 |
| World total | 62 600 | 63 200 | 56 800 | 53 100 | 47 000 |

Notes:

- 1 This table includes antimony content of antimonial lead alloys
- 2 In addition to the countries listed, Afghanistan, Hungary, Iran and Romania are also believed to produce antimony

(a) Includes Sb content of antimonial lead plus Sb content of ores for export

(b) Includes Sb content of lead and zinc concentrates

(c) Excludes Sb content of antimonial lead

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Exports of Antimony

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|------------|------------|---------|------------|------------|
| United Kingdom | | | | | |
| Ore | 396 | 824 | ... | ... | ... |
| Metal | 173 | 54 | 30 | 118 | 75 |
| Oxide (a) | * 3 000 | * 2 300 | * 2 700 | * 3 200 | * 3 700 |
| France | | | | | |
| Ore | 770 | 104 | 271 | 177 | 26 |
| Metal | 126 | 124 | 77 | 77 | 66 |
| Oxide | 4 677 | 4 947 | 6 309 | 4 914 | 5 233 |
| Germany, Federal Republic of | | | | | |
| Metal | 17 | 47 | 101 | 10 | 17 |
| Oxide | 344 | 261 | 481 | 422 | 571 |
| Italy | | | | | |
| Metal | 20 | 3 | 51 | 4 | 50 |
| Oxide | 301 | 204 | 240 | 220 | 617 |
| Netherlands | | | | | |
| Metal | 136 | 79 | 21 | 22 | 13 |
| Oxide | 474 | 341 | 213 | 331 | 226 |
| Austria | | | | | |
| Ore | 493 | 291 | 26 | — | 4 |
| Sulphide (b) | 20 | 28 | 91 | 74 | 49 |
| Spain | | | | | |
| Metal | 593 | 370 | 568 | 506 | ... |
| Sweden | | | | | |
| Metal | 13 | 2 | — | 3 | — |
| Turkey | | | | | |
| Ore | 400 | 1 447 | 755 | 450 | 330 |
| Metal | 290 | 319 | 190 | ... | ... |
| Yugoslavia | | | | | |
| Metal | 975 | 1 055 | 1 220 | 675 | ... |
| Morocco | | | | | |
| Ore | 1 966 | 1 159 | 1 260 | 1 796 | 1 105 |
| South Africa | | | | | |
| Ore | 11 379 | 3 029 | * 5 900 | (a)* 3 000 | (a)* 4 000 |
| Oxide (a) | * 6 600 | * 6 400 | * 4 200 | * 2 900 | * 3 500 |
| Guatemala | | | | | |
| Ores & concentrates | 1 323 | 1 292 | 556 | 0 | — |
| Mexico | | | | | |
| Ores & concentrates | 1 311 | 1 111 | 830 | 2 253 | ... |
| Metal | 533 | 194 | 78 | 58 | ... |
| USA | | | | | |
| Metal | 488 | 452 | 317 | 783 | 289 |
| Oxide | 630 | 838 | 420 | 305 | 401 |
| Bolivia | | | | | |
| Ore (c) | 13 266 | 7 386 | 11 173 | 7 462 |) |
| Metal | 1 571 | 3 576 | 4 165 |) 3 429 |) 12 919 |
| Oxide (c) | 1 798 | 1 661 | 2 422 |) |) |
| Peru | | | | | |
| Ores & concentrates | 738 | 377 | ... | ... | ... |
| Metal | 102 | ... | ... | ... | ... |
| Burma (d) | | | | | |
| Ores & concentrates | 1 100 | 201 | 300 | ... | ... |
| China | | | | | |
| Ores & concentrates (a) | * 3 200 | * 3 900 | * 3 500 | * 3 600 | * 2 100 |
| Metal | (a)* 5 900 | (a)* 3 100 | 8 213 | 13 432 | 12 216 |
| Oxide (a) | * 1 700 | * 2 300 | * 2 500 | * 2 600 | * 2 700 |
| Japan | | | | | |
| Metal | 59 | 41 | 29 | 21 | 3 |
| Thailand | | | | | |
| Ore | 5 690 | 5 704 | 5 268 | 2 796 | 3 037 |
| Metal | 60 | 5 | 16 | ... | ... |
| Australia | | | | | |
| Ores & concentrates | 1 356 | 1 376 | 1 159 | 1 558 | ... |

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

(b) Believed to be crude liquated sulphide

(c) Sb content

(d) Years ended 31 March following that stated

Imports of Antimony

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|----------|---------|----------|---------|----------|
| United Kingdom | | | | | |
| Ore (c) | * 11 600 | * 3 600 | * 12 100 | * 8 100 | * 10 100 |
| Metal | 413 | 347 | 365 | 297 | 617 |
| Oxide | 272 | 510 | 717 | 856 | 737 |
| Belgium-Luxembourg | | | | | |
| Ore | 6 662 | 5 177 | 5 147 | 3 962 | 4 265 |
| Metal | 335 | 32 | 8 | 198 | 541 |
| Oxide | 240 | 193 | 338 | 283 | 272 |
| Denmark | | | | | |
| Metal | 24 | 10 | 10 | 10 | 53 |
| Oxide | 26 | 32 | 36 | 39 | 36 |
| France | | | | | |
| Ore | 10 794 | 8 823 | 10 998 | 8 844 | 10 273 |
| Metal | 886 | 348 | 552 | 1 143 | 593 |
| Oxide | 434 | 425 | 373 | 357 | 437 |
| Germany, Federal Republic of | | | | | |
| Ore | 3 126 | 3 002 | 1 954 | 1 640 | 1 705 |
| Metal | 567 | 538 | 595 | 441 | 371 |
| Oxide | 3 896 | 3 351 | 3 567 | 3 899 | 5 167 |
| Greece | | | | | |
| Metal | 13 | 6 | 2 | ... | 30 |
| Italy | | | | | |
| Metal | 122 | 112 | 79 | 252 | 177 |
| Oxide | 626 | 528 | 422 | 427 | 560 |
| Netherlands | | | | | |
| Metal | 132 | 112 | 48 | 75 | 34 |
| Oxide | 1 141 | 985 | 907 | 948 | 1 053 |
| Austria | | | | | |
| Metal | 56 | 63 | 52 | 48 | 32 |
| Bulgaria | | | | | |
| Metal (b) | * 400 | * 250 | * 400 | * 50 | ... |
| Finland | | | | | |
| Metal | 35 | 15 | 20 | 16 | 2 |
| Norway | | | | | |
| Metal | 28 | 43 | 20 | 30 | 13 |
| Soviet Union | | | | | |
| Metal (b) | * 700 | * 600 | * 800 | * 500 | ... |
| Spain | | | | | |
| Ore | 664 | 659 | 480 | 433 | ... |
| Metal | 199 | 32 | 47 | 29 | ... |
| Oxide | 242 | 210 | 194 | 301 | ... |
| Sweden | | | | | |
| Metal | 19 | 14 | 25 | 12 | 15 |
| Switzerland | | | | | |
| Metal | 28 | 91 | 55 | 45 | 60 |
| Yugoslavia | | | | | |
| Ores & concentrates | 3 261 | 4 201 | 3 550 | 2 849 | ... |
| Algeria | | | | | |
| Metal | 262 | 30 | ... | ... | ... |
| Morocco | | | | | |
| Metal | 9 | 30 | — | — | ... |
| Canada | | | | | |
| Oxide | 794 | 944 | 936 | 780 | 1 001 |
| USA | | | | | |
| Ore | 14 283 | 10 019 | 9 810 | 5 086 | 5 720 |
| Liquated | 45 | 34 | 96 | 80 | 43 |
| Metal | 3 376 | 2 367 | 2 672 | 2 103 | 1 828 |
| Oxide | 12 384 | 11 108 | 11 040 | 9 465 | 9 620 |

Imports of Antimony

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|---------------------|-------|-------|-------|-------|-------|
| Argentina | | | | | |
| Ore | 399 | 246 | 91 | ... | ... |
| Brazil | | | | | |
| Ore | 1 641 | 623 | 443 | 588 | 494 |
| Metal | 177 | 132 | 107 | 331 | 650 |
| Oxide | 597 | 786 | 300 | 133 | 162 |
| Sulphide | 9 | 11 | 3 | 6 | 10 |
| Venezuela | | | | | |
| Metal | 122 | ... | ... | 544 | ... |
| India | | | | | |
| Metal | 450 | 565 | 820 | ... | ... |
| Oxide (a) | 67 | 62 | 134 | ... | ... |
| Japan | | | | | |
| Ores & concentrates | 6 702 | 6 996 | 6 531 | 3 993 | 6 272 |
| Metal | 3 202 | 1 563 | 2 366 | 2 493 | 3 487 |
| Oxide | ... | ... | 1 048 | 1 150 | 1 796 |
| Sulphide | 16 | 58 | 92 | 116 | 115 |
| Korea, Republic of | | | | | |
| Ores & concentrates | 480 | 224 | 547 | 391 | 956 |
| Malaysia | | | | | |
| Metal | 67 | 53 | 22 | 26 | ... |
| Australia | | | | | |
| Metal | 51 | 36 | 50 | 29 | ... |

(a) Years ended 31 March following that stated

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

(c) BGS estimates

Production of White Arsenic

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|---------|---------|---------|---------|---------|
| France | * 5 500 | 10 000 | 10 000 | 9 700 | 4 700 |
| Germany, Federal Republic of | — | * 360 | * 360 | * 360 | * 360 |
| Portugal | 155 | 185 | 196 | * 200 | 159 |
| Soviet Union | * 7 700 | * 7 700 | * 7 750 | * 7 800 | * 7 900 |
| Sweden | * 5 100 | * 4 100 | * 4 000 | * 4 000 | * 4 000 |
| Namibia (a) | 2 221 | 1 288 | 1 370 | 1 895 | 1 126 |
| Zimbabwe | — | 79 | 21 | — | — |
| Mexico (b) | 6 535 | 6 930 | 6 516 | 4 739 | 4 557 |
| Peru | 2 440 | 2 427 | 2 164 | 1 663 | * 1 800 |
| Japan | 182 | 284 | 95 | * 100 | * 100 |
| Korea, Republic of | 590 | ... | 170 | 306 | ... |

Notes:

- 1 This table includes calculated trioxide equivalents of arsenic metal produced except where this would involve double counting
- 2 In addition to the countries listed, Argentina, Austria, Belgium, China, Czechoslovakia, German Democratic Republic, Finland, Hungary, Spain, United Kingdom and Yugoslavia are also believed to produce arsenic

(a) Output of Tsumeb Corp. only, trioxide equivalent of reported black arsenic

(b) Including trioxide equivalent of black arsenic

Exports of Arsenic

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|--------|-------|-------|-------|-------|
| United Kingdom | | | | | |
| White arsenic | 853 | 165 | 165 | 44 | 146 |
| Metallic arsenic (a) | 13 | 29 | 10 | 58 | 44 |
| Belgium-Luxembourg | | | | | |
| Metallic arsenic (a) | 21 | 7 | 10 | 7 | 46 |
| France | | | | | |
| White arsenic | 10 264 | 7 886 | 7 877 | 7 503 | 3 246 |
| Metallic arsenic | 41 | 104 | 87 | 90 | 27 |
| Germany, Federal Republic of | | | | | |
| White arsenic | 122 | 928 | 884 | 745 | 451 |
| Metallic arsenic (a) | 10 | 4 | 21 | 9 | 14 |
| Italy | | | | | |
| White arsenic | 20 | 73 | 75 | 106 | 3 |
| Netherlands | | | | | |
| White arsenic | 81 | 27 | 7 | 12 | 1 |
| Metallic arsenic (a) | 44 | 61 | 9 | 48 | 39 |
| Mexico | | | | | |
| White arsenic | 3 305 | 3 817 | 3 495 | 2 466 | ... |
| Bolivia | | | | | |
| White arsenic | 80 | 81 | 127 | ... | ... |
| Peru | | | | | |
| White arsenic | 1 519 | 351 | ... | ... | ... |
| Hong Kong | | | | | |
| White arsenic (Re-exports) | 7 | 38 | 76 | 295 | 51 |
| Korea, Republic of | | | | | |
| White arsenic | 60 | 116 | 337 | 643 | 114 |

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

(a) May include some tellurium

Imports of Arsenic

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|--------|--------|--------|--------|--------|
| United Kingdom | | | | | |
| White arsenic | ... | 5 481 | 8 053 | 7 116 | 4 393 |
| Metallic arsenic (a) | 137 | 105 | 105 | 141 | 120 |
| Belgium-Luxembourg | | | | | |
| White arsenic | 9 | 37 | 32 | 52 | 20 |
| Metallic arsenic (a) | 115 | 100 | 90 | 86 | 100 |
| Denmark | | | | | |
| White arsenic | 0 | 10 | 10 | 10 | 5 |
| Metallic arsenic (a) | 17 | 17 | 18 | 11 | 1 |
| France | | | | | |
| White arsenic | 15 | 107 | 181 | 128 | 131 |
| Metallic arsenic | 113 | 211 | 143 | 117 | 99 |
| Germany, Federal Republic of | | | | | |
| White arsenic | 675 | 545 | 688 | 444 | 339 |
| Metallic arsenic (a) | 54 | 49 | 75 | 77 | 74 |
| Greece | | | | | |
| White arsenic | 29 | 79 | 111 | 97 | 33 |
| Italy | | | | | |
| White arsenic | 817 | 837 | 734 | 598 | 455 |
| Metallic arsenic (a) | 63 | 57 | 65 | 65 | 32 |
| Netherlands | | | | | |
| White arsenic | 147 | 4 | 31 | 13 | 2 |
| Metallic arsenic (a) | 63 | 59 | 68 | 117 | 63 |
| Finland | | | | | |
| White arsenic (d) | 1 097 | 1 220 | 1 644 | 1 555 | 1 165 |
| Spain | | | | | |
| White arsenic | 299 | 131 | 241 | 78 | ... |
| Metallic arsenic | 19 | 18 | 35 | 11 | ... |
| Sweden | | | | | |
| Metallic arsenic | — | 5 | 11 | 628 | 703 |
| Switzerland | | | | | |
| White arsenic (d) | 58 | 6 | 80 | 3 | 22 |
| Turkey | | | | | |
| White arsenic | 43 | 35 | 34 | ... | ... |
| Yugoslavia | | | | | |
| White arsenic | 66 | 102 | 101 | 57 | 73 |
| Metallic arsenic | 138 | 85 | 58 | 37 | ... |
| Morocco | | | | | |
| White arsenic | 0 | 10 | — | 5 | ... |
| South Africa | | | | | |
| White arsenic (d) | 34 | — | 141 | 1 | 90 |
| Metallic arsenic | 10 | 12 | 12 | 14 | 9 |
| USA | | | | | |
| White arsenic | 11 181 | 11 366 | 17 199 | 14 599 | 10 186 |
| Metallic arsenic | 367 | 241 | 293 | 136 | 243 |
| Argentina | | | | | |
| White arsenic | 445 | 251 | 83 | ... | ... |
| Brazil | | | | | |
| White arsenic | 830 | 496 | 116 | 392 | 376 |
| Metallic arsenic | 59 | 54 | 5 | 2 | 2 |
| Colombia | | | | | |
| White arsenic | 18 | 35 | 42 | 10 | 12 |
| Uruguay | | | | | |
| White arsenic | 69 | 28 | 7 | 24 | 38 |
| Venezuela | | | | | |
| White arsenic | 44 | 17 | 2 | 0 | ... |
| Hong Kong | | | | | |
| White arsenic | 18 | 46 | 75 | 157 | 61 |
| India (b) | | | | | |
| White arsenic | 1 017 | 171 | 388 | ... | ... |
| Metallic arsenic | 31 | 11 | 6 | ... | ... |
| Indonesia | | | | | |
| White arsenic | 107 | 99 | 64 | 62 | ... |
| Japan | | | | | |
| White arsenic | 999 | 716 | 450 | 599 | 272 |
| Korea, Republic of | | | | | |
| White arsenic | 17 | — | 0 | 0 | 1 |

Imports of Arsenic

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-------------------|-------|-------|-------|-------|-------|
| Malaysia | | | | | |
| White arsenic | 1 850 | 713 | 732 | 1 332 | ... |
| Philippines | | | | | |
| White arsenic (d) | 246 | 75 | 162 | 218 | 157 |
| Taiwan | | | | | |
| White arsenic | 681 | 190 | 220 | 174 | 274 |
| Thailand | | | | | |
| White arsenic (d) | 152 | 93 | 75 | 289 | 139 |
| Australia | | | | | |
| White arsenic | 936 | 904 | 1 225 | 881 | ... |
| New Zealand (c) | | | | | |
| White arsenic (d) | 2 070 | 1 888 | 2 574 | 3 146 | 1 568 |

Note: 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) Includes pentoxide and/or arsenic acid

Production of Asbestos

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------|-------------|-------------|-------------|-------------|-------------|
| Italy | 143 931 | 157 794 | 137 000 | 116 410 | 139 054 |
| Bulgaria | 600 | 700 | 400 | 600 | 700 |
| Czechoslovakia | 564 | 617 | 388 | 342 | 325 |
| Soviet Union | * 2 020 000 | * 2 070 000 | * 2 105 000 | * 2 180 000 | * 2 250 000 |
| Turkey | 38 967 | 8 882 | 2 833 | 23 283 | 22 596 |
| Yugoslavia | 9 959 | 10 468 | 12 206 | 10 748 | 9 663 |
| Egypt | 238 | 316 | 325 | * 310 | * 325 |
| Mozambique | 789 | * 800 | * 800 | * 800 | * 800 |
| South Africa | | | | | |
| Amosite | 39 058 | 51 646 | 56 834 | 43 457 | 40 656 |
| Crocidolite | 118 301 | 119 148 | 102 337 | 87 263 | 87 439 |
| Chrysotile | 91 828 | 106 940 | 76 772 | 81 140 | 93 016 |
| Swaziland | | | | | |
| Chrysotile | 34 294 | 32 833 | 35 264 | 30 145 | 28 287 |
| Zimbabwe | | | | | |
| Chrysotile | 259 891 | 250 949 | 247 503 | 197 682 | 153 221 |
| Canada | | | | | |
| Chrysotile | 1 492 719 | 1 323 053 | 1 121 845 | 834 249 | 829 000 |
| USA (a) | 93 354 | 80 079 | 75 618 | 63 515 | 69 906 |
| Argentina | 1 371 | 1 261 | 1 280 | 1 218 | 1 350 |
| Brazil | 138 457 | 170 403 | 138 417 | 145 998 | 158 855 |
| Afghanistan | * 4 000 | ... | ... | ... | ... |
| China | * 140 000 | * 131 700 | * 106 000 | * 110 000 | * 110 000 |
| Cyprus | | | | | |
| Chrysotile | 35 472 | 35 535 | 24 703 | 18 997 | 17 288 |
| India | | | | | |
| Amphibole | 32 094 | 33 716 | 27 521 | 26 908 | 23 613 |
| Japan | | | | | |
| Chrysotile | 3 362 | 3 897 | 3 950 | 4 135 | * 4 000 |
| Korea, Republic of | 14 804 | 9 854 | 14 084 | 15 933 | 12 506 |
| Taiwan | 2 957 | 683 | 2 317 | 2 392 | 2 819 |
| Australia | | | | | |
| Chrysotile | 79 721 | 92 418 | 45 494 | 18 587 | * 20 000 |
| World total | 4 800 000 | 4 700 000 | 4 300 000 | 4 000 000 | 4 100 000 |

Note: In addition to the countries listed, Democratic P.R. of Korea and Romania are also believed to produce asbestos

(a) Sold or used by producers

Exports of Unmanufactured Asbestos

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|--------------|--------------|--------------|--------------|-----------|
| United Kingdom | 616 | 1 114 | 1 758 | 1 860 | 1 282 |
| Belgium-Luxembourg | 131 | 57 | 222 | 1 084 | 568 |
| France | 1 348 | 1 574 | 1 331 | 1 586 | 3 195 |
| Germany, Federal Republic of | 65 365 | 27 333 | 43 034 | 47 239 | 34 260 |
| Italy | 74 478 | 63 815 | 51 438 | 48 648 | 61 164 |
| Netherlands | 56 | 36 | 269 | 88 | 243 |
| Hungary | * 5 100 | * 5 300 | * 2 500 | ... | ... |
| Soviet Union | * 450 000 | * 600 000 | * 625 000 | * 650 000 | * 675 000 |
| Sweden | 112 | 14 | 1 | — | 135 |
| Switzerland | 142 | 43 | 164 | 348 | 389 |
| Yugoslavia | 1 983 | 2 506 | 2 938 | 2 588 | 2 147 |
| South Africa | (a)* 442 800 | (a)* 396 000 | (a)* 260 000 | (a)* 215 000 | 188 682 |
| Swaziland | 37 065 | 31 435 | 23 309 | 26 310 | 31 174 |
| Zimbabwe | 285 021 | 274 258 | 198 958 | 168 812 | ... |
| Canada | | | | | |
| Crude | 20 | — | 10 | 555 | 931 |
| Fibre | 719 074 | 653 461 | 522 105 | 454 440 | 384 068 |
| Shorts | 741 947 | 564 379 | 542 432 | 425 781 | 368 912 |
| USA | 42 137 | 48 666 | 64 418 | 58 767 | 54 632 |
| China (a) | * 11 100 | * 9 000 | * 9 200 | * 5 000 | * 4 800 |
| Cyprus | 39 106 | 30 446 | 29 081 | 19 115 | 13 631 |
| Hong Kong (Re-exports) | 1 844 | 8 492 | 3 127 | 1 141 | 84 |
| Japan | 147 | 428 | 680 | 723 | 677 |
| Singapore | 9 535 | 10 461 | 11 603 | 8 939 | 8 692 |
| Australia | 54 041 | 51 172 | 38 576 | 15 415 | ... |

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

Imports of Unmanufactured Asbestos

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|----------|---------|---------|---------|---------|
| United Kingdom | 116 665 | 94 640 | 67 186 | 52 260 | 45 145 |
| Belgium-Luxembourg | 50 754 | 47 880 | 31 374 | 27 744 | 35 332 |
| Denmark | 26 865 | 13 713 | 5 886 | 9 701 | 16 585 |
| France | 126 476 | 127 123 | 102 318 | 83 639 | 76 265 |
| Germany, Federal Republic of | 386 383 | 392 978 | 171 708 | 148 845 | 188 857 |
| Greece | 15 214 | 14 180 | 14 666 | 7 102 | 7 531 |
| Irish Republic | 7 564 | 8 413 | 6 173 | 5 777 | 4 729 |
| Italy | 77 152 | 86 550 | 65 942 | 56 884 | 41 619 |
| Netherlands | 28 235 | 19 042 | 9 927 | 5 107 | 5 751 |
| Albania (d) | * 1 700 | * 2 400 | * 2 700 | * 2 500 | * 1 700 |
| Austria | 23 912 | 20 241 | 26 643 | 27 082 | 26 076 |
| Bulgaria (d) | * 3 330 | * 500 | * 450 | * 350 | * 1 700 |
| Czechoslovakia | 41 804 | 46 197 | 49 195 | 48 699 | 41 681 |
| Finland | 3 019 | 5 040 | 3 573 | 4 291 | 2 561 |
| German Democratic Republic | 62 000 | 74 400 | 50 200 | 61 200 | 47 000 |
| Hungary | 37 540 | 48 402 | 33 999 | 33 688 | 37 603 |
| Norway | 490 | 103 | 149 | 14 | 58 |
| Poland | 103 372 | 83 272 | 79 837 | 72 705 | 71 260 |
| Portugal | 11 213 | 19 953 | 19 168 | 14 396 | ... |
| Romania (d) | * 10 800 | * 4 900 | * 4 700 | * 2 500 | * 1 400 |
| Spain | 74 000 | 66 944 | 59 937 | 53 211 | 54 525 |
| Sweden | 861 | 1 195 | 1 101 | 1 037 | 1 000 |
| Switzerland | 20 689 | 21 029 | 16 886 | 5 455 | 12 211 |
| Turkey | 10 247 | 16 671 | 21 521 | 20 012 | 20 575 |
| Yugoslavia | 47 475 | 60 023 | 57 762 | 58 611 | 45 651 |
| Algeria | 10 234 | 21 305 | ... | ... | ... |
| Burundi | 401 | 125 | 424 | ... | ... |
| Canary Islands | 161 | 131 | 0 | 12 | ... |
| Egypt | 476 | 4 387 | 26 828 | 2 367 | ... |
| Ethiopia | 326 | 302 | 500 | 671 | 1 006 |
| Ghana | 3 556 | ... | ... | ... | ... |
| Kenya | 1 348 | 1 403 | 865 | 530 | ... |
| Libya | 2 050 | 307 | 2 109 | ... | ... |
| Morocco | 4 756 | 6 770 | 6 630 | 8 086 | ... |
| Mozambique | ... | 1 082 | ... | ... | ... |
| Nigeria | 139 795 | ... | ... | ... | ... |
| Senegal | 1 459 | 1 177 | 1 047 | 914 | 1 042 |
| South Africa | 18 203 | 19 518 | 29 231 | 12 878 | 12 781 |
| Tunisia | 3 658 | 5 838 | 8 397 | 6 361 | ... |
| Uganda | ... | 132 | ... | ... | ... |
| Zaire | 427 | 118 | 185 | ... | ... |
| Zambia | 1 297 | ... | ... | ... | ... |
| Canada | 1 969 | 1 156 | 934 | 573 | 454 |
| Costa Rica | 1 167 | 1 318 | 762 | 1 192 | 382 |
| El Salvador | 3 312 | 3 324 | 2 865 | 3 286 | 3 955 |
| Guatemala | 1 013 | 1 825 | 1 257 | 376 | 476 |
| Honduras | 1 260 | 2 102 | 1 731 | ... | ... |
| Jamaica | 370 | 4 | 78 | 491 | 16 |
| Mexico | 71 648 | 79 014 | 75 263 | 55 732 | ... |
| Nicaragua | 2 | 848 | 1 343 | 1 496 | ... |
| Panama | 445 | 283 | 241 | 320 | 450 |
| USA | | | | | |
| Amosite | 462 | 364 | 680 | 389 | 609 |
| Crocidolite | 13 828 | 7 597 | 7 376 | 7 904 | 6 177 |
| Chrysotile | 487 191 | 305 358 | 314 212 | 211 901 | 177 016 |
| Other unmanufactured | 11 606 | 13 976 | 15 345 | 21 538 | 12 584 |
| Argentina | 21 801 | 20 149 | 12 531 | ... | ... |
| Brazil | 35 763 | 24 799 | 13 019 | 13 192 | 7 771 |
| Colombia | 20 920 | 27 057 | 21 492 | 25 945 | 13 170 |
| Ecuador | 5 986 | 7 138 | 3 906 | ... | ... |
| Peru | 3 209 | 4 870 | 7 408 | 3 801 | 3 934 |
| Uruguay | 2 681 | 2 427 | 1 203 | 623 | 1 423 |
| Venezuela | 14 523 | 9 111 | 11 742 | 7 354 | ... |

Imports of Unmanufactured Asbestos

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------|---------|---------|---------|---------|---------|
| Burma (e) | 1 385 | 1 825 | 2 776 | ... | ... |
| Dubai | 4 205 | 4 631 | 10 359 | 9 217 | 5 342 |
| Hong Kong | 1 844 | 8 776 | 3 297 | 1 336 | 101 |
| India | 48 458 | 63 176 | 49 736 | ... | ... |
| Indonesia | 14 616 | 23 047 | 27 062 | 18 765 | ... |
| Iran (a) | 10 569 | 23 392 | 31 539 | 42 568 | ... |
| Israel (c) | 28 317 | 3 050 | 6 282 | 4 467 | 6 316 |
| Japan | 291 531 | 305 408 | 237 963 | 229 125 | 237 413 |
| Korea, Republic of | 58 616 | 36 787 | 53 787 | 44 038 | 113 305 |
| Kuwait | 10 044 | 2 084 | 2 018 | ... | ... |
| Malaysia | 37 861 | 32 242 | 35 645 | 24 632 | ... |
| Pakistan (b) | 6 638 | 10 679 | 5 690 | 4 462 | 3 271 |
| Philippines | 6 570 | 4 467 | 5 499 | 2 200 | 2 385 |
| Saudi Arabia | 24 169 | 52 225 | 10 102 | 15 882 | 8 801 |
| Singapore | 12 318 | 16 661 | 16 824 | 9 767 | 10 215 |
| Sri Lanka | 11 780 | 6 188 | 4 222 | 2 399 | 7 110 |
| Syria | 1 050 | 4 076 | 4 245 | 3 885 | ... |
| Taiwan | 29 103 | 31 247 | 30 121 | 30 020 | 37 939 |
| Thailand | 72 528 | 58 756 | 57 193 | 54 333 | 55 967 |
| Australia | 23 735 | 25 239 | 20 960 | 20 200 | 10 114 |
| New Zealand (b) | 9 818 | 4 952 | 6 173 | 3 891 | 2 959 |

(a) Years ended 20 March following that stated

(b) Years ended 30 June of that stated

(c) Figures may be incomplete as value only given in Israeli trade return for imports from some countries

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

(e) Years ended 31 March following that stated

Production of Barytes

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|-----------|-----------|-----------|-------------|
| United Kingdom | 45 000 | 54 000 | 63 308 | 81 000 | 36 000 |
| France | 222 000 | 225 000 | 172 000 | 143 000 | 139 000 |
| Germany, Federal Republic of | 161 661 | 175 380 | 165 189 | 165 661 | 163 851 |
| Greece | 109 344 | 98 529 | 116 773 | 119 747 | 90 187 |
| Irish Republic | 319 000 | 260 000 | 274 000 | 266 000 | 199 000 |
| Italy | 214 630 | 203 038 | 174 057 | 180 022 | 139 090 |
| Austria | 305 | 249 | — | — | — |
| Czechoslovakia | 67 803 | 61 052 | * 61 000 | * 61 000 | * 61 000 |
| German Democratic Republic | * 35 000 | * 35 000 | * 35 000 | * 35 000 | * 35 000 |
| Poland | 96 000 | 96 300 | 85 300 | 90 600 | 89 900 |
| Portugal | 704 | 1 200 | 1 350 | 1 300 | 637 |
| Romania | * 82 000 | * 80 000 | * 79 000 | * 78 000 | * 78 000 |
| Soviet Union | * 500 000 | * 510 000 | * 510 000 | * 520 000 | * 520 000 |
| Spain | 74 700 | 59 827 | 52 695 | * 50 000 | * 50 000 |
| Turkey | 100 005 | 128 352 | 185 555 | 114 928 | 78 974 |
| Yugoslavia | 46 073 | 47 818 | 44 179 | * 45 000 | * 40 000 |
| Algeria | 102 500 | 97 980 | 88 900 | * 100 000 | * 110 000 |
| Egypt | 2 136 | 4 532 | 2 108 | 3 101 | * 3 600 |
| Kenya | 363 | 6 647 | 2 591 | — | 300 |
| Morocco | 286 467 | 320 585 | 463 869 | 540 000 | 275 000 |
| South Africa | 2 494 | 2 635 | 2 247 | 3 177 | 6 683 |
| Tunisia | 18 000 | 26 000 | 24 700 | 33 900 | 20 250 |
| Zimbabwe | 449 | 195 | — | 800 | 980 |
| Canada | 67 035 | * 95 000 | * 80 000 | * 30 000 | * 28 000 |
| Guatemala | 3 680 | 4 609 | 290 | 7 531 | 886 |
| Mexico | 151 162 | 269 322 | 317 738 | 363 753 | 357 043 |
| USA (b) | 1 916 000 | 2 037 000 | 2 585 000 | 1 674 000 | 684 000 |
| Argentina | 54 928 | 49 623 | 48 868 | 36 000 | 40 000 |
| Brazil (d) | 108 042 | 104 752 | 116 340 | 116 955 | 96 274 |
| Chile | 226 767 | 225 529 | 259 349 | 292 402 | 300 000 |
| Colombia | 3 500 | 3 200 | 3 160 | 3 500 | 3 839 |
| Peru | 445 000 | 415 000 | 409 000 | 375 000 | 163 000 |
| Afghanistan (c) | 2 700 | 2 700 | 900 | 1 800 | * 1 800 |
| Burma (a) | 26 053 | 4 819 | 6 932 | 16 029 | 11 177 |
| China | * 500 000 | * 680 000 | * 800 000 | * 900 000 | * 1 000 000 |
| India | 490 699 | 442 326 | 405 138 | 387 079 | 317 610 |
| Iran (c) | * 180 000 | * 150 000 | * 75 000 | * 80 000 | * 85 000 |
| Japan | 53 736 | 54 862 | 59 584 | 58 568 | * 70 000 |
| Korea, Dem. P.R. of | * 110 000 | * 110 000 | * 100 000 | — | — |
| Korea, Republic of | 728 | 410 | — | — | 552 |
| Malaysia | 1 401 | — | 19 365 | 26 000 | 28 000 |
| Pakistan | 32 433 | 14 054 | 26 985 | 22 448 | 28 240 |
| Philippines | 6 667 | 5 355 | 2 135 | 8 697 | * 1 800 |
| Thailand | 378 654 | 305 057 | 307 046 | 330 948 | 188 000 |
| Australia | 94 066 | 38 633 | 41 266 | 28 064 | * 30 000 |
| World total | 7 300 000 | 7 500 000 | 8 300 000 | 7 400 000 | 5 600 000 |

Notes:

- 1 This table may include small quantities of witherite
- 2 In addition to the countries listed, Bulgaria and Cuba are believed to produce barytes

(a) Years ended 31 March following that stated

(b) Sold or used by producers

(c) Years ended 20 March following that stated

(d) Includes beneficiated and directly shipped material

Exports of Barytes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------------------|--------------|--------------|------------|------------|------------|
| United Kingdom | 4 622 | 4 051 | 4 226 | 11 427 | 10 462 |
| Belgium-Luxembourg | 430 | 13 656 | 19 278 | 13 099 | 30 948 |
| France | 121 722 | 98 255 | 102 439 | 94 558 | 109 752 |
| Germany, Federal Republic of | 38 720 | 44 446 | 54 627 | 39 886 | 37 839 |
| Greece | 38 587 | 55 259 | 822 | 36 758 | 5 400 |
| Irish Republic | 302 317 | 272 643 | 260 691 | 267 501 | 227 148 |
| Italy | 89 352 | 105 978 | 67 792 | 71 914 | 46 831 |
| Netherlands | 77 548 | 122 537 | 86 412 | 80 306 | 68 162 |
| Czechoslovakia | 7 000 | 8 000 | (b)* 1 200 | (b)* 2 600 | (b)* 2 000 |
| German Democratic Republic (b) | * 10 800 | * 7 600 | * 3 100 | * 2 700 | * 500 |
| Norway | 1 627 | 272 | 3 612 | 1 611 | 166 |
| Portugal | 283 | 1 000 | — | 589 | ... |
| Romania (b) | * 1 200 | * 800 | * 300 | * 400 | * 200 |
| Spain | 74 677 | 52 017 | 65 826 | 52 740 | 61 508 |
| Turkey | 95 844 | 81 666 | 187 931 | 171 483 | 162 408 |
| Yugoslavia | 13 965 | 19 077 | 16 200 | 20 452 | 17 680 |
| Morocco | 277 346 | 333 820 | 452 976 | 465 340 | 372 319 |
| Tunisia | 200 | 2 840 | 1 040 | 259 | ... |
| Canada | 2 038 | 650 | 404 | 483 | 795 |
| Mexico | 126 666 | 115 599 | 123 183 | 123 672 | ... |
| Trinidad & Tobago | 527 | 1 037 | 1 | — | 3 757 |
| USA | 96 117 | 87 833 | 56 913 | 44 171 | 20 743 |
| Bolivia | 2 228 | 8 694 | 2 130 | 607 | ... |
| Brazil | 43 520 | 18 125 | 24 255 | 19 730 | 6 300 |
| Peru | 319 935 | 127 868 | 167 351 | 130 105 | ... |
| China | (b)* 358 100 | (b)* 618 100 | 914 310 | 1 091 218 | 792 285 |
| Hong Kong (Re-exports) | 98 | 679 | 192 | 759 | 886 |
| India | 338 312 | 219 347 | 222 463 | ... | ... |
| Indonesia | 7 159 | 6 451 | 10 644 | 2 829 | ... |
| Japan | 1 002 | 1 902 | 4 768 | 4 | 30 |
| Malaysia | 2 281 | 405 | — | 4 120 | ... |
| Pakistan (a) | 3 750 | 1 700 | — | — | — |
| Singapore | 52 521 | 37 667 | 22 203 | 10 204 | 15 821 |
| of which: Re-exports | 12 695 | 10 233 | 14 926 | 9 623 | 15 095 |
| Thailand | 288 852 | 361 334 | 234 091 | 287 889 | 205 443 |
| Australia | 1 232 | 48 108 | 1 903 | 581 | ... |

Note: Trade in barytes is reported under item 278.92 of the Standard International Trade Classification (Revision 2) and is described as 'barytes and witherite'. However, only small quantities of witherite are traded

(a) Years ended 30 June of that stated

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

Imports of Barytes

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|-----------|-----------|-----------|-----------|
| United Kingdom | 90 355 | 142 384 | 113 007 | 116 386 | 138 226 |
| Belgium-Luxembourg | 8 082 | 8 407 | 8 003 | 8 427 | 7 250 |
| Denmark | 3 951 | 12 461 | 16 951 | 18 269 | 23 726 |
| France | 14 427 | 14 610 | 12 936 | 18 884 | 18 543 |
| Germany, Federal Republic of | 208 437 | 209 182 | 166 066 | 177 686 | 141 022 |
| Greece | 109 | 137 | 3 430 | 6 039 | 3 419 |
| Irish Republic | 558 | 717 | 319 | 300 | 366 |
| Italy | 13 634 | 7 531 | 9 665 | 10 328 | 14 424 |
| Netherlands | 201 894 | 81 728 | 98 928 | 75 748 | 148 833 |
| Austria | 3 227 | 5 752 | 8 273 | 6 649 | 9 278 |
| Finland | 1 224 | 1 168 | 2 632 | 2 664 | 1 613 |
| Hungary | * 8 200 | 19 000 | 16 215 | 19 129 | 17 459 |
| Norway | 102 981 | 111 392 | 100 991 | 87 836 | 90 574 |
| Poland | * 1 130 | * 4 100 | ... | ... | ... |
| Portugal | 645 | 2 000 | 2 233 | 703 | ... |
| Romania (b) | * 17 300 | * 20 500 | * 13 600 | * 3 800 | * 1 000 |
| Soviet Union | * 450 000 | * 500 000 | * 500 000 | * 500 000 | * 500 000 |
| Spain | 2 518 | 849 | 566 | 1 429 | 515 |
| Sweden | 5 493 | 3 992 | 4 567 | 5 440 | 4 986 |
| Switzerland | 2 291 | 3 181 | 2 092 | 1 795 | 1 393 |
| Yugoslavia | 1 204 | 1 147 | 490 | 498 | 150 |
| Algeria | 68 092 | 37 258 | ... | ... | ... |
| Cameroon | 25 903 | 21 416 | ... | ... | ... |
| Gabon | 1 926 | 207 | 1 410 | 12 124 | 6 552 |
| Ivory Coast | 345 | 256 | 19 273 | ... | ... |
| South Africa | 19 168 | 5 672 | 3 693 | 1 789 | 2 384 |
| Tunisia | 2 480 | 233 | 103 | 484 | ... |
| Canada | 20 765 | 45 157 | 16 277 | 23 456 | 29 952 |
| Mexico | 92 859 | 129 096 | 132 923 | 190 602 | ... |
| Trinidad & Tobago | 35 662 | 26 666 | 82 944 | 22 543 | 35 811 |
| USA | 1 374 724 | 1 702 332 | 1 765 286 | 2 126 649 | 1 267 646 |
| Argentina | 4 293 | 6 418 | 2 331 | ... | ... |
| Brazil | 156 | 175 | 74 | 60 | 45 |
| Colombia | 8 793 | 8 010 | 6 164 | 6 497 | 7 903 |
| Venezuela | 126 410 | 141 349 | 158 863 | 146 025 | ... |
| Abu Dhabi | 1 472 | 16 189 | 24 843 | 25 823 | ... |
| Hong Kong | 335 | 1 169 | 915 | 1 173 | 1 252 |
| Indonesia | 19 881 | 21 031 | 25 863 | 70 833 | ... |
| Japan | 24 565 | 40 173 | 45 251 | 40 187 | 46 568 |
| Malaysia | 224 | 6 424 | 22 939 | 16 651 | ... |
| Philippines | 1 054 | 1 893 | 50 | 85 | 341 |
| Saudi Arabia | 553 | 41 268 | 26 597 | 46 699 | 73 459 |
| Singapore | 50 774 | 66 343 | 29 698 | 19 494 | 21 554 |
| Syria | — | 510 | — | 916 | ... |
| Taiwan | 2 870 | 7 605 | 3 035 | 600 | 2 867 |
| Australia | 1 189 | 1 273 | 1 112 | 4 552 | ... |
| New Zealand (a) | 1 582 | 1 332 | 4 545 | 1 385 | 1 898 |

Note: Trade in barytes is reported under item 278.92 of the Standard International Trade Classification (Revision 2) and is described as 'barytes and witherite'. However, only small quantities of witherite are traded

(a) Years ended 30 June of that stated

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

Production of Bentonite and Fuller's Earth

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-----------------------|-----------|-----------|-----------|-----------|-----------|
| United Kingdom | | | | | |
| Fuller's earth (a) | 171 000 | 163 000 | 185 000 | 187 000 | 192 000 |
| France | | | | | |
| Bentonite | 16 069 | ... | 2 511 | 3 290 | 3 091 |
| Greece | | | | | |
| Bentonite | 696 286 | 499 424 | 297 286 | 348 677 | 592 557 |
| Italy | | | | | |
| Bentonite | 282 446 | 322 888 | 282 098 | 237 333 | 296 816 |
| Fuller's earth | 1 080 | 4 300 | 5 495 | 7 000 | 20 500 |
| Hungary | | | | | |
| Bentonite | 72 488 | 77 685 | 80 531 | 84 934 | 79 807 |
| Poland | | | | | |
| Bentonite | 161 587 | 157 090 | 142 806 | 145 413 | * 145 000 |
| Romania | | | | | |
| Bentonite | 180 000 | 176 500 | * 176 000 | * 175 000 | * 177 000 |
| Spain | | | | | |
| Bentonite | 120 678 | 97 705 | 117 727 | 112 326 | * 110 000 |
| Attapulgite | 62 423 | 48 020 | 47 227 | 42 926 | * 43 000 |
| Sepiolite | 202 810 | 252 304 | 288 499 | ... | ... |
| Turkey | | | | | |
| Bentonite | 7 937 | * 13 000 | 30 687 | * 31 000 | * 31 000 |
| Fuller's earth | ... | 139 702 | 119 813 | 127 179 | ... |
| Yugoslavia | | | | | |
| Bentonite | ... | 136 080 | ... | ... | ... |
| Algeria | | | | | |
| Bentonite | 34 892 | 34 620 | * 35 000 | * 35 000 | * 35 000 |
| Egypt | | | | | |
| Bentonite | 3 500 | 5 200 | 3 700 | 4 032 | * 6 000 |
| Morocco | | | | | |
| Bentonite | 1 015 | 3 284 | 2 906 | 4 457 | 4 095 |
| Fuller's earth (g) | 13 586 | 17 430 | 19 750 | 24 604 | 27 385 |
| Mozambique | | | | | |
| Bentonite | 1 656 | * 1 500 | * 1 500 | * 1 500 | * 1 500 |
| Senegal | | | | | |
| Attapulgite | 13 000 | 27 651 | 32 973 | 98 999 | 100 375 |
| South Africa | | | | | |
| Bentonite | 46 394 | 51 815 | 44 372 | 30 827 | 39 529 |
| Attapulgite | 4 062 | 3 684 | 5 221 | 4 596 | 4 425 |
| Fuller's earth | 919 | 720 | 434 | 311 | 312 |
| Mexico | | | | | |
| Bentonite | 169 848 | 176 028 | 220 454 | 184 918 | * 200 000 |
| Fuller's earth | 48 820 | 56 858 | 65 378 | 42 217 | * 45 000 |
| USA | | | | | |
| Bentonite (c) | 4 011 639 | 3 796 223 | 4 487 987 | 2 943 633 | 2 618 925 |
| Fuller's earth (c)(f) | 1 422 690 | 1 391 443 | 1 502 166 | 1 526 479 | 1 734 205 |
| Argentina | | | | | |
| Bentonite | 157 382 | 131 384 | 122 719 | 123 254 | 124 800 |
| Fuller's earth | 5 445 | 4 722 | 5 246 | 11 795 | 13 900 |
| Brazil | | | | | |
| Bentonite | 212 503 | 247 954 | 166 338 | 164 060 | 128 691 |
| Peru | | | | | |
| Bentonite | 17 851 | 18 200 | 30 500 | * 31 000 | * 31 000 |
| Burma (d) | | | | | |
| Bentonite | 2 188 | 2 182 | 2 097 | 985 | 711 |
| Cyprus | | | | | |
| Bentonite | 7 200 | 24 032 | 47 010 | 13 324 | 32 000 |
| India | | | | | |
| Bentonite | 146 922 | 158 675 | 143 872 | 137 315 | ... |
| Fuller's earth | 17 343 | 30 985 | 19 758 | 16 256 | ... |
| Iran | | | | | |
| Bentonite | * 20 000 | * 20 000 | * 10 000 | * 11 000 | * 13 000 |
| Israel | | | | | |
| Bentonite (e) | 6 287 | 18 321 | 12 581 | 12 000 | 61 838 |
| Japan | | | | | |
| Bentonite | * 400 000 | 548 328 | 511 781 | 483 483 | 440 923 |

Production of Bentonite and Fuller's Earth

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------------------|-----------|-----------|-----------|-----------|-----------|
| Pakistan | | | | | |
| Bentonite | 1 265 | 1 347 | 1 048 | 1 024 | 1 069 |
| Fuller's earth | 42 822 | 24 463 | 17 571 | 17 342 | 17 483 |
| Philippines | | | | | |
| Bentonite | 3 123 | 5 053 | 5 527 | 4 671 | 670 |
| Australia | | | | | |
| Bentonite | 6 626 | 10 988 | 16 905 | 29 211 | * 15 000 |
| Fuller's earth | * 50 | * 50 | * 50 | * 50 | * 50 |
| New Zealand | | | | | |
| Bentonite | 4 954 | 3 000 | 1 885 | 6 220 | 1 958 |
| World total Bentonite | 6 947 000 | 6 755 000 | 7 134 000 | 5 496 000 | 5 465 000 |
| World total Fuller's earth (b) | 2 106 000 | 2 165 000 | 2 315 000 | 2 395 000 | 2 630 000 |

Notes:

- 1 Bentonites consist of montmorillonite (one of the smectite group of clay minerals) and occur in two main varieties, calcium bentonite, the most commonly occurring, and sodium bentonite, industrially the more important. Calcium bentonite can be converted to sodium bentonite by a sodium-exchange process. In some countries, such as the United Kingdom, calcium bentonite is known as fuller's earth, a term which is also used to refer to attapulgite, a mineralogically distinct clay mineral but exhibiting similar properties
 - 2 In addition to the countries listed, Austria, Canada, China, Federal Republic of Germany, Soviet Union and Tanzania are also believed to produce bentonite and France, Iran and Japan may produce fuller's earth
- (a) BGS estimates of saleable production based on data from producing companies
- (b) Including attapulgite and sepiolite
- (c) Sold or used by producers
- (d) Years ended 31 March following that stated
- (e) A low grade form of bentonite, known as metabentonite
- (f) Mostly attapulgite
- (g) Smectite

Exports of Bentonite and Fuller's Earth

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|---------|---------|---------|---------|---------|
| United Kingdom | | | | | |
| Bentonite | 11 975 | 19 017 | 29 479 | 22 066 | 19 169 |
| Fuller's earth | 3 866 | 6 045 | 8 914 | 12 049 | 13 957 |
| Belgium-Luxembourg | | | | | |
| Bentonite | 11 574 | 10 831 | 6 247 | 4 804 | 6 192 |
| Fuller's earth | 1 326 | 508 | 58 | 232 | 953 |
| France | | | | | |
| Bentonite | 5 887 | 6 880 | 12 630 | 15 304 | 10 404 |
| Fuller's earth | 929 | 1 999 | 1 808 | 9 958 | 10 669 |
| Germany, Federal Republic of | | | | | |
| Bentonite | 26 250 | 29 755 | 23 956 | 21 122 | 31 488 |
| Fuller's earth | 3 411 | 5 220 | 4 485 | 3 865 | 6 361 |
| Greece | | | | | |
| Bentonite | 450 173 | 468 911 | 757 534 | 314 533 | 322 920 |
| Italy | | | | | |
| Bentonite | 31 273 | 18 936 | 36 297 | 21 261 | 40 798 |
| Netherlands | | | | | |
| Bentonite | 26 462 | 35 210 | 31 619 | 22 687 | 22 238 |
| Fuller's earth | 822 | 845 | 15 017 | 762 | 5 528 |
| Hungary | | | | | |
| Bentonite | 14 797 | 15 604 | 18 218 | 21 527 | 16 382 |
| Spain | | | | | |
| Bentonite | 39 876 | 32 581 | 29 689 | 30 554 | ... |
| Fuller's earth | ... | ... | 2 485 | 2 877 | ... |
| Turkey | | | | | |
| Bentonite | 4 995 | 5 360 | 8 833 | ... | ... |
| Yugoslavia | | | | | |
| Bentonite | 297 | 1 401 | 348 | 533 | ... |
| Morocco | | | | | |
| Fuller's earth (a) | 12 634 | 17 384 | 17 143 | 18 350 | ... |
| Senegal | | | | | |
| Fuller's earth (b) | 240 | 3 185 | 7 764 | 15 017 | 18 275 |
| South Africa | | | | | |
| Bentonite | 1 064 | 1 630 | 1 798 | 995 | 380 |
| USA | | | | | |
| Bentonite | 773 674 | 814 421 | 781 987 | 605 745 | 502 522 |
| Fuller's earth | 67 081 | 104 073 | 100 976 | 84 321 | 92 800 |
| Argentina | | | | | |
| Bentonite | 9 180 | 5 529 | 5 595 | ... | ... |
| Colombia | | | | | |
| Bentonite | 14 | 165 | 1 366 | 1 441 | 336 |

Exports of Bentonite and Fuller's Earth

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------------|---------|--------|---------|--------|--------|
| China | | | | | |
| Bentonite (c) | * 1 100 | * 800 | * 1 250 | * 700 | * 900 |
| India | | | | | |
| Bentonite | 19 775 | 12 894 | 14 153 | ... | ... |
| Fuller's earth | 2 613 | 762 | 925 | ... | ... |
| Indonesia | | | | | |
| Bentonite | 1 268 | 2 946 | 4 932 | 6 909 | ... |
| Kuwait | | | | | |
| Bentonite | 3 217 | 13 913 | 34 486 | ... | ... |
| Singapore | | | | | |
| Bentonite | 21 600 | 25 596 | 29 853 | 19 312 | 21 913 |
| of which: Re-exports | 3 939 | 7 299 | 12 252 | 14 228 | 19 710 |
| Fuller's earth | 5 066 | 9 335 | 9 266 | 11 239 | 11 813 |
| of which: Re-exports | 5 055 | 9 295 | 9 200 | 11 236 | 11 813 |
| Taiwan | | | | | |
| Bentonite | 80 | 49 | 65 | 104 | 36 |

Notes:

- 1 See note 1 to production table
- 2 The figures in this table refer to natural and sodium-exchanged bentonite, and fuller's earth, Standard International Trade Classification (Revision 2) 278.21. Activated bentonite and fuller's earth, Standard International Trade Classification (Revision 2) 598.92(b) are excluded. However, some countries are believed to include sodium-exchanged bentonite, often referred to as activated bentonite, under Standard International Trade Classification (Revision 2) 598.92(b), e.g. Italy

- (a) Smectite
 (b) Attapulgite
 (c) BGS estimates, based on known imports into certain countries

Imports of Bentonite and Fuller's Earth

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|------------|----------|----------|----------|----------|
| United Kingdom | | | | | |
| Bentonite | 74 861 | 76 462 | 55 153 | 46 328 | 45 751 |
| Fuller's earth | 522 | 2 803 | 1 809 | 1 381 | 3 976 |
| Belgium-Luxembourg | | | | | |
| Bentonite | 24 553 | 38 519 | 25 798 | 21 336 | 24 828 |
| Fuller's earth | 12 445 | 18 604 | 5 281 | 1 556 | 7 979 |
| Denmark | | | | | |
| Bentonite | 3 652 | 4 996 | 3 918 | 3 555 | 3 726 |
| Fuller's earth | 571 | 672 | 920 | 1 183 | 983 |
| France | | | | | |
| Bentonite | 92 464 | 76 063 | 89 112 | 99 081 | 89 298 |
| Fuller's earth | 2 028 | 1 899 | 1 425 | 4 510 | 1 909 |
| Germany, Federal Republic of | | | | | |
| Bentonite | 66 841 | 78 043 | 77 231 | 70 476 | 82 442 |
| Fuller's earth | 5 282 | 5 676 | 5 706 | 5 369 | 5 649 |
| Greece | | | | | |
| Bentonite | 153 | 693 | 350 | 1 250 | 616 |
| Italy | | | | | |
| Bentonite | 29 912 | 55 438 | 25 440 | 42 504 | 39 530 |
| Fuller's earth | 1 991 | 1 316 | 1 123 | 2 362 | 1 961 |
| Netherlands | | | | | |
| Bentonite | 62 633 | 64 756 | 60 382 | 84 738 | 70 786 |
| Fuller's earth | 2 265 | 4 118 | 2 794 | 2 762 | 3 144 |
| Austria | | | | | |
| Bentonite | 594 | 888 | 954 | 839 | 1 733 |
| German Democratic Republic | | | | | |
| Bentonite (c) | * 10 540 | * 11 000 | * 11 400 | * 10 400 | * 10 500 |
| Fuller's earth (c) | * 250 | * 300 | * 300 | * 500 | * 900 |
| Norway | | | | | |
| Bentonite | 39 185 | 46 914 | 48 315 | 36 955 | 31 374 |
| Fuller's earth | 112 | 244 | 416 | 341 | 278 |
| Poland | | | | | |
| Bentonite | * 4 050 | * 4 600 | * 5 000 | ... | ... |
| Portugal | | | | | |
| Bentonite | 22 477 | 23 447 | 25 672 | ... | ... |
| Spain | | | | | |
| Bentonite | 35 277 | 31 664 | 27 977 | 28 418 | ... |
| Sweden | | | | | |
| Bentonite | 7 292 | 4 462 | 3 339 | 5 696 | 2 903 |
| Algeria | | | | | |
| Bentonite (b) | 18 891 | 12 699 | ... | ... | ... |
| Ivory Coast | | | | | |
| Bentonite | 461 | 1 445 | 2 412 | ... | ... |
| Morocco | | | | | |
| Fuller's earth | 350 | 312 | 225 | 93 | ... |
| Senegal | | | | | |
| Bentonite | 300 | 0 | — | 1 505 | 134 |
| Tunisia | | | | | |
| Bentonite | (b) 21 450 | 3 025 | ... | 6 928 | ... |
| Zimbabwe | | | | | |
| Fuller's earth | 988 | 419 | 322 | 379 | ... |
| Canada | | | | | |
| Bentonite | 638 307 | 471 684 | 311 255 | 238 031 | 187 221 |
| Fuller's earth | 1 710 | 1 385 | 784 | 1 081 | 536 |
| Mexico | | | | | |
| Bentonite | 9 736 | 6 675 | 9 890 | 5 459 | ... |
| USA | | | | | |
| Bentonite | 74 | 140 | 72 | 140 | 693 |
| Fuller's earth | 168 | 270 | 196 | 38 | ... |
| Brazil | | | | | |
| Bentonite | 21 594 | 13 174 | 13 691 | 8 057 | 10 279 |
| Colombia | | | | | |
| Bentonite | 2 322 | 4 666 | 6 608 | 10 138 | 2 325 |
| Peru | | | | | |
| Bentonite | 1 884 | 161 | 910 | 774 | 762 |
| Uruguay | | | | | |
| Bentonite | 323 | 132 | 209 | 99 | 164 |

Imports of Bentonite and Fuller's Earth

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------|--------|--------|--------|--------|--------|
| Venezuela | | | | | |
| Bentonite | 22 433 | ... | ... | 31 804 | ... |
| India | | | | | |
| Bentonite | 45 | 455 | 45 | ... | ... |
| Fuller's earth | 381 | 144 | 67 | ... | ... |
| Indonesia | | | | | |
| Bentonite | 9 164 | 6 137 | 19 529 | 30 679 | ... |
| Korea, Republic of | | | | | |
| Bentonite | 3 075 | 2 017 | 1 651 | 1 549 | 2 860 |
| Kuwait | | | | | |
| Bentonite | 1 731 | 58 681 | 39 722 | ... | ... |
| Malaysia | | | | | |
| Bentonite | 1 487 | 3 758 | 5 466 | 4 385 | ... |
| Fuller's earth | 19 106 | 26 854 | 27 227 | 25 734 | ... |
| Pakistan (a) | | | | | |
| Fuller's earth | 306 | 60 | 199 | 719 | 901 |
| Philippines | 10 257 | 7 147 | 15 211 | 8 455 | 4 382 |
| Singapore | | | | | |
| Bentonite | 46 377 | 46 778 | 68 208 | 45 614 | 51 043 |
| Fuller's earth | 3 187 | 4 856 | 6 280 | 8 878 | 11 640 |
| Taiwan | | | | | |
| Bentonite | 6 895 | 6 435 | 7 237 | 6 174 | 9 396 |
| Thailand | | | | | |
| Bentonite | 2 141 | 848 | 2 563 | 1 417 | 2 014 |
| Australia | | | | | |
| Bentonite | 57 241 | 55 917 | 43 034 | 32 570 | ... |

Notes:

- 1 See note 1 to production table
- 2 The figures in this table refer to natural and sodium-exchanged bentonite, and fuller's earth, Standard International Trade Classification (Revision 2) 278.21. Activated bentonite and fuller's earth, Standard International Trade Classification (Revision 2) 598.92(b) are excluded. However, some countries are believed to include sodium-exchanged bentonite, often referred to as activated bentonite, under Standard International Trade Classification (Revision 2) 598.92(b), e.g. Italy

(a) Years ended 30 June of that stated

(b) Including crude kaolin

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

Mine Production of Bismuth

tonnes (metal content)

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------|---------|---------|-------|-------|---------|
| France | 95 | 67 | 64 | 78 | 97 |
| Italy | 19 | 43 | 15 | 28 | 22 |
| Romania | * 80 | * 80 | * 80 | * 80 | * 80 |
| Soviet Union | * 73 | * 72 | * 75 | * 78 | * 80 |
| Yugoslavia | 23 | 83 | 102 | 49 | 45 |
| Canada (a) | 137 | 149 | 168 | 189 | 202 |
| Mexico | 754 | 770 | 656 | 606 | 545 |
| USA | * 400 | * 400 | * 400 | * 400 | * 400 |
| Bolivia | 10 | 11 | 11 | 5 | 5 |
| Peru (a) | 526 | 491 | 638 | 604 | 612 |
| China | * 260 | * 260 | * 260 | * 260 | * 260 |
| Japan | 458 | 338 | 478 | 486 | * 570 |
| Korea, Republic of | 87 | 123 | 100 | 95 | 100 |
| Australia | * 1 000 | * 1 200 | 1 170 | 1 540 | * 1 500 |
| World total | 3 900 | 4 100 | 4 200 | 4 500 | 4 500 |

Notes:

- 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. 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.
- 2 In addition to the countries listed, Belgium, Brazil, Bulgaria, German Democratic Republic and Namibia are also believed to produce bismuth.

(a) Includes Bi content of bullion and concentrates exported

Exports of Bismuth

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|------|------|------|------|------|
| United Kingdom | | | | | |
| Compounds | 16 | 16 | 16 | ... | ... |
| Metal | 255 | 308 | 311 | 319 | 353 |
| France | | | | | |
| Compounds | 102 | 91 | 80 | 49 | 50 |
| Metal | 49 | 11 | 8 | 3 | 13 |
| Germany, Federal Republic of | | | | | |
| Compounds | 63 | 122 | 67 | 93 | 97 |
| Metal | 407 | 316 | 328 | 251 | 82 |
| Italy | | | | | |
| Compounds | 696 | 1 | 1 | 1 | ... |
| Metal | 6 | 5 | 12 | 18 | 6 |
| Netherlands | | | | | |
| Compounds | 37 | 13 | 14 | 7 | 1 |
| Metal | 27 | 31 | 33 | 55 | 74 |
| Mexico | | | | | |
| Metal | 240 | 719 | 669 | 627 | ... |
| USA | | | | | |
| Metal | 198 | 60 | 38 | 24 | 139 |
| Bolivia | | | | | |
| Metal | 46 | 547 | — | — | — |
| Peru | | | | | |
| Metal | 373 | 554 | ... | ... | ... |
| Japan | | | | | |
| Metal | 181 | 242 | 252 | 242 | 249 |
| Korea, Republic of | | | | | |
| Metal | 134 | 119 | 91 | 83 | 92 |

Note: The compounds recorded in this table are bismuth carbonate and/or bismuth nitrate

Bismuth

Imports of Bismuth

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-------|-------|-------|------|------|
| United Kingdom | | | | | |
| Metal | 335 | 389 | 292 | 351 | 337 |
| Belgium-Luxembourg | | | | | |
| Compounds | 18 | 18 | 22 | 2 | 4 |
| France | | | | | |
| Compounds | 44 | 45 | 2 | 2 | 25 |
| Metal | 322 | 362 | 288 | 197 | 274 |
| Germany, Federal Republic of | | | | | |
| Compounds | 22 | 15 | 11 | 5 | 10 |
| Metal | 211 | 268 | 185 | 331 | 418 |
| Italy | | | | | |
| Compounds | 21 | 39 | 24 | 24 | 58 |
| Metal | 55 | 63 | 40 | 39 | 40 |
| Netherlands | | | | | |
| Compounds | 152 | 365 | 112 | 6 | 3 |
| Metal | 54 | 62 | 36 | 18 | 25 |
| Spain | | | | | |
| Metal | 102 | 72 | 73 | 123 | ... |
| Turkey | | | | | |
| Compounds | 5 | 12 | 6 | ... | ... |
| Yugoslavia | | | | | |
| Compounds | 6 | 7 | 3 | 0 | ... |
| Metal | 5 | 4 | 0 | 0 | ... |
| Morocco | | | | | |
| Compounds | 5 | 6 | 3 | 5 | ... |
| USA | | | | | |
| Metal | 1 077 | 1 008 | 1 105 | 919 | 921 |
| Argentina | | | | | |
| Metal | 12 | 18 | 8 | ... | ... |
| Brazil | | | | | |
| Compounds (a) | 4 | 4 | 8 | 12 | 9 |
| Metal | 44 | 52 | 47 | 34 | 46 |
| India | | | | | |
| Metal | 66 | 23 | 24 | ... | ... |
| Australia | | | | | |
| Metal | 13 | 13 | 14 | 8 | ... |

Note: The compounds recorded in this table are bismuth carbonate and/or bismuth nitrate

(a) Also includes oxide and chloride

Production of Bromine

kilograms

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|--------------|--------------|--------------|--------------|---------------|
| United Kingdom | 29 162 000 | 26 388 000 | 27 605 000 | 29 770 000 | 25 766 000 |
| France | 18 997 000 | 16 480 000 | 17 261 000 | * 9 000 000 | * 10 000 000 |
| Germany, Federal Republic of | 4 020 000 | * 4 000 000 | 3 567 000 | 3 073 000 | 3 136 000 |
| Italy | * 600 000 | * 600 000 | * 580 000 | * 600 000 | * 500 000 |
| Soviet Union | * 66 220 000 | * 67 130 000 | * 68 000 000 | * 68 000 000 | * 68 000 000 |
| Spain | * 400 000 | * 400 000 | * 400 000 | * 360 000 | * 320 000 |
| USA (a) | 225 600 000 | 171 535 000 | 171 048 000 | 181 900 000 | * 168 000 000 |
| India | 313 000 | 261 000 | 1 011 000 | 494 000 | 544 000 |
| Israel | 45 813 000 | 44 059 000 | 44 020 000 | * 70 000 000 | * 70 000 000 |
| Japan | * 11 800 000 | * 12 000 000 | * 12 000 000 | * 12 000 000 | * 12 000 000 |
| World total | 402 900 000 | 342 900 000 | 345 500 000 | 375 200 000 | 358 300 000 |

(a) Elemental bromine sold as such or used in the preparation of bromine compounds by primary producers

Exports of Bromine

kilograms

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|--------------|--------------|--------------|--------------|--------------|
| United Kingdom | 1 705 486 | 1 784 207 | 1 350 481 | 2 150 846 | 1 917 710 |
| Belgium-Luxembourg | 411 900 | 1 923 300 | 76 200 | — | 2 100 |
| Germany, Federal Republic of | 13 200 | 10 600 | 10 300 | 10 500 | 12 600 |
| Italy | — | — | 106 | 25 000 | 9 800 |
| Netherlands | 871 000 | 845 000 | 804 000 | 1 152 000 | 1 035 000 |
| USA | 4 600 000 | 3 700 000 | * 4 000 000 | ... | 2 040 000 |
| Israel (a) | * 13 500 000 | * 11 700 000 | * 12 900 000 | * 15 100 000 | * 17 100 000 |

Note: In general, trade in bromine compounds is not separately distinguished from other halogen salts and has therefore not been included in this table

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

Imports of Bromine

kilograms

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|-----------|-----------|-----------|-----------|
| United Kingdom | 4 168 041 | 4 642 218 | 5 025 781 | 4 629 255 | 5 169 751 |
| Belgium-Luxembourg | 828 100 | 1 972 200 | 665 900 | 793 600 | 910 700 |
| Denmark | 90 200 | 97 400 | 86 100 | 77 200 | 52 000 |
| France | 2 542 000 | 2 817 000 | 2 348 000 | 4 209 000 | 4 479 000 |
| Germany, Federal Republic of | 3 007 600 | 2 982 100 | 2 908 400 | 3 361 500 | 4 307 400 |
| Italy | 3 008 434 | 2 701 120 | 1 276 393 | 2 484 700 | 1 273 400 |
| Netherlands | 4 401 000 | 3 766 000 | 3 192 000 | 3 296 000 | 4 053 000 |
| Hungary | 1 036 000 | 618 000 | 713 000 | 579 000 | 597 000 |
| Portugal | 1 400 | 600 | 700 | ... | ... |
| Spain | 205 000 | 256 000 | 275 000 | 290 000 | ... |
| Turkey | — | 473 | 147 | ... | ... |
| Yugoslavia | 10 001 | 9 397 | 3 000 | 3 000 | ... |
| Algeria | 166 | 6 101 | ... | ... | ... |
| Morocco | 6 | 57 | 93 | 22 | ... |
| South Africa | 54 700 | 75 900 | 94 500 | 55 000 | 15 900 |
| USA | 15 267 | 564 | 354 | 69 | ... |
| Argentina | 78 731 | 42 521 | 10 713 | ... | ... |
| Brazil | 31 611 | 24 518 | 39 676 | 22 576 | 11 670 |
| Venezuela | 14 716 | ... | ... | 2 920 | ... |
| India (a) | 411 430 | 429 294 | 346 905 | ... | ... |
| Korea, Republic of | 154 530 | 121 610 | 100 398 | 154 270 | 162 356 |
| Saudi Arabia | 13 235 | 16 812 | ... | — | — |
| Syria | 10 131 | 58 | — | — | ... |
| Taiwan | 18 | 153 | 127 | 151 | 44 968 |
| Thailand | 33 | 13 | 23 | 37 | 24 |

Note: In general, trade in bromine compounds is not separately distinguished from other halogen salts and has therefore not been included in this table

(a) Years ended 31 March following that stated

Production of Cadmium

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|---------|---------|---------|---------|---------|
| United Kingdom | 424 | 375 | 278 | 354 | 340 |
| Belgium | 1 440 | 1 527 | 1 176 | 1 001 | 1 264 |
| France | 689 | 792 | 664 | 803 | 540 |
| Germany, Federal Republic of | 1 266 | 1 194 | 1 192 | 1 030 | 1 094 |
| Italy | 526 | 568 | 482 | 475 | 386 |
| Netherlands | 416 | 455 | 518 | 497 | 513 |
| Austria | 34 | 36 | 55 | 48 | 46 |
| Bulgaria | * 210 | * 200 | * 200 | * 200 | * 200 |
| Finland | 590 | 580 | 621 | 566 | 616 |
| German Democratic Republic | * 15 | * 16 | * 16 | * 16 | * 15 |
| Norway | 115 | 130 | 117 | 103 | 117 |
| Poland | * 773 | * 698 | * 580 | * 500 | * 600 |
| Romania | * 90 | * 85 | * 80 | * 75 | * 60 |
| Soviet Union | * 3 000 | * 2 900 | * 2 800 | * 2 800 | * 2 750 |
| Spain | 222 | 309 | 303 | 286 | 278 |
| Turkey | 12 | 10 | * 10 | * 10 | * 10 |
| Yugoslavia | 289 | 201 | 208 | 174 | 48 |
| Algeria | 64 | 11 | * 30 | * 30 | * 30 |
| Namibia (a) | 81 | 70 | — | 110 | 51 |
| Zaire | 212 | 168 | 230 | 281 | 308 |
| Canada (b) | 1 455 | 1 303 | 1 293 | 1 162 | 1 296 |
| Mexico | 830 | 778 | 590 | 607 | 642 |
| USA (b) | 1 823 | 1 578 | 1 603 | 1 007 | 1 052 |
| Argentina | 36 | 18 | — | 21 | 19 |
| Brazil | 21 | 41 | 28 | 73 | 189 |
| Peru | 190 | 174 | 312 | 425 | 443 |
| China | * 250 | * 250 | * 270 | * 300 | * 350 |
| India | 166 | 89 | 113 | 131 | 133 |
| Japan | 2 598 | 2 173 | 1 977 | 2 021 | 2 215 |
| Korea, Dem. P.R. of | * 150 | * 140 | * 130 | * 100 | * 100 |
| Korea, Republic of | 50 | 365 | 300 | 320 | 460 |
| Australia | 804 | 1 012 | 1 031 | 1 010 | 1 104 |
| World total | 18 800 | 18 200 | 17 200 | 16 500 | 17 300 |

(a) Thought to be a by-product of the smelting of zinc ores in South Africa

(b) Includes cadmium sponge and/or secondary metal

Exports of Cadmium

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-------|-------|-------|-------|-------|
| United Kingdom | | | | | |
| Metal | 73 | 128 | 37 | 144 | 194 |
| Sulphide | 1 | 21 | 8 | 0 | — |
| Belgium-Luxembourg | | | | | |
| Metal | 810 | 870 | 576 | 547 | 556 |
| Sulphide | 29 | 22 | 26 | 43 | 44 |
| France | | | | | |
| Metal | 478 | 265 | 251 | 361 | 344 |
| Germany, Federal Republic of | | | | | |
| Metal (a) | 494 | 300 | 604 | 617 | 633 |
| Oxide | 22 | 28 | 38 | 14 | 20 |
| Sulphide | 28 | ... | ... | ... | ... |
| Italy | 259 | 322 | 258 | 79 | 504 |
| Netherlands | 528 | 404 | 505 | 646 | 782 |
| Austria | 25 | 31 | 32 | 53 | 51 |
| Bulgaria (b) | * 65 | * 50 | * 35 | * 40 | * 30 |
| Finland | 707 | 565 | 554 | 658 | 536 |
| Norway | 156 | 114 | 94 | 139 | 106 |
| Soviet Union | * 500 | * 500 | * 450 | * 450 | * 450 |
| Spain | 194 | 298 | 204 | 209 | ... |
| Yugoslavia | 133 | 105 | 35 | 41 | ... |
| Zaire | 74 | 185 | 200 | 310 | ... |
| Canada | 1 293 | 1 096 | 1 453 | 771 | 1 365 |
| Mexico | 632 | 559 | 335 | 354 | ... |
| USA | 212 | 244 | 240 | 12 | 173 |
| Peru | 210 | 179 | ... | ... | ... |
| China (b) | ... | * 300 | * 400 | * 400 | * 400 |
| Japan | 151 | 229 | 938 | 1 145 | 910 |
| Korea, Dem. P.R. of (b) | * 80 | * 60 | * 50 | * 30 | ... |
| Korea, Republic of | 566 | 314 | 360 | 152 | 397 |
| Australia | 625 | 794 | 993 | 604 | ... |

(a) Including rhenium

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

Imports of Cadmium

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-------|-------|-------|-------|-------|
| United Kingdom | 1 432 | 793 | 982 | 872 | ... |
| Belgium-Luxembourg | 1 166 | 1 029 | 1 131 | 1 199 | 1 663 |
| Denmark | 9 | 4 | 5 | 3 | 2 |
| France | | | | | |
| Metal | 735 | 659 | 598 | 618 | 744 |
| Sulphide | 68 | 48 | 44 | 54 | 51 |
| Germany, Federal Republic of | | | | | |
| Metal | 1 165 | 1 145 | 673 | 783 | 829 |
| Oxide | 539 | 550 | 417 | 487 | 635 |
| Italy | | | | | |
| Metal | 88 | 68 | 86 | 37 | 135 |
| Sulphide | 15 | 28 | 10 | 12 | 4 |
| Netherlands | | | | | |
| Metal | 85 | 68 | 118 | 155 | 286 |
| Sulphide | 25 | 15 | 12 | 4 | 27 |
| Austria | 3 | 5 | 3 | 3 | 3 |
| Czechoslovakia | 251 | 206 | 228 | 220 | 201 |
| Sweden | 168 | 268 | 186 | 224 | 218 |
| Soviet Union | * 265 | * 150 | * 150 | * 150 | ... |
| Turkey | — | 3 | 3 | ... | ... |
| USA | 2 572 | 2 617 | 3 090 | 2 305 | 2 191 |
| Brazil | | | | | |
| Metal | 248 | 210 | 156 | 107 | 157 |
| Oxide | 108 | 109 | 88 | 92 | 94 |
| India | 61 | 66 | 23 | ... | ... |

Production of Chromium Ores and Concentrates

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------|-------------|-------------|-------------|-------------|-------------|
| Greece (b) | 44 767 | 33 614 | 20 856 | 23 238 | 20 517 |
| Albania | * 750 000 | * 760 000 | * 850 000 | * 875 000 | * 900 000 |
| Finland (b) | 177 300 | 186 400 | 202 400 | 180 251 | 160 475 |
| Soviet Union | * 2 400 000 | * 2 450 000 | * 2 400 000 | * 2 450 000 | * 2 450 000 |
| Turkey (b) | 418 978 | 383 141 | 401 112 | 450 956 | * 400 000 |
| Yugoslavia | 168 | — | — | — | — |
| Madagascar (b) | 128 347 | 146 529 | 99 689 | 44 223 | 42 920 |
| South Africa | 3 296 962 | 3 414 410 | 2 869 502 | 2 163 973 | 2 231 551 |
| Sudan | 28 176 | 25 609 | 18 615 | 10 018 | 18 557 |
| Zimbabwe | 541 742 | 552 475 | 536 052 | 432 410 | 420 347 |
| Cuba | 28 200 | 28 457 | 21 000 | 27 300 | 33 600 |
| Brazil (a) | 340 385 | 313 067 | 236 390 | 275 504 | 155 022 |
| Cyprus | 15 743 | 16 612 | 10 548 | 2 818 | — |
| India | 309 841 | 321 318 | 343 601 | 356 604 | 378 313 |
| Iran | * 136 000 | * 80 000 | * 30 000 | * 40 000 | * 50 000 |
| Japan | 11 905 | 13 610 | 10 959 | 11 178 | 8 165 |
| Pakistan | 2 467 | 3 115 | 1 427 | 4 456 | 4 992 |
| Philippines | 556 110 | 496 060 | 439 256 | 321 134 | * 331 000 |
| Vietnam | * 13 500 | * 15 500 | * 15 500 | * 16 300 | * 18 100 |
| New Caledonia | 12 407 | 2 188 | — | 49 826 | 91 380 |
| World total | 9 200 000 | 9 200 000 | 8 500 000 | 7 700 000 | 7 700 000 |

Note: In addition to the countries listed, Bulgaria, China and Democratic P.R. of Korea are also believed to produce chromite

(a) Includes beneficiated and direct shipping ore

(b) Concentrates

Exports of Chromium

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|-----------|------------|------------|-----------|
| United Kingdom | | | | | |
| Ores & concentrates | 222 | 891 | 1 192 | 980 | 112 |
| Metal | 2 121 | 2 569 | 2 275 | 1 945 | 3 038 |
| Belgium-Luxembourg | | | | | |
| Ores & concentrates | 19 | 27 | — | — | 8 |
| Metal | 504 | 464 | 398 | 280 | 65 |
| France | | | | | |
| Ores & concentrates | 1 379 | 1 616 | 2 033 | 1 554 | 1 316 |
| Metal | 720 | 699 | 774 | 590 | 740 |
| Germany, Federal Republic of | | | | | |
| Ores & concentrates | 8 807 | 5 412 | 3 459 | 12 959 | 8 694 |
| Metal | 225 | 275 | 164 | 101 | 106 |
| Greece | | | | | |
| Ores & concentrates | 29 140 | 32 318 | 15 670 | 11 945 | 12 030 |
| Italy | | | | | |
| Ores & concentrates | 2 673 | 2 034 | 3 046 | 436 | 680 |
| Metal | 19 | 9 | 5 | 2 | 30 |
| Netherlands | | | | | |
| Ores & concentrates | 14 417 | 18 726 | 16 577 | 21 130 | 18 603 |
| Metal | 2 | 3 | 31 | 5 | 58 |
| Albania | | | | | |
| Ores & concentrates (b) | * 872 000 | * 534 000 | * 485 000 | * 542 000 | * 725 000 |
| Austria | | | | | |
| Ores & concentrates | 1 028 | 291 | 109 | 49 | 622 |
| Finland | | | | | |
| Ores & concentrates | 308 847 | 206 547 | 250 898 | 199 806 | 133 952 |
| Soviet Union | | | | | |
| Ores & concentrates | 775 000 | 567 000 | 567 000 | 561 000 | 496 000 |
| Turkey | | | | | |
| Ores & concentrates | 322 046 | 334 555 | 308 280 | 303 822 | 362 668 |
| Yugoslavia | | | | | |
| Ores & concentrates | 10 475 | 11 537 | 12 483 | 12 477 | 12 454 |
| Madagascar | | | | | |
| Ores & concentrates | 109 147 | 134 528 | 80 830 | 63 723 | ... |
| South Africa | | | | | |
| Ores & concentrates | 1 269 487 | 1 237 203 | 1 171 608 | 865 560 | 803 244 |
| Zimbabwe | | | | | |
| Ores & concentrates | 11 463 | 14 828 | 4 279 | — | ... |
| Cuba | | | | | |
| Ores & concentrates | 40 753 | 34 768 | ... | ... | ... |
| USA | | | | | |
| Ores & concentrates | 41 290 | 45 003 | 124 502 | 60 993 | 14 145 |
| of which: Re-exports | 25 802 | 39 640 | 60 389 | 53 586 | 4 137 |
| Metal | 164 | 324 | 365 | 220 | 243 |
| Brazil | | | | | |
| Ores & concentrates | 45 215 | — | — | 240 | — |
| China | | | | | |
| Ores & concentrates (b) | ... | * 2 100 | * 7 900 | * 1 150 | * 3 300 |
| Metal (b) | ... | * 150 | * 100 | * 250 | * 500 |
| Cyprus | | | | | |
| Ores & concentrates | 10 698 | 7 500 | 10 689 | 11 868 | 11 071 |
| India | | | | | |
| Ores & concentrates | 236 017 | 129 981 | 105 075 | ... | ... |
| Iran (a) | | | | | |
| Ores & concentrates | 12 500 | 10 000 | (b)* 5 000 | (b)* 1 200 | (b)* 600 |
| Japan | | | | | |
| Ores & concentrates | 1 786 | 5 678 | 607 | 744 | 852 |
| Philippines | | | | | |
| Ores & concentrates | 496 770 | 484 109 | 397 381 | 279 017 | 146 826 |
| New Caledonia | | | | | |
| Ores & concentrates | 11 563 | 7 292 | — | 18 750 | 80 570 |

Note: Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys

(a) Years ended 20 March following that stated

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

Chromium

Imports of Chromium

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|----------|----------|----------|----------|----------|
| United Kingdom | | | | | |
| Ores & concentrates | 92 041 | 92 573 | 76 495 | 64 547 | 100 475 |
| Metal | (a)* 300 | (a)* 300 | (a)* 200 | (a)* 200 | 162 |
| Belgium-Luxembourg | | | | | |
| Ores & concentrates | 1 903 | 1 671 | 1 832 | 2 108 | 3 848 |
| Metal | 543 | 275 | 219 | 298 | 284 |
| France | | | | | |
| Ores & concentrates | 261 701 | 278 773 | 146 435 | 111 459 | 54 509 |
| Metal | 246 | 394 | 300 | 90 | 276 |
| Germany, Federal Republic of | | | | | |
| Ores & concentrates | 546 786 | 328 847 | 268 237 | 244 279 | 247 187 |
| Metal | 883 | 862 | 569 | 601 | 921 |
| Greece | | | | | |
| Ores & concentrates | 2 449 | 6 931 | 3 917 | 20 | 18 718 |
| Irish Republic | | | | | |
| Ores & concentrates | 6 222 | 1 | 5 623 | — | 3 275 |
| Italy | | | | | |
| Ores & concentrates | 232 445 | 171 045 | 91 806 | 159 431 | 192 212 |
| Metal | 206 | 186 | 175 | 126 | 122 |
| Netherlands | | | | | |
| Ores & concentrates | 6 866 | 27 176 | 18 189 | 31 355 | 20 554 |
| Metal | 59 | 126 | 46 | 64 | 132 |
| Austria | | | | | |
| Ores & concentrates | 57 077 | 77 407 | 42 334 | 49 906 | 40 390 |
| Czechoslovakia | | | | | |
| Ores & concentrates | 168 000 | 182 000 | 180 000 | 204 000 | 185 000 |
| German Democratic Republic | | | | | |
| Ores & concentrates (b) | 44 600 | 40 100 | 49 100 | 46 800 | 51 900 |
| Hungary | | | | | |
| Ores & concentrates (c) | 17 000 | 15 000 | 15 000 | 14 000 | 17 000 |
| Norway | | | | | |
| Ores & concentrates | 36 357 | 293 | 27 203 | 23 311 | 8 800 |
| Poland | | | | | |
| Ores & concentrates | 211 248 | 197 975 | 181 902 | 203 835 | 169 249 |
| Portugal | | | | | |
| Ores & concentrates | 733 | 457 | 392 | 577 | ... |
| Romania | | | | | |
| Ores & concentrates (a) | * 2 900 | * 1 300 | * 16 400 | * 43 200 | * 62 400 |
| Spain | | | | | |
| Ores & concentrates | 117 977 | 84 558 | 70 330 | 72 233 | 51 198 |
| Sweden | | | | | |
| Ores & concentrates | 673 537 | 332 525 | 406 697 | 305 050 | 341 947 |
| Metal | 215 | 144 | 193 | 155 | 187 |
| Yugoslavia | | | | | |
| Ores & concentrates | 297 919 | 278 799 | 325 185 | 189 699 | 202 819 |
| South Africa | | | | | |
| Ores & concentrates | 845 | 7 430 | 8 147 | 121 | 1 |
| Canada | | | | | |
| Ores & concentrates (b) | 40 007 | 41 468 | 47 626 | 8 053 | 9 759 |
| Mexico | | | | | |
| Ores & concentrates | 55 086 | 36 906 | 47 612 | 43 245 | ... |
| USA | | | | | |
| Ores & concentrates | 906 834 | 892 318 | 814 949 | 459 754 | 172 400 |
| Metal | 3 247 | 3 719 | 3 221 | 1 725 | 2 707 |
| Argentina | | | | | |
| Ores & concentrates | 6 217 | 9 734 | 11 967 | ... | ... |
| Brazil | | | | | |
| Ores & concentrates | 24 575 | 31 437 | 21 966 | 4 381 | 5 897 |
| Peru | | | | | |
| Ores & concentrates | 3 375 | 3 657 | 3 382 | 5 540 | 129 |
| Venezuela | | | | | |
| Ores & concentrates | 5 255 | 4 951 | 1 954 | 11 000 | ... |

Imports of Chromium

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-------------------------|-------------|-------------|----------|----------|----------|
| China | | | | | |
| Ores & concentrates | (a)* 64 700 | (a)* 50 000 | 80 079 | 224 841 | 307 479 |
| Japan | | | | | |
| Ores & concentrates | 962 251 | 950 039 | 743 937 | 694 521 | 644 895 |
| Korea, Dem P.R. of | | | | | |
| Ores & concentrates (a) | * 7 000 | * 19 000 | * 14 000 | * 16 000 | * 14 000 |
| Korea, Republic of | | | | | |
| Ores & concentrates | 9 344 | 5 264 | 3 501 | 4 846 | 3 853 |
| Taiwan | | | | | |
| Ores & concentrates | 6 653 | 6 363 | 1 270 | 1 856 | 1 751 |
| Australia | | | | | |
| Ores & concentrates | 11 884 | 15 476 | 7 997 | 3 911 | ... |

Note: 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) Exports from Soviet Union

COAL

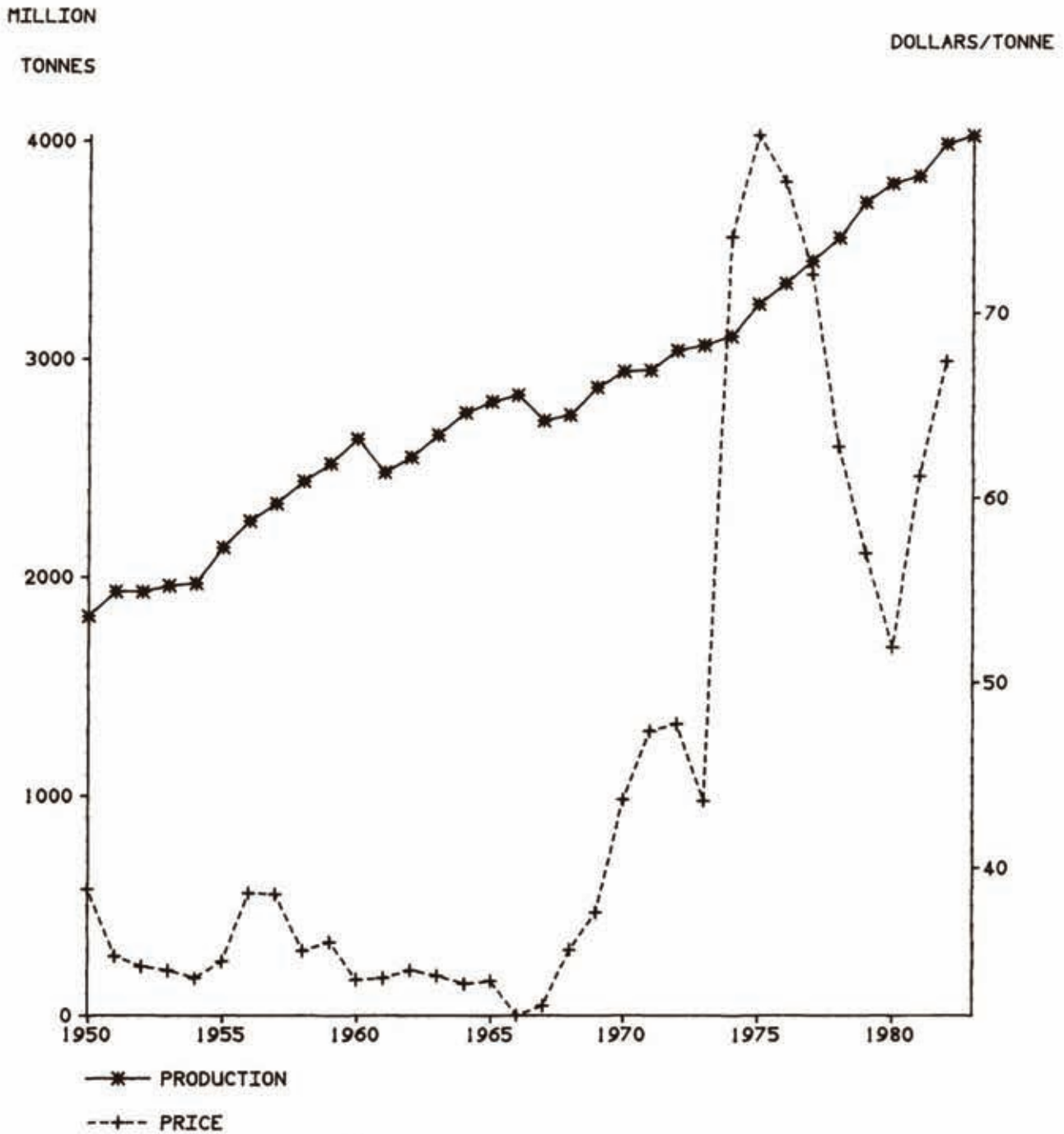


Figure 2 World production of coal from 1950 to 1983 compared with the yearly average price of bituminous coal f.o.b. US ports expressed in constant 1982 US dollars. Constant commodity price taken from 'Commodity Trade and Price Trends' published by the Johns Hopkins University Press for the World Bank (1983-84 edition).

Production of Coal

Coal

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-------------|-------------|-------------|-------------|--------------|
| United Kingdom | | | | | |
| Mined— | | | | | |
| Anthracite | 1 693 000 | 1 607 000 | 1 566 000 | 1 406 000 | 1 249 000 |
| Bituminous | 106 082 000 | 110 823 000 | 108 907 000 | 104 755 000 | 100 493 000 |
| Opencast— | | | | | |
| Anthracite | 1 337 000 | 1 295 000 | 1 343 000 | 1 478 000 | 767 000 |
| Bituminous | 11 525 000 | 14 484 000 | 13 485 000 | 13 788 000 | 13 939 000 |
| Belgium | | | | | |
| Anthracite | 510 530 | 375 460 | 321 000 | 262 000 | 187 500 |
| Bituminous | 5 613 973 | 5 948 574 | 5 815 446 | 6 276 874 | 5 909 928 |
| France | | | | | |
| Anthracite & bituminous | 18 611 000 | 18 135 000 | 18 588 000 | 16 895 000 | 16 995 000 |
| Lignite | 2 450 000 | 2 585 000 | 2 945 000 | 3 065 000 | 2 612 000 |
| Germany, Federal Republic of | | | | | |
| Anthracite & bituminous | 86 318 439 | 87 145 911 | 88 459 000 | 89 014 000 | 82 202 000 |
| Brown coal | 130 579 000 | 129 833 000 | 130 620 000 | 127 307 000 | 124 281 000 |
| Greece | | | | | |
| Lignite | 23 647 398 | 23 505 701 | 27 214 469 | 27 188 514 | 30 580 382 |
| Irish Republic | | | | | |
| Anthracite & semi-bituminous | 62 000 | 63 000 | 70 000 | 62 000 | 74 800 |
| Italy | | | | | |
| Lignite | 2 122 926 | 1 932 571 | 1 957 958 | 1 912 675 | 1 736 640 |
| Albania | | | | | |
| Brown coal & lignite | * 1 430 000 | * 1 540 000 | * 1 600 000 | * 1 650 000 | * 1 650 000 |
| Austria | | | | | |
| Brown coal & lignite | 2 740 742 | 2 864 967 | 3 061 262 | 3 297 488 | 3 041 260 |
| Bulgaria | | | | | |
| Anthracite & bituminous | 274 000 | 267 000 | 245 661 | 241 000 | 243 000 |
| Brown coal & lignite | 27 955 000 | 29 946 000 | 28 995 000 | 31 974 000 | 32 147 000 |
| Czechoslovakia | | | | | |
| Bituminous | 28 114 000 | 28 201 000 | 27 513 000 | 27 463 000 | 26 915 000 |
| Brown coal | 93 731 000 | 92 529 000 | 93 096 000 | 95 504 000 | 98 878 000 |
| Lignite | 3 201 000 | 3 197 000 | 3 269 000 | 3 440 000 | 3 538 000 |
| German Democratic Republic | | | | | |
| Brown coal | 256 063 000 | 258 097 000 | 266 734 000 | 276 038 000 | 277 968 000 |
| Hungary | | | | | |
| Bituminous | 3 002 567 | 3 065 389 | 3 065 763 | 3 038 720 | 2 826 780 |
| Brown coal | 14 181 758 | 14 156 496 | 14 463 295 | 14 753 868 | 14 406 136 |
| Lignite | 8 474 713 | 8 478 981 | 8 413 123 | 8 286 113 | 7 980 067 |
| Norway | | | | | |
| Spitzbergen (d)— | | | | | |
| Bituminous | 280 280 | 288 412 | 409 729 | 440 000 | 477 795 |
| Poland | | | | | |
| Bituminous | 201 000 084 | 193 121 000 | 163 022 000 | 189 314 000 | 191 092 000 |
| Brown coal | 38 083 000 | 36 866 000 | 35 616 000 | 37 649 000 | 42 532 000 |
| Portugal | | | | | |
| Anthracite | 179 118 | 177 451 | 183 760 | 178 536 | 185 228 |
| Romania | | | | | |
| Anthracite & bituminous | 9 299 000 | 9 686 000 | 9 826 000 | 9 658 000 | 7 772 000 |
| Lignite | 24 956 000 | 27 448 000 | 29 014 000 | 31 061 000 |) 36 728 000 |
| Brown coal | 633 000 | 680 000 | 724 000 | 714 000 | |
| Soviet Union | | | | | |
| Anthracite & bituminous | 533 960 000 | 552 954 000 | 544 213 000 | 555 400 000 | 557 800 000 |
| Lignite | 164 704 000 | 163 417 000 | 159 831 000 | 162 700 000 | 158 300 000 |
| Spain | | | | | |
| Anthracite | 3 795 709 | 4 074 042 | 4 876 268 | 5 195 052 |) 15 753 000 |
| Bituminous | 8 048 732 | 9 069 931 | 9 938 594 | 10 388 664 | |
| Lignite | 10 696 392 | 15 390 196 | 20 886 388 | 23 494 404 | 23 933 000 |

Production of Coal

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------------|-------------|-------------|-------------|-------------|---------------|
| Turkey | | | | | |
| Bituminous | 7 199 786 | 6 598 755 | 7 284 834 | 7 222 871 | 6 871 993 |
| Lignite | 15 602 578 | 16 997 916 | 18 950 943 | 20 542 357 | 23 765 268 |
| Yugoslavia | | | | | |
| Bituminous | 434 000 | 388 000 | 384 000 | 389 000 | 392 000 |
| Lignite | 32 329 000 | 36 949 000 | 40 958 000 | 43 454 000 | 47 697 000 |
| Brown coal | 9 351 000 | 9 665 000 | 10 581 000 | 10 744 000 | 11 303 000 |
| Botswana | 355 115 | 371 395 | 379 924 | 382 052 | 395 087 |
| Morocco | | | | | |
| Anthracite | 710 000 | 680 000 | 703 000 | 735 000 | 751 000 |
| Mozambique | | | | | |
| Bituminous | 320 000 | 408 000 | * 450 000 | * 500 000 | ... |
| Nigeria | | | | | |
| Sub-bituminous | 170 367 | 194 191 | 170 169 | 56 022 | 53 574 |
| South Africa | | | | | |
| Anthracite | 3 308 727 | 3 895 455 | 4 017 426 | 3 312 027 | 2 371 264 |
| Bituminous | 100 459 139 | 111 224 519 | 126 403 276 | 140 207 872 | 143 466 658 |
| Swaziland | | | | | |
| Bituminous | 168 409 | 175 984 | 157 701 | 115 043 | 101 652 |
| Tanzania | | | | | |
| Bituminous | 5 572 | 4 250 | 3 000 | 10 800 | * 10 000 |
| Zaire | | | | | |
| Bituminous | 109 190 | 139 506 | 129 842 | 122 852 | 98 430 |
| Zambia | | | | | |
| Bituminous | 598 507 | 568 799 | 527 340 | 603 934 | 452 867 |
| Zimbabwe | | | | | |
| Bituminous | 3 186 433 | 3 133 036 | 2 866 323 | 2 772 980 | 3 436 515 |
| Canada | | | | | |
| Bituminous | 18 432 000 | 20 151 000 | 21 739 000 | 22 296 000 | 22 586 000 |
| Sub-bituminous | 9 569 000 | 10 542 000 | 11 551 000 | 13 021 000 | 14 462 000 |
| Lignite | 5 012 000 | 5 971 000 | 6 798 000 | 7 494 000 | 7 760 000 |
| Mexico | | | | | |
| Bituminous | 7 356 696 | 7 009 716 | 8 086 474 | 7 636 916 | 8 982 795 |
| USA | | | | | |
| Anthracite | 4 400 000 | 5 500 000 | 4 900 000 | 3 500 000 | 3 800 000 |
| Bituminous & lignite | 704 200 000 | 747 200 000 | 742 400 000 | 752 200 000 | * 710 000 000 |
| Argentina | | | | | |
| Lignite | 726 939 | 389 395 | 497 546 | 514 891 | 486 704 |
| Brazil | | | | | |
| Bituminous & lignite (e) | 7 603 603 | 5 340 909 | 6 085 839 | 6 472 053 | 6 935 478 |
| Chile | | | | | |
| Bituminous | 915 002 | 995 561 | 1 147 122 | 975 070 | 960 926 |
| Colombia | | | | | |
| Bituminous | 4 885 000 | 4 947 000 | 5 030 000 | 5 550 000 | 6 000 000 |
| Peru | | | | | |
| Anthracite | 47 429 | 89 471 | 157 000 | * 120 000 | ... |
| Venezuela | | | | | |
| Bituminous | 55 304 | 43 979 | 45 736 | 46 506 | 39 174 |
| Afghanistan (c) | | | | | |
| Bituminous | 131 900 | 118 700 | 124 970 | 145 000 | ... |
| Burma (b) | 13 818 | 11 213 | 18 327 | 29 119 | * 34 500 |
| China | 635 000 000 | 620 000 000 | 622 000 000 | 666 000 000 | 715 000 000 |
| India | | | | | |
| Bituminous | 103 845 000 | 109 152 000 | 123 104 000 | 128 464 000 | 136 261 000 |
| Lignite | 3 264 000 | 4 549 000 | 5 966 000 | 6 673 000 | 7 342 000 |
| Indonesia | | | | | |
| Bituminous | 278 589 | 303 990 | 350 350 | 480 987 | 485 669 |
| Iran (c) | | | | | |
| Bituminous | * 900 000 | * 700 000 | * 600 000 | * 700 000 | ... |
| Japan | | | | | |
| Anthracite & bituminous | 17 640 804 | 18 026 455 | 17 687 375 | 17 605 703 | 17 062 000 |
| Lignite | 30 492 | 26 193 | 11 549 | 11 860 | 11 970 |

Production of Coal

Coal

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------|---------------|---------------|---------------|---------------|---------------|
| Korea, Dem P.R. of | | | | | |
| Anthracite | * 35 000 000 | * 36 000 000 | * 36 000 000 | * 36 500 000 | * 37 100 000 |
| Lignite | * 9 500 000 | * 10 000 000 | * 10 000 000 | * 10 000 000 | * 10 500 000 |
| Korea, Republic of | | | | | |
| Anthracite | 18 208 000 | 18 624 000 | 19 865 000 | 20 115 600 | 19 860 800 |
| Mongolia | | | | | |
| Anthracite | 380 000 | 392 000 | 346 000 | * 400 000 | ... |
| Lignite | 3 735 000 | 3 985 000 | 3 957 000 | 4 100 000 | ... |
| Pakistan (a) | 1 346 000 | 1 694 447 | 1 562 008 | 1 809 626 | 1 747 000 |
| Philippines | | | | | |
| Bituminous | 263 132 | 325 008 | 318 170 | 556 755 | 1 019 594 |
| Taiwan | | | | | |
| Bituminous | 2 719 751 | 2 573 530 | 2 445 782 | 2 383 579 | 2 236 065 |
| Thailand | | | | | |
| Lignite | 1 356 467 | 1 426 566 | 1 686 044 | 1 963 764 | 1 866 083 |
| Vietnam | | | | | |
| Anthracite | 5 300 000 | 5 300 000 | 5 900 000 | 5 700 000 | ... |
| Australia | | | | | |
| Bituminous | 76 794 000 | 77 428 000 | 93 376 000 | 99 302 000 | 110 000 000 |
| Sub-bituminous | 6 365 000 | 7 196 000 | 7 190 000 | 8 009 000 | ... |
| Brown coal | 32 597 000 | 32 894 000 | 32 964 000 | 37 821 000 | 35 000 000 |
| New Zealand | | | | | |
| Bituminous | 382 500 | 486 500 | 474 600 | 427 800 | 496 400 |
| Sub-bituminous | 1 354 800 | 1 466 700 | 1 509 700 | 1 594 700 | 1 752 200 |
| Lignite | 209 000 | 208 000 | 211 900 | 221 900 | 235 000 |
| World total | 3 719 000 000 | 3 806 000 000 | 3 840 000 000 | 3 987 000 000 | 4 026 000 000 |

Note: 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) Includes beneficiated and directly shipped material

Exports of Coal

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|--------------|--------------|--------------|--------------|--------------|
| United Kingdom | | | | | |
| Anthracite | 846 216 | 1 014 614 | 893 170 | 551 945 | 517 120 |
| Other | 1 493 160 | 3 026 143 | 8 619 348 | 6 835 137 | 5 822 496 |
| Briquettes | 174 391 | 118 906 | 104 020 | 126 338 | 124 555 |
| Belgium-Luxembourg | | | | | |
| Anthracite | 65 208 | 48 012 | 72 493 | 71 561 | 78 985 |
| Other | 380 041 | 490 031 | 820 440 | 676 747 | 721 856 |
| Briquettes | 59 036 | 25 399 | 16 254 | 13 254 | 17 000 |
| Denmark | 2 791 | 4 103 | 3 115 | 1 170 | 3 000 |
| France | | | | | |
| Anthracite | 133 318 | 100 603 | 67 402 | 86 606 | 120 732 |
| Lignite | 6 852 | 6 617 | 6 492 | 4 630 | 3 397 |
| Other | 436 236 | 358 726 | 687 584 | 717 082 | 601 240 |
| Briquettes | 41 368 | 50 249 | 26 716 | 21 727 | 25 704 |
| Germany, Federal Republic of | | | | | |
| Brown coal | 163 615 | 275 152 | 259 859 | 217 977 | 214 979 |
| Other (b) | 15 607 169 | 12 369 332 | 11 995 765 | 9 944 737 | 10 581 581 |
| Briquettes | 985 793 | 959 407 | 953 583 | 872 308 | 854 965 |
| Irish Republic (b) | 65 760 | 38 446 | 9 235 | 3 430 | 4 866 |
| Italy (b) | 13 019 | 18 718 | 19 773 | 4 490 | 5 234 |
| Netherlands | | | | | |
| Anthracite | 272 568 | 213 439 | 250 490 | 188 252 | 185 777 |
| Other | 759 518 | 1 333 147 | 659 795 | 481 105 | 648 453 |
| Briquettes | 11 089 | 3 309 | 2 893 | 3 850 | 2 206 |
| Austria | | | | | |
| Brown coal | 11 575 | 24 052 | 19 518 | 15 291 | 9 422 |
| Czechoslovakia | | | | | |
| Brown coal | 1 647 000 | 2 160 000 | 2 527 000 | 2 710 000 | 2 679 000 |
| Other | 3 366 000 | 3 728 000 | 2 605 000 | 2 822 000 | 2 928 000 |
| German Democratic Republic | | | | | |
| Briquettes | 1 806 000 | 2 212 000 | 2 789 000 | 3 000 000 | 3 285 000 |
| Hungary | | | | | |
| Brown coal | 20 983 | 44 547 | 42 422 | 35 085 | 22 712 |
| Norway | 63 577 | 91 120 | 84 140 | 96 386 | 127 492 |
| Poland | | | | | |
| Brown coal | 2 974 000 | 1 569 000 | 1 383 000 | 941 000 | ... |
| Other | 41 437 000 | 31 048 000 | 15 159 000 | 28 462 000 | 35 148 000 |
| Soviet Union (c) | * 22 500 000 | * 21 400 000 | * 17 600 000 | * 18 400 000 | * 18 700 000 |
| Spain | | | | | |
| Anthracite | 14 455 | 17 167 | 13 767 | 16 945 | ... |
| Sweden (b) | 24 499 | 3 994 | 703 | 912 | 1 456 |
| Turkey | | | | | |
| Lignite | 130 885 | 197 055 | — | — | ... |
| Other | 1 485 | 2 000 | — | 4 452 | ... |
| Yugoslavia | | | | | |
| Brown coal | 296 267 | 318 833 | 444 840 | 509 631 |) 396 000 |
| Lignite | 77 211 | 78 660 | 75 291 | 60 082 |) |
| Morocco | | | | | |
| Anthracite | 77 622 | 81 012 | 62 935 | 24 755 | 40 200 |
| Mozambique | 152 200 | 98 478 | * 180 000 | * 160 000 | ... |
| Nigeria | 2 000 | ... | ... | ... | ... |
| South Africa | | | | | |
| Anthracite | 3 363 925 | 3 409 202 | 4 297 987 | 1 927 870 | 1 596 647 |
| Bituminous | 19 977 383 | 25 741 032 | 25 592 810 | 25 767 011 | 28 099 688 |
| Swaziland | 165 170 | 139 558 | 104 959 | 77 273 | 76 161 |
| Zimbabwe | 195 952 | 229 498 | 116 357 | 66 251 | ... |
| Canada | 13 852 850 | 14 310 784 | 16 285 020 | 15 528 569 | 16 978 473 |
| USA | | | | | |
| Anthracite | 1 118 332 | 1 628 371 | 2 040 027 | 889 053 | 712 254 |
| Bituminous | 58 770 047 | 81 539 975 | 100 011 646 | 95 476 710 | 69 742 547 |
| Lignite | 23 940 | 59 025 | 44 201 | 47 775 | 114 490 |
| Argentina | 2 922 | 650 | 1 307 | ... | ... |
| Colombia | | | | | |
| Bituminous | 128 895 | 87 462 | 88 759 | 173 729 | 277 527 |
| Other | 6 800 | 7 967 | 564 | — | — |

Exports of Coal

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-------------------------|----------------|----------------|------------|------------|------------|
| China | (c)* 1 760 600 | (c)* 2 865 500 | 6 940 000 | 6 730 000 | 6 860 000 |
| India (a) | 93 660 | 108 336 | 118 434 | ... | ... |
| Indonesia | 59 595 | 112 487 | 156 695 | 210 739 | ... |
| Japan | 59 563 | 70 726 | 55 004 | 25 060 | 15 274 |
| Korea, Dem. P.R. of (c) | * 57 000 | * 100 000 | * 126 000 | * 40 500 | * 30 300 |
| Australia | 41 006 000 | 42 242 500 | 50 662 000 | 49 791 000 | 60 504 000 |
| New Zealand (d) | — | 10 527 | 186 256 | 135 097 | 204 452 |

Note: 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

Imports of Coal

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------------------|------------|------------|------------|------------|------------|
| United Kingdom | | | | | |
| Anthracite | 251 281 | 320 145 | 329 641 | 616 871 | 672 254 |
| Bituminous | 2 339 793 | 2 405 025 | 2 604 762 | 2 639 670 | 2 444 110 |
| Other | 1 762 036 | 4 601 512 | 1 355 760 | 805 775 | 1 339 785 |
| Briquettes | 91 988 | 170 173 | 132 428 | 89 395 | 97 182 |
| Belgium-Luxembourg | | | | | |
| Anthracite | 2 218 140 | 1 807 545 | 1 705 916 | 1 526 643 | 1 216 802 |
| Bituminous | 4 620 384 | 4 014 611 | 4 524 142 | 4 503 272 | 3 354 226 |
| Other | 3 196 676 | 4 767 352 | 4 183 732 | 4 894 831 | 3 381 299 |
| Briquettes | 204 955 | 174 321 | 193 899 | 187 749 | 198 677 |
| Denmark | | | | | |
| Coal | 7 555 732 | 10 063 182 | 10 884 615 | 9 662 819 | 8 537 000 |
| Briquettes | 22 557 | 40 349 | 61 527 | 59 228 | 41 926 |
| France | | | | | |
| Anthracite | 2 313 018 | 2 534 097 | 1 488 523 | 1 054 155 | 1 176 799 |
| Bituminous | 8 309 293 | 8 743 025 | 8 579 265 | 7 721 993 | 6 496 996 |
| Lignite | 11 774 | 11 527 | 9 725 | 6 778 | 6 030 |
| Other | 16 085 533 | 18 535 618 | 17 302 886 | 13 079 929 | 12 095 263 |
| Briquettes | 432 546 | 305 761 | 262 769 | 313 624 | 275 495 |
| Germany, Federal Republic of | | | | | |
| Anthracite | 210 745 | 154 025 | 164 423 | 67 927 | 71 048 |
| Brown coal | 1 590 319 | 2 124 539 | 2 713 584 | 2 666 888 | 2 639 788 |
| Other | 7 562 192 | 8 969 458 | 10 155 991 | 10 568 689 | 9 051 123 |
| Briquettes | 796 414 | 1 099 275 | 1 252 158 | 1 388 776 | 1 544 170 |
| Greece | | | | | |
| Anthracite | 6 447 | 6 625 | 2 000 | 25 000 | ... |
| Other | 447 991 | 474 057 | 165 868 | 360 490 | 527 000 |
| Irish Republic | | | | | |
| Anthracite | 48 705 | 36 825 | 36 894 | 40 610 | 58 364 |
| Bituminous | 1 167 219 | 1 168 360 | 1 251 847 | 1 195 501 | 1 367 947 |
| Italy | | | | | |
| Anthracite | 373 231 | 293 977 | 200 282 | 294 930 | 110 257 |
| Bituminous | 8 639 982 | 10 795 323 | 10 742 885 | 9 556 787 | 7 944 296 |
| Lignite | 41 828 | 47 506 | 18 248 | 41 766 | 44 081 |
| Other | 4 851 711 | 5 427 393 | 7 521 418 | 8 022 366 | 7 721 319 |
| Briquettes | 47 308 | 64 011 | 130 516 | 37 285 | 33 666 |
| Netherlands | | | | | |
| Anthracite | 286 047 | 417 808 | 419 242 | 329 366 | 224 502 |
| Bituminous | 3 643 113 | 3 398 559 | 3 207 889 | 3 466 754 | 2 910 949 |
| Brown coal | 153 764 | 156 168 | 149 208 | 120 707 | 88 707 |
| Other | 2 281 628 | 3 339 048 | 4 321 688 | 5 079 284 | 4 601 118 |
| Briquettes | 36 294 | 43 515 | 21 499 | 28 282 | 31 528 |
| Albania (e) | * 261 000 | * 159 000 | * 187 000 | * 308 000 | * 188 000 |
| Austria | | | | | |
| Anthracite | 43 424 | 52 840 | 50 561 | 18 003 | 26 735 |
| Brown coal | 228 527 | 283 372 | 523 867 | 601 331 | 363 518 |
| Other | 2 750 492 | 2 805 265 | 2 663 210 | 2 833 702 | 2 933 274 |
| Briquettes | 299 286 | 325 686 | 369 119 | 470 274 | 449 963 |
| Bulgaria | 6 360 000 | 6 711 000 | 7 051 000 | 7 227 000 | 7 087 000 |
| Czechoslovakia | | | | | |
| Brown coal | 475 000 | 438 000 | 570 000 | 652 000 | 676 000 |
| Other | 5 492 000 | 5 058 000 | 4 423 000 | 4 980 000 | 5 028 000 |
| Finland | | | | | |
| Anthracite | 124 205 | 127 242 | 111 832 | 89 585 | 70 390 |
| Other | 4 647 005 | 4 542 386 | 5 537 729 | 4 594 492 | 4 319 984 |
| German Democratic Republic (c) | 8 657 000 | 6 828 000 | 5 361 000 | 4 739 000 | 4 198 000 |
| Greenland | 2 790 | 1 926 | 2 150 | 1 167 | ... |
| Hungary | | | | | |
| Coal (c) | 1 514 663 | 1 622 633 | 1 678 129 | 1 996 684 | 1 756 113 |
| Briquettes | 462 037 | 503 747 | 523 792 | 489 471 | 514 560 |
| Iceland | 9 848 | 12 279 | 23 995 | 24 629 | 37 557 |
| Norway (a) | | | | | |
| Anthracite | 92 940 | 103 425 | 79 128 | 63 267 | 85 685 |
| Other | 579 420 | 635 014 | 613 569 | 741 689 | 461 980 |
| Poland | | | | | |
| Anthracite | 26 000 | 30 000 | 31 000 | 30 000 | ... |
| Other | 945 000 | 1 012 000 | 1 072 000 | 972 000 | 1 021 000 |

Imports of Coal

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|---------------------|--------------|-------------|-------------|-------------|-------------|
| Portugal | | | | | |
| Anthracite | 4 578 | 11 182 | 12 149 | 8 000 | ... |
| Other | 371 366 | 299 109 | 338 204 | 354 000 | ... |
| Romania | 3 844 800 | 3 949 000 | 3 769 000 | * 4 800 000 | ... |
| Soviet Union | * 10 000 000 | * 6 177 000 | * 3 834 000 | * 8 869 000 | ... |
| Spain | | | | | |
| Anthracite | 5 310 | 8 205 | — | 29 | ... |
| Brown coal | 7 086 | 6 705 | 6 810 | 4 512 | ... |
| Other | 4 186 399 | 5 669 941 | 7 044 941 | 7 188 350 | ... |
| Sweden | | | | | |
| Anthracite | 43 638 | 44 949 | 10 069 | 26 143 | 31 910 |
| Other | 2 075 556 | 2 136 679 | 2 028 063 | 2 856 200 | 3 053 687 |
| Switzerland | | | | | |
| Anthracite | 317 049 | 573 437 | 862 858 | 471 399 | 344 274 |
| Briquettes | 61 618 | 65 803 | 60 355 | 45 197 | 40 872 |
| Turkey | 549 694 | 508 318 | 336 131 | 1 038 710 | 901 674 |
| Yugoslavia | | | | | |
| Anthracite | 200 496 | 137 465 | 208 498 | 219 889 |) 4 005 000 |
| Other | 3 335 365 | 3 420 285 | 3 614 030 | 3 316 979 | |
| Briquettes | 51 550 | 111 948 | 156 988 | 113 619 | 149 000 |
| Algeria | 91 455 | 510 132 | 666 287 | * 750 000 | ... |
| Egypt | 356 990 | 802 050 | 1 266 508 | 1 400 977 | ... |
| Ghana | * 2 000 | * 2 000 | * 2 000 | * 2 000 | ... |
| Kenya | 15 875 | 15 562 | 90 929 | 46 505 | ... |
| Madagascar | 28 863 | 27 114 | 12 528 | 19 062 | ... |
| Malawi | 33 759 | 65 383 | 47 739 | 70 539 | ... |
| Morocco | 10 474 | 9 951 | 10 071 | 41 211 | ... |
| Mozambique | 182 300 | 71 755 | * 71 800 | ... | ... |
| South Africa | 175 887 | 199 470 | 51 515 | 795 | 987 |
| Tunisia | 32 739 | 21 006 | 26 436 | 14 207 | ... |
| Zaire | 12 058 | * 29 000 | * 33 000 | * 33 000 | ... |
| Zimbabwe | 22 951 | 75 418 | 43 299 | 38 215 | ... |
| Canada | | | | | |
| Anthracite | 159 082 | 331 176 | 289 802 | 214 373 | 205 386 |
| Bituminous | 17 280 466 | 15 516 657 | 14 516 815 | 15 405 388 | 14 403 831 |
| Other | 101 330 | 202 370 | 170 387 | 82 644 | 105 854 |
| Cuba | 30 400 | 94 000 | 94 700 | 70 000 | ... |
| Mexico | | | | | |
| Lignite | 7 539 | 6 438 | 5 240 | ... | ... |
| Other | 701 558 | 816 259 | 675 301 | 644 751 | ... |
| USA | | | | | |
| Bituminous | 1 107 581 | 811 797 | 815 179 | 593 219 | 1 082 562 |
| Other | 784 084 | 301 181 | 148 563 | 99 886 | ... |
| Argentina | 932 416 | 788 278 | 878 377 | 739 486 | ... |
| Brazil | | | | | |
| Anthracite | 35 372 | 240 677 | 32 291 | 41 545 | 32 661 |
| Bituminous | 4 443 141 | 4 279 895 | 4 320 492 | 4 194 337 | 6 262 363 |
| Chile | 497 000 | 345 734 | 506 000 | 240 000 | ... |
| Peru | | | | | |
| Bituminous | 49 593 | 26 366 | 23 928 | 24 568 | 48 664 |
| Uruguay | 4 136 | 3 545 | 1 403 | — | — |
| Venezuela | 33 787 | 44 089 | 36 617 | 38 167 | ... |
| Burma | * 200 000 | * 210 000 | * 215 000 | * 200 000 | ... |
| China | ... | ... | 1 940 000 | 2 160 000 | 2 130 000 |
| Hong Kong | 5 814 | 2 851 | 57 004 | 1 454 698 | 3 418 316 |
| India | 639 705 | 703 303 | 620 000 | 1 240 000 | ... |
| Indonesia | 4 082 | 4 876 | 5 336 | 2 593 | ... |
| Iran (b) | * 51 000 | * 60 000 | 25 744 | 64 908 | ... |
| Israel (d) | 244 | 116 | 307 738 | 990 000 | * 999 000 |
| Japan | | | | | |
| Anthracite | 1 028 255 | 1 191 229 | 872 732 | 630 197 | 913 389 |
| Lignite | 42 322 | 33 970 | 28 204 | 44 206 | 43 315 |
| Other | 57 525 808 | 67 036 601 | 77 397 668 | 78 461 180 | 73 752 601 |
| Korea, Dem. P.R. of | * 450 000 | * 450 000 | * 450 000 | * 450 000 | ... |

Imports of Coal

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------|-----------|-----------|-----------|-----------|-----------|
| Korea, Republic of | | | | | |
| Anthracite | 2 120 071 | 2 365 057 | 5 138 150 | 2 448 589 | 805 131 |
| Bituminous | 26 874 | 481 858 | 1 420 771 | 2 600 465 | 3 757 154 |
| Other | 4 191 046 | 4 449 438 | 5 890 120 | 6 443 931 | 6 393 772 |
| Malaysia | | | | | |
| Anthracite | 22 298 | 19 488 | 20 908 | 8 464 | ... |
| Other | 2 495 | 29 937 | 86 794 | 98 268 | ... |
| Pakistan (f) | 97 | 19 456 | 160 933 | 538 307 | 472 871 |
| Philippines | 1 510 | 2 422 | 12 705 | 120 303 | 70 687 |
| Syria | 808 | 652 | 1 354 | 250 | ... |
| Taiwan | 2 720 141 | 4 068 985 | 5 187 010 | 5 589 187 | 6 510 177 |
| Thailand | 20 178 | 15 230 | 15 311 | 98 954 | 99 173 |
| Australia | 16 016 | 2 159 | 1 781 | 12 183 | 19 255 |
| New Caledonia | 87 906 | 119 799 | 82 351 | 64 990 | 96 801 |

(a) Excludes coal imported from Spitzbergen

(b) Years ended 20 March following that stated

(c) Including anthracite

(d) Figures may be incomplete as value only given in Israeli trade return for imports from some countries

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

(f) Years ended 30 June of that stated

Mine Production of Cobalt

tonnes (metal content)

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|---------------|---------|---------|---------|---------|---------|
| Finland | 1 332 | 1 360 | 1 270 | 1 038 | 930 |
| Soviet Union | * 2 000 | * 2 150 | * 2 250 | * 2 350 | * 2 400 |
| Botswana | 294 | 226 | 254 | 254 | 223 |
| Morocco | 1 001 | 838 | 783 | 773 | 0 |
| Zaire | 14 029 | 14 482 | 11 124 | 5 573 | 5 349 |
| Zambia | 3 176 | 3 310 | 2 570 | 2 446 | 2 407 |
| Zimbabwe | 205 | 115 | 93 | 97 | 74 |
| Canada | 1 640 | 2 118 | 2 080 | 1 274 | 1 584 |
| Cuba | * 1 300 | * 1 500 | * 1 600 | * 1 500 | * 1 600 |
| Philippines | 1 370 | 1 331 | 997 | 466 | 578 |
| Australia | 3 046 | 3 704 | 2 902 | 3 548 | 2 804 |
| New Caledonia | 2 414 | 2 598 | 2 343 | 1 804 | 1 630 |
| World total | 31 800 | 33 700 | 28 300 | 21 100 | 19 600 |

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

Production of Cobalt Metal

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|---------|---------|---------|---------|---------|
| Belgium (a) | ... | ... | ... | ... | ... |
| France | 659 | 1 033 | 815 | 568 | 0 |
| Germany, Federal Republic of | 385 | * 300 | * 150 | * 150 | * 150 |
| Czechoslovakia (b) | ... | ... | ... | ... | ... |
| Finland | 1 156 | 1 906 | 1 937 | 1 460 | 1 550 |
| Norway | 953 | 1 275 | 1 444 | 991 | 903 |
| Soviet Union | * 3 800 | * 4 200 | * 4 300 | * 4 300 | * 4 500 |
| Zaire | 14 029 | 14 482 | 11 124 | 5 573 | 5 349 |
| Zambia | 3 176 | 3 310 | 2 570 | 2 446 | 2 407 |
| Canada | 605 | 692 | 914 | 784 | 849 |
| USA | 421 | 454 | 406 | 461 | 93 |
| Japan | 2 653 | 2 867 | 2 421 | 1 942 | 1 371 |
| World total | 27 800 | 30 500 | 26 100 | 18 700 | 17 200 |

Note: In addition to the production listed above, several countries, including the United Kingdom, France, Federal Republic of Germany 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
 (b) Czechoslovakia is thought to recover cobalt from materials imported from Cuba. However no data are available to enable a reliable estimate to be made

Exports of Cobalt

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|---------|---------|---------|---------|---------|
| United Kingdom | | | | | |
| Metal | 962 | 1 061 | 810 | 514 | 743 |
| Oxides | 244 | 279 | 838 | 500 | 385 |
| Belgium-Luxembourg (a) | | | | | |
| Metal | * 3 300 | * 2 300 | * 1 400 | * 1 300 | * 2 200 |
| Oxides | * 1 700 | * 1 000 | * 500 | * 700 | * 1 400 |
| France | | | | | |
| Metal | 797 | 831 | 805 | 780 | 1 133 |
| Oxides | 118 | 179 | 209 | 165 | 111 |
| Germany, Federal Republic of | | | | | |
| Metal | 847 | 821 | 619 | 817 | 885 |
| Oxides | 45 | 88 | 54 | 25 | 86 |
| Italy | 107 | 30 | 27 | 63 | 34 |
| Netherlands | | | | | |
| Metal | 254 | 196 | 60 | 117 | 158 |
| Oxides | 78 | 48 | 48 | 40 | 38 |
| Finland | 1 069 | 1 201 | 1 564 | 1 297 | 1 325 |
| Norway | 885 | 1 139 | 1 638 | 1 007 | 816 |
| Sweden | | | | | |
| Metal | 221 | 103 | 342 | 65 | 67 |
| Oxides | 85 | 0 | 2 | 1 | 0 |
| Morocco | | | | | |
| Ore | 7 530 | 7 489 | 6 333 | 5 017 | 1 852 |
| Zaire | 15 500 | 11 600 | 8 800 | 6 900 | ... |
| Zambia | 3 060 | 2 059 | 2 211 | ... | ... |
| Canada | | | | | |
| Metal | 302 | 327 | 679 | 585 | 887 |
| of which: Re-exports | 114 | 2 | 2 | 0 | 2 |
| Oxides | 559 | 1 091 | 601 | 212 | 192 |
| USA | | | | | |
| Metal | 1 170 | 1 075 | 1 345 | 665 | 787 |
| Oxides | 1 357 | 780 | 220 | 240 | 348 |
| Japan | | | | | |
| Oxides | 41 | 85 | 13 | 10 | 66 |

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

Imports of Cobalt

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-------|-------|-------|-------|-------|
| United Kingdom | | | | | |
| Metal | 3 032 | 2 189 | 1 439 | 1 219 | 1 918 |
| Oxides | 683 | 1 333 | 890 | 363 | 344 |
| Belgium-Luxembourg | | | | | |
| Oxides | 54 | 43 | 74 | 62 | 34 |
| Denmark | | | | | |
| Metal | 30 | 19 | 14 | 16 | 24 |
| Oxides | 10 | 5 | 6 | 10 | 8 |
| France | | | | | |
| Ore | 7 684 | 5 696 | 6 460 | 5 767 | ... |
| Metal | 897 | 1 141 | 1 133 | 1 721 | 1 397 |
| Oxides | 267 | 209 | 183 | 231 | 211 |
| Germany, Federal Republic of | | | | | |
| Metal | 1 848 | 1 703 | 1 212 | 1 451 | 2 008 |
| Oxides | 483 | 319 | 239 | 308 | 409 |
| Italy | | | | | |
| Metal | 338 | 258 | 209 | 252 | 327 |
| Oxide | 189 | 193 | 190 | 131 | 161 |
| Netherlands | | | | | |
| Metal | 194 | 180 | 52 | 140 | 240 |
| Oxides | 286 | 197 | 194 | 192 | 246 |
| Austria | | | | | |
| Oxides | 2 | 4 | 3 | 3 | 5 |
| Finland | | | | | |
| Metal | 418 | 7 | 252 | 2 | 4 |
| Oxides | 622 | 246 | 0 | 0 | 0 |
| German Democratic Republic | | | | | |
| Metal (b) | * 100 | * 200 | * 100 | * 200 | * 130 |
| Norway | | | | | |
| Metal | 18 | 69 | 502 | 341 | 166 |
| Oxides | 9 | 6 | 3 | 2 | 129 |
| Portugal | | | | | |
| Oxide | 9 | 4 | 6 | 3 | ... |
| Spain | | | | | |
| Metal | — | — | 118 | 247 | ... |
| Oxides | 75 | 72 | 94 | 8 | ... |
| Sweden | | | | | |
| Metal | 509 | 530 | 555 | 273 | 233 |
| Oxides | 4 | 2 | 2 | 3 | 6 |
| Turkey | | | | | |
| Oxides | 21 | 25 | 41 | 42 | 60 |
| Yugoslavia | | | | | |
| Oxides | 22 | 17 | 53 | 20 | 25 |
| South Africa | | | | | |
| Metal | 64 | 100 | 82 | 77 | 91 |
| Oxides | 8 | 12 | 15 | 9 | 16 |
| Mexico | | | | | |
| Metal | 70 | 76 | 88 | 90 | ... |
| Oxides | 118 | 187 | 75 | 74 | ... |
| USA | | | | | |
| Metal | 8 567 | 6 783 | 6 308 | 5 397 | 7 194 |
| Oxide | 230 | 188 | 201 | 164 | 183 |
| Argentina | | | | | |
| Oxide | 57 | 61 | 17 | ... | ... |
| Brazil | | | | | |
| Metal | 237 | 303 | 237 | 239 | 377 |
| Oxide | 53 | 52 | 16 | 21 | 21 |
| Venezuela | | | | | |
| Oxides | 13 | 10 | 11 | 14 | ... |
| Hong Kong | | | | | |
| Oxide | 18 | 18 | 42 | 26 | 28 |
| India | | | | | |
| Metal | 136 | 125 | 127 | ... | ... |
| Oxide (a) | 5 | 3 | 2 | ... | ... |
| Indonesia | | | | | |
| Oxides | 6 | 5 | 17 | 64 | ... |

Imports of Cobalt

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------|-------|-------|-------|-------|-------|
| Japan | | | | | |
| Metal | 1 677 | 1 693 | 1 129 | 2 014 | 2 071 |
| Oxide | 651 | 292 | 227 | 305 | 517 |
| Korea, Republic of | | | | | |
| Metal | 70 | 56 | 54 | 88 | 182 |
| Oxides | 16 | 9 | 8 | 9 | 12 |
| Taiwan | | | | | |
| Oxides | 17 | 23 | 24 | 23 | 56 |
| Australia | | | | | |
| Metal | 30 | 23 | 31 | 25 | ... |
| Oxide | 16 | 11 | 39 | 24 | ... |

(a) Years ended 31 March following that stated

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

Mine Production of Copper

tonnes (metal content)

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-------------|-------------|-------------|-------------|-------------|
| United Kingdom | ... | 200 | 607 | 649 | 652 |
| France | 400 | 100 | 98 | 137 | 117 |
| Germany, Federal Republic of | 851 | 1 274 | 1 400 | 1 300 | 1 200 |
| Greece | — | 100 | 100 | 100 | * 200 |
| Irish Republic | 5 000 | 4 000 | 3 400 | 1 573 | — |
| Italy | 489 | 600 | 800 | 138 | 1 556 |
| Albania | 9 700 | 11 500 | 11 500 | 14 000 | 15 000 |
| Bulgaria | 60 000 | 62 000 | 62 000 | 70 000 | 80 000 |
| Czechoslovakia | 9 000 | 11 500 | 9 200 | 9 300 | 9 500 |
| Finland | 44 349 | 53 000 | 41 892 | 38 145 | 37 700 |
| German Democratic Republic | * 14 000 | * 11 800 | * 12 000 | * 13 000 | * 12 000 |
| Hungary | 116 | — | — | — | — |
| Norway | 28 659 | 28 891 | 28 123 | 27 590 | 26 191 |
| Poland | 340 000 | 343 000 | 294 600 | 376 000 | 402 300 |
| Portugal | 3 652 | 3 889 | 2 849 | 2 287 | 2 615 |
| Romania | * 29 000 | * 28 000 | * 30 000 | * 30 000 | * 28 000 |
| Soviet Union | * 1 130 000 | * 1 130 000 | * 1 140 000 | * 1 150 000 | * 1 180 000 |
| Spain | 42 982 | 48 483 | 56 423 | 54 600 | 63 900 |
| Sweden | 45 773 | 42 785 | 51 472 | 52 682 | 75 338 |
| Turkey | 30 521 | 21 300 | 32 085 | 32 789 | 24 767 |
| Yugoslavia | 111 421 | 114 786 | 110 961 | 119 300 | 129 500 |
| Algeria | 200 | 200 | 200 | 200 | 200 |
| Botswana | 14 563 | 15 553 | 17 819 | 18 375 | 20 266 |
| Congo | 1 000 | 1 300 | 245 | 100 | 100 |
| Morocco | 8 233 | 8 423 | 8 086 | 22 190 | 24 200 |
| Mozambique | 200 | — | — | — | — |
| Namibia | 41 900 | 39 200 | 44 300 | 48 800 | 52 100 |
| South Africa | 190 591 | 200 683 | 199 424 | 188 709 | 204 984 |
| Zaire | 401 416 | 462 202 | 506 481 | 505 385 | 502 297 |
| Zambia | 586 046 | 609 935 | 587 442 | 529 641 | 578 300 |
| Zimbabwe | 29 724 | 26 901 | 24 583 | 24 693 | 21 560 |
| Canada (a) | 636 383 | 716 363 | 691 328 | 612 455 | 614 778 |
| Cuba | 2 840 | 3 350 | 2 900 | 2 700 | 2 700 |
| Guatemala | 1 791 | 813 | 726 | * 700 | * 700 |
| Honduras | 288 | 269 | 454 | 758 | * 800 |
| Mexico | 107 109 | 175 399 | 230 466 | 239 091 | 206 062 |
| USA | 1 446 586 | 1 181 116 | 1 538 160 | 1 146 975 | 1 038 098 |
| Argentina | 89 | 182 | 80 | 100 | 200 |
| Bolivia | 1 797 | 1 882 | 2 637 | 2 270 | 2 000 |
| Brazil | — | 402 | 11 777 | 24 482 | 40 000 |
| Chile | 1 062 700 | 1 067 900 | 1 081 100 | 1 240 700 | 1 257 000 |
| Colombia | 336 | 442 | 315 | 293 | 540 |
| Ecuador | 666 | 923 | 825 | 25 | 8 |
| Peru | 390 720 | 366 800 | 327 614 | 356 300 | 322 200 |
| Burma | * 100 | * 100 | * 100 | * 100 | * 100 |
| China | * 160 000 | * 165 000 | * 170 000 | * 175 000 | * 175 000 |
| Cyprus | 1 200 | — | 259 | 820 | 1 148 |
| India | 27 717 | 26 819 | 25 200 | 24 000 | 43 800 |
| Indonesia | 60 198 | 58 990 | 62 550 | 73 800 | * 67 600 |
| Iran | 3 000 | 1 000 | 2 000 | 43 000 | 65 000 |
| Israel | — | 400 | 4 400 | 4 100 | — |
| Japan | 59 960 | 52 553 | 51 513 | 50 658 | 46 037 |
| Korea, Dem. P.R. of | * 15 000 | * 12 000 | * 12 000 | * 12 000 | * 10 000 |
| Korea, Republic of | 475 | 372 | 501 | 320 | 389 |

Copper

Mine Production of Copper

tonnes (metal content)

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------|------------------|------------------|------------------|------------------|------------------|
| Malaysia | 24 514 | 26 990 | 28 642 | 30 906 | 29 136 |
| Mongolia | 21 700 | 44 000 | 71 800 | 95 000 | 95 000 |
| Oman | — | — | — | — | 11 300 |
| Philippines | 298 300 | 304 504 | 302 328 | 292 090 | 271 400 |
| Taiwan | 600 | 500 | 500 | — | — |
| Australia | 237 614 | 243 541 | 231 340 | 245 322 | 261 475 |
| Papua New Guinea | 170 788 | 146 813 | 165 420 | 170 004 | 183 191 |
| World total | 7 900 000 | 7 900 000 | 8 300 000 | 8 200 000 | 8 200 000 |

(a) Blister copper plus recoverable copper in ores and matte exported

COPPER

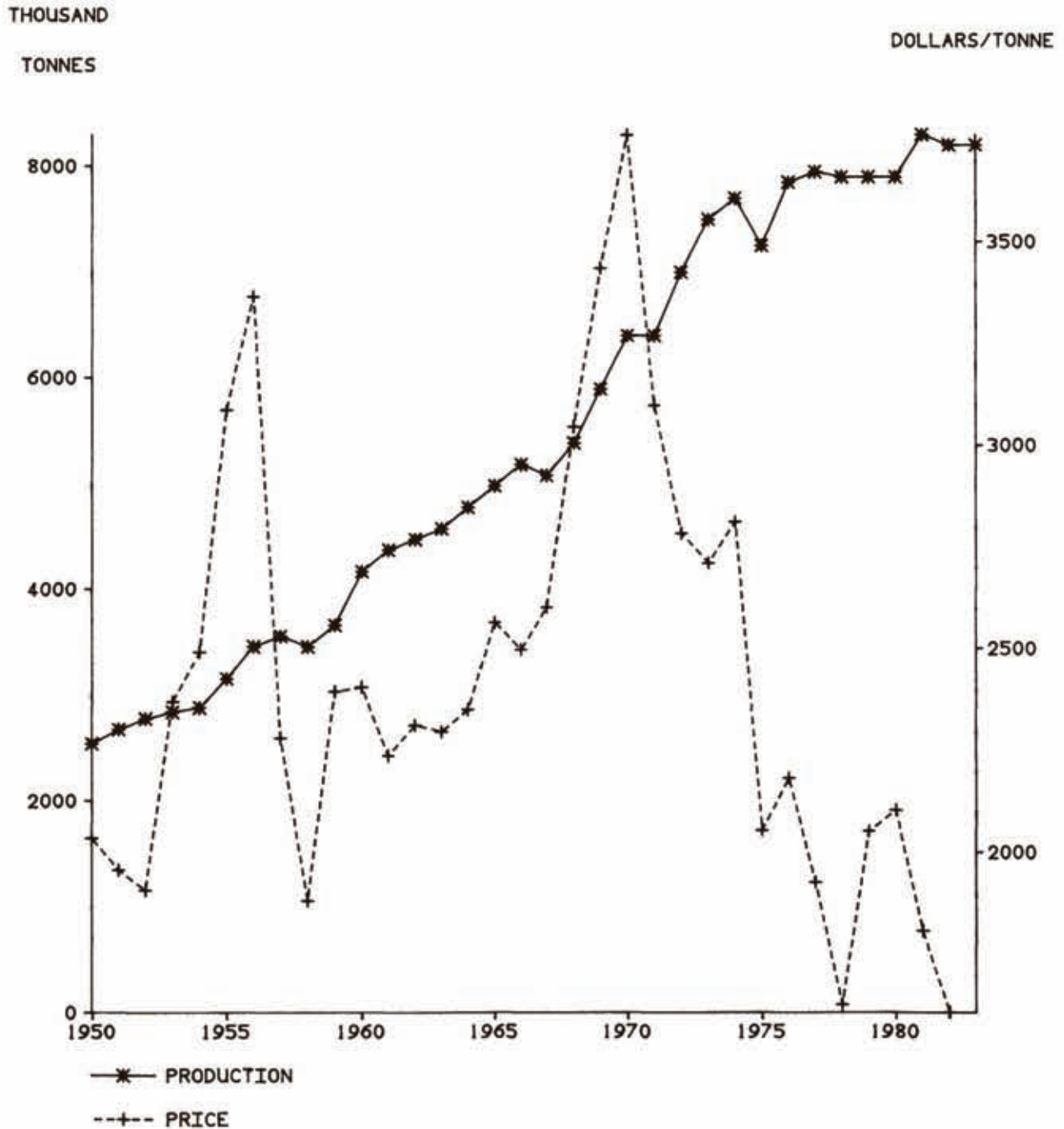


Figure 3 World mine production of copper from 1950 to 1983 compared with the yearly average producer price of copper metal on the New York Market expressed as constant 1982 US dollars.

Constant commodity price taken from 'Commodity Trade and Price Trends' published by the Johns Hopkins University Press for the World Bank (1983-84 edition).

Smelter Production of Copper

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-------------|-------------|-------------|-------------|-------------|
| Belgium | * 1 500 | * 700 | * 3 100 | * 2 500 | * 2 800 |
| Germany, Federal Republic of | 158 200 | 153 900 | 163 100 | 161 800 | 159 100 |
| Albania | 10 000 | 11 500 | 10 000 | 12 000 | 12 500 |
| Bulgaria | 58 000 | 59 000 | 62 000 | 62 000 | 60 000 |
| Czechoslovakia | * 10 000 | 30 966 | 30 180 | 30 317 | 33 019 |
| Finland | 53 943 | 47 846 | 54 747 | 66 200 | 70 100 |
| German Democratic Republic | * 18 000 | * 16 000 | * 16 000 | * 17 000 | * 17 000 |
| Hungary | 2 288 | 2 069 | 2 351 | 2 639 | 2 765 |
| Norway | 27 339 | 33 690 | 31 951 | 24 358 | 27 172 |
| Poland | 320 000 | 320 000 | 288 000 | 308 000 | 320 000 |
| Portugal | 5 500 | 6 600 | 3 200 | 1 500 | 6 200 |
| Romania | 41 120 | 40 675 | 39 450 | 40 000 | 40 200 |
| Soviet Union | * 1 170 000 | * 1 150 000 | * 1 160 000 | * 1 240 000 | * 1 280 000 |
| Spain | 108 300 | 103 058 | 107 900 | 135 000 | 118 000 |
| Sweden | 51 655 | 45 749 | 60 576 | 72 504 | 78 756 |
| Turkey | 22 212 | 16 320 | 27 264 | 25 308 | 18 516 |
| Yugoslavia | 108 732 | 93 745 | 92 505 | 84 000 | 86 800 |
| Namibia | 42 700 | 40 000 | 39 700 | 49 800 | 54 200 |
| South Africa | 182 300 | 185 800 | 185 400 | 191 800 | 192 300 |
| Uganda | 2 300 | — | — | — | — |
| Zaire (a) | 371 932 | 428 071 | 471 224 | 469 406 | 465 800 |
| Zambia (a) | 595 104 | 601 348 | 560 616 | 584 790 | 562 722 |
| Zimbabwe | 31 400 | 26 300 | 30 100 | 30 500 | 31 200 |
| Canada | 384 500 | 492 700 | 479 000 | 412 440 | 406 417 |
| Mexico | 83 857 | 85 610 | 69 199 | 77 373 | 91 994 |
| USA | 1 335 607 | 1 008 397 | 1 316 756 | 975 695 | 927 739 |
| Brazil | — | — | — | 4 812 | 63 083 |
| Chile | 948 900 | 953 100 | 953 800 | 1 046 800 | 1 058 100 |
| Peru | 371 400 | 348 600 | 302 300 | 323 200 | 295 900 |
| China | * 170 000 | * 175 000 | * 190 000 | * 205 000 | * 195 000 |
| India | 21 455 | 28 489 | 25 856 | 32 585 | 33 992 |
| Japan | 921 400 | 929 300 | 980 100 | 1 046 300 | 1 061 900 |
| Korea, Dem. P.R. of | * 18 000 | * 23 000 | * 24 000 | * 30 000 | * 35 000 |
| Korea, Republic of | 48 200 | 64 100 | 101 200 | 119 400 | 124 000 |
| Taiwan | 14 300 | 17 000 | 53 100 | 47 500 | 37 900 |
| Australia | 163 192 | 174 920 | 172 181 | 175 536 | 178 983 |
| World total | 7 900 000 | 7 700 000 | 8 100 000 | 8 100 000 | 8 100 000 |

Note: 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

Production of Refined Copper

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-------------|-------------|-------------|-------------|-------------|
| United Kingdom | 121 697 | 161 338 | 136 163 | 134 132 | 144 366 |
| Belgium (a) | 519 944 | 526 252 | 436 579 | 501 634 | 431 264 |
| France | 45 258 | 46 460 | 46 369 | 46 585 | 43 900 |
| Germany, Federal Republic of | 381 095 | 373 999 | 387 433 | 394 072 | 420 773 |
| Italy | 15 600 | 12 200 | 23 700 | 19 600 | 31 200 |
| Albania | * 7 000 | * 9 000 | * 9 500 | * 9 500 | * 10 000 |
| Austria | 32 812 | 31 286 | 39 117 | 41 559 | 41 900 |
| Bulgaria | 62 000 | 63 000 | 60 000 | 60 000 | 62 000 |
| Czechoslovakia | 24 587 | 25 559 | 25 513 | 25 636 | 25 746 |
| Finland | 43 027 | 40 542 | 33 796 | 47 969 | 55 376 |
| German Democratic Republic | * 51 000 | * 51 000 | * 54 000 | * 51 000 | * 50 000 |
| Hungary | 27 674 | 27 756 | 28 840 | 22 773 | 24 040 |
| Norway | 21 980 | 26 715 | 26 776 | 18 564 | 22 705 |
| Poland | 335 814 | 357 268 | 327 178 | 348 027 | 360 100 |
| Portugal | 3 373 | 4 480 | 4 855 | 4 556 | 4 600 |
| Romania | * 66 300 | * 65 000 | * 60 000 | * 50 000 | * 47 000 |
| Soviet Union | * 1 480 000 | * 1 450 000 | * 1 460 000 | * 1 490 000 | * 1 500 000 |
| Spain | 140 600 | 153 700 | 152 100 | 171 900 | 158 600 |
| Sweden | 61 676 | 55 713 | 61 892 | 62 304 | 63 357 |
| Turkey | 22 251 | 15 934 | 27 263 | 25 313 | * 25 000 |
| Yugoslavia | 137 504 | 131 288 | 132 603 | 126 870 | 123 708 |
| Egypt | * 2 000 | * 2 000 | * 2 000 | * 2 400 | * 2 400 |
| South Africa | 152 300 | 147 900 | 144 800 | 142 500 | 157 700 |
| Zaire | 103 243 | 144 161 | 151 484 | 175 115 | 226 900 |
| Zambia | 558 400 | 607 592 | 560 446 | 584 613 | 575 423 |
| Zimbabwe | 8 400 | 7 100 | 16 700 | 25 700 | 25 400 |
| Canada | 397 263 | 505 238 | 476 655 | 337 780 | 464 333 |
| Mexico | 91 781 | 96 610 | 66 301 | 74 424 | 86 903 |
| USA | 2 015 100 | 1 730 300 | 2 037 600 | 1 694 300 | 1 583 700 |
| Brazil | 53 100 | 63 000 | 45 000 | 61 812 | 103 003 |
| Chile | 780 100 | 810 700 | 775 600 | 852 500 | 833 400 |
| Peru | 230 300 | 230 600 | 209 100 | 224 900 | 190 600 |
| China | * 290 000 | * 295 000 | * 300 000 | * 300 000 | * 310 000 |
| India | 19 300 | 23 200 | 23 100 | 27 000 | 28 100 |
| Iran | * 3 000 | * 1 000 | * 1 000 | * 1 000 | * 10 000 |
| Japan | 983 700 | 1 014 292 | 1 050 120 | 1 074 974 | 1 091 929 |
| Korea, Dem. P.R. of | * 22 000 | * 23 000 | * 24 000 | * 30 000 | * 35 000 |
| Korea, Republic of | 85 134 | 87 709 | 121 942 | 128 377 | 143 806 |
| Taiwan | 15 305 | 19 495 | 53 230 | 47 377 | 37 960 |
| Australia | 171 959 | 182 400 | 191 008 | 178 138 | 202 603 |
| World total | 9 600 000 | 9 600 000 | 9 800 000 | 9 600 000 | 9 800 000 |

Note: 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) Including alloys

Exports of Copper

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|----------|---------|---------|---------|----------|
| United Kingdom | | | | | |
| Ore & matte | 6 | 4 | 4 | 115 | 817 |
| Unwrought— | | | | | |
| Unrefined | 75 | 80 | 66 | 60 | 497 |
| Refined | 22 569 | 32 938 | 19 875 | 17 433 | 16 742 |
| Alloys | 25 418 | 27 544 | 23 095 | 15 149 | 15 564 |
| Scrap | 59 593 | 82 399 | 65 562 | 92 719 | 104 703 |
| Belgium-Luxembourg | | | | | |
| Ore | 733 | 716 | 727 | 630 | 674 |
| Burnt cupreous pyrites | 144 883 | 138 574 | 149 092 | 152 161 | 9 365 |
| Unwrought— | | | | | |
| Matte, cement & unrefined | 2 945 | 6 662 | 12 118 | 11 902 | 11 324 |
| Refined | 297 601 | 299 149 | 282 495 | 287 857 | 221 244 |
| Alloys | 7 971 | 8 222 | 8 551 | 6 717 | 8 338 |
| Scrap | 26 846 | 26 356 | 24 066 | 30 553 | 27 835 |
| Denmark | | | | | |
| Unwrought | 127 | 70 | 8 | 158 | 51 |
| Unwrought alloys | 1 110 | 1 040 | 1 447 | 1 147 | 1 841 |
| Scrap | 12 735 | 15 153 | 13 132 | 11 907 | 15 707 |
| France | | | | | |
| Ore | 564 | 1 618 | 801 | 648 | 448 |
| Matte & cement | 1 181 | 2 344 | 1 861 | 3 146 | 2 603 |
| Unwrought— | | | | | |
| Unrefined | 5 790 | 3 335 | 3 935 | 3 471 | 6 619 |
| Refined | 17 322 | 12 008 | 15 115 | 5 944 | 17 589 |
| Alloys | 4 691 | 3 711 | 4 510 | 2 374 | 2 021 |
| Scrap | 104 933 | 108 369 | 108 153 | 112 338 | 126 003 |
| Germany, Federal Republic of | | | | | |
| Burnt cupreous pyrites | 10 732 | 954 | — | 45 | — |
| Matte & cement | 96 | 617 | 282 | 41 | 2 569 |
| Unwrought— | | | | | |
| Unrefined | 22 384 | 24 976 | 18 870 | 18 771 | 16 988 |
| Refined | 99 599 | 76 271 | 63 079 | 71 490 | 93 169 |
| Alloys | 12 223 | 13 548 | 13 180 | 13 131 | 12 748 |
| Scrap | 73 289 | 86 810 | 88 881 | 61 514 | 67 128 |
| Irish Republic | | | | | |
| Ores & concentrates | 17 703 | 18 888 | 17 525 | 7 430 | 360 |
| Unwrought | 253 | 454 | 759 | 481 | 530 |
| Scrap | 5 910 | 6 698 | 7 119 | 8 260 | 8 051 |
| Italy | | | | | |
| Ore | 1 232 | 4 100 | 2 356 | 657 | 1 970 |
| Matte & cement | 328 | 1 073 | 1 232 | 440 | 2 890 |
| Unwrought— | | | | | |
| Unrefined | 72 | 113 | 221 | 297 | 213 |
| Refined | 424 | 2 613 | 2 687 | 2 339 | 5 885 |
| Alloys | 4 977 | 1 584 | 4 288 | 5 929 | 7 182 |
| Scrap | 15 712 | 11 149 | 24 531 | 19 042 | 20 306 |
| Netherlands | | | | | |
| Unwrought | 2 193 | 1 479 | 5 190 | 1 377 | 432 |
| Unwrought alloys | 3 079 | 4 466 | 5 997 | 4 024 | 6 141 |
| Scrap | 56 006 | 58 390 | 57 388 | 53 616 | 59 055 |
| Albania | | | | | |
| Unwrought (f) | * 900 | * 1 100 | * 300 | * 200 | ... |
| Austria | | | | | |
| Ore | 116 | 5 | 19 | — | — |
| Unwrought | 18 774 | 17 955 | 20 181 | 17 242 | 21 341 |
| Unwrought alloys | 1 363 | 1 385 | 3 392 | 2 333 | 1 687 |
| Scrap | 3 242 | 3 713 | 5 410 | 5 022 | 9 075 |
| Bulgaria | | | | | |
| Unwrought (f) | * 1 200 | * 2 000 | * 500 | * 300 | ... |
| Finland | | | | | |
| Ore | — | 15 | — | 12 175 | 14 096 |
| Unwrought— | | | | | |
| Unrefined | 10 113 | 5 945 | 20 392 | 13 773 | 14 987 |
| Refined | 5 551 | 2 473 | 1 247 | 4 425 | 11 670 |
| Alloys | 1 228 | 894 | 1 110 | 1 192 | 1 882 |
| Scrap | 521 | 234 | 241 | 209 | 1 337 |
| German Democratic Republic | | | | | |
| Unwrought (f) | * 10 800 | * 7 700 | * 8 500 | * 5 000 | * 12 200 |

Exports of Copper

Copper

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------|--------------|--------------|-----------|-----------|-----------|
| Norway | | | | | |
| Ore | 98 797 | 89 498 | 97 387 | 92 712 | 92 465 |
| Unwrought— | | | | | |
| Unrefined | 6 192 | 7 376 | 5 268 | 6 691 | 6 224 |
| Refined | 20 051 | 25 484 | 24 371 | 18 106 | 20 261 |
| Alloys | 1 601 | 1 966 | 1 693 | 1 193 | 297 |
| Scrap | 4 569 | 4 166 | 5 851 | 4 271 | 7 730 |
| Poland | | | | | |
| Unwrought | 133 720 | 144 754 | 142 514 | 176 447 | 183 203 |
| Portugal | | | | | |
| Ore | 1 004 | 550 | 1 100 | ... | ... |
| Unwrought | 3 144 | 1 258 | 838 | 3 637 | ... |
| Soviet Union | | | | | |
| Unwrought | * 160 000 | * 160 000 | * 160 000 | * 170 000 | * 170 000 |
| Spain | | | | | |
| Ore | 98 | — | 33 471 | 36 383 | 32 068 |
| Burnt cupreous pyrites | (ii) 272 339 | (ii) 313 193 | 359 567 | 277 899 | ... |
| Matte | 325 | 215 | 798 | — | 1 197 |
| Unwrought | 29 970 | 59 980 | 70 745 | 70 913 |) 77 704 |
| Unwrought alloys | 5 868 | 6 319 | 3 642 | 2 403 |) |
| Scrap | 704 | 881 | 978 | 301 | 917 |
| Sweden | | | | | |
| Ore | 27 177 | 6 895 | 21 902 | 45 172 | 33 829 |
| Unwrought— | | | | | |
| Unrefined | 3 045 | 723 | 13 849 | 25 652 | 40 197 |
| Refined | 24 495 | 17 841 | 18 080 | 28 366 | 23 039 |
| Alloys | 3 683 | 2 480 | 4 846 | 2 967 | 3 887 |
| Scrap | 687 | 1 838 | 1 011 | 2 222 | 1 963 |
| Switzerland | | | | | |
| Unwrought— | | | | | |
| Refined | 4 024 | 2 201 | 725 | 870 | 1 560 |
| Alloys | 5 813 | 4 429 | 4 060 | 4 854 | 5 518 |
| Scrap | 12 119 | 12 075 | 11 458 | 13 259 | 18 886 |
| Yugoslavia | | | | | |
| Unwrought | 8 357 | 14 334 | 13 801 | 7 321 | 4 102 |
| Scrap | 7 948 | 6 129 | 4 035 | 3 048 | 6 062 |
| Algeria | | | | | |
| Ore | 985 | — | ... | ... | ... |
| Scrap | 1 144 | 1 124 | ... | ... | ... |
| Botswana | | | | | |
| Matte (b) | 10 800 | 20 000 | 17 300 | 19 300 | 20 200 |
| Ivory Coast | | | | | |
| Matte & scrap | 1 023 | 1 389 | 1 295 | ... | ... |
| Morocco | | | | | |
| Ore | 21 272 | 22 274 | 22 207 | 60 291 | 69 531 |
| Matte | 1 219 | 1 743 | 2 215 | 1 815 | ... |
| Scrap | 1 902 | 1 591 | 1 860 | 2 616 | ... |
| Namibia | | | | | |
| Unwrought | 44 800 | 41 300 | 38 600 | 44 400 | 46 800 |
| Senegal | | | | | |
| Scrap | 816 | 797 | 737 | 623 | 809 |
| South Africa (f) | | | | | |
| Ores & concentrates | * 72 000 | * 85 000 | * 79 000 | * 74 000 | * 41 000 |
| Unwrought | * 180 900 | * 167 000 | * 138 000 | * 156 000 | * 189 000 |
| Tunisia | | | | | |
| Unwrought & scrap (g) | 867 | 832 | 1 525 | 1 050 | ... |
| Uganda | | | | | |
| Unwrought | 8 296 | ... | ... | ... | ... |
| Zaire | | | | | |
| Ores & concentrates | 86 146 | 97 579 | 99 969 | 80 000 | * 80 000 |
| Unwrought— | | | | | |
| Unrefined (e) | 266 164 | 272 733 | 277 433 | 323 332 | 231 782 |
| Refined | 70 041 | 154 158 | 150 834 | 156 035 | 218 470 |

Exports of Copper

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------------------|-----------|-----------|-----------|-----------|-----------|
| Zambia | | | | | |
| Unwrought— | | | | | |
| Unrefined | 20 911 | 3 173 | 220 | — | — |
| Refined | 625 781 | 614 208 | 555 760 | 602 583 | 570 453 |
| Zimbabwe | | | | | |
| Unwrought | 26 772 | 24 732 | 14 387 | 22 355 | 24 900 |
| Canada | | | | | |
| Ores, concentrates & matte (b) | 315 211 | 286 076 | 276 816 | 257 934 | 313 796 |
| Unwrought | 191 226 | 335 374 | 263 259 | 233 118 | 298 555 |
| Scrap | 40 561 | 43 115 | 41 324 | 51 745 | 53 469 |
| Cuba | | | | | |
| Concentrates | 3 599 | 3 524 | ... | ... | ... |
| Mexico | | | | | |
| Concentrates (b) | 18 742 | 89 787 | 161 100 | 161 461 | 195 100 |
| Unwrought, unrefined | 500 | 1 141 | 6 931 | 9 473 | 4 180 |
| Trinidad & Tobago | | | | | |
| Scrap | 364 | 434 | 398 | 373 | 455 |
| USA | | | | | |
| Ores & concentrates (b) | 44 565 | 106 825 | 150 782 | 195 277 | 42 738 |
| Unwrought— | | | | | |
| Unrefined | 7 466 | 3 819 | 9 233 | 2 009 | 7 454 |
| Refined | 74 888 | 18 926 | 56 219 | 31 624 | 82 007 |
| Alloys | 7 571 | 3 460 | 4 399 | 5 175 | 7 160 |
| Scrap | 171 736 | 191 622 | 146 703 | 146 954 | 137 761 |
| Bolivia | | | | | |
| Ore (b) | 1 740 | 1 676 | 2 545 | 2 139 | 1 925 |
| Chile | | | | | |
| Ores & concentrates (b) | 90 700 | 122 600 | 111 500 |) 200 900 | 185 200 |
| Matte (b) | 6 200 | 1 200 | 1 200 |) | |
| Unwrought— | | | | | |
| Unrefined | 165 000 | 151 300 | 172 700 | 199 800 | 224 400 |
| Refined | 746 200 | 769 100 | 752 100 | 807 400 | 830 300 |
| Colombia | | | | | |
| Ore | 3 714 | 4 354 | 3 317 | 857 | 615 |
| Peru | | | | | |
| Ore | 113 441 | 69 811 | * 85 000 | * 150 000 | * 105 000 |
| Unwrought— | | | | | |
| Unrefined | 139 578 | 126 985 | 104 534 | 97 091 | 92 722 |
| Refined | 207 439 | 206 095 | 192 410 | 204 051 | 161 757 |
| Cyprus | | | | | |
| Ores & concentrates | 12 322 | 825 | — | * 3 000 | * 4 000 |
| Hong Kong | | | | | |
| Scrap | 14 482 | 17 354 | 18 288 | 19 302 | 22 212 |
| Indonesia | | | | | |
| Ores & concentrates | 168 634 | 193 509 | 197 146 | 191 749 | * 190 000 |
| Iran | | | | | |
| Ore (c) | * 9 000 | * 4 000 | ... | 7 500 | ... |
| Israel (h) | | | | | |
| Matte | 85 | (a) 2 522 | ... | ... | ... |
| Cement copper | 36 | 79 | 5 845 | 5 535 | 4 795 |
| Scrap | 3 130 | 4 419 | 2 234 | 2 623 | 2 237 |
| Japan | | | | | |
| Unwrought | 52 469 | 216 406 | 43 192 | 48 417 | 182 829 |
| Scrap | 299 | 527 | 133 | 417 | 410 |
| Malaysia | | | | | |
| Ore | 102 054 | 107 416 | 129 267 | 121 060 | * 120 000 |
| Scrap | 5 413 | 5 789 | 6 033 | 6 661 | ... |
| Philippines | | | | | |
| Ores & concentrates | 1 049 124 | 1 141 855 | 1 138 628 | 1 060 405 | 787 508 |
| Scrap | 916 | 1 729 | 1 201 | 621 | 2 062 |
| Saudi Arabia | | | | | |
| Scrap | 876 | 3 269 | 6 672 | 8 013 | ... |
| Singapore | | | | | |
| Scrap | 15 543 | 16 066 | 13 849 | 15 328 | 19 507 |
| Taiwan | | | | | |
| Unwrought | 236 | 272 | 232 | 184 | 227 |
| Scrap | 7 552 | 5 279 | 2 861 | 8 911 | 8 095 |

Exports of Copper

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-------------------------|---------|---------|---------|---------|---------|
| Australia | | | | | |
| Ores & concentrates | 150 499 | 164 313 | 113 625 | 168 480 | 248 291 |
| Matte & cement | 6 886 | 5 797 | 4 444 | 13 910 | 4 963 |
| Unwrought— | | | | | |
| Unrefined | 28 756 | 18 100 | 18 773 | 7 213 | 8 413 |
| Refined | 46 978 | 50 784 | 55 548 | 45 235 | 78 236 |
| Alloys | 435 | 319 | 565 | 539 | ... |
| Scrap | 348 | 601 | 216 | 441 | ... |
| New Zealand (d) | | | | | |
| Unwrought | 59 | — | 32 | 40 | 40 |
| Scrap | 1 809 | 1 155 | 1 519 | 1 858 | 2 003 |
| Papua New Guinea | | | | | |
| Ores & concentrates (b) | 171 258 | 142 241 | 168 065 | 173 261 | 182 473 |

Note: In this table the term 'unwrought' copper corresponds to item 682.1 of the Standard International Trade Classification (Revision 2) and includes both unrefined (including blister) and refined copper. Additionally the term 'unwrought' as used here includes alloys unless these are separately specified. The term 'scrap' includes scrap alloys

- (a) Including unwrought and waste
- (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) Including matte
- (h) Figures may be incomplete as value only given in Israeli trade return for exports to some countries
- (i) Includes other burnt pyrites

Imports of Copper

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|---------|---------|---------|---------|---------|
| United Kingdom | | | | | |
| Ore & matte | 563 | 644 | 570 | 687 | 1 000 |
| Unwrought— | | | | | |
| Unrefined | 60 472 | 76 773 | 66 880 | 68 135 | 82 592 |
| Electrolytic | 299 992 | 257 066 | 207 185 | 244 775 | 196 401 |
| Other refined | 16 644 | 11 986 | 7 413 | 10 666 | 4 279 |
| Alloys | 670 | 596 | 588 | 1 302 | 504 |
| Scrap | 10 546 | 9 314 | 8 141 | 10 021 | 10 025 |
| Belgium-Luxembourg | | | | | |
| Ore (i) | 1 774 | 2 628 | 17 417 | 15 960 | 10 706 |
| Burnt cupreous pyrites | 7 964 | 3 104 | 1 375 | 70 | 1 951 |
| Unwrought— | | | | | |
| Matte, cement & unrefined | 172 410 | 189 986 | 203 637 | 213 831 | 194 275 |
| Refined | 343 106 | 317 255 | 278 264 | 255 273 | 141 671 |
| Alloys | 2 993 | 2 515 | 1 913 | 4 605 | 3 338 |
| Scrap | 100 383 | 124 528 | 104 715 | 113 628 | 131 918 |
| Denmark | | | | | |
| Unwrought | 3 518 | 3 105 | 1 354 | 67 | 1 200 |
| Unwrought alloys | 716 | 582 | 829 | 843 | 982 |
| Scrap | 2 909 | 3 123 | 5 281 | 4 244 | 3 042 |
| France | | | | | |
| Ore | 4 | 0 | 4 | 298 | 46 |
| Burnt cupreous pyrites | — | 3 883 | 5 732 | — | 661 |
| Matte & cement | 45 | 1 054 | 13 | 70 | 64 |
| Unwrought— | | | | | |
| Unrefined | 21 258 | 17 896 | 17 693 | 22 451 | 14 435 |
| Refined | 343 897 | 411 988 | 388 166 | 367 823 | 338 995 |
| Alloys | 4 139 | 4 583 | 4 661 | 4 901 | 3 836 |
| Scrap | 24 870 | 36 741 | 29 616 | 28 745 | 32 714 |
| Germany, Federal Republic of | | | | | |
| Ore | 483 740 | 537 883 | 481 142 | 553 963 | 496 262 |
| Burnt cupreous pyrites | 611 115 | 546 261 | 511 169 | 410 134 | 25 792 |
| Matte & cement | 12 249 | 11 026 | 4 675 | 6 309 | 11 358 |
| Unwrought— | | | | | |
| Unrefined | 62 785 | 51 680 | 65 706 | 81 223 | 68 903 |
| Refined | 457 415 | 451 645 | 381 748 | 423 208 | 403 807 |
| Alloys | 55 174 | 51 016 | 43 384 | 37 551 | 45 363 |
| Scrap | 170 002 | 180 971 | 151 352 | 177 122 | 205 405 |
| Greece | | | | | |
| Matte & cement | — | — | 3 665 | 8 864 | 15 583 |
| Unwrought | 24 014 | 24 692 | 19 600 | 16 223 | 19 090 |
| Unwrought alloys | 717 | 265 | 420 | 234 | 182 |
| Scrap | 255 | 354 | 1 871 | 2 079 | 22 |
| Irish Republic | | | | | |
| Unwrought | 148 | 197 | 215 | 330 | 131 |
| Italy | | | | | |
| Unwrought— | | | | | |
| Unrefined | 6 802 | 2 241 | 1 143 | 1 061 | 2 717 |
| Refined | 338 464 | 372 834 | 317 082 | 318 919 | 297 164 |
| Alloys | 18 621 | 21 255 | 11 151 | 6 160 | 6 845 |
| Scrap | 76 309 | 99 524 | 59 318 | 71 728 | 82 442 |
| Netherlands | | | | | |
| Unwrought | 28 688 | 20 028 | 22 822 | 20 648 | 25 598 |
| Unwrought alloys | 2 382 | 1 520 | 3 340 | 1 806 | 895 |
| Scrap | 21 139 | 29 459 | 37 746 | 38 211 | 38 047 |
| Austria | | | | | |
| Unwrought— | | | | | |
| Unrefined | 7 887 | 9 261 | 8 659 | 8 711 | 8 467 |
| Refined | 3 664 | 5 479 | 3 637 | 4 911 | 1 293 |
| Alloys | 1 340 | 908 | 679 | 1 784 | 1 074 |
| Scrap | 23 280 | 20 113 | 18 074 | 29 009 | 27 729 |
| Bulgaria | | | | | |
| Ore (a) | * 2 800 | * 4 300 | * 5 100 | ... | ... |
| Unwrought (a) | * 1 100 | * 1 100 | * 1 000 | * 1 500 | * 700 |
| Czechoslovakia | | | | | |
| Unwrought | 58 000 | 63 000 | 67 000 | 59 000 | 66 000 |

Imports of Copper

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------------------|----------|-----------|----------|----------|----------|
| Finland | | | | | |
| Ore | 24 705 | 9 934 | 53 626 | 74 305 | 103 800 |
| Unwrought— | | | | | |
| Refined | 11 806 | 23 436 | 20 060 | 18 435 | 18 716 |
| Alloys | 587 | 497 | 356 | 392 | 301 |
| Scrap | 1 002 | 1 768 | 2 004 | 2 318 | 702 |
| German Democratic Republic | | | | | |
| Ores & concentrates (a) | * 10 300 | * 19 500 | * 10 100 | * 3 800 | ... |
| Unwrought (a) | * 24 800 | * 20 300 | * 13 500 | * 29 100 | * 37 200 |
| Scrap (a) | * 22 400 | * 22 500 | * 23 700 | * 21 700 | * 22 300 |
| Hungary | | | | | |
| Unwrought (c) | 25 995 | 28 962 | 35 799 | 33 428 | 31 785 |
| Scrap | * 3 740 | 6 544 | 4 786 | 6 463 | 6 678 |
| Norway | | | | | |
| Unwrought | 1 098 | 721 | 659 | 590 | 468 |
| Unwrought alloys | 1 551 | 1 538 | 1 600 | 1 425 | 1 153 |
| Scrap | 228 | 331 | 232 | 47 | 71 |
| Poland | | | | | |
| Unwrought | 100 | 15 | ... | 1 295 | — |
| Portugal | | | | | |
| Ore | 62 | 10 | 140 | 7 521 | ... |
| Matte & cement | 644 | 1 797 | 3 107 | 463 | ... |
| Unwrought | 11 850 | 11 190 | 10 474 | 13 879 | ... |
| Scrap | 1 340 | 1 853 | 2 584 | 222 | ... |
| Romania | | | | | |
| Unwrought | * 20 900 | * 25 000 | * 26 300 | ... | ... |
| Soviet Union | | | | | |
| Ore (a) | * 91 800 | * 111 300 | * 57 100 | * 42 000 | ... |
| Unwrought | * 8 000 | * 11 000 | * 10 000 | * 7 000 | * 7 000 |
| Spain | | | | | |
| Ore | 191 109 | 204 097 | 152 753 | 127 518 | 164 799 |
| Matte & cement | 11 304 | 3 758 | 8 659 | 13 155 | 7 178 |
| Unwrought— | | | | | |
| Unrefined | 1 193 | 24 979 | 31 560 | 22 796 | 17 878 |
| Refined | 51 656 | 24 039 | 19 423 | 11 676 | 19 791 |
| Alloys | 243 | 548 | 999 | 1 192 | 1 151 |
| Scrap | 18 951 | 35 812 | 32 236 | 43 720 | 32 125 |
| Sweden | | | | | |
| Ore | 33 153 | 50 070 | 88 872 | 92 449 | 89 331 |
| Matte & cement | 10 371 | 8 009 | 10 829 | 8 516 | 8 053 |
| Unwrought | 71 476 | 72 701 | 62 145 | 73 797 | 71 475 |
| Unwrought alloys | 3 689 | 4 611 | 3 453 | 3 672 | 4 415 |
| Scrap | 6 184 | 5 780 | 3 409 | 10 567 | 22 368 |
| Switzerland | | | | | |
| Unwrought— | | | | | |
| Refined | 11 037 | 9 396 | 10 046 | 8 615 | 8 370 |
| Alloys | 1 063 | 1 170 | 1 051 | 748 | 674 |
| Scrap | 3 395 | 3 566 | 3 762 | 3 695 | 2 201 |
| Turkey | | | | | |
| Ore | — | 14 012 | 29 979 | — | 16 202 |
| Unwrought | 2 282 | 11 345 | 9 358 | 6 164 | 26 110 |
| Scrap | 622 | 1 200 | 2 091 | 2 697 | 928 |
| Yugoslavia | | | | | |
| Concentrates | 7 739 | 47 817 | 11 561 | 9 691 | ... |
| Unwrought | 36 095 | 50 412 | 67 037 | 52 334 | 26 927 |
| Algeria | | | | | |
| Unwrought | 2 399 | 5 418 | ... | ... | ... |
| Egypt | | | | | |
| Unwrought & scrap (b) | 1 163 | 1 482 | 2 534 | 3 102 | ... |
| Morocco | | | | | |
| Unwrought | 299 | 304 | 565 | 617 | ... |

Imports of Copper

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-------------------------|-----------|-----------|-----------|-----------|-----------|
| South Africa | | | | | |
| Ores & concentrates | — | 2 972 | 2 040 | — | — |
| Unwrought | 2 025 | 8 852 | 5 109 | 2 911 | 884 |
| Unwrought alloys | 101 | 161 | 71 | 133 | 94 |
| Scrap | 55 | 286 | 376 | 107 | 166 |
| Canada | | | | | |
| Ores & concentrates (d) | 2 653 | 12 896 | 19 618 | 12 361 | 24 535 |
| Unwrought | 32 541 | 13 466 | 24 778 | 28 028 | 24 559 |
| Unwrought alloys | 9 814 | 10 297 | 9 835 | 6 731 | 9 835 |
| Scrap | 35 442 | 35 051 | 37 974 | 41 127 | 71 528 |
| Mexico | | | | | |
| Unwrought & scrap | 22 565 | 43 117 | 101 882 | 23 626 | ... |
| USA | | | | | |
| Ores & concentrates (d) | 22 021 | 13 756 | 30 200 | 93 903 | 89 272 |
| Matte (d) | 519 | 766 | 2 712 | 4 251 | 4 008 |
| Unwrought— | | | | | |
| Unrefined (d) | 68 032 | 45 776 | 73 053 | 102 211 | 82 099 |
| Refined | 215 161 | 458 112 | 354 899 | 284 773 | 482 983 |
| Alloys | 3 959 | 2 340 | 5 664 | 2 270 | 6 760 |
| Scrap | 36 276 | 35 226 | 41 740 | 41 830 | 56 408 |
| Argentina | | | | | |
| Unwrought, refined | 46 812 | 38 413 | 28 065 | 39 101 | ... |
| Brazil | | | | | |
| Unwrought, refined | 190 175 | 208 159 | 152 910 | 182 841 | 54 187 |
| Scrap | 2 326 | 3 435 | 1 483 | 1 437 | 441 |
| Colombia | | | | | |
| Unwrought | 3 613 | 2 768 | 2 316 | 888 | 3 270 |
| Uruguay | | | | | |
| Unwrought | 235 | 217 | 135 | 4 | 8 |
| Venezuela | | | | | |
| Unwrought— | | | | | |
| Refined | 5 407 |) 4 046 | 3 632 | 2 683 | 2 000 |
| Alloys | 258 |) | | 256 | ... |
| China | | | | | |
| Unwrought | 134 200 | 128 200 | 53 689 | 110 938 | 485 863 |
| Hong Kong | | | | | |
| Unwrought | 145 | 201 | 1 077 | 1 093 | 748 |
| Scrap | 2 198 | 4 927 | 1 202 | 2 010 | 2 896 |
| India | | | | | |
| Unwrought (e) | 43 257 | 51 508 | 84 850 | 56 700 | 63 100 |
| Scrap | 34 275 | 40 286 | 51 259 | ... | ... |
| Indonesia | | | | | |
| Unwrought | 5 062 | 12 248 | 14 849 | 17 532 | ... |
| Iran (f) | | | | | |
| Unwrought | 446 | 568 | 7 076 | 3 756 | ... |
| Scrap | 935 | 1 657 | 5 345 | 4 737 | ... |
| Israel (h) | | | | | |
| Unwrought | 387 | 135 | 396 | ... | (a)* 300 |
| Japan | | | | | |
| Ores & concentrates | 2 969 026 | 3 103 557 | 3 338 326 | 3 627 797 | 3 135 228 |
| Matte & cement | 1 580 | 2 574 | — | 478 | 4 394 |
| Unwrought | 395 054 | 290 803 | 331 425 | 373 748 | 246 276 |
| Unwrought alloys | 102 | 105 | 31 | 574 | 244 |
| Scrap | 49 356 | 49 929 | 51 866 | 56 418 | 57 486 |
| Korea, Republic of | | | | | |
| Ore | 128 809 | 233 999 | 382 919 | 394 250 | 371 278 |
| Matte & cement | 1 848 | 3 341 | 2 398 | 8 495 | 15 865 |
| Unwrought | 26 277 | 15 471 | 28 675 | 30 112 | 37 675 |
| Scrap | 51 259 | 19 632 | 25 736 | 94 433 | 42 787 |
| Kuwait | | | | | |
| Unwrought | 1 764 | 3 011 | 3 546 | ... | ... |
| Malaysia | | | | | |
| Unwrought | 110 | 34 | 91 | 3 288 | ... |
| Pakistan (g) | | | | | |
| Scrap | 835 | 803 | ... | 810 | 412 |
| Philippines | | | | | |
| Unwrought | 5 335 | 4 961 | 5 734 | 5 610 | 5 714 |

Imports of Copper

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-----------------------|--------|---------|---------|--------|---------|
| Singapore | | | | | |
| Unwrought | 241 | 554 | 271 | 411 | 255 |
| Scrap | 3 060 | 5 026 | 4 551 | 5 090 | 4 020 |
| Syria | | | | | |
| Unwrought & scrap (b) | 549 | 417 | 464 | 100 | ... |
| Taiwan | | | | | |
| Ores & concentrates | 61 106 | 131 315 | 215 963 | 85 427 | 134 083 |
| Matte & cement | 962 | 14 | 26 | 6 | 6 |
| Unwrought | 56 021 | 66 186 | 40 152 | 27 402 | 64 006 |
| Scrap | 16 329 | 35 072 | 32 984 | 23 367 | 30 441 |
| Thailand | | | | | |
| Unwrought | 6 388 | 4 468 | 5 668 | 6 298 | 10 778 |
| Scrap | 512 | 337 | 373 | 222 | 235 |
| Australia | | | | | |
| Unwrought | 228 | 224 | 2 059 | 2 176 | 4 430 |
| Unwrought alloys | 283 | 18 | 37 | 97 | ... |
| Scrap | 1 109 | 2 070 | 7 748 | 2 139 | ... |
| New Zealand (g) | | | | | |
| Unwrought | 2 452 | 3 068 | 1 551 | 2 553 | 1 872 |

Note: In this table the term 'unwrought' copper corresponds to item 682.1 of the Standard International Trade Classification (Revision 2) and includes both unrefined (including blister) and refined copper. Additionally 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
- (c) Including semi-manufactures
- (d) Cu content
- (e) Years ended 31 March following that stated
- (f) Years ended 20 March following that stated
- (g) Years ended 30 June of that stated
- (h) Figures may be incomplete as value only given in Israeli trade return for imports from some countries
- (i) Figures up to 1980 are partial figures. Imports from certain countries are confidential

Production of Diamond

carats

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------------|--------------|--------------|--------------|--------------|--------------|
| Soviet Union | * 10 700 000 | * 10 850 000 | * 10 600 000 | * 10 600 000 | * 11 000 000 |
| Angola | 840 000 | 1 500 000 | 1 400 000 | 1 225 000 | * 1 200 000 |
| Botswana | 4 369 000 | 5 146 000 | 4 860 000 | 7 562 000 | 10 897 000 |
| Central African Republic | 314 067 | 342 000 | 311 903 | 277 000 | 295 358 |
| Ghana | 1 225 600 | 1 149 200 | 836 200 | 684 200 | 336 612 |
| Guinea | * 85 000 | * 38 000 | * 38 000 | * 33 000 | * 40 000 |
| Ivory Coast | 48 000 | — | — | — | — |
| Lesotho | 52 421 | 53 714 | 52 921 | 42 119 | — |
| Liberia (a) | 301 808 | 298 446 | 336 019 | 433 000 | 329 924 |
| Namibia | 1 652 536 | 1 559 885 | 1 247 960 | 1 014 464 | 963 000 |
| Sierra Leone | 855 164 | 592 018 | 305 356 | 290 000 | 275 000 |
| South Africa | 8 384 332 | 8 520 328 | 9 525 876 | 9 153 955 | 10 311 339 |
| Tanzania | 341 912 | 269 876 | 236 500 | 297 000 | * 260 500 |
| Zaire | 8 734 000 | 10 334 000 | 7 161 000 | 6 164 000 | 11 729 000 |
| Brazil | 500 000 | 666 832 | 1 089 313 | 529 760 | 311 589 |
| Guyana | 15 824 | 10 236 | 9 533 | 11 492 | 12 362 |
| Venezuela | 802 646 | 665 721 | 490 425 | 444 269 | 278 920 |
| India | 15 229 | 14 432 | 14 834 | 13 007 | 14 286 |
| Indonesia | * 15 000 | * 15 000 | * 15 000 | * 15 000 | * 27 000 |
| Australia | — | — | — | 457 000 | 6 200 227 |
| World total | 39 300 000 | 42 000 000 | 38 500 000 | 39 200 000 | 54 500 000 |

Notes:

- 1 This table does not show production of synthetic diamond
- 2 In addition to the countries listed, China is also believed to produce diamonds

(a) Exports

Exports of Diamond

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|----------------|----------------|--------------|--------------|--------------|
| United Kingdom | | | | | |
| Industrial | 11 229 202 | 9 178 933 | 5 443 695 | 6 875 321 | 3 494 914 |
| Other | 61 199 105 | 62 404 599 | 21 964 870 | 24 520 616 | 29 006 530 |
| Belgium-Luxembourg | | | | | |
| Rough | 22 807 126 | 24 868 056 | 31 256 619 | 38 557 375 | 33 888 227 |
| Cut | 2 875 324 | 2 602 506 | 2 864 711 | 3 051 028 | 3 349 982 |
| Industrial | 9 150 601 | 8 070 087 | 10 700 324 | 9 027 296 | 9 468 688 |
| France | | | | | |
| Rough | 2 406 | 2 176 | 2 071 | — | 264 |
| Cut | 34 760 | 52 773 | 41 020 | 93 426 | 98 034 |
| Industrial | 191 048 | 177 713 | 155 999 | 205 303 | 148 930 |
| Dust | 129 130 | 199 770 | 89 155 | 217 950 | 304 565 |
| Germany, Federal Republic of | | | | | |
| Industrial | 295 777 | 222 053 | 286 887 | 249 798 | 314 815 |
| Other | 113 376 | 118 523 | 124 313 | 134 503 | 120 698 |
| Italy | | | | | |
| Industrial | 75 059 | 95 854 | 44 102 | 28 740 | 9 300 |
| Other | 1 186 | 75 586 | 20 346 | ... | 2 054 |
| Netherlands | | | | | |
| Rough | 316 662 | 147 508 | 259 946 | 220 574 | 100 716 |
| Cut | 122 300 | 107 228 | 98 310 | 202 932 | 219 956 |
| Industrial | 845 467 | 833 512 | 677 168 | 632 768 | 480 787 |
| Austria | | | | | |
| Industrial | ... | 15 000 | 10 000 | 5 000 | ... |
| Other | 10 000 | 25 000 | 25 000 | 20 000 | 25 000 |
| Malta | £1 604 000 | £900 100 | £1 141 000 | £1 877 000 | £3 105 000 |
| Portugal | 35 683 | 44 630 | 44 669 | 25 000 | ... |
| Soviet Union | | | | | |
| Gem | * £148 350 000 | * £561 284 000 | £111 278 000 | ... | ... |
| Industrial | * £137 000 | * £109 000 | £6 860 000 | ... | ... |
| Spain | | | | | |
| Industrial | £67 000 | £170 000 | £198 000 | £309 000 | £630 000 |
| Other | £35 000 | £451 000 | £214 000 | £541 000 | £265 000 |
| Sweden | | | | | |
| Industrial | £17 900 | £21 600 | £36 000 | £66 000 | £199 000 |
| Other | £1 585 950 | £4 384 300 | £5 750 000 | £5 350 000 | £3 335 000 |
| Central African Republic | £16 510 000 | £12 500 000 | ... | ... | ... |
| Congo | £11 600 000 | £16 500 000 | ... | ... | ... |
| Ghana | | | | | |
| Industrial | 1 050 603 | 897 000 | 944 000 | 688 000 | ... |
| Ivory Coast | 2 007 | 37 180 | 70 000 | ... | ... |
| Kenya | 177 000 | 212 440 | 54 740 | 75 415 | ... |
| Lesotho | 64 886 | 105 245 | 55 718 | 53 580 | ... |
| Liberia | 301 808 | 298 446 | 336 019 | 433 000 | 329 924 |
| Sierra Leone | | | | | |
| Industrial | 343 581 | 202 425 | ... | ... | ... |
| Other | 670 146 | 379 637 | 69 899 | ... | ... |
| South Africa (c) | | | | | |
| Rough | £492 385 000 | £516 724 000 | £357 567 000 | £461 436 000 | £641 800 000 |
| Cut | £175 344 000 | £168 687 000 | £102 560 000 | £65 195 000 | £96 391 000 |
| Industrial | £14 572 000 | £11 780 000 | £11 106 000 | £8 634 000 | £5 376 000 |
| Tanzania | 255 525 | 311 215 | 291 090 | ... | ... |
| Zaire | 8 734 000 | 10 435 000 | 7 161 000 | 6 164 000 | ... |
| Canada | | | | | |
| Cut | 34 571 | 28 929 | 60 140 | 62 578 | 36 894 |
| of which: Re-exports | 32 555 | 28 433 | 60 021 | 62 578 | 36 894 |
| Industrial | 174 752 | 240 817 | 265 459 | 344 780 | 299 340 |
| of which: Re-exports | 168 344 | 239 470 | 252 280 | 344 780 | 299 340 |
| Dust | 20 513 | 19 795 | 72 679 | 191 879 | 77 850 |
| of which: Re-exports | 19 156 | 19 650 | 72 479 | 191 850 | 74 850 |

Exports of Diamond

carats

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------------|------------|------------|------------|------------|------------|
| USA | | | | | |
| Rough | 922 298 | 983 546 | 2 782 060 | 2 675 960 | 2 001 703 |
| of which: Re-exports | 913 981 | 983 546 | 2 782 037 | 2 675 960 | 2 001 703 |
| Cut | 273 210 | 341 207 | 432 927 | 484 347 | 486 846 |
| of which: Re-exports | 68 046 | 130 564 | 235 840 | 299 476 | 162 473 |
| Industrial | 2 737 433 | 3 569 318 | 2 296 978 | 2 065 215 | 3 184 601 |
| of which: Re-exports | 2 054 707 | 3 268 170 | 1 847 016 | 1 650 510 | 1 932 607 |
| Dust (b) | 27 769 094 | 28 534 606 | 28 471 690 | 30 706 308 | 42 311 999 |
| of which: Re-exports | 472 309 | 372 150 | 584 451 | 1 118 829 | 1 240 924 |
| Brazil | 7 840 | 8 580 | 12 120 | 18 360 | 1 805 |
| of which: Re-exports | 7 085 | 3 180 | 260 | — | — |
| Guyana | 5 274 | ... | 252 | 1 749 | ... |
| Venezuela | | | | | |
| Rough | 4 555 000 | ... | ... | 65 000 | ... |
| Industrial | 165 000 | ... | ... | 295 000 | ... |
| Hong Kong | 383 359 | 324 669 | 444 210 | 694 234 | 392 855 |
| of which: Re-exports | 372 714 | 311 603 | 438 425 | 685 572 | 387 548 |
| India | | | | | |
| Gem (d) | 2 743 676 | 3 228 106 | 3 933 950 | ... | ... |
| Israel (a) | | | | | |
| Cut | 2 451 000 | 2 649 000 | 2 662 000 | 2 459 000 | 2 565 000 |
| Japan | | | | | |
| Industrial | 1 286 | 11 562 | 2 098 | 6 123 | 22 639 |
| Other | 1 031 | 450 471 | 324 | 1 038 | 583 |
| Malaysia | | | | | |
| Cut | £2 200 000 | £1 300 000 | £1 000 000 | £517 000 | ... |
| Singapore | | | | | |
| Rough | £80 500 | £152 000 | £111 000 | £114 000 | £9 000 |
| of which: Re-exports | £44 300 | £144 000 | £111 000 | £108 000 | £9 000 |
| Cut | £2 899 500 | £2 181 500 | £3 745 000 | £7 643 000 | £4 908 000 |
| of which: Re-exports | £2 297 500 | £1 919 300 | £3 231 000 | £7 272 000 | £3 945 000 |
| Industrial | £162 700 | £223 000 | £493 000 | £747 000 | £360 000 |
| of which: Re-exports | £127 000 | £162 000 | £401 000 | £513 000 | £263 000 |
| Thailand | 5 637 | 8 447 | 22 453 | 65 563 | 49 447 |
| Australia | | | | | |
| Gem (e) | 13 185 | 11 054 | 8 796 | 13 707 | 3 015 385 |
| Industrial | 247 861 | 391 297 | 272 322 | 258 830 | ... |

Note: Carats have been used as the unit in this table except where the only obtainable figure is the value. In these cases the national currency figure has been converted to £ sterling. (See explanatory notes at the front of the volume)

- (a) Figures may be incomplete as value only given in Israeli trade return for exports to some countries
 (b) May include synthetic material
 (c) Values shown are for the common customs area
 (d) Years ended 31 March following that stated
 (e) Re-exports up to 1982

Imports of Diamond

carats

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|----------------|----------------|--------------|--------------|----------------|
| United Kingdom | £2 705 513 536 | £3 035 607 473 | £954 452 214 | £969 891 705 | £1 398 637 051 |
| Belgium-Luxembourg | | | | | |
| Rough | 24 910 619 | 26 513 377 | 29 574 750 | 29 267 085 | 31 731 755 |
| Cut | 2 225 218 | 2 097 733 | 1 990 760 | 2 453 910 | 2 576 938 |
| Industrial | 11 309 001 | 9 388 064 | 13 402 937 | 18 312 529 | 14 148 153 |
| France | | | | | |
| Rough | 22 884 | 21 867 | 18 060 | 9 443 | 89 677 |
| Cut | 433 302 | 705 079 | 627 869 | 1 099 717 | 469 559 |
| Industrial | 496 826 | 689 793 | 1 170 808 | 694 744 | 489 081 |
| Dust | 3 976 970 | 4 469 740 | 4 453 265 | 4 125 495 | 4 334 170 |
| Germany, Federal Republic of | | | | | |
| Rough | 21 253 | 34 540 | 18 529 | 18 061 | 24 967 |
| Cut | 498 460 | 525 976 | 477 949 | 474 943 | 509 479 |
| Industrial | 1 056 672 | 1 105 324 | 961 711 | 864 233 | 939 371 |
| Irish Republic | | | | | |
| Industrial | 5 000 | 20 000 | 25 000 | 3 380 000 | 1 015 000 |
| Italy | | | | | |
| Industrial | 184 340 | 221 140 | 183 034 | 169 727 | 114 613 |
| Other | 155 619 | 173 711 | 215 246 | 196 650 | 171 443 |
| Netherlands | | | | | |
| Rough | 621 446 | 216 867 | 209 968 | 332 238 | 373 147 |
| Cut | 141 479 | 150 071 | 138 497 | 160 376 | 130 338 |
| Industrial | 877 485 | 589 247 | 493 030 | 277 335 | 237 469 |
| Austria | | | | | |
| Industrial | 35 000 | 50 000 | 25 000 | 40 000 | 15 000 |
| Other | 90 000 | 125 000 | 230 000 | 115 000 | 75 000 |
| Czechoslovakia | | | | | |
| Gem | * £42 000 | * £351 000 | * £12 000 | ... | ... |
| Industrial | * £1 550 000 | * £1 464 000 | * £1 750 000 | ... | ... |
| Finland | | | | | |
| Industrial | 10 000 | 10 000 | 10 000 | 10 000 | 10 000 |
| Other | 70 000 | 20 000 | 50 000 | 20 000 | 15 000 |
| Malta | | | | | |
| Rough | £3 166 000 | £1 865 000 | £3 066 000 | £3 141 000 | £3 245 000 |
| Cut | £4 000 | £1 000 | £50 | — | £100 |
| Industrial | £46 000 | £230 100 | £903 400 | £286 000 | £344 000 |
| Norway | | | | | |
| Industrial | 25 000 | 25 000 | ... | ... | ... |
| Other | 65 000 | 40 000 | 100 000 | 20 000 | 45 000 |
| Portugal | 137 797 | 111 210 | 216 190 | ... | ... |
| Spain | | | | | |
| Rough | £618 500 | £108 200 | £521 700 | £80 300 | £122 000 |
| Industrial | £1 181 400 | £404 500 | £347 400 | £614 700 | £857 600 |
| Other | £18 288 200 | £9 697 700 | £8 803 700 | £15 614 000 | £17 704 000 |
| Dust | £1 785 600 | £1 619 000 | £1 778 000 | £2 208 000 | ... |
| Sweden | | | | | |
| Industrial | £643 500 | £471 200 | £451 000 | £363 000 | £425 800 |
| Other | £6 758 500 | £11 337 700 | £9 486 700 | £12 089 000 | £9 823 800 |
| Yugoslavia | | | | | |
| Industrial | 150 000 | 295 000 | ... | ... | ... |
| Other | 120 000 | 5 000 | ... | 10 000 | ... |
| Dust | 150 000 | * 200 000 | ... | ... | ... |
| Algeria | | | | | |
| Industrial | 175 000 | 245 000 | ... | ... | ... |
| Kenya | | | | | |
| Rough & cut | 42 010 | 5 050 | 280 000 | — | ... |
| South Africa | | | | | |
| Rough | 69 000 | 121 500 | 142 000 | 230 500 | 83 500 |
| Cut | 38 000 | 37 500 | 23 500 | 8 000 | 15 000 |
| Industrial | 1 691 000 | 2 343 500 | 2 144 000 | 1 384 000 | 1 547 000 |
| Zambia | | | | | |
| Industrial | 6 430 000 | ... | ... | ... | ... |
| Canada | | | | | |
| Cut | 137 732 | 133 308 | 191 293 | 200 582 | 275 683 |
| Industrial | 1 332 418 | 1 343 395 | 1 503 758 | 1 090 627 | 1 168 149 |
| Dust | 1 134 411 | 1 287 451 | 1 799 297 | 885 816 | 1 577 841 |
| Costa Rica | | | | | |
| Industrial | 100 000 | 90 000 | ... | 560 000 | 160 000 |

Imports of Diamond

carats

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------|--------------|--------------|------------|-----------|-----------|
| El Salvador | | | | | |
| Industrial | 570 000 | 750 000 | 955 000 | 225 000 | 70 000 |
| Honduras | | | | | |
| Industrial | ... | 10 000 | ... | ... | ... |
| Mexico | | | | | |
| Rough | 10 000 | 10 000 | ... | 10 000 | ... |
| Panama | | | | | |
| Industrial | 40 000 | 200 000 | 370 000 | 910 000 | ... |
| USA | | | | | |
| Rough | 2 119 523 | 1 577 059 | 933 285 | 885 735 | 1 008 736 |
| Cut | 2 352 646 | 2 574 168 | 3 469 567 | 3 744 094 | 5 238 628 |
| Industrial | 6 049 361 | 6 190 096 | 5 950 703 | 4 623 637 | 6 078 997 |
| Bort | 58 255 | 59 772 | 12 072 | 145 900 | 45 604 |
| Dust | 5 265 420 | 3 604 697 | 3 569 716 | 3 324 035 | 3 975 219 |
| Argentina | | | | | |
| Industrial | 285 000 | 55 000 | 305 000 | ... | ... |
| Dust | 100 545 | 436 550 | 487 170 | ... | ... |
| Brazil | | | | | |
| Rough | 1 465 | 5 990 | 2 000 | 715 | 750 |
| Cut | 10 575 | 8 335 | 2 085 | 4 210 | 1 925 |
| Industrial | 248 395 | 416 345 | 160 010 | 128 305 | 105 675 |
| Dust | 2 317 695 | 2 872 070 | 2 438 630 | 1 772 635 | 2 918 510 |
| Venezuela | | | | | |
| Rough | ... | ... | ... | 85 000 | ... |
| Industrial | 3 200 000 | ... | ... | 855 000 | ... |
| Abu Dhabi | 5 000 | 40 000 | 225 000 | 25 000 | ... |
| China | | | | | |
| Industrial | (a)* 111 600 | (a)* 191 400 | 240 616 | 266 124 | 358 123 |
| Other (a) | * 17 700 | * 482 700 | * 6 900 | * 22 200 | * 19 100 |
| Dubai | | | | | |
| Industrial | 7 400 000 | 8 740 000 | ... | ... | ... |
| Other | 81 840 | 74 545 | 91 470 | ... | ... |
| Hong Kong | | | | | |
| Rough | 52 212 | 121 377 | 108 528 | 221 450 | 118 739 |
| Cut | 1 002 710 | 1 169 288 | 1 094 272 | 1 220 652 | 1 167 524 |
| Industrial | 57 083 | 145 309 | 9 260 | 127 489 | 20 190 |
| India | | | | | |
| Rough (d) | 19 525 797 | 20 006 377 | 19 637 202 | ... | ... |
| Industrial & bort | 480 000 | 965 000 | 775 000 | ... | ... |
| Indonesia | | | | | |
| Industrial | 1 790 000 | 1 620 000 | 200 000 | — | ... |
| Israel | | | | | |
| Rough (c) | 55 625 000 | 5 884 000 | 4 259 000 | 4 662 000 | 5 693 000 |
| Cut (c) | 87 000 | 102 000 | 72 000 | 197 000 | 296 000 |
| Industrial (c) | 2 068 000 | 2 451 000 | 2 453 000 | 2 667 000 | 3 565 000 |
| Japan | | | | | |
| Rough | 38 598 | 29 763 | 13 363 | 19 292 | 17 108 |
| Cut | 683 836 | 683 055 | 766 890 | 823 757 | 906 574 |
| Industrial | 622 873 | 681 354 | 634 540 | 757 507 | 793 890 |
| Dust | 912 040 | 828 240 | 726 815 | 881 650 | 987 205 |
| Korea, Republic of | | | | | |
| Cut | £567 000 | £446 000 | £236 000 | £373 000 | £123 000 |
| Industrial | £616 100 | £356 700 | £407 500 | £405 000 | £532 000 |
| Other | £43 000 | £301 000 | £586 000 | £207 000 | £161 000 |
| Malaysia | | | | | |
| Rough | £1 208 600 | £1 522 500 | £1 246 342 | ... | ... |
| Cut | £709 500 | £506 300 | £576 100 | ... | ... |
| Industrial | £63 000 | £158 000 | £182 000 | £49 000 | ... |
| Philippines | | | | | |
| Industrial | 84 110 | 57 088 | 73 950 | 22 900 | 33 117 |
| Saudi Arabia | | | | | |
| Industrial | 7 795 000 | 1 805 000 | 930 000 | 225 000 | 110 000 |
| Other | 4 135 000 | 1 210 000 | 1 635 000 | 165 000 | 585 000 |

Imports of Diamond

carats

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-----------------|-------------|-------------|-------------|-------------|-------------|
| Singapore | | | | | |
| Rough | £310 100 | £364 000 | £211 500 | £164 000 | £312 000 |
| Cut | £16 678 500 | £29 404 000 | £22 385 500 | £27 170 000 | £40 868 000 |
| Industrial | £949 600 | £1 915 000 | £1 730 000 | £2 030 000 | £741 000 |
| Taiwan | | | | | |
| Industrial | ... | 7 270 000 | 1 460 000 | 285 000 | 8 380 000 |
| Other | 165 000 | — | 5 645 000 | 1 990 000 | 1 515 000 |
| Dust | 32 620 000 | 4 245 000 | 1 865 000 | 1 735 000 | 4 615 000 |
| Thailand | | | | | |
| Industrial | 133 774 | 72 076 | 73 427 | 3 485 | 1 400 |
| Other | 5 845 | 25 762 | 191 319 | 959 217 | 530 725 |
| Australia | | | | | |
| Gem | 60 356 | 67 415 | 109 774 | 167 590 | 72 007 |
| Industrial | 1 139 174 | 1 259 233 | 1 267 592 | 1 026 476 | 1 120 615 |
| New Zealand (b) | | | | | |
| Industrial | £71 400 | £25 200 | £82 700 | £65 000 | £72 000 |
| Other | £1 436 200 | £1 026 800 | £1 001 800 | £1 699 000 | £2 111 000 |

Note: Carats have been used as the unit in this table except where the only obtainable figure is the value. In these cases the national currency figure has been converted to £ sterling. (See explanatory notes at the front of the volume)

- (a) BGS estimates, based on known exports from certain countries
- (b) Years ended 30 June of that stated
- (c) Figures may be incomplete as value only given in Israeli trade return for imports from some countries
- (d) Years ended 31 March following that stated

Production of Diatomite

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|-----------|-----------|-----------|------------|
| United Kingdom | * 1 000 | * 1 000 | * 1 000 | * 500 | * 300 |
| Denmark (a) | | | | | |
| Diatomite | 6 158 | 4 443 | 3 192 | 3 903 | 3 518 |
| Moler (d) | * 110 300 | * 102 400 | * 97 300 | * 98 500 | (e) 70 672 |
| France (b) | 332 916 | * 218 000 | 223 281 | 244 349 | 221 300 |
| Germany, Federal Republic of | 49 401 | 52 824 | 42 400 | 42 700 | 44 200 |
| Italy | * 19 000 | 18 000 | * 25 000 | * 20 000 | * 25 000 |
| Iceland | 22 247 | 19 353 | 20 644 | 24 528 | 25 502 |
| Portugal | 3 200 | 2 710 | 2 690 | 1 770 | 1 870 |
| Romania | * 40 000 | * 40 000 | * 40 000 | * 40 000 | * 40 000 |
| Soviet Union | * 225 000 | * 230 000 | * 230 000 | * 235 000 | * 235 000 |
| Spain (b) | 27 196 | 25 140 | 38 111 | * 60 000 | * 65 000 |
| Turkey | * 9 000 | * 9 500 | * 10 000 | 2 688 | 9 600 |
| Yugoslavia | ... | 10 249 | ... | ... | ... |
| Algeria | 4 400 | 4 400 | 4 500 | * 4 500 | * 4 500 |
| Kenya | 1 266 | 1 677 | 1 921 | 1 783 | 1 570 |
| South Africa | 1 059 | 623 | 615 | 596 | 1 088 |
| Canada | 2 000 | 4 000 | 4 000 | * 2 000 | * 2 000 |
| Costa Rica | 590 | 600 | 550 | 1 000 | * 1 000 |
| Mexico | 43 606 | 56 352 | 56 600 | 56 342 | * 56 000 |
| USA (c) | 650 000 | 625 000 | 623 000 | 556 000 | 562 000 |
| Argentina | 7 327 | 6 527 | 4 972 | 5 000 | 5 000 |
| Brazil (f) | 16 547 | 14 828 | 8 973 | 13 146 | 8 678 |
| Chile | 763 | 1 147 | 358 | 387 | * 400 |
| Colombia | 630 | * 600 | * 600 | * 600 | * 600 |
| Peru | 7 271 | * 7 300 | * 7 300 | * 7 300 | * 7 300 |
| Korea, Republic of | 23 915 | 25 101 | 42 176 | 55 249 | 55 968 |
| Thailand | 3 418 | 1 982 | 128 | 80 | 425 |
| Australia | 3 592 | 3 010 | 2 073 | 1 561 | * 1 800 |
| World total | 1 600 000 | 1 500 000 | 1 500 000 | 1 500 000 | 1 500 000 |

Note: In addition to the countries listed, Czechoslovakia, Hungary and Japan are also believed to produce diatomite

(a) Sales

(b) Including tripoli

(c) Sold or used by producers

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

(e) Excluding moler used for bricks, blocks etc.

(f) Includes beneficiated and directly shipped material

Exports of Diatomite

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|---------|------------|------------|------------|------------|
| United Kingdom | 1 098 | 985 | 567 | 377 | 309 |
| Belgium-Luxembourg | 1 350 | 7 806 | 924 | 65 126 | 2 297 |
| Denmark | | | | | |
| Diatomite | 6 323 | 4 679 | 3 515 | 4 515 |) 65 457 |
| Moler | 52 052 | 52 385 | 56 526 | 59 943 |) |
| Moler bricks | 30 252 | 28 045 | 24 696 | 21 359 | 20 726 |
| France | 28 876 | 25 852 | 26 781 | 26 999 | 26 984 |
| Germany, Federal Republic of | 5 137 | 3 210 | 3 542 | 2 344 | 2 660 |
| Italy | 1 866 | 885 | 1 539 | 2 586 | 3 231 |
| Netherlands | 559 | 657 | 492 | 756 | 1 066 |
| Austria | 1 031 | 1 135 | 492 | 815 | 1 137 |
| Czechoslovakia | * 1 030 | (a)* 1 000 | (a)* 1 250 | (a)* 2 100 | (a)* 2 400 |
| Finland | 9 | 42 | 31 | 2 | 4 |
| Hungary | * 2 660 | * 3 800 | * 3 100 | ... | ... |
| Iceland | 21 288 | 18 149 | 19 836 | 24 966 | 24 508 |
| Norway | 34 | 11 | 45 | 1 | 36 |
| Portugal | 16 | 44 | 44 | 29 | ... |
| Spain | 1 453 | 1 673 | 2 504 | 1 852 | 3 267 |
| Sweden | 142 | 81 | 698 | 690 | 694 |
| Algeria | 1 850 | 400 | ... | ... | ... |
| Kenya | 227 | 581 | 783 | 511 | ... |
| Mexico | 3 797 | 14 828 | 1 549 | 1 660 | ... |
| USA | 153 927 | 156 970 | 146 681 | 128 349 | 132 426 |
| Japan | 1 277 | 1 891 | 2 321 | 2 165 | 1 322 |
| Korea, Republic of | 60 | 120 | — | — | — |
| Taiwan | 50 | 184 | 112 | 49 | 95 |

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

Imports of Diatomite

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|--------|---------|---------|------------|------------|
| United Kingdom | 11 902 | 13 602 | 12 296 | 14 352 | 17 601 |
| Belgium-Luxembourg | 11 349 | 9 039 | 8 368 | 6 535 | 6 400 |
| Denmark | 5 447 | 7 205 | 6 597 | 7 632 | 7 966 |
| France | 11 327 | 9 164 | 9 410 | 8 709 | 9 816 |
| Germany, Federal Republic of | 40 190 | 37 506 | 36 421 | 37 780 | 36 791 |
| Greece | 677 | 521 | 1 063 | 559 | 744 |
| Irish Republic | 1 217 | 712 | 472 | 469 | 453 |
| Italy | 5 912 | 5 597 | 5 019 | 4 743 | 5 347 |
| Netherlands | 17 460 | 16 489 | 16 796 | 15 275 | 16 150 |
| Austria | 7 856 | 8 691 | 8 007 | 7 958 | 11 395 |
| Czechoslovakia | * 250 | * 800 | * 350 | (e)* 900 | (e)* 2 400 |
| Finland | 1 901 | 2 053 | 2 184 | 3 925 | 4 312 |
| Iceland | 44 | 3 | 30 | 29 | 1 |
| Norway | 1 968 | 1 939 | 1 807 | 1 609 | 1 578 |
| Poland | * 700 | * 3 500 | * 2 100 | ... | ... |
| Portugal | 4 058 | 4 319 | 3 932 | 3 608 | ... |
| Romania | * 800 | * 1 000 | * 1 200 | (e)* 2 000 | (e)* 900 |
| Spain | 2 875 | 2 941 | 2 778 | 2 207 | 2 704 |
| Sweden | 5 544 | 3 824 | 3 363 | 3 039 | 3 149 |
| Switzerland | 9 102 | 9 381 | 11 169 | 12 067 | 10 209 |
| Turkey | 84 | 154 | 321 | 106 | 73 |
| Yugoslavia | 285 | 421 | 544 | 446 | 617 |
| Cameroon | 685 | 807 | ... | ... | ... |
| Canary Islands | 123 | 150 | 159 | 36 | ... |
| Ivory Coast | 238 | 278 | 258 | ... | ... |
| Kenya | 401 | 343 | 499 | 130 | ... |
| Morocco | 176 | 255 | 331 | 36 | ... |
| South Africa | 5 900 | 6 465 | 7 544 | 7 172 | 5 849 |
| Tunisia | 169 | 150 | 156 | 142 | ... |
| Zaire | 321 | 73 | * 100 | ... | ... |
| Canada | 28 362 | 26 577 | 25 545 | 23 130 | 23 298 |
| Costa Rica | 407 | 255 | 431 | 361 | 342 |
| Dominican Republic | 760 | 702 | 708 | 479 | ... |
| El Salvador | 359 | 310 | 386 | 346 | 544 |
| Guatemala | 718 | 1 101 | 919 | 515 | 549 |
| Honduras | ... | 302 | 327 | ... | ... |
| Mexico | 228 | 801 | 623 | 216 | ... |
| Nicaragua | 344 | 427 | ... | ... | ... |
| Panama | 399 | 380 | 439 | 443 | 222 |
| USA | 479 | 267 | 354 | 229 | 314 |
| Argentina | 3 391 | 2 229 | 2 199 | ... | ... |
| Brazil | 1 451 | 1 535 | 2 126 | 1 829 | 2 217 |
| Colombia | 796 | 488 | 1 153 | 1 232 | 630 |
| Ecuador | 658 | 1 488 | 567 | ... | ... |
| Peru | 1 019 | 1 773 | 2 401 | 1 353 | 1 076 |
| Uruguay | 125 | 147 | 109 | 49 | 49 |
| Venezuela | 7 489 | 7 080 | 3 864 | 7 719 | ... |
| Cyprus | 117 | 174 | 123 | 195 | 115 |
| Hong Kong | 242 | 364 | 481 | 427 | 484 |
| India (d) | 387 | 156 | 28 | ... | ... |
| Indonesia | 2 388 | 723 | 435 | 179 | ... |
| Iran (c) | 999 | 384 | 742 | 508 | ... |
| Israel (b) | 191 | 304 | 292 | ... | (e)* 650 |
| Japan | 5 962 | 7 464 | 9 429 | 8 984 | 10 280 |
| Malaysia | 910 | 853 | 750 | 1 110 | ... |

Imports of Diatomite

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-----------------|--------|--------|--------|--------|--------|
| Philippines | 1 451 | 1 609 | 1 113 | 1 259 | 1 093 |
| Saudi Arabia | 5 327 | 15 760 | 37 297 | 49 756 | 10 518 |
| Singapore | 657 | 619 | 555 | 1 061 | 1 031 |
| Sri Lanka | 3 271 | 3 037 | 15 | 13 | 29 |
| Taiwan | 3 076 | 2 909 | 3 733 | 2 743 | 3 143 |
| Thailand | 220 | 35 | 25 | 30 | 60 |
| Australia | 10 657 | 12 278 | 12 312 | 11 478 | ... |
| Fiji | 91 | 81 | 62 | 42 | 87 |
| New Zealand (a) | 700 | 1 224 | 920 | 1 384 | 1 197 |

(a) Years ended 30 June of that stated

(b) Figures may be incomplete as value only given in Israeli trade return for imports from some countries

(c) Years ended 20 March following that stated

(d) Years ended 31 March following that stated

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

Production of Feldspar

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|-----------|-----------|-----------|-----------|
| France | 195 000 | 210 000 | 205 400 | 200 600 | 175 200 |
| Germany, Federal Republic of | 372 754 | 380 880 | 342 100 | 331 400 | * 335 700 |
| Italy | 294 648 | 344 301 | 428 490 | 783 411 | 826 865 |
| Austria | 6 594 | 10 946 | 10 357 | 2 960 | 1 063 |
| Finland | 71 297 | 69 853 | 66 980 | 69 108 | 52 066 |
| Norway (d) | 87 888 | 67 559 | 58 311 | 62 312 | * 70 000 |
| Poland | 88 367 | 85 955 | 82 027 | 78 176 | 47 600 |
| Portugal | 38 315 | 48 561 | 44 007 | 41 223 | 33 509 |
| Romania | * 60 000 | * 60 000 | * 60 000 | * 60 000 | * 60 000 |
| Soviet Union | * 310 000 | * 310 000 | * 320 000 | * 330 000 | * 330 000 |
| Spain (c) | 115 685 | 103 365 | 129 593 | 130 635 | * 122 500 |
| Sweden (e) | 58 655 | 57 999 | 40 341 | 54 669 | * 50 000 |
| Turkey | 6 669 | 5 708 | 5 060 | * 5 000 | 9 212 |
| Yugoslavia | 56 160 | 57 710 | 53 240 | 43 000 | 41 000 |
| Egypt | 3 271 | 3 309 | 3 480 | 8 436 | * 9 000 |
| Kenya | 868 | 387 | 757 | — | 700 |
| Nigeria | * 5 000 | * 5 000 | * 5 000 | — | — |
| South Africa | 47 416 | 52 247 | 56 006 | 47 604 | 44 817 |
| Zambia | 91 | 475 | 452 | 362 | 226 |
| Zimbabwe | 1 085 | 1 263 | 2 393 | 866 | 1 645 |
| Guatemala | 11 951 | 21 529 | 10 729 | 5 674 | * 6 000 |
| Mexico | 110 869 | 117 214 | 130 826 | 115 559 | 109 000 |
| USA (e) | 671 000 | 644 000 | 603 000 | 558 000 | 644 000 |
| Argentina | 33 550 | 32 529 | 26 118 | 15 000 | 16 000 |
| Brazil | 369 949 | 123 095 | 109 797 | 78 854 | 64 041 |
| Chile | 133 | 2 150 | 2 506 | 469 | * 500 |
| Colombia | 29 200 | 27 150 | 27 500 | 30 091 | 31 400 |
| Peru | 2 176 | 15 600 | 21 600 | 25 000 | * 25 000 |
| Uruguay | 3 886 | 2 820 | 2 543 | 3 000 | * 3 000 |
| Venezuela | 37 000 | 28 000 | 21 684 | * 25 000 | 37 398 |
| Burma (a) | 3 007 | 2 026 | 2 572 | 2 709 | 2 743 |
| Hong Kong | 742 | 2 974 | 194 | 1 742 | 5 275 |
| India | 54 264 | 60 190 | 52 290 | 45 981 | 41 837 |
| Iran (b) | 3 000 | 2 500 | 2 000 | 2 500 | * 2 500 |
| Japan | 441 285 | 470 394 | 425 007 | 461 528 | 443 450 |
| Korea, Republic of | 36 238 | 71 972 | 103 263 | 85 040 | 109 896 |
| Pakistan | 14 703 | 10 898 | 10 494 | 7 145 | 5 953 |
| Philippines | 19 064 | 15 925 | 15 999 | 15 213 | * 15 400 |
| Sri Lanka | 3 790 | 3 955 | * 4 000 | 2 922 | 2 609 |
| Taiwan | 24 403 | 25 149 | 17 215 | 10 620 | 11 866 |
| Thailand | 26 428 | 24 158 | 24 243 | 19 326 | 47 908 |
| Australia | 3 869 | 3 648 | 3 868 | 4 335 | * 3 000 |
| World total | 3 700 000 | 3 600 000 | 3 500 000 | 3 800 000 | 3 800 000 |

Note: In addition to the countries listed, China, Czechoslovakia, Namibia and the United Kingdom are also believed to produce feldspar

(a) Years ended 31 March following that stated

(b) Years ended 20 March following that stated

(c) Including pegmatite

(d) Underground: production of ground withheld

(e) Sold or used by producers

Exports of Feldspar

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|----------|----------|----------|----------|----------|
| United Kingdom | 2 118 | 1 067 | 200 | 618 | 452 |
| Belgium-Luxembourg | 7 462 | 6 494 | 2 | 26 | — |
| France | 51 726 | 56 949 | 58 571 | 54 613 | 54 455 |
| Germany, Federal Republic of | 16 810 | 18 124 | 15 309 | 15 176 | 17 465 |
| Italy | 35 578 | 37 033 | 34 500 | 32 930 | 36 431 |
| Netherlands | 3 929 | 3 501 | 2 791 | 1 251 | 1 124 |
| Finland (a) | 50 810 | 46 998 | 46 725 | 41 891 | 35 498 |
| Norway | 94 502 | 84 729 | 77 634 | 61 032 | 71 040 |
| Portugal (a) | 9 099 | 11 278 | 11 301 | 4 398 | ... |
| Spain (a) | 1 901 | 1 582 | 1 833 | 1 858 | ... |
| Sweden (a) | 34 713 | 29 976 | 28 995 | 24 516 | 24 690 |
| Switzerland (a) | 255 | 282 | 183 | 129 | 97 |
| Yugoslavia | 9 695 | 11 498 | 3 109 | 1 010 | 3 311 |
| South Africa | 3 266 | 2 407 | 2 018 | 1 389 | 459 |
| Guatemala (c) | 2 898 | 3 535 | 2 758 | 2 162 | 2 867 |
| USA (a) | 11 227 | 11 792 | 12 723 | 9 793 | 8 494 |
| Brazil | ... | 4 051 | 3 001 | 5 | 4 000 |
| China (a)(b)(c) | * 27 100 | * 31 000 | * 26 000 | * 27 700 | * 29 600 |
| Hong Kong (c) | 13 249 | 18 106 | 11 318 | 11 665 | 17 039 |
| of which: Re-exports | 11 799 | 300 | 11 318 | 11 665 | 16 970 |
| India | 16 006 | * 14 000 | * 10 500 | ... | ... |
| Japan | 23 630 | 22 889 | 18 766 | 24 246 | 28 886 |
| Korea, Republic of | 13 380 | 19 672 | 18 409 | 23 551 | 31 679 |
| Singapore (a) | 4 941 | 5 850 | 4 083 | 2 915 | 4 894 |
| of which: Re-exports | 4 941 | 5 850 | 4 068 | 2 901 | 4 894 |
| Thailand | 2 304 | 2 874 | 2 793 | 3 707 | 12 621 |

(a) May include some leucite and nepheline

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

(c) Including some fluorspar

Imports of Feldspar

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-----------------------------------|----------|-----------|-----------|----------|----------|
| United Kingdom | 118 993 | 91 087 | 71 212 | 83 681 | 55 737 |
| Belgium-Luxembourg | 67 186 | 35 564 | 28 294 | 21 355 | 21 895 |
| Denmark | 11 773 | 15 535 | 11 448 | 5 896 | 3 873 |
| France | 17 839 | 17 947 | 16 808 | 18 844 | 19 353 |
| Germany, Federal Republic of | 52 808 | 63 213 | 60 031 | 54 006 | 54 355 |
| Greece (a) | 10 341 | 13 908 | 4 599 | 2 427 | ... |
| Italy | 8 192 | 17 655 | 13 866 | 9 747 | 14 419 |
| Netherlands | 19 115 | 21 632 | 14 860 | 13 038 | 12 931 |
| Austria (a) | 4 564 | 6 111 | 5 893 | 5 095 | 4 301 |
| Finland (a) | 61 | 701 | 49 | 67 | 32 |
| German Democratic Republic (a)(f) | * 24 700 | * 21 100 | * 19 500 | * 14 600 | * 16 700 |
| Poland | 16 725 | 13 786 | 10 151 | 7 928 | ... |
| Portugal (a) | 2 209 | 2 022 | 2 423 | 2 621 | ... |
| Spain (a) | 16 256 | 21 408 | 19 605 | 15 972 | ... |
| Sweden (a) | 7 657 | 12 845 | 6 709 | 9 791 | 12 465 |
| Switzerland (a) | 8 605 | 12 097 | 9 754 | 7 883 | 7 571 |
| Yugoslavia | 1 150 | 1 154 | 1 904 | 1 529 | ... |
| Algeria (a) | 4 405 | 6 255 | ... | ... | ... |
| Egypt (a)(c) | 5 336 | 6 992 | 8 868 | 2 157 | ... |
| Morocco (a) | 84 | 441 | 336 | 565 | ... |
| South Africa (a)(c) | 89 | 80 | 117 | 33 | 33 |
| Tunisia (c) | 3 149 | 1 871 | 12 560 | 1 473 | ... |
| Costa Rica (c) | 3 180 | 3 341 | 2 055 | 1 814 | 2 235 |
| Mexico | 3 434 | 3 184 | 3 651 | 3 286 | ... |
| Trinidad & Tobago (c) | 262 | 27 | 2 493 | 84 | 55 |
| USA | 256 | 367 | 187 | 44 | 58 |
| Venezuela | 683 | (c) 3 141 | (c) 4 058 | 1 205 | ... |
| Hong Kong (c) | 13 838 | 16 373 | 14 777 | 14 440 | 16 267 |
| Indonesia (a) | 10 768 | 13 611 | 13 133 | 10 653 | ... |
| Iran (a)(c)(e) | 569 | * 100 | 150 | 62 | ... |
| Israel (a)(b) | 365 | 688 | 459 | ... | ... |
| Japan (a) | 5 269 | 5 568 | 4 981 | 6 114 | 7 915 |
| Jordan (a)(c) | 415 | 294 | 485 | 405 | 903 |
| Malaysia | 6 403 | 8 427 | 6 377 | 3 271 | ... |
| Philippines (a)(c) | 3 354 | 3 022 | 5 176 | 1 855 | 2 474 |
| Singapore (a) | 5 829 | 8 312 | 5 550 | 6 035 | 7 856 |
| Taiwan (a)(c) | 44 221 | 54 262 | 49 606 | 69 312 | 99 169 |
| Thailand (a) | 569 | 1 872 | 2 630 | 2 179 | 1 499 |
| Australia (a) | 15 394 | 22 999 | 11 504 | ... | ... |
| New Zealand (a)(c)(d) | 997 | 1 020 | 800 | 1 446 | 1 119 |

(a) May include some leucite and nepheline

(b) Figures may be incomplete as value only given in Israeli trade return for imports from some countries

(c) Including some fluorspar

(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

Production of Fluorspar

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|-----------|-----------|-----------|-----------|
| United Kingdom | 154 000 | 186 300 | * 185 000 | 201 000 | 131 300 |
| France | 259 203 | 258 500 | 256 200 | 243 625 | * 240 000 |
| Germany, Federal Republic of | 63 172 | 78 152 | 71 808 | 78 600 | 80 700 |
| Greece | 360 | 440 | 370 | 345 | * 350 |
| Italy | 182 791 | 151 965 | 164 235 | 166 949 | 177 670 |
| Czechoslovakia | * 96 000 | * 96 000 | * 96 000 | * 96 000 | * 96 000 |
| German Democratic Republic | * 100 000 | * 100 000 | * 100 000 | * 100 000 | * 100 000 |
| Romania | * 20 000 | * 20 000 | * 20 000 | * 20 000 | * 20 000 |
| Soviet Union | * 520 000 | * 520 000 | * 530 000 | * 540 000 | * 540 000 |
| Spain | 192 898 | 244 749 | 302 760 | 246 972 | * 200 000 |
| Turkey | 2 024 | 1 945 | 1 986 | * 2 000 | * 2 000 |
| Egypt | 682 | 1 752 | 535 | 90 | * 100 |
| Kenya | 77 104 | 93 378 | 90 099 | 88 726 | 59 084 |
| Morocco | 63 200 | 64 400 | 66 700 | 50 200 | * 63 700 |
| South Africa | 451 112 | 522 718 | 496 521 | 330 835 | 267 602 |
| Tunisia | 36 800 | 39 451 | 34 800 | 36 900 | 38 600 |
| Mexico | 875 216 | 916 455 | 924 854 | 631 386 | 556 977 |
| USA | 99 154 | 84 037 | 104 693 | 69 869 | * 55 000 |
| Argentina | 38 076 | 15 468 | 20 755 | 23 727 | * 24 000 |
| Brazil (a) | 74 897 | 55 369 | 56 539 | 57 371 | 70 629 |
| China | * 460 000 | * 480 000 | * 480 000 | * 480 000 | * 480 000 |
| India | 21 495 | 21 337 | 22 994 | 24 902 | 22 583 |
| Korea, Dem. P.R. of | * 40 000 | * 40 000 | * 40 000 | * 40 000 | * 40 000 |
| Korea, Republic of | 8 450 | 6 912 | 6 464 | 3 667 | 6 361 |
| Mongolia | * 570 000 | * 600 000 | * 600 000 | * 660 000 | * 690 000 |
| Pakistan | 418 | 1 184 | 200 | 814 | 675 |
| Thailand | 234 304 | 232 892 | 212 492 | 257 108 | 206 648 |
| World total | 4 600 000 | 4 800 000 | 4 900 000 | 4 500 000 | 4 200 000 |

Note: In addition to the countries listed, Bulgaria is also believed to produce fluorspar

(a) Includes beneficiated and directly shipped material

Exports of Fluorspar

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------------------|--------------|--------------|----------|----------|----------|
| United Kingdom | 26 337 | 57 230 | 30 250 | 18 044 | 12 034 |
| Belgium-Luxembourg | 4 984 | 4 926 | 4 697 | 3 431 | 3 524 |
| France | 98 742 | 107 392 | 84 181 | 71 096 | 47 356 |
| Germany, Federal Republic of | 16 610 | 14 099 | 16 210 | 13 219 | 12 920 |
| Italy | 55 080 | 83 755 | 63 934 | 65 284 | 61 064 |
| Netherlands | 755 | 765 | 1 176 | 1 101 | 135 |
| German Democratic Republic (b) | * 52 200 | * 46 800 | * 48 400 | * 43 000 | * 48 100 |
| Spain | 101 546 | 107 518 | 152 826 | 119 570 | ... |
| Sweden | 824 | 361 | 1 155 | 1 013 | 4 794 |
| Kenya (a) | 59 352 | 56 870 | 59 297 | 74 890 | ... |
| Morocco | 62 997 | 64 070 | 54 180 | 62 024 | 56 434 |
| South Africa | 471 498 | 469 071 | 405 807 | 232 635 | 246 462 |
| Tunisia | — | 6 025 | ... | 1 410 | ... |
| Mexico | 708 739 | 722 905 | 604 929 | 347 621 | ... |
| USA | 13 132 | 16 207 | 10 216 | 9 592 | 8 689 |
| Argentina | 189 | 312 | 240 | ... | ... |
| China | (b)* 331 000 | (b)* 423 000 | 522 224 | 617 702 | 523 029 |
| Japan (c) | 115 | 625 | 326 | 486 | 458 |
| Korea, Dem. P.R. of (b) | * 3 600 | * 7 900 | * 300 | ... | ... |
| Korea, Republic of | 470 | 500 | — | — | — |
| Thailand | 219 390 | 226 305 | 221 838 | 182 388 | 183 002 |

(a) Including some feldspar

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

(c) May include some leucite and nepheline

Imports of Fluorspar

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|-----------|-----------|-----------|-----------|
| United Kingdom | 27 119 | 9 573 | 4 229 | 1 400 | 10 759 |
| Belgium-Luxembourg | 14 550 | 16 876 | 12 128 | 11 988 | 7 744 |
| Denmark | 3 970 | 1 069 | 557 | 502 | 615 |
| France | 1 228 | 27 766 | 12 308 | 1 571 | 1 535 |
| Germany, Federal Republic of | 255 868 | 279 058 | 203 110 | 205 698 | 176 124 |
| Greece | 10 302 | 2 135 | 6 774 | 2 427 | 6 024 |
| Italy | 78 717 | 105 531 | 84 322 | 57 048 | 88 099 |
| Netherlands | 10 988 | 14 251 | 20 361 | 24 168 | 18 684 |
| Albania (b) | * 2 300 | * 1 800 | * 1 000 | * 1 600 | * 1 100 |
| Austria | 18 369 | 17 298 | 13 001 | 10 617 | 11 895 |
| Bulgaria (b) | * 300 | * 250 | * 200 | * 300 | * 200 |
| Finland | 5 486 | 4 429 | 4 104 | 5 763 | 4 406 |
| Norway | 46 941 | 48 843 | 43 319 | 35 846 | 39 084 |
| Poland | 62 553 | 55 328 | 24 005 | 35 756 | ... |
| Soviet Union | * 550 000 | * 550 000 | * 600 000 | * 600 000 | * 625 000 |
| Sweden | 15 858 | 15 052 | 12 822 | 12 837 | 6 476 |
| Turkey | 20 | 56 | 130 | 70 | 23 |
| Yugoslavia | 5 121 | 5 716 | 6 374 | 5 801 | ... |
| Algeria | 486 | 380 | ... | ... | ... |
| Egypt (a)(c) | 5 336 | 6 992 | 8 868 | 2 157 | ... |
| South Africa (a)(c) | 89 | 80 | 117 | 33 | 33 |
| Tunisia (c) | 3 149 | 1 871 | 12 560 | 1 473 | ... |
| Canada | 167 904 | 223 940 | 173 599 | 126 594 | 141 928 |
| Costa Rica (c) | 3 180 | 3 441 | 2 055 | 1 814 | 2 235 |
| Trinidad & Tobago (c) | 262 | 27 | 2 493 | 84 | 55 |
| USA | 894 929 | 822 283 | 767 231 | 500 667 | 397 580 |
| Brazil | ... | 10 929 | 13 537 | ... | 5 |
| Venezuela | 243 | (c) 3 141 | (c) 4 058 | 200 | ... |
| Hong Kong (c) | 13 838 | 16 373 | 14 777 | 14 440 | 16 267 |
| India | 5 034 | ... | 272 | ... | ... |
| Iran (a)(c)(e) | 569 | * 100 | 150 | 62 | ... |
| Japan | 467 135 | 487 455 | 428 314 | 413 535 | 435 383 |
| Jordan (a)(c) | 415 | 294 | 485 | 405 | 903 |
| Korea, Republic of | 11 338 | 21 718 | 23 110 | 18 352 | 19 200 |
| Malaysia (a)(c) | 9 399 | 5 273 | 10 898 | 8 989 | ... |
| Philippines (a)(c) | 3 354 | 3 022 | 5 176 | 1 855 | 2 474 |
| Taiwan (a)(c) | 44 221 | 54 262 | 49 606 | 69 312 | 99 169 |
| Thailand | 1 586 | 879 | 408 | 681 | 1 783 |
| Australia | 27 012 | 38 369 | 26 275 | 20 329 | ... |
| New Zealand (a)(c)(d) | 997 | 1 020 | 800 | 1 446 | 1 119 |

(a) May include some leucite and nepheline

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

(c) Including some feldspar

(d) Years ended 30 June of that stated

(e) Years ended 20 March following that stated

Mine Production of Gold

kilograms (metal content)

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|-----------|-----------|-----------|-----------|
| France | 1 263 | 1 163 | 1 131 | 2 180 | 2 760 |
| Germany, Federal Republic of | 73 | 92 | 95 | 56 | * 60 |
| Finland | 881 | 1 303 | 992 | 1 144 | 784 |
| Portugal | 320 | 244 | 244 | 211 | 199 |
| Romania | * 2 000 | * 2 000 | * 2 000 | * 2 000 | * 2 000 |
| Soviet Union | * 255 000 | * 260 000 | * 265 000 | * 266 000 | * 268 000 |
| Spain | 352 | 535 | 1 141 | ... | ... |
| Sweden | 2 308 | 2 027 | 2 039 | 2 447 | 3 369 |
| Yugoslavia (d) | 4 323 | 3 304 | 3 582 | 4 211 | 4 238 |
| Burundi | 4 | 4 | * 3 | * 3 | * 3 |
| Cameroon | 5 | 2 | 10 | * 9 | * 9 |
| Central African Republic | 68 | 62 | 43 | * 30 | 78 |
| Congo | 3 | 2 | 4 | 3 | 2 |
| Ethiopia (b) | 248 | 373 | 371 | 373 | * 400 |
| Gabon | 30 | 17 | * 20 | * 20 | * 20 |
| Ghana | 11 094 | 10 981 | 10 595 | 10 280 | 8 606 |
| Kenya | 8 | 4 | 1 | 1 | 3 |
| Liberia (a) | 34 | 225 | 525 | * 400 | * 800 |
| Madagascar | 1 | 4 | 1 | 3 | 3 |
| Mali | * 31 | * 45 | * 45 | * 60 | * 60 |
| Rwanda | 15 | 29 | 37 | 9 | 19 |
| Sierra Leone | ... | 13 | 123 | 271 | * 280 |
| South Africa | 703 473 | 672 875 | 655 755 | 662 526 | 677 870 |
| Sudan | * 10 | * 10 | * 10 | * 12 | 40 |
| Tanzania | 9 | 3 | 9 | 7 | 41 |
| Uganda | 62 | 282 | 304 | 215 | ... |
| Zaire | 1 836 | 2 237 | 2 027 | 1 869 | 6 035 |
| Zambia (c) | 247 | 257 | 328 | 418 | 316 |
| Zimbabwe | 12 063 | 11 443 | 11 691 | 13 367 | 14 101 |
| Canada | 51 142 | 50 620 | 52 034 | 64 735 | 70 746 |
| Costa Rica | * 520 | * 560 | * 620 | * 840 | * 930 |
| Dominican Republic | 10 979 | 11 496 | 12 685 | 12 016 | 11 012 |
| El Salvador | 85 | 78 | 121 | * 100 | * 90 |
| Honduras | 62 | 63 | 55 | 53 | * 50 |
| Mexico | 5 911 | 6 096 | 6 319 | 6 104 | 6 930 |
| Nicaragua | 1 900 | * 1 870 | 1 926 | 1 613 | 1 454 |
| USA | 29 997 | 30 164 | 42 898 | 45 589 | 60 883 |
| Argentina | 315 | 341 | 459 | 632 | * 650 |
| Bolivia | 948 | 1 620 | 2 064 | 1 249 | 1 545 |
| Brazil | 4 460 | 13 752 | 17 276 | 25 517 | 53 684 |
| Chile | 3 465 | 6 836 | 12 456 | 16 907 | 17 716 |
| Colombia | 8 379 | 15 877 | 16 461 | 14 702 | 13 642 |
| Ecuador | 70 | 70 | 73 | 50 | 19 |
| French Guiana | 62 | 92 | 167 | 163 | * 160 |
| Guyana | 329 | 342 | 599 | 269 | 143 |
| Peru | 4 155 | 3 870 | 4 821 | 4 930 | 5 150 |
| Suriname | 6 | 5 | 25 | 17 | 17 |
| Venezuela | 466 | 510 | 877 | 901 | 1 033 |
| China | * 40 000 | * 45 000 | * 50 000 | * 55 000 | * 60 000 |
| India | 2 637 | 2 452 | 2 495 | 2 244 | 2 151 |
| Indonesia | 170 | 248 | 183 | 222 | 259 |
| Japan | 4 033 | 3 183 | 3 087 | 3 267 | 3 139 |
| Korea, Dem. P.R. of | * 5 000 | * 5 000 | * 5 000 | * 5 000 | * 5 000 |
| Korea, Republic of | 749 | 1 282 | 1 342 | 1 734 | 2 242 |
| Malaysia | 197 | 156 | 180 | 181 | 185 |
| Philippines | 16 646 | 20 025 | 23 586 | 25 954 | * 24 900 |
| Taiwan | 443 | 413 | 1 763 | 2 232 | 1 629 |

Mine Production of Gold

kilograms (metal content)

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------|-----------|-----------|-----------|-----------|-----------|
| Australia | 18 566 | 17 035 | 18 374 | 26 961 | * 30 597 |
| Fiji | 907 | 774 | 956 | 1 423 | 1 246 |
| New Zealand | 218 | 200 | 189 | 242 | 301 |
| Papua New Guinea | 20 172 | 14 730 | 16 805 | 17 527 | 18 002 |
| Solomon Islands | 22 | 34 | 33 | * 35 | * 35 |
| World total | 1 230 000 | 1 220 000 | 1 250 000 | 1 300 000 | 1 400 000 |

Notes:

- 1 In several countries, for example Brazil, Colombia and Indonesia, a certain amount of gold produced in very small operations is not recorded in the official statistics used in compiling this table; in the case of Brazil this amount is thought to be substantial
 - 2 In addition to the countries listed, Bulgaria, Burma, Czechoslovakia, German Democratic Republic, Hungary, Norway, and Thailand are also believed to produce gold
- (a) Years ended 31 August of that stated
 (b) Years ended 6 July of that stated
 (c) Contained in blister copper, refinery muds and electrolytic copper
 (d) Metal production

Exports of Gold

kilograms

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|----------------|----------------|----------------|----------------|----------------|
| United Kingdom | | | | | |
| Metal— | | | | | |
| Refined | 492 165 | 335 322 | 681 050 | 589 437 | 721 618 |
| Other | 5 219 | 3 095 | 9 905 | 5 858 | 3 319 |
| Waste & scrap | 31 170 | 7 198 | 32 003 | 12 493 | 940 |
| Belgium-Luxembourg | | | | | |
| Metal | 18 143 | 27 234 | 30 158 | 50 979 | 24 400 |
| Denmark | | | | | |
| Waste & scrap | 6 537 | 17 874 | 12 856 | 9 779 | 10 000 |
| France | | | | | |
| Metal | 33 806 | 23 625 | 23 070 | 24 972 | 11 858 |
| Waste & scrap | 28 311 | 13 028 | 58 624 | 8 454 | 54 702 |
| Germany, Federal Republic of | | | | | |
| Metal | 27 251 | 27 438 | 32 129 | 65 669 | 37 660 |
| Waste & scrap | 84 | 13 497 | 2 392 | 1 819 | 17 303 |
| Italy | | | | | |
| Metal | 1 643 | 5 333 | 2 191 | 1 555 | 2 715 |
| Netherlands | | | | | |
| Metal | 29 491 | 28 690 | 30 506 | 27 807 | 4 840 |
| Waste & scrap | 17 000 | 74 000 | 53 000 | 61 000 | 75 000 |
| Austria | | | | | |
| Metal | 640 | 662 | 349 | 559 | 625 |
| Finland | | | | | |
| Metal | 116 | 603 | 569 | 419 | 659 |
| Norway | | | | | |
| Metal | 137 | 257 | 461 | 392 | 412 |
| Spain | | | | | |
| Metal | 6 010 | 531 | 18 462 | 1 185 | ... |
| Sweden | | | | | |
| Metal | 2 000 | 5 000 | 4 000 | 3 000 | 3 000 |
| Waste & scrap | 40 000 | 44 000 | 38 000 | 43 000 | 44 000 |
| Switzerland | | | | | |
| Metal | (c) 7 039 | 556 687 | 772 691 | 799 867 | 557 808 |
| Ghana | | | | | |
| Metal | 11 848 | 10 820 | 10 764 | 9 386 | ... |
| South Africa | | | | | |
| Metal (a) | £3 271 000 000 | £5 730 000 000 | £4 848 000 000 | £4 628 000 000 | £6 034 000 000 |
| Canada | | | | | |
| Ores & concentrates (b) | 6 219 | 6 299 | 5 509 | 5 114 | 6 273 |
| Metal | 55 701 | 59 865 | 83 295 | 88 404 | 79 323 |
| Dominican Republic | | | | | |
| Metal (d) | 83 794 | 63 421 | 75 938 | 80 373 | 52 322 |
| Nicaragua | | | | | |
| Metal | 1 056 | 1 000 | ... | 1 392 | 1 222 |
| USA | | | | | |
| Ore (b) | 529 | 719 | 121 | 96 | 404 |
| Metal— | | | | | |
| Unrefined | 2 174 | 2 283 | 7 297 | 5 634 | 2 177 |
| Refined | 491 884 | 150 450 | 164 112 | 68 763 | 61 148 |
| Other | 2 789 | 3 688 | 2 555 | 2 163 | 2 051 |
| Waste & scrap | 25 818 | 41 229 | 31 880 | 36 970 | 37 266 |
| Chile | | | | | |
| Metal | ... | ... | 3 669 | ... | 5 863 |
| Colombia | | | | | |
| Ore | 437 555 | 96 000 | 499 184 | 80 000 | 141 698 |
| Peru | | | | | |
| Metal | 33 399 | 102 465 | 5 104 | 14 327 | 5 095 |
| Hong Kong | | | | | |
| Metal (Re-exports) | 9 319 | 29 849 | 2 288 | 25 783 | 35 671 |
| Japan | | | | | |
| Metal | 7 151 | 12 996 | 7 445 | 17 999 | 8 128 |
| Korea, Dem. P.R. of | | | | | |
| Metal (e) | * 5 000 | * 5 000 | * 2 200 | * 8 500 | * 7 000 |
| Philippines | | | | | |
| Ores & concentrates (b) | 11 422 | 13 051 | 14 800 | 14 706 | 11 413 |

Exports of Gold

kilograms

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--|--------|--------|--------|--------|--------|
| Australia | | | | | |
| Ores, concentrates & unrefined metal (b) | 3 149 | 1 214 | 3 474 | 3 283 | 2 872 |
| Refined metal | 7 273 | 5 516 | 3 912 | 9 794 | 17 742 |
| Fiji | | | | | |
| Metal | 923 | 781 | 875 | 1 426 | 1 237 |
| Papua New Guinea | | | | | |
| Metal | 20 172 | 14 730 | 16 805 | 17 527 | 18 002 |

Note: In this table the term 'metal' as used here includes both unwrought and partly worked gold and alloys but excludes gold coin

- (a) Values shown are for the common customs area
- (b) Au content
- (c) Partly worked only
- (d) Officially described as 'dore' (Au/Ag alloy), but contains a higher proportion of silver
- (e) BGS estimates, based on known imports into certain countries

Imports of Gold

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|------------|------------|------------|------------|------------|
| United Kingdom | | | | | |
| Ores & concentrates | 15 348 | 2 139 | 14 013 | 30 945 | 334 |
| Metal— | | | | | |
| Unrefined | 13 495 | 60 822 | 5 407 | 6 400 | 18 323 |
| Refined | 785 599 | 550 862 | 624 751 | 527 311 | 509 162 |
| Other | 10 370 | 5 489 | 11 942 | 8 609 | 6 193 |
| Waste & scrap | 85 697 | 19 564 | 28 206 | 156 360 | 108 517 |
| Belgium-Luxembourg | | | | | |
| Metal | 24 287 | 57 725 | 237 233 | 263 610 | 240 784 |
| Denmark | | | | | |
| Metal | 1 647 | 622 | 613 | 602 | ... |
| France | | | | | |
| Metal | 77 565 | 58 246 | 60 254 | 32 290 | 56 211 |
| Waste & scrap | 11 041 | 8 629 | 9 652 | 4 584 | 2 269 |
| Germany, Federal Republic of | | | | | |
| Metal | 107 152 | 126 569 | 82 714 | 120 639 | 61 113 |
| Waste & scrap | 115 022 | 156 827 | 125 474 | 126 366 | 176 898 |
| Irish Republic | | | | | |
| Metal | £3 227 000 | £2 456 000 | £3 849 000 | £2 534 000 | £4 353 000 |
| Italy | | | | | |
| Metal | 189 519 | 69 785 | 140 193 | 202 063 | 151 111 |
| Netherlands | | | | | |
| Metal | 33 765 | 23 690 | 29 775 | 28 018 | 6 947 |
| Waste & scrap | 3 000 | ... | 1 000 | 2 000 | 2 000 |
| Austria | | | | | |
| Metal | 3 575 | 1 559 | 2 949 | 3 623 | 4 419 |
| Finland | | | | | |
| Metal | 1 493 | 953 | 895 | 1 048 | 1 019 |
| Malta | | | | | |
| Metal | 643 | 123 | 221 | 495 | 162 |
| Norway | | | | | |
| Metal | 1 215 | 1 096 | 741 | 854 | 621 |
| Waste & scrap | 244 | 805 | 539 | 16 | 547 |
| Portugal | | | | | |
| Metal | 279 | 256 | 309 | ... | ... |
| Spain | | | | | |
| Metal | 352 | 1 143 | 652 | 2 269 | ... |
| Sweden | | | | | |
| Metal | £5 046 000 | £5 050 000 | £4 790 000 | £4 576 000 | £5 381 000 |
| Waste & scrap | ... | 6 000 | 2 000 | ... | 2 000 |
| Switzerland | | | | | |
| Metal | (b) 2 431 | 632 534 | 820 894 | 1 017 543 | 753 593 |
| Algeria | | | | | |
| Metal | 2 029 | 1 285 | ... | ... | ... |
| Ivory Coast | | | | | |
| Metal | 143 | 6 | 1 | ... | ... |
| Kenya | | | | | |
| Metal | 74 | 1 221 | 442 | — | ... |
| Morocco | | | | | |
| Metal | 184 | 36 | — | — | ... |
| South Africa | | | | | |
| Metal | 199 | 191 | 274 | 108 | 267 |
| Waste & scrap | 882 | 33 799 | 774 | 86 | 11 |
| Tunisia | | | | | |
| Metal | 677 | 768 | ... | 882 | ... |
| Bermuda | | | | | |
| Metal | 9 408 | 4 723 | 448 | 432 | 780 |
| Canada | | | | | |
| Ores & concentrates (c) | 826 | 1 894 | 2 278 | 445 | 918 |
| Metal | 89 621 | 69 949 | 69 110 | 51 656 | 66 023 |
| USA | | | | | |
| Ore (c) | 5 231 | 4 524 | 5 906 | 10 579 | 9 115 |
| Metal— | | | | | |
| Unrefined (a) | 5 738 | 12 056 | 13 127 | 15 027 | 24 261 |
| Refined | 136 044 | 127 232 | 129 533 | 131 809 | 115 714 |

Imports of Gold

kilograms

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|
| Argentina Metal | 38 | 813 | 334 | ... | ... |
| Brazil Metal | 3 298 | 868 | 333 | 606 | 1 109 |
| Ecuador Metal | 1 140 | 312 | 728 | ... | ... |
| Venezuela Metal | 794 | ... | ... | 237 | ... |
| Brunei Metal | 282 | — | 115 | 342 | 84 |
| Cyprus Metal | 813 | 382 | 563 | 704 | 843 |
| Hong Kong Metal | 105 587 | 35 872 | 101 325 | 122 370 | 30 173 |
| Indonesia Metal | 2 200 | — | 22 278 | 29 650 | ... |
| Iran (d) Metal | 413 | 595 | 14 | ... | ... |
| Israel Metal | £40 530 700 | £30 571 300 | £48 653 300 | £58 833 500 | £57 694 000 |
| Japan Metal | 62 896 | 31 837 | 167 325 | 139 778 | 104 418 |
| Waste & scrap | 25 | 712 | 1 451 | 1 071 | 5 449 |
| Korea, Republic of Metal | 4 835 | 3 994 | 797 | 1 221 | 1 786 |
| Malaysia Metal | 1 347 | 2 304 | 3 219 | 3 126 | ... |
| Saudi Arabia Metal | 16 431 | 14 873 | 13 274 | 15 055 | 22 960 |
| Syria Metal | 360 | 332 | — | ... | ... |
| Taiwan Metal | 8 240 | 10 579 | 22 456 | 36 667 | 33 844 |
| Thailand Metal | 3 307 | 395 | 374 | 13 228 | 4 535 |
| Australia Metal | 585 | 1 798 | 397 | 2 231 | 3 161 |
| New Zealand (e) Metal | 168 | 190 | 223 | 358 | 553 |

Note: In this table the term 'metal' as used here includes both unwrought and partly worked gold and alloys but excludes gold coin

(a) Including waste and scrap

(b) Partly worked only

(c) Au content

(d) Years ended 20 March following that stated

(e) Years ended 30 June of that stated

Production of Graphite

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------------------------|-----------|-----------|-----------|-----------|-----------|
| Germany, Federal Republic of (b) | 10 282 | 11 255 | 10 400 | 10 600 | 12 000 |
| Italy | 4 102 | 3 957 | 3 545 | 3 209 | 2 299 |
| Austria (a) | 40 519 | 36 699 | 23 807 | 24 451 | 40 418 |
| Czechoslovakia | 14 600 | 15 700 | 20 317 | 21 977 | 26 666 |
| Norway | 11 892 | 10 406 | 6 864 | 7 451 | 8 753 |
| Romania | 12 400 | 12 500 | * 12 500 | * 12 500 | * 12 600 |
| Soviet Union | * 100 000 | * 100 000 | * 105 000 | * 105 000 | * 110 000 |
| Turkey | 1 673 | 1 820 | 3 298 | 3 360 | 4 805 |
| Madagascar | 13 378 | 9 906 | 16 045 | 15 211 | 13 496 |
| South Africa | 394 | — | — | — | — |
| Zimbabwe | 5 737 | 7 385 | 11 218 | 8 225 | 19 862 |
| Mexico | 50 880 | 44 854 | 42 294 | 36 174 | 44 327 |
| Brazil (d) | 95 997 | 27 294 | 33 817 | 21 544 | 27 636 |
| Burma (c) | 137 | 44 | 116 | 244 | 203 |
| China | * 180 000 | * 160 000 | * 180 000 | * 185 000 | * 185 000 |
| India | 52 821 | 54 960 | 72 796 | 61 803 | 41 607 |
| Korea, Dem. P.R. of | * 25 000 | * 25 000 | * 25 000 | * 25 000 | * 25 000 |
| Korea, Republic of | 56 693 | 60 586 | 34 891 | 26 965 | 33 266 |
| Sri Lanka | 9 432 | 7 794 | 7 543 | 8 803 | * 8 000 |
| Thailand | — | 2 074 | 1 800 | 630 | 86 |
| World total | 686 000 | 592 000 | 611 000 | 578 000 | 616 000 |

Notes:

- 1 This table includes all forms of amorphous and crystalline graphite but excludes synthetic material
- 2 In addition to the countries listed, Canada, Egypt and Namibia are also believed to produce graphite

(a) Crude

(b) Including production from imported crude graphite

(c) Years ended 31 March following that stated

(d) Includes beneficiated and directly shipped material

Exports of Graphite

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|----------|----------|------------|------------|------------|
| United Kingdom | 3 158 | 2 081 | 2 923 | 2 956 | 3 123 |
| Belgium-Luxembourg | 50 | 24 | 298 | 31 | 2 746 |
| France | 1 518 | 889 | 759 | 791 | 891 |
| Germany, Federal Republic of | 7 352 | 8 038 | 8 577 | 10 030 | 9 978 |
| Italy | 3 854 | 3 472 | 1 431 | 1 814 | 2 742 |
| Netherlands | 644 | 515 | 663 | 596 | 152 |
| Austria | 17 870 | 16 576 | 14 640 | 13 384 | 11 405 |
| Czechoslovakia | 3 000 | 3 000 | (a)* 1 600 | (a)* 2 000 | (a)* 2 000 |
| Norway | 11 178 | 10 675 | 8 274 | 8 244 | 7 311 |
| Soviet Union (a) | * 12 600 | * 11 500 | * 2 400 | * 400 | * 600 |
| Sweden | 47 | 47 | 2 225 | 135 | 13 |
| Madagascar | 14 588 | 11 479 | 16 326 | 14 875 | 11 662 |
| Mexico | 45 810 | 36 773 | 34 096 | 28 428 | ... |
| USA | 8 683 | 8 083 | 10 562 | 9 528 | 8 729 |
| Brazil | 3 437 | 7 741 | 7 439 | 5 395 | 5 578 |
| China (a) | * 26 300 | * 38 100 | * 44 000 | * 57 500 | * 53 800 |
| Hong Kong (Re-exports) | 817 | 161 | 278 | 188 | 53 |
| India | 1 416 | 4 185 | 3 738 | ... | ... |
| Japan | 1 554 | 1 745 | 1 620 | 2 084 | 2 515 |
| Korea, Dem. P.R. of (a) | * 23 700 | * 10 700 | * 6 100 | * 7 000 | * 2 200 |
| Korea, Republic of | 46 520 | 45 416 | 34 348 | 21 757 | 32 694 |
| Sri Lanka | 11 154 | 6 604 | 4 350 | 2 903 | 4 223 |
| Taiwan | 615 | 505 | 502 | 352 | 100 |

Note: This table excludes synthetic graphite

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

Imports of Graphite

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|--------|--------|--------|--------|--------|
| United Kingdom | 14 584 | 18 115 | 15 529 | 17 862 | 28 352 |
| Belgium-Luxembourg | 1 842 | 5 832 | 6 494 | 811 | 963 |
| Denmark | 653 | 990 | 853 | 1 254 | 1 225 |
| France | 7 744 | 9 058 | 4 672 | 4 677 | 3 662 |
| Germany, Federal Republic of | 26 063 | 25 124 | 29 763 | 32 432 | 28 869 |
| Greece | 153 | 194 | 378 | 252 | 255 |
| Italy | 4 691 | 5 410 | 4 046 | 5 118 | 4 064 |
| Netherlands | 1 169 | 782 | 900 | 863 | 564 |
| Austria | 1 710 | 2 301 | 1 056 | 2 653 | 3 738 |
| Finland | 173 | 172 | 2 268 | 480 | 263 |
| German Democratic Republic | 6 884 | 5 632 | 6 759 | 7 945 | 6 359 |
| Hungary | 2 054 | 1 673 | 1 410 | 1 481 | 1 722 |
| Norway | 784 | 757 | 861 | 693 | 496 |
| Poland | 13 828 | 11 386 | 7 972 | 6 775 | ... |
| Portugal | 184 | 388 | 174 | 248 | ... |
| Spain | 1 778 | 2 218 | 1 404 | 2 446 | 1 906 |
| Sweden | 855 | 914 | 504 | 534 | 396 |
| Switzerland | 202 | 232 | 149 | 167 | 112 |
| Turkey | 169 | 527 | 273 | 326 | 334 |
| Yugoslavia | 1 824 | 1 843 | 1 601 | 1 854 | 2 996 |
| Algeria | 248 | 312 | ... | ... | ... |
| Egypt | 529 | 101 | 812 | 479 | ... |
| South Africa | 938 | 1 132 | 1 261 | 1 630 | 2 129 |
| Mexico | 310 | 380 | 1 013 | 363 | ... |
| USA | 75 085 | 52 284 | 59 566 | 48 217 | 39 540 |
| Argentina | 505 | 725 | 349 | ... | ... |
| Brazil | 112 | 69 | 57 | 42 | 2 |
| Venezuela | 931 | 776 | 903 | 737 | ... |
| Hong Kong | 1 325 | 214 | 640 | 549 | 494 |
| India | 787 | 248 | 220 | ... | ... |
| Indonesia | 90 | 135 | 191 | 231 | ... |
| Iran (a) | 97 | 196 | 596 | 421 | ... |
| Japan | 70 955 | 69 605 | 52 697 | 53 138 | 54 195 |
| Malaysia | 465 | 716 | 366 | 531 | ... |
| Pakistan (b) | 607 | 1 060 | 3 944 | 986 | 1 418 |
| Philippines | 291 | 184 | 177 | 206 | 141 |
| Singapore | 519 | 572 | 554 | 583 | 455 |
| Taiwan | 13 722 | 15 696 | 10 440 | 7 942 | 10 957 |
| Thailand | 1 519 | 913 | 864 | 369 | 733 |
| Australia | 1 858 | 1 812 | 1 460 | 1 433 | ... |
| New Zealand (b) | 68 | 133 | 190 | 79 | 67 |

Note: This table excludes synthetic graphite

(a) Years ended 20 March following that stated

(b) Years ended 30 June of that stated

Production of Gypsum

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------------------|---------------|-------------|-------------|-------------|-------------|
| United Kingdom | | | | | |
| Gypsum | * 3 500 000 | 3 371 000 | 2 896 647 | 2 674 000 | 2 916 000 |
| Anhydrite | ... | 76 000 | 48 861 | 67 261 | 51 000 |
| Belgium (a)(d) | 192 938 | 174 088 | 154 425 | 131 030 | * 130 000 |
| France | (a) 6 127 000 | 6 491 000 | 6 146 900 | 6 102 000 | 5 700 000 |
| Germany, Federal Republic of | | | | | |
| Gypsum | 1 718 921 | 1 625 366 | 1 317 100 | 1 102 500 | 1 919 500 |
| Anhydrite | 531 693 | 624 398 | 600 000 | 595 000 | 620 000 |
| Greece | 312 291 | 485 053 | 629 489 | * 499 000 | * 499 000 |
| Irish Republic | 411 000 | 382 000 | 359 000 | 371 000 | 352 400 |
| Italy | 1 479 000 | 1 651 000 | 1 544 000 | 1 335 000 | * 1 300 000 |
| Luxembourg | 1 682 | — | 702 | * 900 | * 400 |
| Austria | | | | | |
| Gypsum | 670 930 | 698 652 | 664 112 | 585 988 | 611 224 |
| Anhydrite | 127 178 | 134 765 | 136 403 | 141 532 | 139 697 |
| Bulgaria | * 309 000 | 311 164 | 350 173 | 375 575 | * 372 000 |
| Czechoslovakia (a) | 734 000 | 757 000 | 766 782 | 794 000 | 848 000 |
| German Democratic Republic (d) | 319 254 | 313 181 | 303 138 | 309 682 | 296 932 |
| Poland (d) | 319 000 | 312 000 | 290 000 | 224 000 | 217 000 |
| Portugal | 240 777 | 236 378 | 243 537 | 237 364 | 272 000 |
| Romania | 1 870 000 | 1 611 000 | 1 633 000 | * 1 630 000 | * 1 630 000 |
| Soviet Union | * 5 400 000 | * 5 400 000 | * 5 500 000 | * 5 500 000 | * 5 500 000 |
| Spain | 5 275 236 | 5 222 718 | 5 288 295 | * 5 050 000 | * 5 000 000 |
| Switzerland | * 70 000 | * 80 000 | * 86 000 | * 82 000 | * 82 000 |
| Turkey | 78 255 | 72 234 | 90 470 | 70 227 | 75 572 |
| Yugoslavia | 686 587 | 619 000 | 669 000 | * 640 000 | * 635 000 |
| Algeria | * 190 000 | * 200 000 | * 200 000 | * 200 000 | * 250 000 |
| Angola | * 25 000 | * 25 000 | * 20 000 | * 20 000 | * 18 000 |
| Egypt | 795 600 | 939 844 | * 950 000 | * 930 000 | 721 000 |
| Ethiopia | 925 | 900 | * 4 500 | * 4 500 | * 4 500 |
| Kenya | 15 752 | — | 300 | 300 | 1 350 |
| Libya | 1 389 | ... | ... | ... | ... |
| Mauritania | 16 051 | 12 025 | 1 732 | — | * 3 600 |
| South Africa | 377 467 | 452 490 | 544 827 | 534 991 | 518 353 |
| Sudan | 30 000 | 10 000 | 6 000 | 6 000 | 8 000 |
| Tanzania | 9 952 | 8 119 | 11 500 | 16 000 | 1 600 |
| Tunisia | 145 325 | 46 000 | 47 000 | 24 700 | ... |
| Zambia | 1 180 | — | — | — | — |
| Canada (a) | 8 098 166 | 7 336 218 | 7 025 418 | 5 987 396 | 7 481 000 |
| Cuba | * 90 000 | * 122 000 | * 130 000 | * 127 000 | * 132 000 |
| Dominican Republic | 226 586 | 217 584 | 237 647 | 278 304 | * 280 000 |
| Guatemala | 25 409 | 24 519 | 13 491 | 20 940 | 21 623 |
| Honduras | * 23 000 | * 23 000 | * 20 000 | * 20 000 | * 23 000 |
| Jamaica | 47 600 | 105 300 | 180 000 | 107 500 | 108 000 |
| Mexico | 2 021 006 | 2 170 669 | 2 390 431 | 1 865 869 | 2 127 453 |
| Nicaragua | * 36 000 | * 40 000 | * 30 000 | * 20 000 | * 20 000 |
| USA | 13 272 000 | 11 227 000 | 10 430 000 | 9 560 000 | 11 688 000 |
| Argentina | 587 482 | 932 149 | 670 544 | 616 000 | 605 000 |
| Brazil (e) | 467 274 | 545 501 | 597 461 | 612 096 | 428 099 |
| Chile | 162 482 | 198 115 | 237 853 | 89 636 | 68 000 |
| Colombia | 257 300 | 262 400 | 270 200 | 280 600 | 224 000 |
| Ecuador | 6 000 | 6 000 | 2 000 | 2 000 | 2 000 |
| Paraguay | * 11 000 | 12 000 | 10 000 | * 6 500 | * 6 000 |
| Peru | 217 490 | 280 000 | 350 000 | * 360 000 | * 360 000 |
| Uruguay | 9 926 | 16 953 | 18 400 | ... | ... |
| Venezuela | 260 142 | 117 477 | 218 234 | * 300 000 | 212 505 |

Production of Gypsum

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------|-------------|-------------|-------------|-------------|-------------|
| Afghanistan | — | — | — | 2 700 | * 5 400 |
| Burma (b) | 31 700 | 16 949 | 13 827 | 18 114 | 34 278 |
| China | * 3 600 000 | * 3 400 000 | * 3 450 000 | * 3 550 000 | * 3 600 000 |
| Cyprus | 46 100 | 43 550 | 26 300 | 28 900 | 32 000 |
| India | 877 000 | 866 000 | 957 000 | 965 572 | 980 156 |
| Iran (c) | * 7 000 000 | * 7 000 000 | * 6 000 000 | * 5 000 000 | * 5 500 000 |
| Iraq | * 160 000 | * 170 000 | * 170 000 | * 170 000 | * 170 000 |
| Israel | * 72 500 | * 80 000 | 42 700 | 42 000 | * 43 000 |
| Jordan | 6 313 | 65 997 | 53 054 | 39 959 | 41 187 |
| Lebanon | * 10 000 | * 10 000 | * 9 000 | * 5 500 | * 9 000 |
| Mongolia | * 28 000 | * 30 000 | * 32 000 | * 32 000 | * 32 000 |
| Pakistan (a) | 337 000 | 568 000 | 317 870 | 329 055 | 324 800 |
| Saudi Arabia | 76 311 | 81 429 | 96 278 | 92 908 | * 91 000 |
| Syria | 63 500 | 78 636 | 79 545 | * 80 000 | ... |
| Taiwan | 2 535 | 8 070 | 6 039 | 2 045 | 3 022 |
| Thailand | 352 398 | 411 977 | 540 383 | 753 433 | 760 221 |
| Vietnam | * 14 000 | * 15 000 | * 15 000 | * 27 000 | * 27 000 |
| Australia | 1 230 204 | 1 309 321 | 1 752 266 | 1 863 719 | * 1 800 000 |
| World total | 71 800 000 | 70 100 000 | 67 900 000 | 63 500 000 | 68 100 000 |

(a) Including anhydrite

(b) Years ended 31 March following that stated

(c) Years ended 20 March following that stated

(d) Calcined

(e) Includes beneficiated and directly shipped material

Exports of Gypsum

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|-----------|-----------|-----------|-----------|
| United Kingdom | | | | | |
| Crude | 2 751 | 3 647 | 3 819 | 3 250 | 4 018 |
| Calcined | 14 838 | 14 241 | 14 593 | 13 273 | 17 693 |
| Belgium-Luxembourg | | | | | |
| Crude | 56 832 | 45 929 | 79 490 | 56 227 | 69 301 |
| Calcined | 39 755 | 54 678 | 60 532 | 57 916 | 67 627 |
| Denmark | | | | | |
| Crude & calcined | 123 | 172 | 973 | 371 | 687 |
| France | | | | | |
| Crude | 949 162 | 901 505 | 901 883 | 874 307 | 785 054 |
| Calcined | 189 839 | 240 915 | 231 380 | 271 717 | 262 936 |
| Germany, Federal Republic of | | | | | |
| Crude | 184 016 | 210 579 | 191 088 | 165 578 | 167 261 |
| Calcined | 174 448 | 179 872 | 183 637 | 161 833 | 142 545 |
| Greece | 5 | 19 | 160 | 15 150 | 38 951 |
| Irish Republic | | | | | |
| Crude | 29 607 | 32 608 | 19 140 | 27 143 | 2 192 |
| Calcined | 27 577 | 25 208 | 20 852 | 27 101 | 38 983 |
| Italy | | | | | |
| Crude | 20 | 21 | 48 | 174 | 897 |
| Calcined | 11 919 | 12 984 | 13 723 | 11 094 | 11 269 |
| Netherlands | | | | | |
| Crude | 1 532 | 133 | 72 | 970 | 26 932 |
| Calcined | 1 943 | 2 037 | 1 429 | 1 786 | 1 877 |
| Austria | | | | | |
| Crude | 122 684 | 136 888 | 93 495 | 72 970 | 105 715 |
| Calcined | 128 117 | 119 217 | 98 341 | 93 552 | 84 748 |
| German Democratic Republic | | | | | |
| Calcined | 80 353 | 78 604 | 103 009 | 101 758 | 84 863 |
| Norway | | | | | |
| Crude | — | 4 362 | — | 2 537 | — |
| Poland | * 200 | * 100 | * 50 | ... | ... |
| Romania | | | | | |
| Calcined (a) | * 28 100 | * 28 700 | * 19 700 | * 20 000 | * 15 100 |
| Soviet Union (a) | * 59 900 | * 35 200 | * 44 500 | * 24 300 | * 23 400 |
| Spain | | | | | |
| Crude & calcined | 1 110 653 | 1 119 664 | 1 075 833 | 1 119 802 | 1 935 180 |
| Sweden | | | | | |
| Crude & calcined | 78 | 266 | 646 | 809 | 789 |
| Switzerland | | | | | |
| Crude & calcined | 667 | 4 100 | 5 647 | 13 992 | 14 027 |
| Turkey | | | | | |
| Crude & calcined | — | ... | ... | 254 | 2 649 |
| Egypt | 9 100 | 1 500 | — | — | ... |
| Kenya | 270 | 600 | 0 | — | ... |
| Morocco | | | | | |
| Crude | 228 871 | 203 140 | 218 780 | 221 792 | 106 020 |
| Calcined | 8 010 | 2 882 | 2 818 | 2 932 | ... |
| South Africa | 3 237 | 1 092 | 2 604 | 2 769 | 3 003 |
| Canada | | | | | |
| Crude | 5 474 765 | 4 960 241 | 5 094 845 | 4 775 755 | 5 187 032 |
| Dominican Republic | 190 794 | 185 849 | 116 278 | 65 345 | ... |
| Guatemala | 21 056 | 15 400 | 14 270 | 13 275 | 10 664 |
| Jamaica | 21 062 | 78 525 | 162 293 | 87 634 | 57 730 |
| Mexico | 1 838 278 | 1 607 674 | 1 563 281 | 1 329 917 | ... |
| Nicaragua | 13 341 | 13 424 | ... | ... | 25 000 |
| USA | | | | | |
| Crude | 4 019 | 6 378 | 7 082 | 5 123 | 4 237 |
| Calcined | 78 657 | 73 770 | 135 665 | 106 626 | 101 976 |
| Argentina | 10 021 | 1 665 | 6 202 | ... | ... |
| Bolivia | — | 1 200 | 748 | 756 | ... |
| Brazil | 48 | 3 544 | 3 118 | 113 | 54 |
| Colombia | 500 | 11 226 | 660 | 463 | 200 |
| Venezuela | 6 175 | 7 650 | 10 154 | 8 633 | ... |

Exports of Gypsum

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------|---------|---------|---------|---------|---------|
| China (a) | ... | * 4 600 | * 2 700 | * 4 800 | * 6 000 |
| Cyprus | | | | | |
| Crude | 5 634 | 2 540 | 506 | — | — |
| Calcined | 4 465 | 5 608 | 5 185 | 7 629 | 4 932 |
| Hong Kong (Re-exports) | 31 433 | 1 430 | 1 172 | 2 185 | 6 738 |
| Japan | | | | | |
| Crude | 895 | 647 | 394 | 2 636 | 4 483 |
| Calcined | 5 262 | 5 723 | 7 234 | 6 537 | 5 556 |
| Korea, Republic of | | | | | |
| Crude | 10 085 | 26 336 | 9 068 | 3 368 | 85 |
| Calcined | 59 319 | 55 484 | 151 817 | 351 928 | 59 074 |
| Saudi Arabia | | | | | |
| Crude & calcined | 7 566 | 6 127 | 20 806 | 38 361 | ... |
| Singapore | | | | | |
| Crude & calcined | 1 405 | 1 251 | 1 076 | 1 483 | 1 784 |
| of which: Re-exports | 1 116 | 1 082 | 1 013 | 1 417 | 1 649 |
| Syria | 116 132 | 44 790 | 31 509 | 22 090 | ... |
| Taiwan | 2 045 | 1 582 | 1 049 | 350 | 734 |
| Thailand | | | | | |
| Crude | 88 513 | 145 415 | 213 876 | 370 695 | 484 755 |
| Calcined | 1 447 | 1 754 | 2 749 | 6 454 | 6 372 |
| Australia | | | | | |
| Crude & calcined | 424 678 | 391 267 | 620 802 | 602 422 | ... |

Note: In this table the term 'crude' as used here may include some anhydrite

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

Imports of Gypsum

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|---------|---------|---------|---------|---------|
| United Kingdom | | | | | |
| Crude | 72 474 | 34 768 | 13 769 | 26 492 | 37 357 |
| Calcined | 38 940 | 39 138 | 34 814 | 51 623 | 48 225 |
| Belgium-Luxembourg | | | | | |
| Crude | 250 882 | 236 820 | 215 297 | 209 920 | 203 107 |
| Calcined | 123 296 | 184 806 | 161 157 | 161 263 | 161 155 |
| Denmark | | | | | |
| Crude | 311 551 | 303 737 | 220 123 | 165 100 | 196 319 |
| Calcined | 4 812 | 4 257 | 4 937 | 53 890 | 77 381 |
| France | | | | | |
| Crude | 8 657 | 15 639 | 16 026 | 24 916 | 24 812 |
| Calcined | 4 640 | 5 747 | 7 258 | 8 382 | 8 534 |
| Germany, Federal Republic of | | | | | |
| Crude | 455 211 | 548 553 | 640 316 | 596 588 | 623 347 |
| Calcined | 140 438 | 140 930 | 133 199 | 116 301 | 135 146 |
| Greece | | | | | |
| Crude | 50 | 51 | 106 | 109 | 73 |
| Calcined | 1 289 | 1 123 | 1 138 | 879 | 739 |
| Irish Republic | | | | | |
| Crude | 780 | 722 | 9 017 | 1 526 | 1 488 |
| Calcined | 4 405 | 3 989 | 5 147 | 3 948 | 3 424 |
| Italy | | | | | |
| Crude | 62 | 147 | 258 | 242 | 132 |
| Calcined | 16 115 | 20 814 | 21 606 | 14 682 | 11 487 |
| Netherlands | | | | | |
| Crude | 246 404 | 290 445 | 255 123 | 213 734 | 279 596 |
| Calcined | 124 161 | 134 778 | 206 281 | 114 643 | 93 586 |
| Austria | | | | | |
| Crude | 4 558 | 4 715 | 5 426 | 3 134 | 2 499 |
| Calcined | 9 623 | 6 668 | 6 542 | 6 493 | 6 418 |
| Czechoslovakia | 25 000 | 25 000 | 22 000 | 21 000 | 21 000 |
| Finland | | | | | |
| Crude | 157 468 | 148 039 | 135 283 | 130 437 | 173 302 |
| Calcined | 3 204 | 3 162 | 4 379 | 3 753 | 2 960 |
| Hungary | | | | | |
| Calcined | 85 931 | 86 584 | 85 653 | 89 583 | 79 940 |
| Iceland | 3 522 | 9 501 | 8 311 | 3 747 | 8 183 |
| Norway | | | | | |
| Crude | 175 631 | 136 210 | 104 702 | 130 707 | 128 265 |
| Calcined | 2 331 | 32 255 | 20 012 | 14 755 | 14 445 |
| Portugal | | | | | |
| Crude | 35 354 | 34 943 | 46 733 | 39 121 | ... |
| Calcined | 148 | 210 | 231 | 722 | ... |
| Spain | | | | | |
| Crude & calcined | 5 863 | 4 662 | 2 092 | 1 279 | 1 253 |
| Sweden | | | | | |
| Crude | 368 434 | 344 877 | 267 111 | 299 097 | 251 654 |
| Calcined | 5 899 | 5 568 | 5 231 | 4 960 | 5 454 |
| Switzerland | | | | | |
| Crude | 32 739 | 41 238 | 37 781 | 32 013 | 32 989 |
| Ground & calcined | 30 399 | 34 106 | 35 121 | 34 229 | 34 535 |
| Algeria | | | | | |
| Crude & calcined | 5 038 | 1 716 | ... | ... | ... |
| Cameroon | | | | | |
| Crude & calcined | 12 284 | 15 648 | ... | ... | ... |
| Egypt | 668 | 727 | 625 | 1 354 | ... |
| Gabon | | | | | |
| Crude & calcined | ... | 347 | 260 | 6 998 | 8 668 |
| Ghana | | | | | |
| Crude & calcined | 3 003 | ... | ... | ... | ... |
| Ivory Coast | | | | | |
| Crude | 46 820 | 47 792 | 39 357 | ... | ... |
| Calcined | 6 727 | 6 695 | 5 881 | ... | ... |
| Kenya | 14 198 | 38 479 | 40 071 | 15 745 | ... |
| Liberia | | | | | |
| Crude & calcined | 2 524 | 1 073 | ... | ... | ... |
| Libya | | | | | |
| Crude & calcined | 303 | 332 | 1 737 | ... | ... |

Imports of Gypsum

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------|-----------|-----------|-----------|-----------|-----------|
| Madagascar | 4 679 | 2 358 | 18 | 4 | ... |
| Melilla | 543 | 785 | 823 | 598 | ... |
| Mozambique | | | | | |
| Crude | ... | 14 500 | ... | ... | ... |
| Calcined | ... | 14 559 | ... | ... | ... |
| Senegal | | | | | |
| Crude | 5 616 | 4 657 | 7 266 | 15 219 | 18 910 |
| Calcined | 810 | 168 | 219 | 216 | 86 |
| South Africa | | | | | |
| Crude & calcined | 5 939 | 7 283 | 8 049 | 7 026 | 9 523 |
| Togo | | | | | |
| Crude | 3 940 | 7 | 22 440 | ... | ... |
| Calcined | 588 | 907 | 537 | ... | ... |
| Tunisia | | | | | |
| Crude & calcined | 215 | 474 | 141 | 381 | ... |
| Zaire | | | | | |
| Crude & calcined | 5 | 2 508 | 7 512 | ... | ... |
| Zimbabwe | 3 364 | 2 872 | 4 126 | 2 293 | ... |
| Canada | | | | | |
| Crude | 152 463 | 154 717 | 143 499 | 93 843 | 100 939 |
| Calcined | 18 230 | 18 902 | 18 851 | 18 925 | 24 728 |
| Costa Rica | | | | | |
| Crude | 16 427 | 27 511 | 19 055 | 6 859 | 9 464 |
| Calcined | 696 | 569 | 635 | 769 | 571 |
| El Salvador | | | | | |
| Crude | 20 286 | 14 377 | 15 813 | 15 039 | 10 443 |
| Calcined | 142 | 174 | 151 | 242 | 152 |
| Guadeloupe | 8 304 | 6 122 | ... | ... | ... |
| Martinique | 4 473 | 4 412 | ... | ... | ... |
| Mexico | | | | | |
| Crude | 17 223 | 18 833 | 32 981 | 13 772 | ... |
| Calcined | 9 102 | 9 036 | 11 438 | 8 631 | ... |
| Nicaragua | 171 | 223 | ... | ... | ... |
| Panama | 16 204 | 18 196 | 9 284 | 9 530 | 18 172 |
| Trinidad & Tobago | | | | | |
| Crude & calcined | 7 717 | 6 132 | 8 497 | 16 185 | 8 860 |
| USA | | | | | |
| Crude | 7 051 386 | 6 681 812 | 6 887 972 | 6 094 265 | 7 286 000 |
| Ground & calcined | 1 407 | 2 003 | 1 875 | 2 234 | 4 000 |
| Brazil | 628 | 1 706 | 1 001 | 801 | 1 |
| Colombia | 28 772 | 68 731 | 66 830 | 63 860 | 40 522 |
| Ecuador | 10 191 | 6 903 | 8 249 | ... | ... |
| Uruguay | | | | | |
| Crude & ground | 30 736 | 5 582 | 11 146 | 2 074 | 699 |
| Venezuela | 34 112 | 28 094 | 29 893 | 78 704 | ... |
| Bahrain | ... | 2 405 | 10 839 | 12 967 | 18 477 |
| Hong Kong | 132 726 | 86 119 | 71 441 | 104 289 | 77 842 |
| Indonesia | 287 554 | 318 607 | 316 158 | 294 349 | ... |
| Iran (a) | 1 676 | 823 | 1 290 | 75 | ... |
| Israel (c) | 331 | 507 | 110 | ... | ... |
| Japan | | | | | |
| Crude | 29 733 | 32 793 | 202 829 | 222 286 | 201 326 |
| Calcined | 381 | 442 | 309 | 524 | 825 |
| Jordan | 1 337 | 2 456 | 1 984 | 2 178 | 3 182 |
| Korea, Republic of | 5 077 | 8 424 | 741 | 17 337 | 218 722 |
| Kuwait | 60 453 | 25 380 | 25 127 | ... | ... |
| Malaysia | | | | | |
| Crude & calcined | 94 931 | 125 316 | 97 316 | 125 499 | ... |
| Philippines | | | | | |
| Crude | 57 255 | 60 376 | 68 525 | 60 075 | 74 739 |
| Calcined | 6 019 | 5 295 | 7 071 | 3 890 | 4 749 |
| Saudi Arabia | | | | | |
| Crude | 2 988 | 6 148 | 2 952 | 17 945 | 4 961 |
| Calcined | 20 788 | 19 938 | 27 882 | 41 195 | 91 827 |
| Singapore | | | | | |
| Crude & calcined | 75 268 | 76 910 | 83 527 | 117 305 | 149 291 |
| Sri Lanka | 4 909 | 198 965 | 16 043 | 2 623 | 14 998 |

Imports of Gypsum

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------|---------|---------|---------|---------|---------|
| Taiwan | | | | | |
| Crude | 39 673 | 23 421 | 69 222 | 123 611 | 180 328 |
| Calcined | 363 158 | 203 856 | 291 744 | 189 282 | 168 896 |
| Thailand | | | | | |
| Crude & calcined | 555 | 562 | 250 | 1 830 | 662 |
| Australia | 957 | 1 713 | 1 105 | 1 063 | ... |
| Fiji | 537 | 122 | 1 335 | 3 566 | 3 056 |
| New Zealand (b) | | | | | |
| Crude | 98 485 | 92 672 | 106 477 | 135 138 | 102 488 |
| Calcined | 484 | 484 | 234 | 516 | 470 |

Note: In this table the term 'crude' as used here may include some anhydrite

(a) Years ended 20 March following that stated

(b) Years ended 30 June of that stated

(c) Figures may be incomplete as value only given in Israeli trade return for imports from some countries

Production of Iodine

kilograms

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------|-------------|-------------|-------------|-------------|-------------|
| Soviet Union | * 2 000 000 | * 2 000 000 | * 2 000 000 | * 2 000 000 | * 2 000 000 |
| USA | * 1 000 000 | * 700 000 | * 800 000 | * 800 000 | * 900 000 |
| Chile | 2 409 600 | 2 601 000 | 2 688 000 | 2 596 000 | * 2 700 000 |
| China | * 450 000 | * 450 000 | * 450 000 | * 450 000 | * 450 000 |
| Indonesia | 25 287 | 29 306 | 25 360 | 29 000 | * 25 900 |
| Japan | 6 250 000 | 6 525 000 | 6 862 000 | 7 180 000 | 7 273 000 |
| World total | 12 100 000 | 12 300 000 | 12 800 000 | 13 100 000 | 13 300 000 |

Exports of Iodine

kilograms

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-------------|-------------|-------------|-------------|-------------|
| United Kingdom | 118 729 | 224 309 | 105 773 | 132 869 | 96 046 |
| Belgium-Luxembourg | 4 100 | 47 100 | 112 100 | 154 700 | 171 100 |
| Denmark | 200 | 2 700 | 3 500 | 400 | 2 000 |
| France | 131 000 | 138 000 | 140 000 | 72 000 | 48 000 |
| Germany, Federal Republic of | 46 100 | 75 600 | 73 200 | 44 600 | 49 500 |
| Italy | 23 825 | 9 160 | 23 799 | 100 | 1 100 |
| Netherlands | 18 000 | 11 000 | 35 000 | 15 000 | 34 000 |
| Poland | * 11 000 | * 2 000 | ... | ... | ... |
| Portugal | 0 | 500 | 100 | ... | ... |
| Spain | 1 000 | 1 000 | 7 | 1 000 | ... |
| Chile (a) | * 2 000 000 | * 2 300 000 | * 1 900 000 | * 1 900 000 | * 2 100 000 |
| Indonesia | 14 700 | 28 850 | 9 500 | 17 900 | ... |
| Japan (b) | 5 524 215 | 5 707 255 | 5 442 205 | 5 198 774 | 6 281 747 |

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

(b) Includes fluorine and bromine but is thought to be mainly iodine

Imports of Iodine

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|-----------|-----------|-----------|-----------|
| United Kingdom | 1 359 074 | 1 593 742 | 1 358 447 | 1 470 589 | 2 043 114 |
| Belgium-Luxembourg | 102 200 | 96 600 | 95 700 | 139 900 | 226 200 |
| Denmark | 1 300 | 2 400 | 2 700 | 2 100 | 2 000 |
| France | 1 156 000 | 1 100 000 | 899 000 | 1 032 000 | 1 122 000 |
| Germany, Federal Republic of | 870 700 | 1 139 900 | 1 290 300 | 1 133 800 | 1 190 200 |
| Greece | 2 000 | 1 000 | 1 000 | 2 000 | 1 000 |
| Italy | 252 087 | 301 156 | 172 765 | 315 200 | 213 100 |
| Netherlands | 126 000 | 216 000 | 258 000 | 206 000 | 322 000 |
| Hungary | 40 400 | 33 900 | 53 900 | 88 800 | 48 600 |
| Portugal | 10 900 | 10 800 | 9 700 | ... | ... |
| Spain | 146 034 | 152 000 | 175 000 | 158 000 | ... |
| Turkey | 1 031 655 | 3 200 | 6 322 | ... | ... |
| Yugoslavia | 70 773 | 60 121 | 86 000 | 51 000 | ... |
| Algeria | 1 318 | 4 139 | ... | ... | ... |
| Morocco | 372 | 419 | 444 | 697 | ... |
| Sudan | 10 350 | ... | ... | ... | ... |
| Canada | 259 999 | 270 659 | 180 892 | 111 811 | 193 000 |
| Dominican Republic | 2 401 | 3 851 | 1 269 | 2 299 | ... |
| USA | 2 822 400 | 2 848 630 | 2 782 193 | 2 144 907 | 2 820 438 |
| Argentina | 9 523 | 16 433 | 22 737 | ... | ... |
| Brazil | 130 409 | 176 261 | 129 620 | 201 678 | 147 002 |
| Colombia | 4 272 | 4 188 | 8 102 | 6 530 | 5 373 |
| Ecuador | 655 | 783 | 1 079 | ... | ... |
| Peru | 2 589 | 2 425 | 1 671 | 965 | 1 077 |
| Uruguay | 1 400 | — | — | 400 | 500 |
| Venezuela | 10 502 | ... | ... | 48 588 | ... |
| India (a) | 140 429 | 166 231 | 184 924 | ... | ... |
| Indonesia | 7 617 | 34 420 | 25 552 | 39 692 | ... |
| Korea, Republic of | 5 207 | 3 120 | 3 884 | 6 632 | 10 901 |
| Saudi Arabia | 39 100 | 30 117 | ... | — | — |
| Taiwan | 7 169 | 7 663 | 5 621 | 4 504 | 11 844 |
| Thailand | 1 324 | 1 917 | 2 002 | 1 824 | 1 569 |

(a) Years ended 31 March following that stated

IRON

MILLION
TONNES

DOLLARS/TONNE

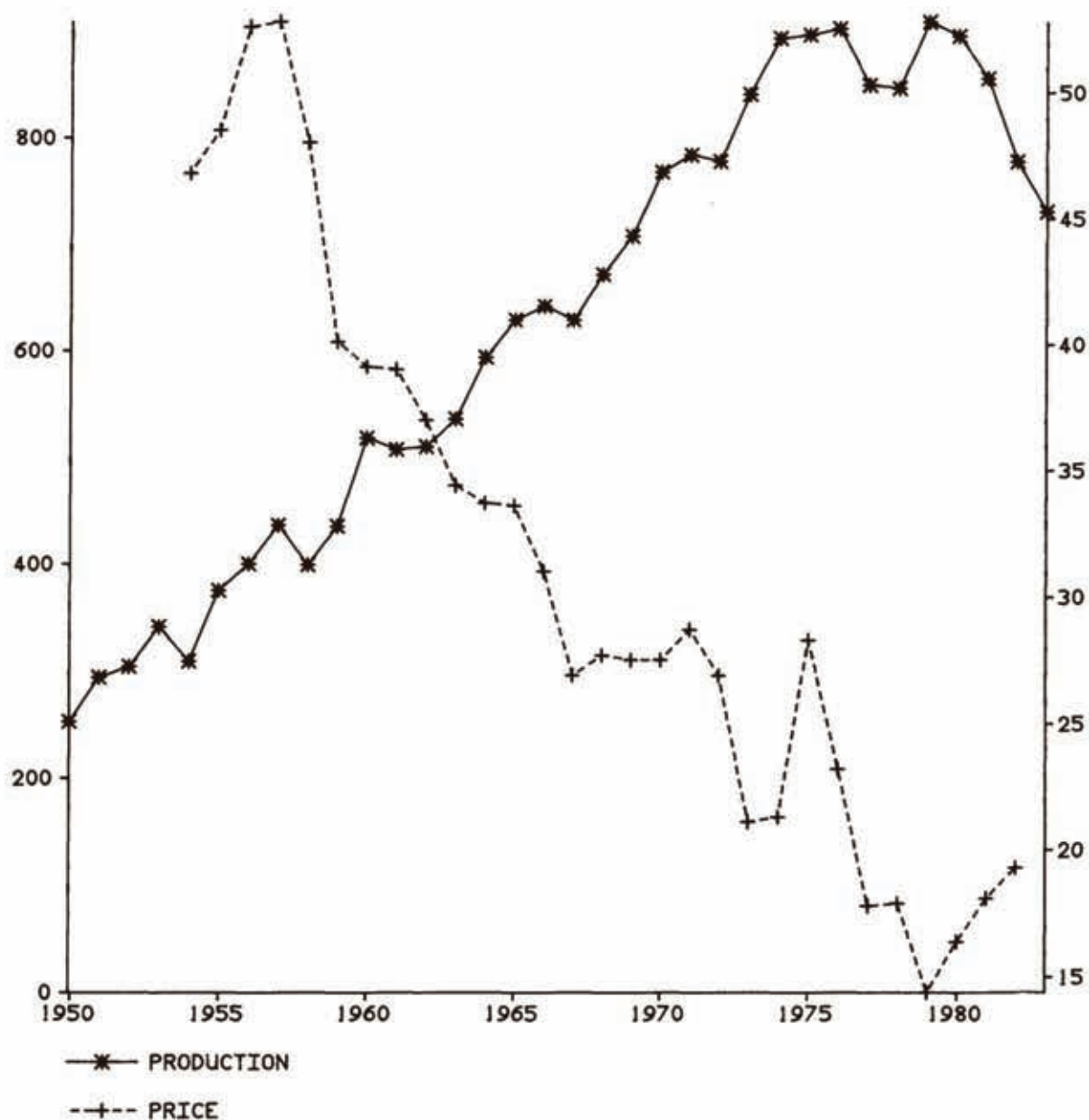


Figure 4 World production of iron ore from 1950 to 1983 compared with the yearly average price of Swedish ore c.i.f. Rotterdam expressed in constant 1982 US dollars.
Constant commodity price taken from 'Commodity Trade and Price Trends' published by the Johns Hopkins University Press for the World Bank (1983-84 edition).

Production of Iron Ore

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------------------------|--------------|--------------|--------------|--------------|--------------|
| United Kingdom | 4 269 000 | 916 000 | 731 000 | 470 000 | 384 000 |
| France | 31 627 000 | 28 981 000 | 21 598 000 | 19 411 000 | 15 970 000 |
| Germany, Federal Republic of (f) | 1 654 000 | 1 945 000 | 1 572 000 | 1 304 000 | 976 000 |
| Italy | 218 762 | 184 733 | 123 407 | 3 093 | — |
| Luxembourg | 630 238 | 560 165 | 429 080 | — | — |
| Albania (b) | * 530 000 | * 550 000 | * 600 000 | * 600 000 | * 650 000 |
| Austria | 3 200 000 | 3 200 000 | 3 050 000 | 3 330 000 | 3 540 000 |
| Bulgaria | 2 103 000 | 1 886 000 | 1 754 000 | 1 552 000 | 1 803 000 |
| Czechoslovakia | 2 012 000 | 1 927 000 | 1 935 000 | 1 861 000 | 1 903 000 |
| Finland | 925 118 | 810 000 | 871 360 | 885 300 | 862 000 |
| German Democratic Republic | 56 000 | 51 000 | 41 000 | 41 000 | 40 000 |
| Hungary | 532 000 | 426 000 | 422 000 | 467 000 | 441 000 |
| Norway | 4 065 689 | 3 883 600 | 4 137 680 | 3 545 120 | 3 535 309 |
| Poland | 249 000 | 104 000 | 105 000 | 49 300 | 10 000 |
| Portugal (f) | 59 558 | 56 623 | 37 096 | 27 100 | * 22 700 |
| Romania | 2 523 000 | 2 333 000 | 2 304 000 | 2 146 000 | 1 785 000 |
| Soviet Union | 241 738 000 | 244 713 000 | 242 417 000 | 244 411 000 | 245 200 000 |
| Spain | 8 826 798 | 9 226 813 | 8 483 212 | 7 622 184 | 7 449 000 |
| Sweden | 26 273 884 | 26 968 000 | 23 201 000 | 14 744 000 | 13 212 000 |
| Turkey | 1 954 526 | 2 578 948 | 2 935 265 | 3 055 090 | 3 690 895 |
| Yugoslavia | 4 617 000 | 4 530 000 | 4 794 000 | 5 106 000 | 5 018 000 |
| Algeria | 2 864 000 | 3 454 000 | 3 406 000 | 3 600 000 | * 3 600 000 |
| Egypt | 1 435 000 | 1 776 000 | 1 943 000 | 2 140 000 | * 2 000 000 |
| Liberia | 18 345 000 | 17 900 000 | 19 704 000 | 18 165 000 | 14 937 000 |
| Mauritania | 9 373 000 | 8 936 000 | 8 704 000 | 8 255 000 | * 7 400 000 |
| Morocco | 61 739 | 78 020 | 49 854 | 223 820 | 252 475 |
| South Africa (c) | 31 565 415 | 26 312 480 | 28 318 856 | 24 553 600 | 16 604 923 |
| Swaziland | (a) 493 528 | — | — | — | — |
| Tunisia | 393 690 | 389 485 | 395 952 | 274 457 | 315 798 |
| Zimbabwe | 1 201 117 | 1 621 681 | 1 097 697 | 837 316 | 926 472 |
| Canada (g) | 59 617 286 | 49 068 000 | 49 551 000 | 33 197 561 | 32 382 000 |
| Mexico | 6 061 180 | 7 630 660 | 8 019 105 | 8 154 908 | 8 039 000 |
| USA | 87 091 000 | 70 730 000 | 74 348 000 | 36 002 000 | 38 165 000 |
| Argentina | 610 507 | 436 555 | 397 649 | 587 000 | 629 000 |
| Brazil (h) | 104 082 736 | 114 732 491 | 97 860 171 | 93 159 018 | 88 715 604 |
| Chile | 8 225 089 | 8 834 577 | 8 514 176 | 6 469 670 | 5 973 672 |
| Colombia | 396 900 | 506 269 | 433 411 | 469 850 | 456 000 |
| Peru | 5 444 000 | 5 704 000 | 6 069 000 | 5 774 000 | 4 347 000 |
| Venezuela | 14 776 000 | 16 221 000 | 15 722 000 | 11 680 000 | 9 296 000 |
| China | * 75 000 000 | * 75 000 000 | * 70 000 000 | * 71 000 000 | * 70 000 000 |
| India | 38 859 000 | 41 936 000 | 41 460 000 | 41 997 000 | 37 584 000 |
| Indonesia (d) | 79 877 | 74 742 | 86 626 | 137 000 | 124 903 |
| Iran (e) | 609 000 | 600 000 | 600 000 | 750 000 | * 600 000 |
| Japan (d) | 458 000 | 477 555 | 441 735 | 362 449 | 298 000 |
| Korea, Dem. P.R. of | * 7 400 000 | * 8 000 000 | * 8 000 000 | * 8 000 000 | * 8 000 000 |
| Korea, Republic of | 638 900 | 618 900 | 593 600 | 620 100 | 655 300 |
| Malaysia | 350 498 | 371 186 | 532 455 | 341 291 | 113 990 |
| Philippines | 6 324 | — | 5 746 | 6 000 | 2 645 |
| Thailand | 103 274 | 84 966 | 62 472 | 26 750 | 40 304 |
| Australia | 91 717 000 | 95 534 000 | 84 661 000 | 87 694 000 | 71 040 000 |
| New Zealand | 3 527 475 | 3 638 449 | 3 253 153 | 2 791 621 | 2 203 380 |
| World total | 909 000 000 | 896 000 000 | 856 000 000 | 778 000 000 | 731 000 000 |

Note: In addition to the countries listed, Cuba and Vietnam are also believed to produce iron ore

- (a) Production from stockpiles
- (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 shipments of by-product iron ore
- (h) Includes beneficiated and direct shipping ore

Exports of Iron Ore

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------------|-----------------|-----------------|------------|------------|
| United Kingdom | 898 | 1 156 | 20 | 685 | 965 |
| Belgium-Luxembourg | | | | | |
| Iron ore | 3 367 | 60 237 | 18 692 | 401 | 1 433 |
| Burnt pyrites | 9 270 | 10 291 | 10 173 | 21 597 | 50 696 |
| Denmark | | | | | |
| Iron ore | 6 751 | 8 638 | 8 867 | 14 551 | 12 000 |
| France | | | | | |
| Iron ore | 10 219 867 | 8 647 431 | 6 378 303 | 5 836 355 | 5 030 858 |
| Germany, Federal Republic of | | | | | |
| Iron ore | 3 996 | 4 467 | 6 538 | 6 424 | 9 190 |
| Burnt pyrites | 226 063 | 155 875 | 76 826 | 51 219 | 38 932 |
| Greece | | | | | |
| Burnt pyrites | 50 | 22 603 | 14 500 | 14 300 | ... |
| Irish Republic | | | | | |
| Iron ore | 31 160 | 27 092 | 17 296 | 1 980 | 23 |
| Italy | | | | | |
| Iron ore | 288 | 1 424 | 22 | 150 | 87 |
| Burnt pyrites | 65 648 | 46 559 | 45 750 | 39 217 | 28 679 |
| Netherlands (b) | 119 566 | 273 706 | 239 761 | 148 920 | 13 850 |
| Finland | 10 | 14 628 | 22 965 | — | — |
| Norway | | | | | |
| Iron ore | 3 408 646 | 2 721 777 | 3 482 274 | 2 166 227 | 2 945 494 |
| Burnt pyrites | 27 684 | 53 609 | 177 740 | 168 208 | 142 899 |
| Portugal | | | | | |
| Burnt pyrites | 27 514 | 20 531 | 14 315 | 12 000 | ... |
| Soviet Union | 39 012 000 | 38 108 000 | 34 917 000 | 33 201 000 | 33 245 000 |
| Spain | | | | | |
| Iron ore | 1 994 544 | 2 087 589 | 1 141 192 | 1 868 923 | 1 580 000 |
| Burnt pyrites | (e) 272 339 | (e) 313 193 | 1 198 | 2 712 | ... |
| Sweden | | | | | |
| Iron ore | 26 246 000 | 20 998 000 | 17 709 000 | 12 597 000 | 14 193 000 |
| Burnt pyrites | 316 000 | 271 000 | 306 000 | 57 000 | — |
| Switzerland (b) | 54 | 88 | 222 | 2 772 | 41 |
| Yugoslavia | | | | | |
| Burnt pyrites | 48 302 | 74 168 | 109 597 | 58 454 | 61 000 |
| Algeria | | | | | |
| Iron ore | 2 352 099 | 1 475 012 | 1 479 368 | 1 419 991 | 1 398 182 |
| Canary Islands | | | | | |
| Burnt pyrites | 57 180 | 58 460 | 28 700 | 28 200 | ... |
| Liberia | 19 865 581 | 17 199 068 | 20 694 290 | 16 377 000 | 15 606 000 |
| Mauritania | 9 313 000 | 8 727 000 | 8 609 000 | 7 753 000 | 7 402 000 |
| Morocco | | | | | |
| Burnt pyrites | 99 686 | 143 503 | 64 383 | 237 400 | 139 706 |
| South Africa | (d)* 16 552 600 | (d)* 14 331 000 | (d)* 13 221 000 | 11 355 632 | 7 811 402 |
| Swaziland | 956 726 | 553 494 | — | — | ... |
| Canada | 48 849 277 | 39 020 983 | 41 451 829 | 27 281 255 | 25 527 958 |
| Mexico | 413 | 982 | 2 079 | 160 | ... |
| USA (b) | 5 347 856 | 5 780 534 | 5 635 191 | 3 228 954 | 3 841 931 |
| Bolivia (c) | 2 629 | — | 4 113 | 4 891 | ... |
| Brazil | 75 587 907 | 78 957 860 | 85 797 917 | 84 408 515 | 74 199 952 |
| Chile | 6 980 000 | 7 600 000 | 6 639 843 | 5 500 000 | 4 700 000 |
| Peru | 5 529 934 | 5 500 329 | 5 803 000 | 5 596 000 | 4 182 000 |
| Venezuela | 12 976 000 | 11 752 000 | 12 422 000 | 6 616 000 | 6 338 000 |
| India | 24 387 000 | 25 691 382 | 19 824 364 | ... | ... |
| Malaysia | 17 825 | 10 042 | 31 288 | 25 445 | ... |
| Philippines | | | | | |
| Iron ore | 4 100 155 | 4 263 809 | 3 550 826 | 3 751 608 | 3 284 801 |
| Burnt pyrites | 33 079 | 59 535 | 35 408 | 18 423 | 15 408 |
| Australia | 78 447 000 | 79 754 000 | 71 147 000 | 72 584 000 | 74 288 000 |
| New Zealand (a) | 3 001 620 | 3 499 168 | 2 819 828 | 2 705 667 | 2 355 001 |

(a) Years ended 30 June of that stated

(b) Including burnt pyrites

(c) Fe content of concentrates

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

(e) Includes burnt cupreous pyrites

Imports of Iron Ore

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------------------|----------------|----------------|-------------|-------------|-------------|
| United Kingdom | | | | | |
| Iron ore | 17 841 304 | 8 557 148 | 14 581 627 | 10 572 403 | 13 164 214 |
| Burnt pyrites | 221 166 | 218 230 | 265 906 | 210 265 | 230 660 |
| Belgium-Luxembourg | | | | | |
| Iron ore | 26 144 207 | 22 181 965 | 21 148 340 | 18 613 043 | 17 519 395 |
| Burnt pyrites | 175 705 | 103 415 | 94 312 | 59 996 | 38 721 |
| Denmark (a) | 26 961 | 19 734 | 146 154 | 198 418 | 77 000 |
| France | | | | | |
| Iron ore | 17 345 338 | 18 642 578 | 16 510 764 | 14 942 736 | 12 552 833 |
| Burnt pyrites | 87 452 | 70 041 | 57 248 | 51 978 | 82 404 |
| Germany, Federal Republic of | | | | | |
| Iron ore | 51 703 352 | 49 833 550 | 44 288 124 | 38 909 559 | 35 497 187 |
| Burnt pyrites | 14 668 | 14 930 | 29 293 | 20 224 | 62 426 |
| Greece | 390 590 | 288 442 | ... | ... | ... |
| Italy (a) | 17 320 601 | 16 912 643 | 15 210 597 | 14 723 082 | 13 799 629 |
| Netherlands (a) | 7 431 455 | 7 585 635 | 6 659 598 | 6 160 403 | 4 979 959 |
| Albania (d) | * 150 000 | * 182 100 | * 31 000 | * 97 000 | ... |
| Austria | | | | | |
| Iron ore | 3 963 480 | 3 336 303 | 3 423 021 | 3 241 201 | 2 390 940 |
| Burnt pyrites | 44 854 | 48 448 | 45 515 | 33 962 | 20 882 |
| Bulgaria | 2 107 000 | 2 235 000 | 2 280 000 | 2 360 000 | 2 322 000 |
| Czechoslovakia | 12 459 000 | 12 819 000 | 12 166 000 | 11 640 000 | 11 683 000 |
| Finland | 1 790 979 | 1 736 929 | 1 495 401 | 1 493 211 | 1 299 321 |
| German Democratic Republic (b) | 2 033 000 | 2 088 000 | 2 335 000 | 1 932 000 | 1 842 000 |
| Hungary | 4 044 624 | 3 285 591 | 3 765 125 | 3 756 651 | 3 966 804 |
| Norway | 312 434 | 87 101 | 11 196 | 47 293 | 225 640 |
| Poland | 18 872 000 | 20 150 000 | 15 870 000 | 13 493 000 | 13 787 000 |
| Portugal | 619 651 | 494 937 | 524 098 | 263 000 | ... |
| Romania | 15 065 000 | 15 984 000 | 15 016 000 | 14 397 000 | 14 477 000 |
| Spain | 5 194 919 | 4 757 201 | 4 687 152 | 4 620 000 | 4 202 000 |
| Sweden | 33 000 | ... | 1 000 | 5 000 | 19 000 |
| Switzerland (a) | 58 723 | 49 431 | 49 487 | 21 050 | 8 016 |
| Turkey | 732 756 | 810 541 | 1 049 888 | 1 170 757 | 1 329 494 |
| Yugoslavia | 1 059 699 | 1 639 947 | 1 359 660 | 1 476 539 | 1 568 000 |
| Kenya | — | 22 603 | 12 747 | 29 | ... |
| Libya | — | 3 412 | ... | ... | ... |
| Nigeria (a) | 1 342 | ... | ... | ... | ... |
| Tanzania | 414 | 1 061 | — | ... | ... |
| Canada | 5 912 582 | 5 875 293 | 5 794 604 | 3 359 286 | 4 013 109 |
| Mexico | 571 916 | 381 418 | 446 627 | 1 076 | ... |
| USA (a) | 34 318 178 | 25 460 384 | 28 788 679 | 14 951 482 | 13 541 778 |
| Argentina | 2 987 674 | 2 390 698 | 2 558 037 | 2 105 789 | * 2 000 000 |
| Venezuela (a) | 5 891 | ... | ... | 5 842 | ... |
| Abu Dhabi | 122 552 | 173 897 | 51 120 | 31 248 | ... |
| China | (d)* 8 259 000 | (d)* 4 789 000 | 3 355 142 | 3 752 273 | 3 924 101 |
| Dubai | 12 661 | 12 400 | 47 800 | 10 000 | 26 499 |
| India | 179 | 1 169 | 160 | ... | ... |
| Indonesia | | | | | |
| Iron ore | 53 159 | 285 047 | 701 574 | 121 039 | ... |
| Burnt pyrites | 0 | 0 | 112 650 | 178 786 | ... |
| Japan | | | | | |
| Iron ore (c) | 130 274 295 | 133 721 259 | 123 379 351 | 121 827 155 | 109 180 816 |
| Burnt pyrites | 1 495 | — | — | — | — |
| Korea, Republic of | | | | | |
| Iron ore | 7 514 298 | 9 129 893 | 10 687 712 | 11 509 940 | 10 121 155 |
| Burnt pyrites | 2 800 | 11 600 | — | 45 543 | 49 394 |
| Philippines | 3 363 322 | 4 650 570 | 3 286 333 | 3 825 051 | 2 277 767 |

Imports of Iron Ore

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|---------------|-----------|-----------|-----------|-----------|-----------|
| Qatar | 496 154 | 220 281 | — | — | ... |
| Saudi Arabia | — | 49 127 | 42 565 | 95 695 | 294 657 |
| Singapore | 6 781 | 9 605 | 30 576 | 25 256 | 13 013 |
| Taiwan | | | | | |
| Iron ore | 2 648 963 | 2 843 526 | 2 413 058 | 4 048 764 | 4 956 581 |
| Burnt pyrites | 50 980 | 49 142 | 55 079 | 21 014 | 13 757 |
| Australia | 26 400 | 47 175 | 46 912 | 65 678 | 46 757 |

(a) Including burnt pyrites

(b) Fe content of concentrates

(c) Including manganiferous iron ore

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

Production of Pig-Iron and Blast-Furnace Ferro-alloys

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-------------|-------------|-------------|-------------|-------------|
| United Kingdom | 12 898 000 | 6 316 000 | 9 554 000 | 8 388 000 | 9 560 000 |
| Belgium (a) | 10 776 000 | 9 846 000 | 9 786 000 | 7 836 000 | 8 034 000 |
| France | 19 415 000 | 19 159 000 | 17 274 000 | 15 047 000 | 13 770 000 |
| Germany, Federal Republic of | 35 166 000 | 33 873 000 | 31 876 000 | 27 308 000 | 26 526 000 |
| Greece (a) | 328 000 | * 303 000 | * 300 000 | * 300 000 | * 300 000 |
| Italy | 11 397 760 | 12 218 530 | 12 319 324 | 11 595 712 | 10 362 410 |
| Luxembourg (a) | 3 800 715 | 3 567 743 | 2 889 320 | 2 586 820 | 2 316 300 |
| Netherlands (a) | 4 813 800 | 4 327 700 | 4 599 600 | 3 616 600 | 3 747 400 |
| Austria (a) | 3 702 440 | 3 485 161 | 3 477 257 | 3 114 985 | 3 320 260 |
| Bulgaria (a) | 1 451 643 | 1 529 248 | 1 514 447 | 1 564 590 | 1 626 878 |
| Czechoslovakia (a) | 9 529 000 | 9 819 000 | 9 903 000 | 9 525 000 | 9 466 000 |
| Finland (a) | 2 038 000 | 2 019 000 | 1 965 000 | 1 943 800 | 1 898 458 |
| German Democratic Republic | 2 385 600 | 2 458 400 | 2 440 900 | 2 149 400 | 2 206 800 |
| Hungary (a) | 2 369 000 | 2 214 000 | 2 193 000 | 2 181 000 | 2 047 000 |
| Norway (a) | 650 235 | 611 660 | 586 584 | 456 490 | 564 926 |
| Poland | 11 527 000 | 11 953 000 | 9 351 000 | 8 523 000 | 9 719 000 |
| Portugal (a) | 379 927 | 370 813 | 314 274 | 195 524 | * 355 000 |
| Romania (a) | 8 879 000 | 9 012 000 | 8 857 000 | 8 637 000 | * 8 700 000 |
| Soviet Union | 108 998 000 | 107 283 000 | 107 766 000 | 106 723 000 | 110 453 000 |
| Spain (a) | 6 464 434 | 6 364 467 | 6 250 776 | 5 843 148 | 5 397 750 |
| Sweden (b) | 3 132 177 | 2 638 214 | 1 987 796 | 1 967 697 | * 1 900 000 |
| Switzerland (a) | 30 000 | 29 000 | 30 000 | 30 000 | * 30 000 |
| Turkey (a) | 2 228 257 | 2 040 366 | 1 954 076 | 2 379 497 | 3 162 866 |
| Yugoslavia (a) | 2 360 000 | 2 425 000 | 2 817 000 | 2 703 000 | 2 845 000 |
| Algeria (a) | 497 000 | 669 000 | 897 000 | * 900 000 | * 910 000 |
| Egypt (a) | 600 000 | 650 000 | 650 000 | 113 000 | * 125 000 |
| South Africa (a) | 7 031 000 | 7 210 000 | 7 369 000 | 6 804 000 | 5 213 000 |
| Tunisia (a) | 150 400 | 146 400 | 149 900 | 93 300 | 141 200 |
| Zimbabwe (a) | 650 044 | 600 000 | 400 000 | 478 017 | * 300 000 |
| Canada (a) | 10 905 660 | 10 892 628 | 9 743 499 | 8 000 149 | 8 566 800 |
| Mexico (b) | 5 026 748 | 5 274 661 | 5 483 000 | 5 103 000 | 5 035 000 |
| USA (a) | 78 902 000 | 62 323 000 | 66 909 000 | 39 319 000 | 44 243 000 |
| Argentina (b) | 1 942 200 | 1 806 400 | 1 735 900 | 1 940 300 | * 2 000 000 |
| Brazil (b) | 12 037 531 | 12 960 076 | 11 021 569 | 11 053 828 | 13 190 000 |
| Chile (a) | 611 200 | 648 400 | 582 200 | 453 300 | 538 600 |
| Colombia (a) | 240 000 | 279 000 | 233 000 | 246 000 | 298 000 |
| Peru (a) | 257 000 | 261 000 | 181 000 | 162 000 | 139 000 |
| Venezuela (b) | 1 331 000 | 2 367 000 | 2 230 000 | 2 357 000 | 2 246 000 |
| China (a) | 36 730 000 | 38 020 000 | 34 170 000 | 35 551 000 | 37 420 000 |
| India (a) | 8 748 000 | 8 493 000 | 9 463 000 | 9 606 000 | 9 126 000 |
| Iran (a)(c) | 800 000 | 800 000 | 500 000 | 600 000 | * 700 000 |
| Japan (a) | 83 825 000 | 87 041 000 | 80 048 000 | 77 658 000 | 72 936 000 |
| Korea, Dem. P.R. of (a) | * 2 900 000 | * 3 000 000 | * 3 000 000 | * 3 000 000 | * 3 000 000 |
| Korea, Republic of (a) | 5 063 000 | 5 577 000 | 7 928 000 | 8 445 000 | 8 024 000 |
| Taiwan (a) | 301 676 | 235 931 | 185 578 | 148 110 | 166 546 |
| Thailand (a) | 30 224 | 17 738 | 10 310 | 6 338 | 159 |
| Australia (a) | 7 811 000 | 6 959 000 | 6 830 000 | 5 956 000 | 5 045 000 |
| World total | 531 000 000 | 510 000 000 | 500 000 000 | 453 000 000 | 458 000 000 |

(a) Pig-iron only

(b) Pig-iron, including sponge iron, only

(c) Years ended 20 March following that stated

Production of Steel Ingots and Castings

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-------------|-------------|-------------|-------------|-------------|
| United Kingdom | 21 464 000 | 11 277 000 | 15 573 000 | 13 704 000 | 14 986 000 |
| Belgium | 13 538 400 | 12 424 800 | 12 379 200 | 9 915 600 | 10 156 800 |
| Denmark | 804 000 | 734 000 | 612 000 | 560 000 | 493 000 |
| France | 23 360 000 | 23 176 000 | 21 258 000 | 18 402 000 | 17 582 000 |
| Germany, Federal Republic of | 46 040 000 | 43 838 000 | 41 610 000 | 35 880 000 | 35 729 000 |
| Greece | 1 141 289 | 935 000 | 909 000 | 910 000 | * 920 000 |
| Irish Republic | * 80 000 | * 40 000 | * 40 000 | * 60 000 | * 140 000 |
| Italy | 24 249 836 | 26 501 381 | 24 777 415 | 24 009 490 | 21 810 787 |
| Luxembourg | 4 949 698 | 4 618 650 | 3 790 320 | 3 750 495 | 3 415 538 |
| Netherlands | 5 805 900 | 5 271 800 | 5 472 100 | 4 353 700 | 4 483 900 |
| Austria | 4 917 179 | 4 623 773 | 4 655 504 | 4 258 156 | 4 410 907 |
| Bulgaria | 2 482 000 | 2 565 000 | 2 484 000 | 2 584 000 | 2 831 000 |
| Czechoslovakia | 14 817 000 | 15 225 000 | 15 270 000 | 14 992 000 | 15 024 000 |
| Finland | 2 463 000 | 2 509 000 | 2 427 000 | 2 413 943 | 2 415 931 |
| German Democratic Republic | 7 023 400 | 7 308 300 | 7 466 900 | 7 168 500 | 7 218 800 |
| Hungary | 3 908 000 | 3 764 000 | 3 643 000 | 3 702 000 | 3 617 000 |
| Norway | 920 928 | 865 597 | 847 170 | 767 991 | 831 021 |
| Poland | 19 218 000 | 19 485 000 | 15 719 000 | 14 794 700 | 16 235 900 |
| Portugal | 655 757 | 663 347 | 555 128 | 439 228 | 666 000 |
| Romania | 12 909 000 | 13 175 000 | 13 025 000 | 13 055 000 | 12 600 000 |
| Soviet Union | 149 099 000 | 147 941 000 | 148 445 000 | 147 165 000 | 152 514 000 |
| Spain | 12 304 000 | 12 586 148 | 13 168 140 | 12 742 560 | 13 009 000 |
| Sweden | 4 733 000 | 4 237 000 | 3 781 000 | 3 936 000 | 4 116 000 |
| Switzerland | 886 000 | 929 000 | 966 000 | 950 000 | 953 000 |
| Turkey | 1 788 523 | 1 700 367 | 1 531 051 | 1 646 088 | 1 790 518 |
| Yugoslavia | 3 536 000 | 3 634 000 | 3 976 000 | 3 850 000 | 4 135 000 |
| Algeria | 315 000 | 384 000 | 522 000 | * 570 000 | * 600 000 |
| Egypt | 800 000 | 800 000 | 900 000 | 480 000 | * 600 000 |
| Nigeria | * 15 000 | * 15 000 | * 15 000 | * 100 000 | * 140 000 |
| South Africa | 8 868 000 | 9 068 000 | 9 004 000 | 8 271 000 | 7 004 375 |
| Tunisia | 175 500 | 177 900 | 173 000 | 104 900 | 162 800 |
| Zimbabwe | 739 968 | 800 000 | 691 421 | 528 000 | * 550 000 |
| Canada | 16 078 041 | 15 901 243 | 14 811 223 | 11 871 374 | 12 832 300 |
| Cuba | 327 792 | 303 837 | 329 835 | 301 200 | 363 700 |
| Mexico | 7 117 254 | 7 156 069 | 7 673 000 | 7 048 000 | 6 948 000 |
| USA | 123 686 000 | 101 455 000 | 109 613 000 | 67 655 000 | 76 761 000 |
| Argentina | 3 198 900 | 2 687 100 | 2 517 100 | 2 897 400 | * 2 900 000 |
| Brazil | 13 891 101 | 15 337 310 | 13 226 128 | 12 995 241 | 14 659 281 |
| Chile | 641 600 | 695 000 | 625 500 | 478 400 | * 600 000 |
| Colombia | 233 778 | 262 875 | 217 095 | 215 052 | 271 733 |
| Peru | 436 000 | 447 000 | 364 000 | 274 000 | 290 000 |
| Uruguay | 16 127 | 16 700 | 13 300 | 20 000 | 30 000 |
| Venezuela | 1 292 000 | 1 784 000 | 2 030 000 | 2 216 000 | 2 246 400 |
| Bangladesh (b) | 126 193 | 137 557 | 139 343 | 108 624 | 47 174 |
| China | 34 430 000 | 37 120 000 | 35 600 000 | 37 160 000 | 40 020 000 |
| Hong Kong | * 120 000 | * 120 000 | * 120 000 | * 120 000 | * 120 000 |
| India | 9 936 000 | 9 358 000 | 10 602 000 | 10 834 000 | 9 903 000 |
| Indonesia | 305 000 | 360 000 | 500 000 | * 500 000 | * 500 000 |
| Iran | 1 430 000 | 1 180 000 | 1 180 000 | * 1 180 000 | * 1 360 000 |
| Israel | 107 000 | 115 000 | 114 000 | * 91 000 | * 150 000 |
| Japan | 111 748 000 | 111 395 000 | 101 676 000 | 99 548 000 | 97 169 000 |
| Jordan | 78 028 | 89 786 | 123 418 | 156 369 | 148 196 |
| Korea, Dem. P.R. of | * 3 400 000 | * 3 500 000 | * 3 500 000 | * 3 500 000 | * 3 500 000 |
| Korea, Republic of | 5 200 000 | 5 712 000 | 5 891 000 | 5 636 000 | 5 062 000 |
| Malaysia | 244 133 | 236 339 | 233 128 | 245 683 | 241 057 |
| Philippines | 397 000 | 330 000 | 350 000 | * 355 000 | * 355 000 |
| Qatar | 384 383 | 450 449 | 458 147 | 483 245 | * 470 000 |
| Saudi Arabia | * 45 000 | * 50 000 | * 73 000 | * 100 000 | * 400 000 |
| Singapore | 297 000 | 340 000 | 350 000 | * 350 000 | * 350 000 |
| Syria | * 110 000 | * 110 000 | * 110 000 | 99 000 | * 100 000 |
| Taiwan | 1 570 000 | 1 765 000 | 1 600 000 | 1 712 000 | 1 743 000 |
| Thailand | 440 000 | 450 000 | 300 000 | 312 158 | * 290 000 |
| Vietnam | * 110 000 | * 120 000 | * 110 000 | * 120 000 | * 100 000 |

Production of Steel Ingots and Castings

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|---------------|-------------|-------------|-------------|-------------|-------------|
| Australia (a) | 8 125 000 | 7 594 000 | 7 635 000 | 6 371 000 | 5 625 000 |
| New Zealand | 220 734 | 217 360 | 231 384 | 251 847 | 233 413 |
| World total | 740 000 000 | 708 000 000 | 698 000 000 | 631 000 000 | 647 000 000 |

Note: The figures in this table refer to crude steel and cast semi-manufactures are not included

(a) Includes recovery from scrap

(b) Years ended 30 June of that stated

Production of Ferro-alloys

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--|----------|----------|----------|-----------|-----------|
| United Kingdom | | | | | |
| Ferro-manganese | 137 000 | 52 000 | 84 000 | 61 000 | 83 000 |
| Belgium | | | | | |
| Ferro-manganese | 90 000 | 85 000 | 90 000 | * 90 000 | * 90 000 |
| France | | | | | |
| Blast furnace ferro-alloys— | | | | | |
| Spiegeleisen & ferro-manganese | 449 321 | 480 126 | 312 237 | 332 223 | 270 331 |
| Electric furnace & aluminothermic ferro-alloys— | | | | | |
| Ferro-chrome & ferro-silico-chrome | 97 319 | 88 703 | 32 038 | 34 776 | 18 140 |
| Ferro-silicon (50% Si) | 285 487 | 245 957 | 189 062 | 168 943 | 193 248 |
| Silico-spiegeleisen & ferro-silico-manganese | 12 890 | 20 683 | 10 180 | 28 962 | * 29 000 |
| Ferro-titanium, ferro-tungsten, ferromolybdenum, ferrovanadium (a) | 7 786 | 4 246 | 2 860 | 5 103 |) 134 300 |
| Other ferro-alloys | 138 245 | 119 996 | 111 858 | 93 903 |) |
| Silicon metal | 54 089 | 59 930 | 57 500 | 57 200 | 64 700 |
| Germany, Federal Republic of | | | | | |
| Blast furnace ferro-alloys— | | | | | |
| Spiegeleisen & ferro-manganese | 233 000 | 200 000 | 214 000 |) 242 000 | 174 000 |
| Ferro-silicon | 79 000 | 64 000 | 50 000 |) | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-chrome | * 60 000 | * 60 000 | * 50 000 | * 42 000 | * 41 000 |
| Ferro-manganese & ferro-silico-manganese | * 30 000 | * 25 000 | * 19 000 | * 19 000 | * 19 000 |
| Ferro-silicon | * 50 000 | * 50 000 | * 42 000 | * 34 000 | * 33 000 |
| Other ferro-alloys | * 51 000 | * 50 000 | * 43 000 | * 36 000 | * 36 000 |
| Greece | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-nickel | 54 192 | 51 407 | 51 000 | * 51 000 | * 50 000 |
| Italy | | | | | |
| Blast furnace ferro-alloys— | | | | | |
| Spiegeleisen | 3 019 | 4 990 | 832 | 957 | 494 |
| Ferro-manganese | 67 384 | 64 298 | 59 302 | 57 366 | 49 200 |
| Silicon pig-iron(10—12% Si) | 796 | 1 896 | 1 694 | 1 024 | 580 |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-chrome | 42 531 | 41 150 | 10 333 | 36 541 | 45 414 |
| Ferro-silico-chrome | 1 408 | — | 800 | — | — |
| Ferro-silico-magnesium | — | 400 | 100 | — | — |
| Ferro-manganese | 21 886 | 18 794 | 12 468 | 15 987 | 12 647 |
| Ferro-silico-manganese | 54 513 | 44 914 | 54 563 | 58 118 | 37 244 |
| Ferro-molybdenum | 2 017 | 2 096 | 807 | 235 | — |
| Ferro-phosphorus | 466 | 53 | 60 | — | — |
| Ferro-silicon | 80 521 | 71 857 | 55 144 | 63 947 | 51 913 |
| Ferro-titanium & ferro-silico-titanium | 1 808 | 1 020 | 1 456 | 1 243 | 1 876 |
| Ferro-vanadium | 559 | 354 | 148 | 68 | — |
| Calcium-silicide | 7 392 | 9 260 | 8 147 | 8 982 | 5 778 |
| Silicon metal | * 15 400 | 18 852 | 19 595 | 14 012 | * 14 000 |
| Austria | | | | | |
| Electric furnace ferro-alloys | 6 000 | 6 000 | 12 000 | 14 000 | * 20 000 |
| Bulgaria | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-manganese & ferro-silico-manganese | * 28 000 | * 28 000 | * 34 000 | * 34 000 | * 34 000 |
| Ferro-silicon | * 16 000 | * 16 000 | * 20 000 | * 20 000 | * 20 000 |
| Other ferro-alloys | * 1 000 | * 1 000 | * 1 000 | * 1 000 | * 1 000 |

Production of Ferro-alloys

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--|-------------|-----------|-------------|-------------|-------------|
| Czechoslovakia | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-chrome | * 28 000 | 28 155 | 28 025 | 29 751 | 29 135 |
| Ferro-manganese |) * 100 000 | 58 800 | 58 113 | 53 708 | 62 549 |
| Ferro-silico-manganese |) | * 39 000 | * 40 000 | * 40 000 | * 40 000 |
| Ferro-silicon | * 33 000 | 28 582 | 31 012 | 25 876 | 19 507 |
| Other ferro-alloys | * 9 000 | * 9 000 | * 9 000 | * 9 000 | * 9 000 |
| Silicon metal | * 5 400 | * 5 400 | * 5 400 | * 5 400 | * 5 400 |
| Finland | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-chrome | 49 116 | 52 722 | 51 624 | 54 532 | 58 698 |
| Other ferro-alloys | 29 429 | 21 439 | 10 375 | 50 000 | 51 000 |
| German Democratic Republic | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-chrome | * 21 000 | * 18 000 | * 18 000 | * 20 000 | * 20 000 |
| Ferro-manganese & ferro-silico-manganese | * 75 000 | * 70 000 | * 70 000 | * 64 000 | * 65 000 |
| Ferro-silicon | * 30 000 | * 27 000 | * 27 000 | * 24 000 | * 25 000 |
| Other ferro-alloys | * 20 000 | * 18 000 | * 16 000 | * 15 000 | * 16 000 |
| Silicon metal | * 4 000 | * 4 000 | * 4 000 | * 3 000 | * 3 000 |
| Hungary | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-silicon | 7 726 | 10 390 | 11 077 | * 11 000 | * 10 000 |
| Silicon metal | * 2 000 | * 2 000 | * 2 000 | * 2 000 | * 2 000 |
| Iceland | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-silicon | * 15 000 | 28 299 | 33 411 | 41 077 | 49 446 |
| Norway | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-chrome & ferro-silico-chrome | 12 229 | 11 729 | 13 000 | * 11 000 | 9 100 |
| Ferro-manganese | 379 818 | 295 706 | 233 390 | 203 256 | 224 032 |
| Ferro-silico-manganese | 184 415 | 167 490 | 214 534 | 215 732 | 180 905 |
| Ferro-silicon | 337 008 | 319 983 | 313 736 | 296 071 | 345 846 |
| Other ferro-alloys | 29 674 | 19 795 | * 4 000 | * 4 000 | 15 400 |
| Silicon metal | 59 202 | 63 287 | 59 202 | 64 882 | 75 020 |
| Poland | | | | | |
| Blast furnace ferro-alloys— | | | | | |
| Spiegeleisen | 8 300 | 8 900 | 6 410 | 4 370 | 4 500 |
| Ferro-manganese | 130 200 | 122 700 | 103 692 | 87 372 | 81 400 |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-chrome | * 49 000 | * 47 000 | * 47 000 | * 47 000 | * 47 000 |
| Ferro-manganese & ferro-silico-manganese | * 49 000 | * 47 000 | * 47 000 | * 47 000 | * 47 000 |
| Ferro-silicon | * 54 000 | * 50 000 | * 50 000 | * 50 000 | * 50 000 |
| Other ferro-alloys | * 14 000 | * 15 000 | * 15 000 | * 15 000 | * 15 000 |
| Silicon metal | * 10 000 | * 10 000 | * 10 000 | * 10 000 | * 10 000 |
| Portugal | | | | | |
| Electric furnace ferro-alloys | 137 125 | 132 011 | 65 261 | 89 240 | * 60 000 |
| Silicon metal | * 32 000 | * 33 000 | * 32 000 | * 32 000 | * 33 000 |
| Soviet Union | | | | | |
| Blast furnace ferro-alloys— | | | | | |
| Spiegeleisen | * 50 000 | * 50 000 | * 50 000 | * 50 000 | * 50 000 |
| Ferro-manganese | * 550 000 | * 550 000 | * 550 000 | * 550 000 | * 544 000 |
| Other ferro-alloys | * 100 000 | * 100 000 | — | — | — |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-chrome | * 553 000 | * 600 000 | * 600 000 | * 600 000 | * 620 000 |
| Ferro-silico-chrome | * 10 000 | * 10 000 | * 10 000 | * 10 000 | * 14 000 |
| Ferro-manganese | * 910 000 | * 970 000 | * 1 034 000 | * 1 089 000 | * 1 152 000 |
| Ferro-silico-manganese | * 30 000 | * 32 000 | * 32 000 | * 32 000 | * 36 000 |
| Ferro-silicon | * 630 000 | * 630 000 | * 650 000 | * 680 000 | * 730 000 |
| Other ferro-alloys | * 194 000 | * 200 000 | * 209 000 | * 225 000 | * 227 000 |
| Silicon metal | * 57 000 | * 59 000 | * 64 000 | * 64 000 | * 64 000 |

Production of Ferro-alloys

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------------------|-----------|-----------|-----------|-----------|-----------|
| Spain | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-chrome | 20 340 | 16 510 | 17 604 | 17 064 | * 14 000 |
| Ferro-manganese | 148 350 | 120 160 | 95 736 | 81 996 | * 80 000 |
| Ferro-silico-manganese | 119 570 | 92 470 | 70 010 | 69 936 | * 68 000 |
| Ferro-silicon | 124 870 | 123 430 | 85 560 | 62 844 | * 64 000 |
| Silicon metal | * 20 000 | * 20 000 | * 18 000 | * 18 000 | * 18 000 |
| Sweden | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-chrome | 189 299 | 144 089 | 145 716 | 116 724 | 119 491 |
| Ferro-silico-chrome | 28 825 | 26 329 | 22 516 | 19 954 | 18 377 |
| Ferro-molybdenum | 1 365 | 805 | 726 | 552 | 641 |
| Ferro-silicon | — | 7 741 | 18 619 | 14 177 | 19 406 |
| Ferro-tungsten | 500 | 423 | 377 | 365 | ... |
| Ferro-vanadium | 500 | 348 | 129 | 8 | — |
| Silicon metal | 12 929 | 18 457 | 14 340 | 14 852 | 20 340 |
| Turkey | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-chrome (f) | 9 545 | 8 650 | 7 586 | * 9 000 | 7 895 |
| Yugoslavia | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-chrome | 65 622 | 68 564 | 69 194 | 50 591 | * 62 000 |
| Ferro-silico-chrome | 6 785 | 10 326 | 5 873 | 6 129 | * 6 000 |
| Ferro-manganese | 45 591 | 33 738 | 51 126 | 38 895 | * 39 000 |
| Ferro-silico-manganese | 28 786 | 33 097 | 28 600 | 20 286 | * 25 000 |
| Ferro-silicon | 67 884 | 66 171 | 80 201 | 70 888 | * 80 000 |
| Other ferro-alloys | 3 521 | 630 | 1 072 | 3 997 | * 4 000 |
| Silicon metal | 31 598 | 30 094 | 28 358 | 29 818 | * 35 000 |
| South Africa | | | | | |
| Ferro-chrome | 728 429 | 754 874 | 642 508 | * 600 000 | * 580 000 |
| Ferro-silico-chrome | * 28 000 | * 38 000 | * 20 000 | * 20 000 | * 18 000 |
| Ferro-manganese | * 560 000 | * 520 000 | 586 521 | * 440 000 | * 350 000 |
| Ferro-silico-manganese | * 45 000 | * 70 000 | * 50 000 | * 40 000 | * 30 000 |
| Ferro-silicon | * 149 000 | * 160 000 | * 110 000 | * 100 000 | * 100 000 |
| Other ferro-alloys | * 300 | * 300 | * 300 | * 300 | * 300 |
| Silicon metal | * 35 000 | * 30 000 | * 30 000 | * 30 000 | * 23 000 |
| Zimbabwe | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-chrome | 175 306 | 194 630 | 192 110 | 189 737 | * 140 000 |
| Ferro-silico-chrome | 25 116 | 25 116 | 32 692 | 25 692 | ... |
| Ferro-manganese | 2 164 | 2 164 | 2 200 | 2 132 | * 1 500 |
| Canada | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-manganese | * 41 000 | * 86 000 | * 109 000 | * 105 000 | * 107 000 |
| Ferro-silicon | 95 000 | 139 000 | 110 000 | * 105 000 | * 107 000 |
| Other ferro-alloys | * 13 000 | * 25 000 | * 34 000 | * 33 000 | * 32 000 |
| Silicon metal | 26 000 | 39 000 | 28 000 | * 27 000 | * 30 000 |
| Dominican Republic | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-nickel | 66 072 | 43 018 | 49 970 | 14 375 | 52 278 |
| Mexico | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-chrome | 4 790 | — | 3 018 | 6 000 | 5 000 |
| Ferro-silico-magnesium | 400 | 1 436 | 1 953 | (d) | (d) |
| Ferro-manganese | 123 640 | 125 751 | 140 953 | 135 374 | * 130 000 |
| Ferro-silico-manganese | 31 037 | 30 544 | 25 694 | 31 850 | * 30 000 |
| Ferro-silicon | 24 286 | 27 634 | 22 685 | 24 111 | 25 000 |
| Other ferro-alloys | 125 | 102 | 166 | * 1 000 | * 1 000 |

Production of Ferro-alloys

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------------------|-----------|-----------|-----------|-----------|-----------|
| USA | | | | | |
| Ferro-chrome | 224 047 | 167 292 | 148 815 | 83 375 | 18 078 |
| Ferro-silico-chrome (e) | 43 221 | 49 176 | 56 659 | 24 839 | 14 942 |
| Ferro-manganese | 287 670 | 171 886 | 174 805 | 108 136 | 77 954 |
| Ferro-silico-manganese | 149 730 | 170 838 | 157 182 | 62 475 | ... |
| Ferro-niobium | 679 | 1 413 | 805 | ... | ... |
| Ferro-phosphorus | 79 217 | 105 671 | 73 071 | 55 835 | 68 032 |
| Ferro-silicon | 646 000 | 507 000 | 526 245 | 271 200 | 285 722 |
| Other ferro-alloys (b) | 138 912 | 114 509 | 124 873 | 67 788 | 128 854 |
| Silicon metal | 132 000 | 115 000 | 117 764 | 69 493 | 110 577 |
| Argentina | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-manganese | 33 951 | 20 479 | 25 451 | 30 586 | * 30 000 |
| Ferro-silico-manganese | * 13 000 | 11 875 | 12 780 | 15 679 | 15 000 |
| Ferro-silicon | 16 731 | 11 953 | 9 932 | 8 850 | 9 000 |
| Other ferro-alloys | * 4 500 | 2 084 | 1 523 | 2 089 | * 3 000 |
| Brazil | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-calcium-silicon | 6 639 | 8 025 | 7 481 | 9 656 | (d) |
| Ferro-chrome | 84 514 | 93 443 | 118 781 | 96 646 | 78 000 |
| Ferro-silico-chrome | 7 239 | 8 086 | 8 654 | 2 598 | 1 800 |
| Ferro-manganese | 133 563 | 140 496 | 107 872 | 120 743 | 115 200 |
| Ferro-silico-manganese | 127 503 | 134 243 | 142 743 | 172 358 | 166 900 |
| Ferro-molybdenum | 1 469 | 802 | 797 | 337 | (d) |
| Ferro-nickel | 11 355 | 11 280 | 10 744 | 10 597 | 26 300 |
| Ferro-niobium | 13 913 | 17 530 | 14 632 | 11 506 | (d) |
| Ferro-silicon | 66 992 | 109 140 | 120 662 | 115 314 | 161 500 |
| Ferro-silico-magnesium | 14 432 | 13 734 | 11 001 | 11 275 |) |
| Ferro-titanium | 795 | 698 | 499 | 430 |) |
| Ferro-vanadium | 851 | 807 | 296 | 239 |) 23 000 |
| Other ferro-alloys | 570 | 1 059 | 944 | 1 998 |) |
| Silicon metal | 5 654 | 12 379 | 18 023 | 16 917 | 20 900 |
| Chile | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-manganese | 5 221 | 5 684 | 5 254 | 2 982 | 4 000 |
| Ferro-silico-manganese | 256 | 219 | 104 | — | * 200 |
| Ferro-molybdenum | 892 | 515 | 656 | 1 456 | * 1 000 |
| Ferro-silicon | 5 063 | 5 385 | 2 477 | 1 413 | * 2 000 |
| Colombia | | | | | |
| Ferro-nickel | — | — | — | * 5 600 | * 35 500 |
| Venezuela | | | | | |
| Ferro-manganese | 1 250 | 1 500 | 1 518 | * 2 000 | * 2 000 |
| Ferro-silico-manganese | 1 020 | 600 | 9 002 | * 2 000 | * 2 000 |
| Ferro-silicon | 6 300 | 59 200 | 43 986 | 42 136 | * 50 000 |
| China | | | | | |
| Ferro-chrome | * 90 000 | * 120 000 | * 120 000 | * 120 000 | * 120 000 |
| Ferro-manganese | * 340 000 | * 590 000 | * 526 000 | * 472 000 | * 490 000 |
| Ferro-silicon | * 160 000 | * 200 000 | * 200 000 | * 195 000 | * 195 000 |
| Other ferro-alloys | * 50 000 | * 72 000 | * 73 000 | * 72 000 | * 72 000 |
| Silicon metal | * 9 000 | * 20 000 | * 23 000 | * 23 000 | * 23 000 |
| India | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-chrome | 22 249 | 16 494 | 31 903 | 40 540 | * 31 119 |
| Ferro-silico-chrome | 3 851 | 4 050 | 4 339 | 4 468 | 11 |
| Ferro-manganese | 186 803 | 158 308 | 205 571 | 151 234 | 125 594 |
| Ferro-silico-manganese | 5 282 | 12 525 | 16 190 | 14 213 | 10 946 |
| Ferro-silicon | 53 087 | 54 319 | 60 354 | 36 060 | 41 187 |
| Other ferro-alloys | 752 | 653 | 775 | 427 | 265 |
| Silicon metal | 2 342 | 2 498 | 3 868 | 656 | — |
| Indonesia | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-nickel | 18 000 | 18 000 | 20 000 | 22 000 | * 20 000 |

Production of Ferro-alloys

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|---------------------------------|----------|----------|----------|----------|----------|
| Japan | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-calcium-silicon | 3 349 | 3 859 | 2 590 | 3 834 | 2 357 |
| Ferro-chrome | 365 490 | 402 997 | 306 104 | 328 401 | 304 053 |
| Ferro-silico-chrome | 12 623 | 20 531 | 10 469 | 9 845 | 7 152 |
| Ferro-manganese | 603 019 | 569 147 | 567 746 | 537 960 | 389 381 |
| Ferro-silico-manganese | 299 680 | 310 714 | 282 852 | 269 379 | 222 204 |
| Ferro-molybdenum | 3 406 | 4 367 | 3 056 | 3 413 | 3 104 |
| Ferro-nickel | 303 716 | 276 829 | 244 135 | 214 523 | 180 826 |
| Ferro-niobium | 1 207 | 1 159 | 825 | 1 039 | 530 |
| Ferro-silicon | 319 553 | 303 754 | 234 524 | 192 372 | 157 939 |
| Ferro-tungsten | 251 | 242 | 362 | 329 | 200 |
| Ferro-vanadium | 4 628 | 3 526 | 4 063 | 4 465 | 2 821 |
| Other ferro-alloys | 9 298 | 10 360 | 3 167 | 2 309 | ... |
| Silicon metal | 15 422 | 15 400 | 11 800 | 11 800 | ... |
| Korea, Dem. P.R. of | | | | | |
| Ferro-manganese | * 65 000 | * 70 000 | * 70 000 | * 70 000 | * 70 000 |
| Ferro-silicon | * 30 000 | * 30 000 | * 30 000 | * 30 000 | * 30 000 |
| Other ferro-alloys | * 14 000 | * 20 000 | * 20 000 | * 20 000 | * 20 000 |
| Korea, Republic of | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-manganese | 53 000 | 54 279 | 68 300 | 60 306 | 52 896 |
| Ferro-silicon | 38 000 | 29 712 | 32 000 | 32 478 | 32 489 |
| Other ferro-alloys | 21 151 | 24 994 | 27 185 | 33 240 | * 44 000 |
| Taiwan | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-manganese | 24 820 | 21 010 | 17 843 | 17 094 | 20 040 |
| Ferro-silico-manganese | 15 263 | 22 607 | 14 376 | 21 311 | 18 509 |
| Ferro-silicon | 31 245 | 28 390 | 14 869 | 13 757 | 14 866 |
| Thailand | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-manganese | 2 187 | 112 | 369 | — | — |
| Ferro-silicon | 3 041 | 60 | 280 | — | — |
| Australia (c) | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-manganese | 86 875 | 94 146 | 67 563 | 54 700 | * 79 000 |
| Ferro-silico-manganese (60% Mn) | 19 596 | 18 376 | 29 916 | 27 000 | * 22 000 |
| Ferro-silicon | 18 990 | 18 435 | 18 313 | 19 700 | * 22 000 |
| New Caledonia | | | | | |
| Electric furnace ferro-alloys— | | | | | |
| Ferro-nickel | 123 306 | 131 281 | 109 679 | 109 750 | * 90 000 |

(a) Ti, W, Mo, V content

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

(c) Years ended 30 November of that stated

(d) Included with 'other ferro-alloys'

(e) Includes other chromium alloys

(f) Public sector only

tonnes

Exports of Iron, Steel and Ferro-alloys

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--|-----------|-----------|-----------|-----------|-----------|
| United Kingdom | | | | | |
| Pig-iron | 22 535 | 30 266 | 14 892 | 7 010 | 45 841 |
| Sponge & powder | 896 | 534 | 248 | 430 | 348 |
| Ferro-aluminium, ferro-silico- aluminium & ferro-silico- mangano-aluminium | 4 805 | 3 587 | 2 216 | 2 490 | 2 736 |
| Ferro-chrome | 1 305 | 626 | 1 927 | 678 | 2 609 |
| Ferro-silico-chrome | 705 | — | — | 64 | 93 |
| Ferro-manganese | 6 964 | 971 | 21 589 | 23 902 | 14 039 |
| Ferro-silico-manganese | 763 | 615 | — | 54 | 233 |
| Ferro-molybdenum | 1 958 | 2 179 | 1 206 | 1 214 | 1 876 |
| Ferro-nickel | — | — | 315 | — | — |
| Ferro-niobium & ferro- niobium-tantalum | 416 | 416 | 95 | 51 | 49 |
| Ferro-silicon | 1 782 | 1 352 | 2 889 | 1 173 | 1 699 |
| Ferro-titanium & ferro- silico-titanium | 3 661 | 3 790 | 4 355 | 4 084 | 4 864 |
| Ferro-tungsten & ferro- silico-tungsten | 3 306 | 78 | — | 19 | 130 |
| Ferro-vanadium | 190 | 75 | 94 | 69 | 164 |
| Other ferro-alloys | 1 548 | 4 228 | 2 566 | 2 760 | 1 893 |
| Ingots, blooms, billets | 321 509 | 186 558 | 193 183 | 282 032 | 573 964 |
| Scrap (a) | 1 334 852 | 2 784 953 | 3 367 085 | 3 052 174 | 3 793 696 |
| Belgium-Luxembourg | | | | | |
| Pig-iron | 22 555 | 7 593 | 8 574 | 4 176 | 2 419 |
| Spiegeleisen | 61 | 85 | 482 | 106 | 10 |
| Sponge & powder | 585 | 410 | 632 | 372 | 526 |
| Ferro-aluminium, ferro-silico- aluminium & ferro-silico- mangano-aluminium | 130 | 91 | 335 | 64 | 733 |
| Ferro-chrome | 1 572 | 1 544 | 3 858 | 1 960 | 3 909 |
| Ferro-manganese | 44 152 | 37 282 | 12 128 | 13 230 | 13 892 |
| Ferro-silicon | 4 187 | 3 283 | 4 633 | 4 270 | 2 627 |
| Ferro-titanium & ferro- silico-titanium | 1 637 | 925 | 1 861 | 1 774 | 984 |
| Ferro-tungsten & ferro- silico-tungsten | 18 | 0 | 16 | — | 0 |
| Ferro-silico-manganese, ferro- molybdenum & ferro-vanadium | 35 494 | 29 659 | 31 093 | 18 546 | 15 947 |
| Other ferro-alloys | 2 569 | 1 169 | 1 251 | 1 024 | 1 259 |
| Ingots, blooms, billets | 850 298 | 708 304 | 595 099 | 510 538 | 575 747 |
| Scrap | 550 135 | 536 641 | 578 482 | 497 550 | 681 748 |
| Denmark | | | | | |
| Ingots, blooms, billets | 26 675 | 4 057 | 158 | 5 521 | 2 778 |
| Scrap | 90 641 | 100 358 | 185 200 | 117 849 | 174 882 |
| France | | | | | |
| Pig-iron | 360 260 | 284 909 | 195 674 | 178 644 | 135 620 |
| Spiegeleisen | 1 311 | 850 | 633 | 565 | 952 |
| Ferro-aluminium, ferro-silico- aluminium & ferro-silico- mangano-aluminium | 2 323 | 1 761 | 1 126 | 1 040 | 1 712 |
| Ferro-chrome | 7 812 | 1 300 | 4 742 | 605 | 516 |
| Ferro-silico-chrome | 2 594 | 2 217 | 2 095 | 1 884 | 898 |
| Ferro-manganese | 347 504 | 321 477 | 383 596 | 177 151 | 282 508 |
| Ferro-silico-manganese | 11 523 | 9 361 | 11 507 | 5 657 | 6 530 |
| Ferro-molybdenum | 498 | 486 | 1 115 | 829 | 1 022 |
| Ferro-nickel | 98 023 | 61 560 | 48 611 | 45 034 | 48 464 |
| Ferro-silicon | 92 671 | 80 342 | 70 137 | 68 003 | 86 022 |
| Ferro-silico-magnesium | 7 331 | 6 916 | 4 914 | 5 045 | 6 271 |
| Ferro-silico-zirconium | 4 137 | 3 144 | 2 914 | 2 369 | 3 408 |
| Ferro-titanium & ferro- silico-titanium | 2 019 | 1 412 | 1 400 | 858 | 648 |
| Ferro-tungsten & ferro- silico-tungsten | 330 | 339 | 167 | 201 | 15 |
| Ferro-vanadium | 497 | 184 | 254 | 418 | 415 |
| Other ferro-alloys | 25 120 | 23 299 | 25 664 | 20 533 | 23 850 |
| Ingots, blooms, billets | 292 670 | 365 400 | 265 725 | 305 786 | 455 035 |
| Scrap | 3 526 074 | 3 312 235 | 3 183 184 | 3 081 840 | 3 226 788 |

Exports of Iron, Steel and Ferro-alloys

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--|-----------|-----------|-----------|-----------|-----------|
| Germany, Federal Republic of | | | | | |
| Pig-iron | 959 750 | 1 032 770 | 838 279 | 609 071 | 455 427 |
| Spiegeleisen | 1 752 | 4 763 | 1 834 | 1 346 | 1 280 |
| Sponge & powder | 31 993 | 30 671 | 80 765 | 204 114 | 72 531 |
| Ferro-chrome | 27 725 | 33 482 | 55 675 | 53 989 | 55 902 |
| Ferro-silico-chrome | 3 583 | 1 417 | 1 179 | 2 920 | 3 179 |
| Ferro-manganese | 95 818 | 36 762 | 48 876 | 32 975 | 48 197 |
| Ferro-silico-manganese | 3 590 | 5 598 | 7 832 | 5 729 | 5 134 |
| Ferro-molybdenum | 496 | 1 227 | 912 | 1 010 | 1 025 |
| Ferro-nickel | 422 | 86 | 555 | 50 | 274 |
| Ferro-niobium | 970 | 1 146 | 980 | 837 | 351 |
| Ferro-silicon | 31 553 | 55 714 | 60 956 | 59 192 | 59 052 |
| Ferro-titanium & ferro-silico-titanium | 702 | 541 | 881 | 507 | 263 |
| Ferro-tungsten & ferro-silico-tungsten | 201 | 140 | 187 | 184 | 238 |
| Ferro-vanadium | 1 551 | 887 | 2 470 | 1 973 | 2 329 |
| Other ferro-alloys | 12 509 | 10 372 | 11 302 | 5 759 | 8 596 |
| Ingots, blooms, billets | 1 334 317 | 1 487 341 | 1 289 142 | 1 078 932 | 1 069 487 |
| Scrap | 3 069 157 | 3 169 547 | 3 513 775 | 3 047 940 | 3 171 874 |
| Greece | | | | | |
| Ferro-nickel | 65 526 | 49 468 | 49 350 | 19 852 | 45 549 |
| Irish Republic | | | | | |
| Scrap | 40 991 | 84 458 | 73 308 | 58 753 | 21 264 |
| Italy | | | | | |
| Pig-iron | 6 947 | 1 915 | 244 | 2 634 | 22 029 |
| Sponge & powder | 4 460 | 3 453 | 1 607 | 1 871 | 4 013 |
| Ferro-chrome & ferro-silico-chrome | 27 038 | 10 331 | 8 805 | 9 195 | 23 496 |
| Ferro-manganese | 7 982 | 1 897 | 672 | 2 805 | 1 391 |
| Ferro-silico-manganese | 905 | 862 | 8 382 | 3 027 | 5 360 |
| Ferro-molybdenum | 732 | 1 273 | 430 | 221 | 96 |
| Ferro-silicon | 11 001 | 5 579 | 6 626 | 4 361 | 6 965 |
| Ferro-silico-magnesium | 1 633 | 1 093 | 1 056 | 1 360 | 1 326 |
| Ferro-titanium | 1 556 | 931 | 1 241 | 969 | 1 520 |
| Ferro-vanadium | 435 | 190 | 65 | 58 | 4 |
| Other ferro-alloys | 756 | 1 098 | 2 041 | 2 496 | 2 287 |
| Ingots, blooms, billets | 152 109 | 188 443 | 243 745 | 345 612 | 319 434 |
| Scrap | 13 514 | 8 584 | 22 628 | 17 150 | 17 545 |
| Netherlands | | | | | |
| Pig-iron | 22 962 | 9 694 | 4 828 | 4 648 | 12 045 |
| Sponge & powder | 107 | 55 | 26 | 46 | 298 |
| Ferro-chrome | 1 916 | 6 641 | 18 243 | 13 990 | 3 308 |
| Ferro-manganese | 449 | 351 | 1 059 | 141 | 74 |
| Ferro-silico-manganese | — | 2 022 | 377 | 2 064 | — |
| Ferro-molybdenum | 172 | 143 | 103 | 14 | 145 |
| Ferro-nickel | 129 | 0 | 139 | — | 650 |
| Ferro-silicon | 4 400 | 2 616 | 2 391 | 1 234 | 5 176 |
| Ferro-vanadium | 804 | 49 | 19 | — | 33 |
| Other ferro-alloys | 537 | 172 | 256 | 223 | 200 |
| Ingots, blooms, billets | 727 913 | 880 096 | 986 573 | 615 084 | 856 475 |
| Scrap | 1 241 281 | 1 194 467 | 1 251 711 | 1 180 248 | 1 521 860 |
| Albania | | | | | |
| Ferro-chrome (f) | ... | * 3 000 | * 32 700 | * 25 700 | * 25 900 |
| Austria | | | | | |
| Pig-iron | — | 236 | — | 100 | 26 |
| Ferro-alloys | 10 088 | 8 904 | 10 904 | 12 085 | 12 771 |
| Ingots & blooms | 7 009 | 8 272 | 11 200 | 11 304 | 15 792 |
| Scrap | 13 904 | 12 721 | 12 315 | 8 840 | 12 642 |
| Bulgaria | | | | | |
| Pig-iron | 12 000 | 34 000 | 34 000 | 16 000 | 38 000 |
| Ferro-alloys | 22 000 | 23 000 | 31 000 | 28 000 | 23 000 |
| Ingots, blooms, billets (f) | * 412 700 | * 175 200 | * 111 200 | * 152 000 | * 152 700 |
| Scrap | 130 000 | 155 000 | 79 000 | 57 000 | 38 000 |
| Czechoslovakia | | | | | |
| Ferro-chrome (f) | * 5 500 | * 7 800 | * 6 000 | * 5 800 | * 5 300 |
| Ferro-manganese (f) | * 18 000 | * 25 700 | * 22 800 | * 14 300 | * 15 700 |
| Other ferro-alloys (f) | * 4 900 | * 3 000 | * 3 100 | * 1 400 | * 3 900 |
| Scrap (f) | * 124 500 | * 101 000 | * 102 000 | * 94 800 | * 124 400 |

Exports of Iron, Steel and Ferro-alloys

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|---|-------------|-------------|-------------|-------------|-------------|
| Finland | | | | | |
| Pig-iron | 32 513 | 14 845 | 275 | 114 | 57 |
| Ferro-chrome & ferro-silico-chrome | 31 409 | 16 637 | 25 459 | 22 705 | 18 483 |
| Other ferro-alloys | 326 | 345 | 1 | 2 | 41 |
| Blooms & billets | 163 265 | 129 462 | 206 019 | 139 922 | 118 775 |
| Scrap | 3 661 | 194 | 206 | 126 | 107 |
| German Democratic Republic | | | | | |
| Pig-iron | * 84 650 | * 29 930 | * 34 400 | * 15 000 | * 9 000 |
| Ingots, blooms, billets | 296 000 | 344 000 | 688 000 | 324 000 | ... |
| Scrap | * 51 700 | * 48 900 | * 22 000 | * 21 300 | * 13 700 |
| Hungary | | | | | |
| Pig-iron | 15 477 | 2 149 | — | — | 4 810 |
| Scrap | 36 766 | 30 955 | 32 283 | 53 172 | 49 761 |
| Iceland | | | | | |
| Ferro-silicon | 12 539 | 25 309 | 32 082 | 42 174 | 49 238 |
| Scrap | 3 343 | 2 906 | 3 125 | 4 518 | 10 268 |
| Malta | | | | | |
| Scrap | 3 441 | 5 828 | 3 727 | 6 366 | 7 252 |
| Norway | | | | | |
| Pig-iron | 140 198 | 140 260 | 70 568 | 64 524 | 43 456 |
| Ferro-chrome | 12 950 | 8 009 | 10 540 | 9 515 | 6 632 |
| Ferro-silico-chrome | 7 441 | 13 332 | 948 | 1 173 | 732 |
| Ferro-manganese | 293 874 | 245 525 | 209 631 | 196 746 | 198 288 |
| Ferro-silico-manganese | 171 920 | 164 019 | 183 737 | 172 105 | 172 893 |
| Ferro-silicon | 304 519 | 268 894 | 271 438 | 287 766 | 347 911 |
| Ferro-vanadium | 1 107 | 788 | 420 | 288 | 9 |
| Other ferro-alloys | 16 601 | 8 554 | 8 324 | 6 822 | 12 069 |
| Ingots, blooms, billets | 239 469 | 211 615 | 227 655 | 192 602 | 233 956 |
| Scrap | 38 025 | 38 691 | 32 536 | 32 569 | 35 430 |
| Poland | | | | | |
| Scrap | * 11 400 | * 14 900 | 79 787 | 257 912 | 146 138 |
| Portugal | | | | | |
| Pig-iron | 116 | 9 | 41 | 792 | 1 000 |
| Ferro-manganese | 66 581 | 56 456 | 26 617 | 13 887 |) |
| Ferro-silico-manganese | 14 723 | 21 038 | 13 570 | (c) |) |
| Ferro-silicon | 11 131 | 7 455 | 5 577 | 13 153 |) 90 000 |
| Ferro-tungsten | 193 | 222 | 245 |) 22 243 |) |
| Other ferro-alloys | 30 | — | — |) |) |
| Scrap | 4 796 | 4 477 | 4 734 | 9 146 | 10 000 |
| Romania | | | | | |
| Pig-iron & ferro-alloys | * 71 000 | * 15 600 | * 10 400 | ... | ... |
| Ingots, blooms, billets | * 541 000 | * 293 700 | * 127 600 | — | ... |
| Scrap | * 1 140 | * 300 | * 600 | ... | ... |
| Soviet Union | | | | | |
| Pig-iron | * 3 500 000 | * 3 750 000 | * 3 500 000 | * 3 500 000 | * 3 500 000 |
| Ferro-alloys | * 420 000 | * 420 000 | * 420 000 | * 400 000 | ... |
| Scrap | 1 987 827 | 2 505 260 | 2 681 421 | 2 859 053 | 3 369 905 |
| Spain | | | | | |
| Pig-iron | 81 973 | 31 290 | 18 950 | — | 5 606 |
| Ferro-silico-aluminium, ferro-silico-mangano-aluminium & ferro-silico-alumino-calcium | — | — | 1 733 | 3 668 | (c) |
| Ferro-chrome | 9 230 | 8 035 | 8 927 | 8 179 | (c) |
| Ferro-manganese | 53 481 | 31 333 | 32 031 | 22 057 | 15 845 |
| Ferro-silico-manganese | 40 613 | 24 666 | 6 583 | 10 282 | (c) |
| Ferro-molybdenum | 461 | 520 | 291 | 269 | (c) |
| Ferro-silicon | 67 632 | 54 703 | 42 834 | 16 534 | 3 441 |
| Ferro-titanium & ferro-silico-titanium | 14 | — | — | — |) 11 404 |
| Other ferro-alloys | 2 396 | 2 142 | 88 | 9 |) |
| Ingots, blooms, billets | 221 472 | 488 915 | 475 400 | 576 608 | 623 500 |

Exports of Iron, Steel and Ferro-alloys

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-----------------------------|-----------|-----------|--------------|--------------|--------------|
| Sweden | | | | | |
| Pig-iron | 150 319 | 179 571 | 45 103 | 29 626 | 26 285 |
| Sponge & powder | 116 524 | 97 749 | 97 631 | 96 795 | 103 929 |
| Ferro-chrome | 137 982 | 92 305 | 105 676 | 80 576 | 105 725 |
| Ferro-silico-chrome | 3 603 | 1 125 | 182 | 1 037 | 362 |
| Ferro-manganese | 1 000 | 1 025 | 769 | 674 | 663 |
| Ferro-silico-manganese | 385 | — | 80 | 16 | 1 |
| Ferro-molybdenum | 1 239 | 760 | 794 | 413 | 737 |
| Ferro-nickel | 5 | 17 | 0 | — | — |
| Ferro-silicon | 258 | 3 683 | 15 160 | 6 533 | 18 990 |
| Ferro-titanium | 686 | 552 | 911 | 371 | 305 |
| Ferro-tungsten | 163 | 184 | 247 | 120 | 107 |
| Ferro-vanadium | 405 | 231 | 156 | 44 | 53 |
| Other ferro-alloys | 107 | 628 | 841 | 104 | 68 |
| Ingots, blooms, billets | 520 329 | 408 431 | 258 883 | 313 182 | 237 543 |
| Scrap | 17 366 | 16 231 | 14 351 | 18 341 | 20 585 |
| Switzerland | | | | | |
| Pig-iron | 229 | 670 | 789 | 701 | 501 |
| Sponge & powder | 478 | 551 | 463 | 493 | 444 |
| Ferro-silicon | 114 | 126 | 112 | 157 | 119 |
| Other ferro-alloys | 340 | 596 | 896 | 674 | 676 |
| Ingots, blooms, billets | 18 808 | 8 465 | 2 106 | 3 281 | 9 260 |
| Scrap | 100 690 | 63 738 | 128 334 | 105 915 | 149 484 |
| Turkey | | | | | |
| Pig-iron | 17 744 | 8 000 | 6 254 | 254 | 16 052 |
| Ferro-chrome | 32 075 | 27 500 | 27 850 | 37 457 | 32 803 |
| Yugoslavia | | | | | |
| Pig-iron | 62 155 | 47 362 | 22 674 | 7 441 | 3 258 |
| Ferro-chrome | 57 170 | 50 130 | 63 087 | 30 661 | (c) |
| Ferro-manganese | 20 767 | 8 049 | 21 304 | 12 165 | 10 946 |
| Ferro-silico-manganese | 20 685 | 23 240 | 17 847 | 11 709 |) |
| Ferro-silicon | 46 210 | 37 705 | 61 583 | 43 569 |) 118 557 |
| Other ferro-alloys | 3 625 | 2 435 | 1 157 | — |) |
| Ingots, blooms, billets | 22 494 | 21 405 | 23 750 | 19 348 | 11 015 |
| Scrap | 48 302 | 44 833 | 59 229 | 63 342 | 70 383 |
| Algeria | | | | | |
| Pig-iron | 84 070 | 128 699 | ... | ... | ... |
| Scrap | 60 333 | 65 513 | ... | ... | ... |
| Cameroon | | | | | |
| Scrap | 2 552 | 9 630 | ... | ... | ... |
| Ivory Coast | | | | | |
| Scrap | 21 714 | 23 925 | 18 434 | ... | ... |
| Morocco | | | | | |
| Scrap | 88 559 | 34 667 | 50 945 | 51 942 | ... |
| Senegal | | | | | |
| Scrap | 14 430 | 9 632 | 14 291 | 11 179 | 12 685 |
| South Africa | | | | | |
| Pig-iron (f) | * 89 000 | * 92 000 | * 104 400 | * 89 000 | * 73 400 |
| Ferro-chrome | 706 744 | 596 847 | (f)* 498 000 | (f)* 434 000 | (f)* 625 400 |
| Ferro-manganese (f) | * 470 100 | * 363 700 | * 384 800 | * 409 400 | * 263 100 |
| Ferro-silicon (f) | * 35 100 | * 34 600 | * 17 900 | * 28 500 | * 19 700 |
| Other ferro-alloys (f) | * 14 600 | * 15 100 | * 22 600 | * 11 600 | * 3 200 |
| Ingots, blooms, billets (f) | * 70 900 | * 86 700 | * 46 300 | * 158 000 | * 189 600 |
| Scrap (f) | * 4 300 | * 5 700 | * 1 600 | * 4 700 | * 46 400 |
| Sudan | | | | | |
| Scrap | 4 547 | 3 929 | 230 | 3 452 | ... |

Exports of Iron, Steel and Ferro-alloys

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--|------------|------------|-----------|-----------|-----------|
| Tunisia | | | | | |
| Ingots, blooms, billets | 5 797 | — | 197 | 17 | ... |
| Scrap | 14 | 791 | 1 717 | 1 200 | ... |
| Zimbabwe | | | | | |
| Pig-iron | 7 594 | 36 041 | 10 195 | 5 001 | ... |
| Ferro-chrome | 143 861 | 231 143 | 188 329 | 163 919 | ... |
| Ferro-silico-chrome | 27 088 | 26 163 | 22 051 | 18 704 | ... |
| Blooms & billets | 237 891 | 305 545 | 207 827 | 252 525 | ... |
| Scrap | 4 685 | 2 190 | 2 424 | 8 261 | ... |
| Canada | | | | | |
| Pig-iron | 255 523 | 562 351 | 466 422 | 485 661 | 348 278 |
| Sponge | 138 334 | 178 352 | 123 282 | 29 065 | 36 974 |
| Ferro-manganese | 12 043 | 11 298 | 57 182 | 11 739 | 4 160 |
| Ferro-silicon | 40 732 | 52 377 | 52 455 | 40 860 | 45 728 |
| Other ferro-alloys | 9 964 | 8 418 | 6 333 | 5 129 | 5 188 |
| of which: Re-exports | 2 887 | 2 184 | 1 017 | 71 | 1 006 |
| Ingots, blooms, billets | 120 787 | 327 140 | 894 634 | 255 611 | 579 096 |
| Scrap | 1 032 714 | 784 798 | 577 756 | 627 773 | 875 168 |
| Dominican Republic | | | | | |
| Ferro-nickel | 64 500 | 46 614 | 49 073 | 14 161 | 53 825 |
| Mexico | | | | | |
| Ferro-alloys | 39 240 | 39 464 | 25 688 | 17 351 | ... |
| Scrap | 1 153 | 3 368 | 1 970 | 19 741 | ... |
| Trinidad & Tobago | | | | | |
| Sponge | 0 | 18 000 | 79 316 | 27 185 | 42 253 |
| Scrap | 1 001 | 18 | 698 | 173 | 9 |
| USA | | | | | |
| Pig-iron | 149 751 | 79 807 | 19 186 | 50 268 | 6 441 |
| Sponge & powder | 18 824 | 23 780 | 16 581 | 12 818 | 13 005 |
| Ferro-chrome & ferro-silico-chrome | 14 516 | 29 807 | 13 906 | 4 899 | 6 111 |
| Ferro-manganese | 23 480 | 11 419 | 14 026 | 9 177 | 7 832 |
| Ferro-silico-manganese | 4 756 | 6 094 | 1 726 | 3 204 | 5 864 |
| Ferro-molybdenum | 762 | 799 | 257 | 123 | 78 |
| Ferro-phosphorus | 33 831 | 40 544 | 6 771 | 3 663 | 24 435 |
| Ferro-silicon | 20 430 | 25 039 | 14 379 | 13 281 | 12 565 |
| Ferro-vanadium | 818 | 728 | 394 | 308 | 705 |
| Other ferro-alloys | 6 019 | 4 297 | 5 890 | 5 996 | 5 318 |
| Ingots, blooms, billets | 328 566 | 829 493 | 505 588 | 331 774 | 110 931 |
| Scrap (a) | 10 133 680 | 10 174 603 | 5 927 684 | 6 215 378 | 6 844 187 |
| Argentina | | | | | |
| Ingots, blooms, billets | 233 272 | 121 873 | 186 432 | 133 697 | ... |
| Brazil | | | | | |
| Pig-iron | 989 343 | 841 331 | 714 446 | 692 529 | 1 801 472 |
| Ferro-chrome | 48 205 | 45 921 | 67 330 | 51 770 | 38 048 |
| Ferro-manganese | 40 256 | 37 832 | 36 490 | 31 435 | 49 511 |
| Ferro-nickel | — | — | 1 800 | 1 529 | 15 494 |
| Ferro-niobium | 12 787 | 14 566 | 14 542 | 11 036 | 9 256 |
| Ferro-silicon | 19 642 | 29 664 | 68 800 | 64 518 | 111 846 |
| Ferro-silico-spiegeleisen & silico-manganese | 42 915 | 35 580 | 62 976 | 64 501 | 123 708 |
| Ferro-silico-mangano-aluminium | 300 | 400 | — | — | — |
| Other ferro-alloys | 5 204 | 5 839 | 8 130 | 7 878 | 7 761 |
| Ingots, blooms, billets | 479 585 | 285 072 | 130 955 | 160 243 | 429 601 |
| Colombia | | | | | |
| Ferro-nickel | — | — | — | 1 303 | 26 959 |
| Venezuela | | | | | |
| Sponge & powder | 65 377 | 188 462 | 301 781 | 239 799 | ... |
| Ferro-silicon | 21 346 | 21 879 | 2 484 | 43 707 | ... |
| Brunei | | | | | |
| Scrap | 6 533 | 177 | 5 131 | 4 979 | 8 640 |
| China | | | | | |
| Pig-iron (f) | * 33 400 | * 264 600 | * 972 400 | * 899 500 | * 66 600 |
| Ingots, blooms, billets (f) | * 16 400 | * 21 700 | * 229 400 | * 145 300 | * 25 100 |
| Scrap (f) | * 500 | * 9 900 | * 146 500 | * 102 300 | * 36 600 |

Exports of Iron, Steel and Ferro-alloys

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------------------------|----------|----------|-----------|----------|------------|
| Cyprus | | | | | |
| Scrap (Re-exports) | 9 312 | 5 877 | 8 444 | 7 341 | 8 300 |
| Hong Kong | | | | | |
| Pig-iron (Re-exports) | 1 171 | 117 | 6 166 | 6 966 | 4 398 |
| Ingots, blooms, billets (Re-exports) | 9 692 | 13 975 | 9 800 | 3 896 | 24 217 |
| Scrap | 304 230 | 329 649 | 364 360 | 296 651 | 329 556 |
| of which: Re-exports | 39 955 | 55 173 | 27 487 | 24 198 | 11 338 |
| India | | | | | |
| Pig-iron | 104 470 | 1 225 | ... | ... | ... |
| Ferro-chrome | 9 001 | 550 | ... | ... | ... |
| Ferro-manganese | 52 681 | 1 620 | ... | ... | ... |
| Ferro-silicon | 14 014 | 3 | ... | ... | ... |
| Ingots, blooms, billets (d) | 27 130 | 3 294 | 34 | ... | ... |
| Scrap | 11 772 | 1 897 | 29 571 | ... | ... |
| Indonesia | | | | | |
| Sponge & powder | — | 92 574 | 82 041 | 117 080 | ... |
| Israel (b) | | | | | |
| Scrap | 11 054 | 13 942 | ... | ... | (f)* 4 100 |
| Japan | | | | | |
| Pig-iron | 50 225 | 5 852 | 1 510 | 49 333 | 332 386 |
| Powder | 2 951 | 2 578 | 3 847 | 3 208 | 4 150 |
| Ferro-chrome | 19 852 | 8 896 | 3 470 | 3 137 | 5 429 |
| Ferro-manganese | 92 886 | 40 271 | 34 866 | 26 683 | 22 202 |
| Ferro-silico-manganese | 2 377 | 420 | 1 158 | 583 | 107 |
| Ferro-nickel | 13 193 | 17 125 | 20 742 | 21 405 | 13 369 |
| Ferro-silicon | 2 003 | 2 695 | 2 199 | 1 042 | 1 135 |
| Ferro-vanadium | 13 | 97 | 84 | 132 | 168 |
| Other ferro-alloys | 2 121 | 1 035 | 1 318 | 975 | 1 479 |
| Ingots, blooms, billets | 118 295 | 188 933 | 117 990 | 132 527 | 129 722 |
| Scrap | 150 562 | 159 366 | 186 783 | 174 787 | 115 822 |
| Korea, Dem. P.R. of | | | | | |
| Pig-iron (f) | * 51 500 | * 83 200 | * 67 100 | * 50 900 | * 31 500 |
| Korea, Republic of | | | | | |
| Pig-iron | 32 461 | 150 674 | 1 169 188 | 41 324 | 9 671 |
| Ferro-manganese | — | 35 | — | — | 701 |
| Ferro-silico-manganese | 1 100 | 220 | — | — | 1 241 |
| Ferro-silicon | 6 855 | 348 | 165 | 335 | 180 |
| Other ferro-alloys | 3 294 | 1 897 | 3 | 9 | 3 032 |
| Ingots, blooms, billets | 717 655 | 942 779 | 339 834 | 364 193 | 551 689 |
| Scrap | 12 565 | 9 675 | 25 109 | 140 608 | 284 597 |
| Kuwait | | | | | |
| Scrap | 21 460 | 62 200 | 24 691 | ... | ... |
| Malaysia | | | | | |
| Scrap | 13 758 | 10 805 | 11 843 | 6 450 | ... |
| Philippines | | | | | |
| Ferro-silicon | 10 117 | 14 691 | 25 582 | 28 364 | 22 827 |
| Other ferro-alloys | 1 021 | 3 310 | 5 686 | 4 219 | 28 656 |
| Saudi Arabia | | | | | |
| Scrap | 730 | 15 931 | 52 193 | 28 680 | ... |
| Singapore | | | | | |
| Pig-iron | 11 095 | 9 164 | 7 502 | 9 242 | 6 514 |
| of which: Re-exports | 11 078 | 9 114 | 7 490 | 9 229 | 6 485 |
| Ingots & blooms | 6 521 | 6 641 | 10 463 | 3 519 | 4 362 |
| of which: Re-exports | 4 739 | 4 345 | 1 997 | 2 528 | 3 549 |
| Scrap | 1 710 | 5 475 | 1 602 | 7 876 | 119 468 |
| Syria | | | | | |
| Scrap | 2 190 | 897 | — | — | ... |
| Taiwan | | | | | |
| Pig-iron | 331 | 761 | 713 | 246 | 2 890 |
| Ferro-chrome | 1 925 | 691 | — | — | — |
| Ferro-manganese | 7 343 | 9 107 | 2 028 | 3 175 | 785 |
| Ferro-silicon | 10 415 | 7 910 | 764 | 508 | 515 |
| Other ferro-alloys | 1 245 | 5 574 | 5 790 | 3 088 | 5 022 |
| Ingots, blooms, billets | 408 464 | 120 237 | 204 568 | 294 275 | 250 617 |
| Scrap | 73 465 | 12 863 | 128 251 | 402 215 | 279 854 |

Exports of Iron, Steel and Ferro-alloys

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-------------------------|---------|---------|---------|---------|----------|
| Australia | | | | | |
| Pig-iron | 642 510 | 514 898 | 158 262 | 48 863 | 469 000 |
| Ferro-alloys | 49 804 | 30 225 | 39 715 | 36 108 | * 50 000 |
| Ingots, blooms, billets | 610 803 | 309 356 | 378 418 | 319 246 | 384 000 |
| Scrap | 610 351 | 749 203 | 665 067 | 766 144 | ... |
| Fiji | | | | | |
| Scrap | 1 192 | 1 772 | 1 883 | 1 132 | 857 |
| of which: Re-exports | 415 | 858 | 1 164 | — | 429 |
| New Caledonia | | | | | |
| Ferro-nickel | 180 793 | 128 796 | 109 300 | 139 000 | 87 220 |
| New Zealand (e) | | | | | |
| Ingots, blooms, billets | 4 919 | 24 475 | 13 620 | 48 455 | 36 176 |
| Scrap | 1 519 | 2 159 | 2 152 | 2 759 | 2 206 |

Note: In this table the term 'ingots, blooms, billets' corresponds to items 672.4 and 5 of the Standard International Trade Classification (Revision 2) which includes those of alloy and high carbon steel

- (a) Excluding ships intended for breaking up
- (b) Figures may be incomplete as value only given in Israeli trade return for exports to some countries
- (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

Imports of Iron, Steel and Ferro-alloys

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--|---------|---------|---------|---------|-----------|
| United Kingdom | | | | | |
| Pig-iron | 132 248 | 168 631 | 110 682 | 125 066 | 91 188 |
| Sponge & powder | 37 688 | 21 694 | 16 137 | 39 062 | 13 054 |
| Ferro-chrome | 75 400 | 42 927 | 62 901 | 72 198 | 86 660 |
| Ferro-silico-chrome | 2 004 | 435 | 104 | 102 | 437 |
| Ferro-manganese | 80 766 | 52 003 | 56 443 | 58 031 | 99 436 |
| Ferro-silico-manganese | 25 730 | 24 651 | 22 307 | 31 107 | 28 934 |
| Ferro-molybdenum | 766 | 597 | 825 | 608 | 383 |
| Ferro-nickel | 18 854 | 2 449 | 6 128 | 9 564 | 9 187 |
| Ferro-niobium | 830 | 744 | 756 | 719 | 459 |
| Ferro-silicon | 115 257 | 68 997 | 75 454 | 75 484 | 69 735 |
| Ferro-titanium & ferro-silico-titanium | 355 | 174 | 58 | 173 | 494 |
| Ferro-tungsten & ferro-silico-tungsten | 282 | 124 | 83 | 103 | 23 |
| Ferro-vanadium | 544 | 483 | 868 | 593 | 636 |
| Other ferro-alloys | 14 772 | 10 630 | 9 800 | 9 575 | 11 795 |
| Ingots, blooms, billets | 337 206 | 350 357 | 332 649 | 290 645 | 239 468 |
| Scrap (a) | 35 247 | 26 452 | 20 760 | 37 317 | 11 181 |
| Belgium-Luxembourg | | | | | |
| Pig-iron | 104 925 | 97 605 | 91 522 | 90 715 | 46 835 |
| Spiegeleisen | 173 | 892 | 166 | 259 | 686 |
| Sponge & powder | 2 967 | 14 035 | 1 595 | 2 618 | 1 545 |
| Ferro-aluminium, ferro-silico-aluminium & ferro-silico-mangano-aluminium | 2 508 | 1 555 | 1 239 | 949 | 1 238 |
| Ferro-chrome | 31 031 | 27 588 | 25 474 | 26 231 | 35 337 |
| Ferro-silico-chrome | 3 927 | 1 340 | 1 527 | 1 229 | 1 909 |
| Ferro-manganese | 84 315 | 71 291 | 91 262 | 54 012 | 53 479 |
| Ferro-silico-manganese | 22 336 | 23 454 | 19 956 | 19 609 | 21 326 |
| Ferro-molybdenum | 359 | 260 | 446 | 254 | 312 |
| Ferro-nickel | 7 602 | 2 660 | 3 226 | 3 316 | 6 407 |
| Ferro-silicon | 38 237 | 32 584 | 38 202 | 33 831 | 33 056 |
| Ferro-titanium & ferro-silico-titanium | 264 | 219 | 225 | 257 | 437 |
| Ferro-tungsten & ferro-silico-tungsten | 33 | 15 | 21 | 7 | 4 |
| Ferro-vanadium | 190 | 121 | 125 | 60 | 172 |
| Other ferro-alloys | 1 895 | 1 655 | 1 679 | 1 127 | 5 850 |
| Ingots, blooms, billets | 685 017 | 665 631 | 443 721 | 333 886 | 376 995 |
| Scrap | 970 474 | 859 319 | 955 710 | 887 417 | 1 045 194 |
| Denmark | | | | | |
| Pig-iron | 21 647 | 36 649 | 48 574 | 62 825 | 29 275 |
| Sponge & powder | 537 | 1 677 | 484 | 503 | 592 |
| Ferro-aluminium, ferro-silico-aluminium & ferro-silico-mangano-aluminium | 2 908 | 2 844 | 1 473 | 1 618 | 158 |
| Ferro-chrome & ferro-silico-chrome | 1 431 | 1 198 | 380 | 370 | 817 |
| Ferro-manganese | 7 254 | 6 258 | 3 708 | 3 091 | 1 968 |
| Ferro-silico-manganese | 3 984 | 2 534 | 1 891 | 2 892 | 2 911 |
| Ferro-molybdenum | 16 | 16 | 20 | 13 | 18 |
| Ferro-silicon | 5 334 | 4 673 | 3 114 | 3 500 | 3 250 |
| Other ferro-alloys | 143 | 63 | 112 | 98 | 104 |
| Ingots, blooms, billets | 9 702 | 82 652 | 65 271 | 6 347 | 3 151 |
| Scrap | 284 249 | 216 791 | 180 402 | 87 494 | 67 466 |

Imports of Iron, Steel and Ferro-alloys

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--|-----------|-----------|-----------|-----------|-----------|
| France | | | | | |
| Pig-iron | 446 367 | 450 491 | 405 921 | 370 359 | 364 216 |
| Spiegeleisen | 90 | 1 137 | 56 | 1 080 | 1 094 |
| Sponge & powder | 23 656 | 47 475 | 21 208 | 16 913 | 71 650 |
| Ferro-aluminium, ferro-silico- aluminium & ferro-silico- mangano-aluminium | 127 | 134 | 62 | 123 | 177 |
| Ferro-chrome | 64 959 | 113 914 | 113 284 | 119 203 | 113 135 |
| Ferro-silico-chrome | 193 | 334 | 157 | 1 635 | 1 030 |
| Ferro-manganese | 48 592 | 48 575 | 33 820 | 29 374 | 22 722 |
| Ferro-silico-manganese | 29 489 | 33 778 | 34 275 | 30 942 | 27 144 |
| Ferro-molybdenum | 1 272 | 1 471 | 1 630 | 1 269 | 1 445 |
| Ferro-nickel | 159 817 | 115 864 | 83 279 | 73 555 | 76 983 |
| Ferro-silicon | 11 132 | 20 647 | 28 720 | 29 075 | 26 420 |
| Ferro-titanium & ferro- silico-titanium | 298 | 332 | 191 | 164 | 206 |
| Ferro-tungsten & ferro- silico-tungsten | 356 | 265 | 436 | 817 | 894 |
| Ferro-vanadium | 116 | 116 | 90 | 166 | 208 |
| Other ferro-alloys | 316 | 449 | 683 | 636 | 408 |
| Ingots, blooms, billets | 1 450 | 1 397 | 1 710 | 1 340 | 1 152 |
| Scrap | 1 252 259 | 999 268 | 628 525 | 831 521 | 677 740 |
| Germany, Federal Republic of | | | | | |
| Pig-iron | 422 289 | 455 082 | 346 541 | 273 020 | 306 757 |
| Spiegeleisen | 283 062 | 257 772 | 221 784 | 223 125 | 180 874 |
| Sponge & powder | 17 | 99 | — | — | — |
| Ferro-aluminium, ferro-silico- aluminium & ferro-silico- mangano-aluminium | 39 104 | 39 341 | 17 345 | 19 107 | 19 374 |
| Ferro-chrome | 323 | 266 | 210 | 268 | 148 |
| Ferro-silico-chrome | 230 591 | 301 020 | 148 161 | 221 879 | 297 662 |
| Ferro-manganese | 11 472 | 12 844 | 12 870 | 7 570 | 5 753 |
| Ferro-silico-manganese | 153 788 | 136 651 | 103 111 | 96 809 | 98 242 |
| Ferro-molybdenum | 120 570 | 129 854 | 121 177 | 110 704 | 115 360 |
| Ferro-nickel | 3 393 | 4 863 | 5 111 | 4 317 | 4 583 |
| Ferro-niobium | 71 060 | 71 714 | 64 805 | 33 358 | 73 107 |
| Ferro-silicon | 3 346 | 2 363 | 3 172 | 2 836 | 2 405 |
| Ferro-titanium & ferro- silico-titanium | 190 882 | 221 465 | 146 695 | 198 505 | 195 001 |
| Ferro-tungsten & ferro- silico-tungsten | 3 573 | 2 947 | 3 199 | 3 359 | 3 085 |
| Ferro-vanadium | 253 | 553 | 411 | 228 | 147 |
| Other ferro-alloys | 2 206 | 1 199 | 1 698 | 1 577 | 1 682 |
| Ingots, blooms, billets | 4 982 | 4 042 | 6 714 | 4 299 | 5 756 |
| Scrap | 1 251 752 | 913 601 | 1 048 650 | 793 435 | 840 318 |
| Greece | | | | | |
| Pig-iron | 1 618 396 | 1 517 824 | 1 343 331 | 1 296 305 | 1 299 764 |
| Ferro-manganese | 15 014 | 9 511 | 12 136 | 13 952 | 16 529 |
| Ferro-silico-manganese | 2 843 | 2 673 | 2 370 | 4 322 | 1 686 |
| Ferro-silicon | 7 850 | 8 693 | 4 477 | 8 173 | 4 271 |
| Other ferro-alloys | 4 263 | 2 488 | 3 892 | 2 425 | 1 737 |
| Ingots, blooms, billets | 275 | 118 | 259 | 324 | 326 |
| Scrap | 128 907 | 260 064 | 32 939 | 119 678 | 708 781 |
| Irish Republic | | | | | |
| Pig-iron | 231 285 | 239 004 | 288 110 | 432 021 | 520 379 |
| Ferro-alloys | 1 352 | 907 | 809 | 768 | 263 |
| Ingots, blooms, billets | 1 051 | 651 | 1 038 | 827 | 2 186 |
| Scrap | 4 730 | 10 352 | 1 521 | 861 | 369 |
| | 5 428 | 7 926 | 3 845 | 2 424 | 70 294 |

Imports of Iron, Steel and Ferro-alloys

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--|-----------|-----------|-----------|-----------|-----------|
| Italy | | | | | |
| Pig-iron | 513 962 | 665 678 | 282 477 | 345 175 | 270 644 |
| Spiegeleisen | 3 237 | 4 190 | 2 101 | 860 | 615 |
| Sponge & powder | 97 080 | 53 169 | 52 025 | 53 991 | 34 520 |
| Ferro-aluminium, ferro-silico- aluminium & ferro-silico- mangano-aluminium | 2 140 | 2 389 | 1 284 | 1 847 | 1 825 |
| Ferro-chrome | 94 329 | 86 905 | 73 434 | 85 215 | 66 973 |
| Ferro-silico-chrome | 5 242 | 4 491 | 1 960 | 2 497 | 1 273 |
| Ferro-silico-magnesium | 1 796 | 1 630 | 1 591 | 933 | 1 107 |
| Ferro-manganese | 121 808 | 120 184 | 99 488 | 114 113 | 64 719 |
| Ferro-silico-manganese | 30 807 | 35 837 | 28 784 | 34 701 | 24 914 |
| Ferro-molybdenum | 1 045 | 694 | 798 | 1 355 | 1 307 |
| Ferro-nickel | 21 905 | 18 259 | 11 671 | 15 331 | 13 375 |
| Ferro-niobium | 1 882 | 2 783 | 2 101 | 2 483 | 1 622 |
| Ferro-silicon | 57 019 | 52 901 | 55 103 | 54 864 | 46 081 |
| Ferro-titanium & ferro- silico-titanium | 1 290 | 776 | 591 | 630 | 408 |
| Ferro-tungsten & ferro- silico-tungsten | 117 | 233 | 80 | 48 | 71 |
| Ferro-vanadium | 930 | 822 | 622 | 691 | 753 |
| Other ferro-alloys | 1 601 | 2 093 | 762 | 1 961 | 728 |
| Ingots, blooms, billets | 871 468 | 1 063 357 | 590 751 | 612 089 | 515 581 |
| Scrap | 6 891 233 | 7 413 441 | 5 539 587 | 5 571 298 | 4 446 066 |
| Netherlands | | | | | |
| Pig-iron | 64 769 | 54 797 | 32 322 | 34 620 | 29 601 |
| Sponge & powder | 3 755 | 3 273 | 3 066 | 3 270 | 2 832 |
| Ferro-aluminium, ferro-silico- aluminium & ferro-silico- mangano-aluminium | 12 | 19 | 22 | 92 | 87 |
| Ferro-chrome | 2 983 | 9 028 | 19 889 | 16 206 | 3 406 |
| Ferro-silico-chrome | 450 | 433 | 99 | 43 | 66 |
| Ferro-manganese | 26 526 | 19 031 | 16 902 | 18 916 | 12 065 |
| Ferro-silico-manganese | 4 094 | 6 536 | 3 606 | 7 463 | 3 758 |
| Ferro-molybdenum | 122 | 127 | 126 | 47 | 147 |
| Ferro-silicon | 8 898 | 9 877 | 7 884 | 6 609 | 8 683 |
| Ferro-titanium & ferro- silico-titanium | 62 | 137 | 159 | 74 | 72 |
| Ferro-tungsten & ferro- silico-tungsten | 25 | 3 | 12 | 1 | 17 |
| Ferro-vanadium | 96 | 30 | 43 | 84 | 80 |
| Other ferro-alloys | 406 | 853 | 523 | 981 | 1 750 |
| Ingots, blooms, billets | 254 712 | 169 594 | 117 001 | 286 994 | 185 543 |
| Scrap | 125 018 | 153 115 | 236 806 | 221 641 | 363 733 |
| Albania | | | | | |
| Ferro-alloys (g) | * 4 500 | * 4 600 | * 4 600 | * 2 000 | * 1 300 |
| Austria | | | | | |
| Pig-iron | 87 402 | 91 133 | 77 097 | 69 481 | 32 630 |
| Spiegeleisen | 108 | 92 | — | — | — |
| Sponge & powder | 5 566 | 10 373 | 3 447 | 6 607 | 3 903 |
| Ferro-chrome | 28 520 | 24 578 | 16 827 | 23 625 | 18 524 |
| Ferro-manganese | 26 275 | 23 070 | 21 804 | 24 467 | 22 710 |
| Ferro-molybdenum | 255 | 109 | 31 | 59 | 67 |
| Ferro-niobium & ferro- niobio-tantalum | 396 | 202 | 336 | 346 | 271 |
| Ferro-silicon | 16 046 | 14 020 | 13 368 | 14 413 | 13 670 |
| Ferro-titanium | 523 | 414 | 506 | 502 | 491 |
| Ferro-tungsten | 88 | 64 | 98 | 8 | 6 |
| Ferro-vanadium | 245 | 207 | 170 | 157 | 174 |
| Other ferro-alloys | 15 715 | 11 810 | 10 220 | 8 075 | 7 814 |
| Ingots & blooms | 141 548 | 141 810 | 108 583 | 81 100 | 59 246 |
| Scrap | 134 169 | 143 216 | 169 751 | 380 562 | 218 822 |
| Bulgaria | | | | | |
| Pig-iron | 356 444 | 413 478 | 434 601 | 399 488 | 408 000 |
| Ingots, blooms, billets | * 386 000 | * 595 000 | * 708 000 | * 675 000 | * 571 000 |
| Czechoslovakia | | | | | |
| Pig-iron | 732 000 | 809 000 | 843 000 | 901 000 | 780 000 |
| Ingots, blooms, billets | * 67 000 | * 25 000 | * 17 000 | * 16 000 | * 22 000 |
| Scrap (g) | * 150 000 | * 228 000 | * 252 000 | * 74 000 | * 156 000 |

Imports of Iron, Steel and Ferro-alloys

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------------|-----------|-----------|-----------|-----------|-----------|
| Finland | | | | | |
| Pig-iron | 14 364 | 36 881 | 19 727 | 17 823 | 9 589 |
| Sponge & powder | 1 877 | 4 285 | 1 737 | 1 336 | 1 090 |
| Ferro-chrome & ferro-silico-chrome | 1 889 | 4 698 | 2 592 | 1 233 | 1 387 |
| Ferro-manganese | 4 272 | 3 881 | 3 606 | 5 465 | 3 779 |
| Ferro-silico-manganese | 16 049 | 17 148 | 13 873 | 17 999 | 15 776 |
| Ferro-molybdenum | 294 | 375 | 287 | 186 | 163 |
| Ferro-silicon | 10 492 | 10 125 | 9 195 | 8 838 | 7 442 |
| Ferro-titanium | 201 | 239 | 272 | 178 | 173 |
| Ferro-vanadium | 104 | 78 | 104 | 76 | 55 |
| Other ferro-alloys | 14 134 | 1 171 | 7 210 | 8 999 | 12 255 |
| Blooms & billets | 1 814 | 5 914 | 5 241 | 4 970 | 7 174 |
| Scrap | 88 213 | 104 581 | 62 095 | 50 594 | 37 293 |
| German Democratic Republic | | | | | |
| Pig-iron | 654 000 | 675 900 | 646 500 | 821 400 | 834 800 |
| Ferro-alloys | 44 000 | 66 000 | 74 000 | 78 000 | ... |
| Ingots, blooms, billets | 2 057 000 | 2 142 000 | 2 312 000 | 2 320 000 | ... |
| Scrap | 708 000 | 908 000 | 693 000 | 455 000 | * 602 000 |
| Hungary | | | | | |
| Pig-iron | 223 978 | 255 823 | 289 546 | 234 024 | 293 562 |
| Ferro-chrome | 8 861 | 7 662 | 6 547 | 7 540 | 9 098 |
| Ferro-manganese | 46 084 | 62 023 | 44 431 | 45 008 | 39 980 |
| Ferro-molybdenum | 322 | 397 | 548 | 227 | 407 |
| Ferro-silicon | 6 525 | 6 556 | 6 863 | 7 783 | 6 654 |
| Other ferro-alloys | 13 682 | 10 818 | 15 237 | 12 120 | 13 186 |
| Ingots, blooms, billets | 7 101 | 7 083 | 2 956 | 702 | — |
| Malta | | | | | |
| Ingots, blooms, billets | 4 531 | 5 552 | 3 734 | 5 852 | 6 755 |
| Norway | | | | | |
| Pig-iron | 8 916 | 10 835 | 11 712 | 7 611 | 5 641 |
| Ferro-silicon | 51 | 1 157 | 2 460 | 2 961 | 5 261 |
| Other ferro-alloys | 2 588 | 768 | 646 | 237 | 428 |
| Ingots, blooms, billets | 18 079 | 36 975 | 3 392 | 9 800 | 5 593 |
| Scrap | 6 418 | 52 925 | 23 571 | 4 950 | 15 140 |
| Poland | | | | | |
| Pig-iron & ferro-alloys | 1 483 909 | 1 584 372 | 1 545 215 | 1 377 391 | 1 232 283 |
| Scrap | 32 000 | 20 000 | 51 339 | 4 494 | 3 668 |
| Portugal | | | | | |
| Pig-iron | 8 289 | 10 116 | 12 260 | 13 866 | ... |
| Ferro-manganese | 122 | 154 | 111 | 160 | ... |
| Ferro-silico-manganese | 88 | 35 | 41 | (d) | ... |
| Ferro-silicon | 276 | 518 | 679 | 657 | ... |
| Other ferro-alloys | 413 | 699 | 543 | 702 | ... |
| Ingots, blooms, billets | 348 | 17 510 | 59 811 | 204 927 | 47 000 |
| Scrap | 145 809 | 150 265 | 91 781 | 124 718 | 110 000 |
| Romania | | | | | |
| Pig-iron | 573 300 | 634 000 | 285 900 | 285 400 | ... |
| Ferro-alloys | 190 400 | 145 100 | 148 900 | 163 700 | ... |
| Ingots, blooms, billets | * 298 000 | * 189 000 | * 155 000 | * 141 000 | ... |
| Soviet Union | | | | | |
| Pig-iron | * 200 000 | * 200 000 | * 200 000 | * 200 000 | * 200 000 |
| Ferro-alloys | * 35 000 | * 40 000 | * 40 000 | * 40 000 | * 30 000 |

Imports of Iron, Steel and Ferro-alloys

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--|-----------|-----------|-----------|-----------|-----------|
| Spain | | | | | |
| Pig-iron | 44 312 | 53 163 | 41 502 | 103 748 | 100 515 |
| Sponge & powder | 133 854 | 116 714 | 117 548 | 97 515 | 116 341 |
| Ferro-aluminium & ferro-silico-aluminium | 22 | — | 1 | 27 |) |
| Ferro-chrome | 33 694 | 31 364 | 21 442 | 29 624 |) (d) |
| Ferro-silico-chrome | 1 548 | 1 125 | 1 271 | 2 394 |) |
| Ferro-manganese | 192 | 4 326 | 508 | 1 444 | 1 895 |
| Ferro-silico-manganese | 55 | 267 | 104 | 405 |) |
| Ferro-molybdenum | 110 | 178 | 78 | 133 |) (d) |
| Ferro-nickel | 6 114 | 3 085 | 3 563 | 4 296 |) |
| Ferro-silicon | 2 109 | 2 156 | 3 259 | 2 650 | 2 684 |
| Ferro-titanium & ferro-silico-titanium | 676 | 319 | 138 | 191 |) |
| Ferro-tungsten & ferro-silico-tungsten | 33 | 35 | 93 | 10 |) 49 165 |
| Ferro-vanadium | 298 | 250 | 253 | 189 |) |
| Other ferro-alloys | 1 702 | 1 944 | 1 887 | 2 695 |) |
| Ingots, blooms, billets | 215 168 | 93 513 | 158 971 | 115 322 | 52 056 |
| Scrap | 2 927 406 | 3 907 449 | 3 894 493 | 4 536 095 | 4 538 255 |
| Sweden | | | | | |
| Pig-iron | 51 817 | 45 921 | 36 902 | 58 159 | 37 929 |
| Sponge & powder | 1 632 | 2 152 | 1 441 | 1 250 | 955 |
| Ferro-chrome | 39 070 | 27 798 | 23 246 | 39 819 | 36 878 |
| Ferro-silico-chrome | 4 224 | 3 638 | 634 | 2 396 | 1 215 |
| Ferro-manganese | 42 053 | 32 686 | 33 071 | 29 139 | 28 744 |
| Ferro-silico-manganese | 9 189 | 10 296 | 9 956 | 12 109 | 12 085 |
| Ferro-molybdenum | 1 810 | 1 691 | 1 199 | 1 243 | 1 091 |
| Ferro-nickel | 36 320 | 17 530 | 12 426 | 9 619 | 12 875 |
| Ferro-niobium | 286 | 184 | 214 | 255 | 253 |
| Ferro-silicon | 37 585 | 32 538 | 24 186 | 21 802 | 23 905 |
| Ferro-titanium | 1 880 | 1 909 | 1 130 | 1 740 | 1 226 |
| Ferro-tungsten | 504 | 453 | 398 | 112 | 44 |
| Ferro-vanadium | 808 | 920 | 781 | 876 | 723 |
| Other ferro-alloys | 1 388 | 1 252 | 524 | 687 | 653 |
| Ingots, blooms, billets | 83 718 | 108 268 | 105 464 | 115 663 | 100 284 |
| Scrap | 129 833 | 75 431 | 244 585 | 529 095 | 450 088 |
| Switzerland | | | | | |
| Pig-iron | 89 331 | 85 383 | 64 686 | 73 690 | 72 248 |
| Sponge & powder | 5 716 | 10 276 | 15 447 | 4 617 | 4 295 |
| Ferro-aluminium | 167 | 213 | 204 | 206 | 338 |
| Ferro-silicon | 6 717 | 6 715 | 5 538 | 4 726 | 5 954 |
| Other ferro-alloys | 17 411 | 14 825 | 11 271 | 11 744 | 12 854 |
| Ingots, blooms, billets | 24 920 | 73 897 | 42 034 | 32 512 | 63 226 |
| Scrap | 179 051 | 136 853 | 113 138 | 106 433 | 146 802 |
| Turkey | | | | | |
| Pig-iron | 16 316 | 8 315 | 22 663 | 50 889 | 66 937 |
| Ferro-manganese | 9 360 | 22 851 | 18 846 | 29 640 | 20 905 |
| Ferro-silicon | 6 267 | 6 422 | 9 530 | 57 765 | 12 636 |
| Other ferro-alloys | 177 | 384 | 835 | 3 509 | 9 004 |
| Ingots, blooms, billets | 349 717 | 112 607 | 199 562 | 209 459 | 705 911 |
| Scrap | 362 300 | 346 455 | 525 054 | 748 280 | 1 073 575 |
| Yugoslavia | | | | | |
| Pig-iron | 99 495 | 46 554 | 70 917 | 82 286 | 61 323 |
| Sponge & powder | 1 555 | 1 961 | 26 929 | 15 989 | 2 188 |
| Ferro-chrome | 125 | 130 | 118 | 113 | (d) |
| Ferro-manganese | 902 | 903 | 539 | 425 | 2 482 |
| Ferro-molybdenum | 506 | 740 | 522 | 719 |) |
| Ferro-phosphorus | 1 816 | 376 | 625 | 291 |) |
| Ferro-silicon | 790 | 1 519 | 1 556 | 1 194 |) 6 326 |
| Ferro-tungsten | 126 | 57 | 120 | 80 |) |
| Ferro-vanadium | 184 | 224 | 287 | 313 |) |
| Other ferro-alloys | 3 537 | 2 934 | 2 208 | 2 135 |) |
| Ingots, blooms, billets | 551 816 | 456 789 | 439 896 | 318 341 | 472 993 |
| Scrap | 264 800 | 395 759 | 479 327 | 507 770 | 738 095 |

Imports of Iron, Steel and Ferro-alloys

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-----------------------------|---------|---------|---------|--------|--------|
| Algeria | | | | | |
| Pig-iron | 6 986 | 9 943 | ... | ... | ... |
| Ferro-manganese | 1 960 | 2 528 | ... | ... | ... |
| Ferro-silico-manganese | 343 | 410 | ... | ... | ... |
| Ferro-silicon | 1 779 | 2 774 | ... | ... | ... |
| Other ferro-alloys | 334 | 1 189 | ... | ... | ... |
| Ingots, blooms, billets | 240 150 | 313 446 | 228 097 | ... | ... |
| Cameroon | | | | | |
| Ingots & blooms | 18 836 | 25 005 | ... | 40 471 | ... |
| Egypt | | | | | |
| Pig-iron & spiegeleisen | 11 406 | 5 660 | 30 706 | 33 677 | ... |
| Ferro-alloys | 1 665 | 310 | 1 894 | 6 810 | ... |
| Ingots & billets | 33 545 | 58 233 | 12 699 | 16 108 | ... |
| Scrap | 15 829 | 37 095 | 13 804 | 12 259 | ... |
| Ethiopia | | | | | |
| Ingots, blooms, billets | 6 795 | 3 697 | 7 844 | 13 173 | 4 739 |
| Scrap | 353 | 673 | ... | 572 | 462 |
| Ghana | | | | | |
| Pig-iron | 2 321 | ... | ... | ... | ... |
| Ferro-manganese | 508 | ... | ... | ... | ... |
| Other ferro-alloys | 20 | ... | ... | ... | ... |
| Scrap | 14 501 | ... | ... | ... | ... |
| Ivory Coast | | | | | |
| Ingots, blooms, billets | 9 482 | 3 028 | 4 503 | ... | ... |
| Kenya | | | | | |
| Pig-iron & ferro-alloys | 289 | 1 445 | 720 | 3 541 | ... |
| Ingots & blooms | 17 808 | 31 868 | 10 966 | 14 145 | ... |
| Libya | | | | | |
| Pig-iron & ferro-alloys (c) | 33 | 8 672 | ... | ... | ... |
| Ingots, blooms, billets | 5 872 | 16 778 | ... | ... | ... |
| Mauritius | | | | | |
| Pig-iron & ingots | 19 057 | 15 286 | 11 781 | 5 440 | 10 869 |
| Morocco | | | | | |
| Pig-iron | 625 | 1 423 | 1 281 | 2 291 | ... |
| Ferro-chrome | 20 | 66 | 82 | 21 | ... |
| Ferro-manganese | 155 | 180 | 177 | 189 | ... |
| Ferro-silico-manganese | — | — | 20 | 26 | ... |
| Ferro-silicon | 124 | 142 | 73 | 116 | ... |
| Ingots, blooms, billets | 19 462 | 13 046 | 12 233 | 17 596 | ... |
| Scrap | 1 | 174 | 1 703 | 2 683 | ... |
| Nigeria | | | | | |
| Ferro-manganese | 735 | ... | ... | ... | ... |
| Ingots & blooms | 82 209 | ... | ... | ... | ... |
| Somalia | | | | | |
| Ingots, blooms, billets | 3 851 | 3 073 | ... | ... | ... |
| South Africa | | | | | |
| Pig-iron | 20 663 | 28 066 | 18 901 | 7 231 | 323 |
| Ferro-chrome | 9 232 | 6 973 | 6 027 | 7 626 | 8 088 |
| Ferro-silicon | 4 385 | 1 824 | 2 601 | 1 955 | 932 |
| Other ferro-alloys | 986 | 2 251 | 1 268 | 931 | 1 251 |
| Ingots & blooms | 5 839 | 6 831 | 14 526 | 39 064 | 50 299 |
| Scrap | 7 910 | 27 922 | 12 462 | 27 462 | 7 274 |
| Sudan | | | | | |
| Ingots, blooms, billets | 9 361 | 6 150 | 3 965 | 3 263 | ... |
| Tanzania | | | | | |
| Pig-iron & ferro-alloys | 1 958 | 1 244 | 1 307 | ... | ... |
| Ingots & blooms | 12 379 | 5 878 | 8 165 | ... | ... |
| Tunisia | | | | | |
| Pig-iron | 87 | 733 | ... | 1 274 | ... |
| Ferro-alloys | 2 117 | 785 | ... | 1 116 | ... |
| Scrap | 483 | 49 | 992 | 5 303 | ... |
| Zaire | | | | | |
| Ferro-alloys | 450 | 209 | * 100 | ... | ... |
| Zimbabwe | | | | | |
| Ferro-chrome | 1 234 | 1 833 | 2 249 | 582 | ... |
| Ferro-manganese | 3 790 | 2 459 | 1 994 | 2 600 | ... |
| Other ferro-alloys | 117 | 279 | 365 | 216 | ... |

Imports of Iron, Steel and Ferro-alloys

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--|-----------|-----------|---------|---------|---------|
| Canada | | | | | |
| Pig-iron | 9 913 | 2 075 | 6 965 | 2 262 | 4 856 |
| Sponge & powder | 9 876 | 8 676 | 9 770 | 6 257 | 6 614 |
| Ferro-chrome | 34 720 | 41 369 | 31 579 | 21 785 | 32 565 |
| Ferro-manganese & spiegeleisen | 83 699 | 26 704 | 36 656 | 25 088 | 18 263 |
| Ferro-silico-manganese & silico-spiegeleisen | 21 876 | 20 901 | 12 669 | 2 877 | 464 |
| Ferro-silicon | 19 855 | 18 508 | 18 630 | 9 860 | 13 088 |
| Ferro-tungsten | 27 | 7 | 5 | 5 | 2 |
| Ferro-vanadium | 349 | 520 | 562 | 241 | 172 |
| Other ferro-alloys | 6 707 | 10 506 | 17 804 | 4 806 | 7 057 |
| Ingots, blooms, billets | 177 450 | 104 647 | 167 067 | 16 322 | 37 161 |
| Scrap | 1 046 564 | 1 015 606 | 835 070 | 454 403 | 665 867 |
| Costa Rica | | | | | |
| Ingots & blooms | 25 515 | 25 051 | 17 433 | 21 134 | 25 593 |
| Cuba | | | | | |
| Pig-iron | ... | 149 100 | 162 200 | ... | ... |
| Dominican Republic | | | | | |
| Ferro-alloys | 757 | 938 | 660 | 112 | ... |
| Ingots, blooms, billets | 4 446 | 5 212 | 307 | ... | ... |
| Scrap | 13 566 | 29 566 | 27 048 | ... | ... |
| El Salvador | | | | | |
| Ingots, blooms, billets | 4 691 | 889 | 182 | 747 | 2 000 |
| Scrap | 28 091 | 4 611 | 7 660 | 233 | 186 |
| Guatemala | | | | | |
| Ingots, blooms, billets | 30 417 | 14 781 | 28 231 | 19 075 | 12 068 |
| Haiti (i) | | | | | |
| Ingots, blooms, billets | 10 716 | 10 215 | 19 553 | 5 915 | ... |
| Honduras | | | | | |
| Ingots & blooms | 13 173 | 5 630 | 1 607 | ... | ... |
| Jamaica | | | | | |
| Ingots & blooms | 12 985 | 2 981 | 7 655 | 5 689 | 7 553 |
| Mexico | | | | | |
| Pig-iron | 49 995 | 98 335 | 147 927 | 41 225 | ... |
| Sponge & powder | 21 651 | 38 259 | 3 708 | 1 883 | ... |
| Ferro-alloys | 12 964 | 11 296 | 28 293 | 4 800 | ... |
| Ingots, blooms, billets | 86 363 | 381 637 | 403 284 | 89 299 | ... |
| Scrap | 388 100 | 280 384 | 213 560 | 87 011 | ... |
| Panama | | | | | |
| Ingots, blooms, billets | 15 437 | 22 938 | 21 337 | 14 657 | 13 330 |
| Trinidad & Tobago | | | | | |
| Ingots, blooms, billets | 7 852 | 16 139 | 8 094 | 11 | 37 |
| USA | | | | | |
| Pig-iron | 432 169 | 362 904 | 392 823 | 296 198 | 220 549 |
| Sponge & powder | 94 485 | 59 688 | 68 678 | 45 792 | 122 761 |
| Ferro-chrome | 219 504 | 269 634 | 403 799 | 129 741 | 254 287 |
| Ferro-silico-chrome | 38 | 4 610 | 15 511 | 2 690 | 1 305 |
| Ferro-manganese | 744 992 | 549 484 | 614 986 | 428 753 | 309 902 |
| Ferro-silico-manganese | 85 884 | 67 686 | 122 853 | 56 821 | 126 695 |
| Ferro-molybdenum | 73 | 21 | 533 | 778 | 525 |
| Ferro-nickel | 56 783 | 46 939 | 63 370 | 19 369 | 40 945 |
| Ferro-niobium | 3 849 | 4 130 | 4 234 | 2 183 | 1 772 |
| Ferro-silicon | 103 014 | 64 580 | 137 863 | 70 873 | 144 644 |
| Ferro-titanium & ferro-silico-titanium | 854 | 550 | 397 | 121 | 810 |
| Ferro-tungsten & ferro-silico-tungsten | 334 | 247 | 185 | 86 | 60 |
| Ferro-vanadium | 669 | 298 | 1 121 | 776 | 768 |
| Ferro-zirconium | 1 826 | 925 | 810 | 981 | * 500 |
| Ingots, blooms, billets | 312 782 | 141 965 | 721 262 | 650 078 | 746 272 |
| Scrap | 689 720 | 506 353 | 507 770 | 429 207 | 581 274 |

Imports of Iron, Steel and Ferro-alloys

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-----------------------------|-----------|-----------|----------|---------|-----------|
| Argentina | | | | | |
| Pig-iron | 185 483 | 152 609 | 10 101 | 121 792 | ... |
| Ferro-chrome | 1 983 | 2 270 | 1 711 | ... | ... |
| Ferro-manganese | 508 | 2 193 | 620 | ... | ... |
| Ferro-molybdenum | 44 | 7 | 58 | 6 | ... |
| Ferro-silicon | 109 | 156 | 441 | ... | ... |
| Ferro-titanium | 49 | 347 | 87 | ... | ... |
| Other ferro-alloys | 377 | 760 | 714 | ... | ... |
| Blooms & billets | 82 230 | 185 857 | 93 138 | ... | ... |
| Scrap | 6 399 | 1 574 | 2 168 | ... | ... |
| Brazil | | | | | |
| Sponge & powder | 7 237 | 11 676 | 80 672 | 57 931 | 4 736 |
| Ferro-chrome | 407 | 220 | 564 | 881 | 292 |
| Ferro-silico-chrome | 64 | 254 | 224 | 255 | 181 |
| Ferro-silicon | 647 | 1 214 | 862 | 8 | 6 |
| Other ferro-alloys | 438 | 815 | 4 516 | 83 | 41 |
| Ingots, blooms, billets | 49 321 | 20 069 | 291 728 | 190 184 | 48 |
| Scrap | 30 | 21 909 | 6 828 | 7 185 | 0 |
| Colombia | | | | | |
| Ferro-chrome | 435 | 156 | 466 | 189 | 184 |
| Ferro-manganese | 4 483 | 6 564 | 2 500 | 2 500 | 2 332 |
| Ferro-silico-manganese | 1 474 | 1 255 | 620 | 1 462 | 405 |
| Ferro-silicon | 1 993 | 2 310 | 1 676 | 1 506 | 2 181 |
| Other ferro-alloys | 169 | 232 | 163 | 434 | 332 |
| Ingots, blooms, billets | 38 112 | 25 993 | 37 279 | 26 507 | 11 872 |
| Scrap | 23 096 | 13 926 | 29 968 | 26 982 | 46 199 |
| Ecuador | | | | | |
| Ingots, blooms, billets | 97 652 | 148 861 | 42 419 | ... | ... |
| Peru | | | | | |
| Ferro-chrome | 503 | 206 | 144 | 146 | 127 |
| Ferro-manganese | 5 190 | 3 289 | 1 758 | 2 087 | 3 241 |
| Ferro-silico-manganese | 22 | 1 497 | 67 | 1 031 | — |
| Ferro-silicon | 581 | 1 037 | 733 | 354 | 1 194 |
| Ingots, blooms, billets | 34 | 25 618 | 26 130 | 6 662 | 9 209 |
| Scrap | 9 968 | 32 610 | 7 046 | 16 236 | 166 |
| Uruguay | | | | | |
| Ferro-alloys | 461 | 253 | 143 | 249 | 472 |
| Ingots, blooms, billets | 58 966 | 38 583 | 32 903 | 16 593 | 948 |
| Venezuela | | | | | |
| Pig-iron | 4 938 | 2 731 | 67 | 4 | ... |
| Ferro-manganese | 17 133 | 35 333 | 16 497 | 19 059 | ... |
| Ferro-silico-manganese | 12 203 |) |) | 2 420 | ... |
| Ferro-silicon | 2 024 |) 8 787 | 4 272 | 20 | ... |
| Other ferro-alloys | 770 |) |) | 549 | ... |
| Ingots, blooms, billets | 147 449 | 236 219 | 86 036 | 112 915 | ... |
| Scrap | 45 307 | 32 473 | 50 328 | 20 491 | ... |
| China | | | | | |
| Pig-iron & ferro-alloys (g) | * 724 000 | * 406 000 | * 87 000 | ... | * 710 000 |
| Scrap (g) | * 5 000 | * 2 000 | * 2 000 | * 2 200 | * 1 100 |
| Cyprus | | | | | |
| Pig-iron | 1 000 | — | 1 000 | 500 | 1 334 |
| Hong Kong | | | | | |
| Pig-iron | 18 120 | 18 711 | 22 509 | 12 425 | 12 028 |
| Ferro-manganese | 234 | 3 | 511 | 1 976 | 563 |
| Ferro-silicon | 222 | 244 | 854 | 1 750 | 1 259 |
| Other ferro-alloys | 2 789 | 1 676 | 2 180 | 1 864 | 1 240 |
| Ingots, blooms, billets | 257 273 | 156 083 | 127 018 | 91 326 | 72 371 |
| Scrap | 105 260 | 87 326 | 94 411 | 64 112 | 26 883 |
| India | | | | | |
| Ferro-chrome | 35 | 1 210 | 615 | ... | ... |
| Ferro-manganese | 41 | 224 | 208 | ... | ... |
| Ferro-molybdenum | 409 | 960 | 156 | ... | ... |
| Ferro-nickel | 1 893 | 2 827 | 1 357 | ... | ... |
| Ferro-phosphorus | 40 | 94 | 54 | ... | ... |
| Ferro-silicon | 198 | 1 827 | 7 377 | ... | ... |
| Other ferro-alloys | 123 | 1 109 | 5 466 | ... | ... |
| Ingots, blooms, billets (e) | 153 947 | 50 929 | 237 886 | ... | ... |
| Scrap | 144 697 | 125 842 | 522 844 | ... | ... |

Imports of Iron, Steel and Ferro-alloys

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|---------------------------|-----------|-----------|-----------|-----------|-------------|
| Indonesia | | | | | |
| Pig-iron | 42 253 | 34 963 | 73 157 | 83 249 | ... |
| Ferro-manganese | 4 238 | 3 142 | 2 744 | 5 680 | ... |
| Other ferro-alloys | 2 828 | 12 303 | 3 486 | 7 836 | ... |
| Ingots, blooms, billets | 276 216 | 468 238 | 496 556 | 220 468 | ... |
| Scrap | 29 770 | 39 009 | 34 399 | 57 072 | ... |
| Iran (f) | | | | | |
| Pig-iron | * 400 | * 600 | * 600 | 5 152 | ... |
| Ferro-alloys | 2 214 | 2 614 | 1 949 | 797 | ... |
| Ingots, blooms, billets | 314 891 | 94 495 | 136 813 | 9 124 | ... |
| Israel (b) | | | | | |
| Pig-iron | 611 | 352 | 594 | ... | (g)* 1 500 |
| Spiegeleisen | 29 | — | 336 | ... | ... |
| Ferro-manganese | 630 | 667 | 469 | ... | (g)* 150 |
| Other ferro-alloys | 1 032 | 690 | 1 333 | ... | (g)* 600 |
| Ingots, blooms, billets | 64 403 | 6 199 | 23 713 | 67 631 | 74 650 |
| Scrap | 5 006 | 20 501 | 26 635 | 12 188 | (g)* 13 900 |
| Japan | | | | | |
| Pig-iron | 550 584 | 738 528 | 1 068 400 | 1 337 082 | 951 571 |
| Sponge & powder | 12 789 | 42 231 | 17 092 | 43 955 | 48 448 |
| Ferro-chrome | 250 317 | 257 157 | 189 928 | 214 313 | 297 533 |
| Ferro-silico-chrome | 23 046 | 23 210 | 9 764 | 6 662 | 5 379 |
| Ferro-manganese | 18 758 | 2 662 | 6 505 | 11 965 | 15 832 |
| Ferro-silico-manganese | (d) | (d) | (d) | 75 627 | 115 533 |
| Ferro-molybdenum | 547 | 448 | 266 | 374 | 460 |
| Ferro-nickel | 33 152 | 31 119 | 26 493 | 29 758 | 36 750 |
| Ferro-niobium | 1 989 | 1 419 | 1 586 | 2 326 | 1 778 |
| Ferro-silicon | 133 494 | 122 012 | 196 487 | 237 541 | 273 907 |
| Ferro-tungsten | 483 | 186 | 45 | 72 | 192 |
| Ferro-vanadium | 1 265 | 306 | 830 | 698 | 741 |
| Other ferro-alloys | 40 745 | 38 774 | 71 120 | 4 685 | 5 287 |
| Ingots, blooms, billets | 534 398 | 448 961 | 195 666 | 96 483 | 105 001 |
| Scrap | 3 345 998 | 2 986 171 | 1 790 950 | 2 025 440 | 3 905 649 |
| Jordan | | | | | |
| Pig-iron | 16 614 | 17 787 | 20 443 | 65 131 | 12 961 |
| Ingots, blooms, billets | 68 872 | 59 270 | 123 785 | 111 816 | 181 996 |
| Korea, Republic of | | | | | |
| Pig-iron | 79 917 | 16 971 | 63 914 | 72 399 | 104 976 |
| Sponge & powder | 1 851 | 6 000 | 1 922 | 2 056 | 2 338 |
| Ferro-chrome | 3 339 | 2 550 | 1 340 | 3 821 | 4 390 |
| Ferro-manganese | 2 583 | 857 | 4 625 | 5 812 | 9 004 |
| Ferro-silicon | 678 | 1 989 | 4 024 | 3 868 | 4 745 |
| Other ferro-alloys | 1 415 | 1 337 | 1 141 | 1 237 | 2 482 |
| Ingots & blooms | 273 342 | 74 693 | 116 980 | 126 024 | 88 724 |
| Scrap | 1 579 761 | 1 932 127 | 2 310 403 | 1 808 880 | 1 895 975 |
| Kuwait | | | | | |
| Scrap | ... | 1 182 | 1 595 | ... | ... |
| Malaysia | | | | | |
| Pig-iron | 16 235 | 13 972 | 12 795 | 11 573 | ... |
| Ferro-manganese | 4 073 | 3 794 | 3 427 | 3 371 | ... |
| Other ferro-alloys | 757 | 1 885 | 2 783 | 3 026 | ... |
| Ingots, blooms, billets | 150 773 | 233 020 | 157 690 | 241 166 | ... |
| Scrap | 6 345 | 4 162 | 54 878 | 25 465 | ... |
| Pakistan (h) | | | | | |
| Scrap | 113 570 | 213 243 | 572 661 | 219 419 | 115 702 |
| Philippines | | | | | |
| Pig-iron | 44 560 | 19 939 | 1 241 | 3 014 | 3 |
| Ferro-manganese | 5 537 | 3 214 | 1 079 | 2 167 | 3 315 |
| Ferro-silicon | 177 | 697 | 496 | 718 | 499 |
| Other ferro-alloys | 1 279 | 969 | 629 | 586 | 736 |
| Ingots, blooms, billets | 440 452 | 292 534 | 293 801 | 488 516 | 558 790 |
| Scrap | 95 465 | 8 966 | 8 789 | 25 031 | 142 |
| Qatar | | | | | |
| Scrap | 130 827 | 129 875 | 244 760 | 614 677 | 11 900 |
| Saudi Arabia | | | | | |
| Pig-iron | 47 061 | 36 314 | 14 228 | 39 041 | 256 990 |
| Sponge & powder | 3 913 | 8 741 | 14 381 | 48 931 | 90 703 |
| Ferro-alloys | 1 178 | 11 680 | 346 | 356 | 140 |
| Ingots, blooms, billets | 288 807 | 82 618 | 79 765 | 132 218 | 101 874 |
| Scrap | 38 741 | 1 198 | 424 | 1 278 | — |

Imports of Iron, Steel and Ferro-alloys

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-------------------------|---------|-----------|---------|---------|---------|
| Singapore | | | | | |
| Pig-iron | 79 861 | 31 490 | 61 245 | 101 222 | 55 536 |
| Ferro-manganese | 6 328 | 3 534 | 505 | 3 611 | 287 |
| Ferro-silicon | 858 | 1 298 | 2 113 | 1 662 | 986 |
| Other ferro-alloys | 551 | 3 580 | 6 957 | 5 612 | 3 440 |
| Ingots & blooms | 109 520 | 96 126 | 43 599 | 200 469 | 210 160 |
| Scrap | 109 055 | 172 028 | 78 214 | 93 028 | 94 511 |
| Sri Lanka | | | | | |
| Ingots, blooms, billets | 58 920 | 56 745 | 24 004 | 9 293 | 6 342 |
| Syria | | | | | |
| Pig-iron | 4 272 | 7 411 | 5 389 | 7 791 | ... |
| Ingots, blooms, billets | 160 756 | 94 125 | 60 969 | 27 903 | ... |
| Scrap | 5 436 | 8 603 | 17 313 | 24 856 | ... |
| Taiwan | | | | | |
| Pig-iron | 65 416 | 152 464 | 173 185 | 142 036 | 218 323 |
| Sponge & powder | 7 569 | 9 962 | 10 921 | 3 753 | 2 441 |
| Ferro-chrome | 2 887 | 556 | 785 | 335 | 5 613 |
| Ferro-manganese | 859 | 799 | 591 | 2 615 | 856 |
| Ferro-silicon | 335 | 669 | 1 378 | 2 142 | 3 498 |
| Other ferro-alloys | 848 | 902 | 670 | 374 | 674 |
| Ingots, blooms, billets | 70 440 | 266 435 | 71 727 | 136 155 | 127 290 |
| Scrap | 760 688 | 1 232 365 | 880 789 | 650 988 | 735 515 |
| Thailand | | | | | |
| Pig-iron | 22 460 | 4 621 | 26 783 | 14 103 | 14 510 |
| Ferro-manganese | 2 468 | 3 933 | 2 874 | 2 973 | 4 017 |
| Ferro-silicon | 3 311 | 3 392 | 3 303 | 3 003 | 3 538 |
| Other ferro-alloys | 776 | 1 241 | 2 170 | 625 | 3 108 |
| Ingots, blooms, billets | 13 992 | 44 270 | 58 033 | 23 045 | 36 118 |
| Scrap | 614 808 | 337 670 | 417 183 | 389 928 | 641 288 |
| Australia | | | | | |
| Ferro-chrome | 13 826 | 16 044 | 7 189 | 2 519 | ... |
| Ferro-manganese (c) | 16 985 | 7 203 | 3 916 | 1 833 | ... |
| Ferro-silico-manganese | 489 | 532 | 217 | (d) | ... |
| Ferro-molybdenum | 220 | 283 | 171 | 158 | ... |
| Ferro-nickel | 55 | 430 | 1 637 | 106 | ... |
| Ferro-silicon | 7 149 | 14 598 | 9 736 | 10 764 | ... |
| Other ferro-alloys | 4 379 | 2 551 | 7 311 | 1 844 | ... |
| Ingots & billets | 15 801 | 36 157 | 1 255 | 1 340 | ... |
| Scrap (h) | 1 049 | 1 255 | 853 | 736 | 348 |
| Fiji | | | | | |
| Ingots, blooms, billets | 9 022 | 11 213 | 8 413 | 9 109 | 9 335 |
| New Zealand (h) | | | | | |
| Pig-iron | 803 | 841 | 444 | 268 | 356 |
| Spiegeleisen | 108 | — | — | — | — |
| Ferro-manganese | 1 617 | 1 570 | 585 | 957 | 1 185 |
| Other ferro-alloys | 2 458 | 3 012 | 2 835 | 2 754 | 2 526 |
| Ingots, blooms, billets | 8 798 | 4 307 | 3 782 | 5 897 | 4 402 |
| Scrap | 1 475 | 938 | 1 937 | 6 599 | 3 538 |
| Solomon Islands | | | | | |
| Billets & blooms | 1 521 | 1 169 | 6 | ... | ... |

Note: In this table the term 'ingots, blooms, billets' corresponds to items 672.4 and 5 of the Standard International Trade Classification (Revision 2) which includes those of alloy and high carbon steel

(a) Excluding ships intended for breaking up

(b) Figures may be incomplete as value only given in Israeli trade return for imports from some countries

(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

(h) Years ended 30 June of that stated

(i) Years ended 30 September of that stated

Production of Kaolin

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|
| United Kingdom (a) | 3 102 000 | 2 839 000 | 2 629 000 | 2 421 000 | 2 722 000 |
| Belgium | 65 300 | 60 800 | 54 400 | 52 600 | * 50 000 |
| France | (b) 315 000 | 268 000 | 402 700 | 324 900 | 345 100 |
| Germany, Federal Republic of (g) | 432 000 | 367 000 | 370 000 | 378 000 | 361 000 |
| Greece | 40 437 | 50 259 | 40 033 | 55 539 | 66 781 |
| Italy | 67 194 | 66 711 | 74 084 | 53 495 | 50 450 |
| Austria | 78 553 | 83 882 | 79 214 | 77 286 | 83 560 |
| Bulgaria | 202 000 | 208 000 | 221 000 | 237 000 | 242 000 |
| Czechoslovakia (c) | 513 000 | 518 000 | 508 000 | 527 000 | 539 000 |
| German Democratic Republic | * 190 000 | * 200 000 | * 200 000 | * 210 000 | * 200 000 |
| Hungary (c) | 71 000 | 59 000 | 60 000 | 52 000 | 52 000 |
| Poland | 42 900 | 51 026 | 43 207 | 52 128 | 54 200 |
| Portugal | 80 039 | 83 145 | 107 968 | 63 021 | 86 317 |
| Romania | 362 900 | 402 800 | * 410 000 | * 410 000 | * 410 000 |
| Soviet Union | * 2 500 000 | * 2 500 000 | * 2 500 000 | * 2 500 000 | * 2 600 000 |
| Spain (h) | 204 106 | 181 116 | 189 990 | * 200 000 | ... |
| Sweden (h)(i) | 327 | 357 | 289 | 305 | ... |
| Turkey | 70 584 | 60 263 | 44 795 | 37 841 | 26 496 |
| Yugoslavia | 177 958 | 197 124 | 224 797 | 234 000 | * 240 000 |
| Algeria | 9 100 | 8 165 | * 19 000 | * 15 000 | * 17 000 |
| Burundi | * 2 000 | * 2 000 | 4 180 | * 4 000 | 4 053 |
| Egypt | 46 544 | 41 227 | 32 113 | 49 787 | * 45 000 |
| Ethiopia | 30 000 | 55 235 | 9 000 | * 9 000 | * 9 000 |
| Kenya | 530 | 1 487 | 301 | 1 077 | 650 |
| Madagascar | 1 899 | 2 858 | 1 746 | — | 4 |
| Nigeria | 620 | 940 | 765 | 560 | 604 |
| South Africa | 148 740 | 141 509 | 155 003 | 129 368 | 129 605 |
| Tanzania | 12 468 | 7 434 | 5 400 | 2 800 | 1 300 |
| Zimbabwe | 2 686 | 4 450 | 4 657 | 2 441 | 470 |
| Mexico | 76 944 | 271 041 | 207 824 | 172 390 | * 180 000 |
| USA (e) | 7 040 299 | 7 147 703 | 6 949 472 | 5 771 694 | 6 534 184 |
| Argentina | 132 107 | 91 417 | 66 821 | 73 000 | 73 000 |
| Brazil (j) | 943 589 | 477 858 | 556 753 | 600 632 | 501 706 |
| Chile | 59 222 | 59 452 | 56 778 | 21 086 | 41 000 |
| Ecuador | 5 000 | 4 000 | 3 000 | 4 104 | 1 000 |
| Paraguay | * 40 000 | * 50 000 | * 70 000 | * 55 000 | * 50 000 |
| Peru | 6 563 | 5 500 | * 6 000 | * 6 000 | * 6 000 |
| Venezuela | 30 000 | 11 000 | * 65 000 | * 65 000 | 11 250 |
| Bangladesh (d) | 7 305 | 7 046 | 5 005 | 5 862 | 1 815 |
| Hong Kong | 2 841 | 748 | 2 040 | 286 | 834 |
| India (c) | 489 151 | 459 589 | 504 473 | 548 105 | 564 065 |
| Indonesia | 58 539 | 75 558 | 80 904 | * 80 000 | * 82 000 |
| Iran | * 160 000 | * 150 000 | * 100 000 | * 110 000 | * 100 000 |
| Israel | 22 317 | 9 495 | 37 299 | 12 000 | 26 844 |
| Japan | 161 739 | 169 748 | 153 544 | 144 234 | * 200 000 |
| Jordan | 25 000 | 25 147 | 10 439 | 14 565 | ... |
| Korea, Republic of | 374 423 | 272 944 | 223 424 | 174 918 | 232 276 |
| Malaysia | 32 934 | 46 324 | 44 084 | 44 363 | 57 432 |
| Pakistan | 14 522 | 27 162 | 40 934 | 32 483 | 23 412 |
| Sri Lanka | 5 870 | 6 614 | 7 292 | 8 206 | 7 976 |
| Taiwan | 85 041 | 79 802 | 90 836 | 87 532 | 102 895 |
| Thailand | 42 769 | 19 934 | 14 066 | 17 846 | 36 350 |

Production of Kaolin

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------|------------|------------|------------|------------|------------|
| Australia (c)(f) | 145 326 | 219 070 | 170 472 | 152 133 | * 200 000 |
| New Zealand | 25 590 | 46 112 | 49 307 | 23 957 | 23 917 |
| World total | 18 800 000 | 18 200 000 | 17 900 000 | 16 300 000 | 17 600 000 |

Note: In addition to the countries listed, China, Colombia, Lebanon and Vietnam are also believed to produce kaolin

- (a) Sales
- (b) Including kaolinitic clay
- (c) Partly beneficiated material
- (d) Years ended 30 June of that stated
- (e) Sold or used by producers
- (f) White clays; including kaolin and ball clay
- (g) Washed and dried
- (h) Beneficiated
- (i) By-product, total production not reported
- (j) Includes beneficiated and directly shipped material

Exports of Kaolin

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|-----------|-----------|-----------|-----------|
| United Kingdom | 2 628 237 | 2 402 400 | 2 196 529 | 2 105 753 | 2 131 469 |
| Belgium-Luxembourg | 20 346 | 12 605 | 8 362 | 16 324 | 25 079 |
| Denmark | 1 553 | 990 | 732 | 644 | 639 |
| France | 154 671 | 181 593 | 167 284 | 139 029 | 143 859 |
| Germany, Federal Republic of | 114 578 | 102 005 | 92 602 | 91 488 | 96 395 |
| Greece | 13 878 | 16 486 | 10 819 | 11 812 | 13 923 |
| Italy | 29 447 | 30 013 | 20 562 | 23 860 | 19 981 |
| Netherlands | 88 931 | 79 203 | 81 526 | 94 327 | 108 861 |
| Austria | 25 269 | 29 075 | 24 987 | 27 863 | 35 664 |
| Bulgaria (a) | * 12 800 | * 10 700 | * 6 900 | * 10 500 | * 7 200 |
| Czechoslovakia | 382 000 | 367 000 | 347 000 | 369 000 | 390 000 |
| German Democratic Republic | 106 356 | 133 984 | 15 883 | 146 062 | 111 417 |
| Hungary | 6 791 | 6 496 | 6 615 | 5 995 | 6 115 |
| Soviet Union (a) | * 26 900 | * 32 800 | * 28 700 | * 55 500 | * 35 700 |
| Spain | 71 794 | 79 407 | 51 809 | 51 156 | ... |
| Sweden | 376 | 886 | 560 | 403 | 160 |
| Turkey | 3 090 | 7 631 | 18 287 | ... | ... |
| Yugoslavia | 5 618 | 6 587 | — | 22 | ... |
| South Africa | 1 263 | 1 798 | 1 346 | 1 387 | 903 |
| Mexico | 4 | 1 504 | 1 428 | 29 | ... |
| USA | 1 438 676 | 1 263 341 | 1 281 771 | 1 178 866 | 1 214 153 |
| Argentina | 374 | 133 | 486 | ... | ... |
| Brazil | 46 543 | 183 025 | 133 779 | 143 358 | 181 555 |
| China (a) | * 7 900 | * 16 500 | * 34 200 | * 30 800 | * 23 600 |
| Hong Kong | 5 554 | 10 250 | 9 983 | 9 936 | 2 997 |
| of which: Re-exports | 3 182 | 9 750 | 9 677 | 9 346 | 2 122 |
| India | 3 430 | 4 904 | 4 763 | ... | ... |
| Indonesia | 1 574 | 5 313 | 9 310 | 2 063 | ... |
| Japan | 2 328 | 4 522 | 2 502 | 2 785 | 4 439 |
| Korea, Republic of | 82 416 | 76 920 | 88 127 | 51 423 | 51 092 |
| Malaysia | 15 339 | 17 361 | 11 541 | 14 156 | ... |
| Singapore | 1 613 | 1 941 | 1 840 | 2 797 | — |
| of which: Re-exports | 1 588 | 1 858 | 1 732 | 2 722 | — |

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

Imports of Kaolin

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|------------|----------|----------|----------|---------|
| United Kingdom | 5 853 | 4 535 | 3 396 | 3 462 | 4 287 |
| Belgium-Luxembourg | 290 085 | 259 510 | 237 297 | 267 577 | 247 264 |
| Denmark | 40 598 | 38 428 | 35 912 | 37 452 | 37 689 |
| France | 332 710 | 338 622 | 280 343 | 303 345 | 325 242 |
| Germany, Federal Republic of | 842 984 | 859 571 | 834 114 | 851 426 | 863 565 |
| Greece | 64 194 | 104 756 | 56 790 | 43 752 | 37 921 |
| Italy | 767 543 | 791 218 | 646 354 | 599 598 | 596 700 |
| Netherlands | 438 693 | 469 562 | 403 112 | 415 497 | 460 289 |
| Austria | 111 887 | 107 643 | 110 763 | 94 299 | 95 035 |
| Bulgaria (c) | * 1 300 | * 1 500 | * 1 600 | * 2 300 | * 2 000 |
| Czechoslovakia (c) | * 7 000 | * 7 600 | * 6 900 | * 6 600 | * 7 100 |
| Finland | 419 969 | 390 021 | 365 051 | 370 054 | 429 672 |
| German Democratic Republic | 15 000 | 15 200 | 11 200 | 6 700 | 4 600 |
| Hungary | 41 685 | 34 903 | 30 868 | 37 772 | 40 232 |
| Norway | 83 765 | 80 144 | 67 529 | 71 914 | 67 224 |
| Poland | 218 032 | 151 252 | 139 379 | 137 028 | ... |
| Portugal | 12 413 | 9 943 | 10 885 | ... | ... |
| Romania (c) | * 23 800 | * 25 600 | * 23 400 | * 16 100 | * 9 400 |
| Spain | 172 379 | 167 245 | 166 780 | 176 301 | ... |
| Sweden | 291 381 | 273 914 | 283 761 | 297 454 | 336 310 |
| Turkey | 1 899 | 962 | 5 327 | ... | ... |
| Yugoslavia | 75 805 | 86 363 | 76 214 | 80 845 | ... |
| Algeria (d) | 18 891 | 12 699 | ... | ... | ... |
| Ivory Coast | 138 | 198 | 114 | ... | ... |
| Morocco | 2 601 | 3 455 | 5 398 | 8 133 | ... |
| Tunisia | (d) 21 450 | 7 129 | ... | 6 641 | ... |
| Zimbabwe | 1 650 | 2 099 | 2 012 | 2 114 | ... |
| Canada | 273 422 | 254 387 | 231 760 | 205 955 | 249 834 |
| Mexico | 71 450 | 82 749 | 80 289 | 67 233 | ... |
| USA | 28 537 | 14 362 | 12 357 | 8 554 | 6 757 |
| Argentina | 19 458 | 16 116 | 10 964 | ... | ... |
| Brazil | 3 307 | 3 614 | 2 935 | 2 045 | 1 976 |
| Colombia | 828 | 3 246 | 5 566 | 4 260 | 6 197 |
| Peru | 2 444 | 5 968 | 3 451 | 3 511 | 2 154 |
| Uruguay | 3 313 | 3 205 | 2 461 | 394 | 1 086 |
| Venezuela | 19 510 | ... | ... | 24 757 | ... |
| Hong Kong | 5 086 | 22 078 | 28 501 | 25 336 | 13 234 |
| India | 73 | 186 | 122 | ... | ... |
| Indonesia | 11 429 | 13 318 | 13 688 | 13 218 | ... |
| Iran (a) | 17 071 | 7 352 | 9 941 | 8 272 | ... |
| Japan | 578 548 | 565 404 | 521 681 | 560 071 | 549 763 |
| Korea, Republic of | 18 414 | 19 557 | 46 292 | 129 624 | 36 258 |
| Malaysia | 1 864 | 919 | 2 012 | 2 182 | ... |
| Pakistan (b) | 10 603 | 5 592 | 4 811 | 5 262 | 5 385 |
| Philippines | 9 441 | 9 023 | 7 872 | 7 530 | 9 098 |
| Saudi Arabia | 6 472 | 885 | 1 579 | 3 582 | 3 937 |
| Singapore | 5 983 | 5 286 | 6 573 | 8 635 | ... |
| Taiwan | 40 425 | 66 753 | 54 261 | 52 357 | 58 509 |
| Thailand | 3 452 | 3 800 | 4 173 | 4 016 | 2 661 |
| Australia | 6 193 | 3 083 | 11 294 | 12 714 | ... |
| New Zealand (b) | 956 | 1 280 | 615 | 669 | 974 |

(a) Years ended 20 March following that stated

(b) Years ended 30 June of that stated

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

(d) Including bentonite

LEAD

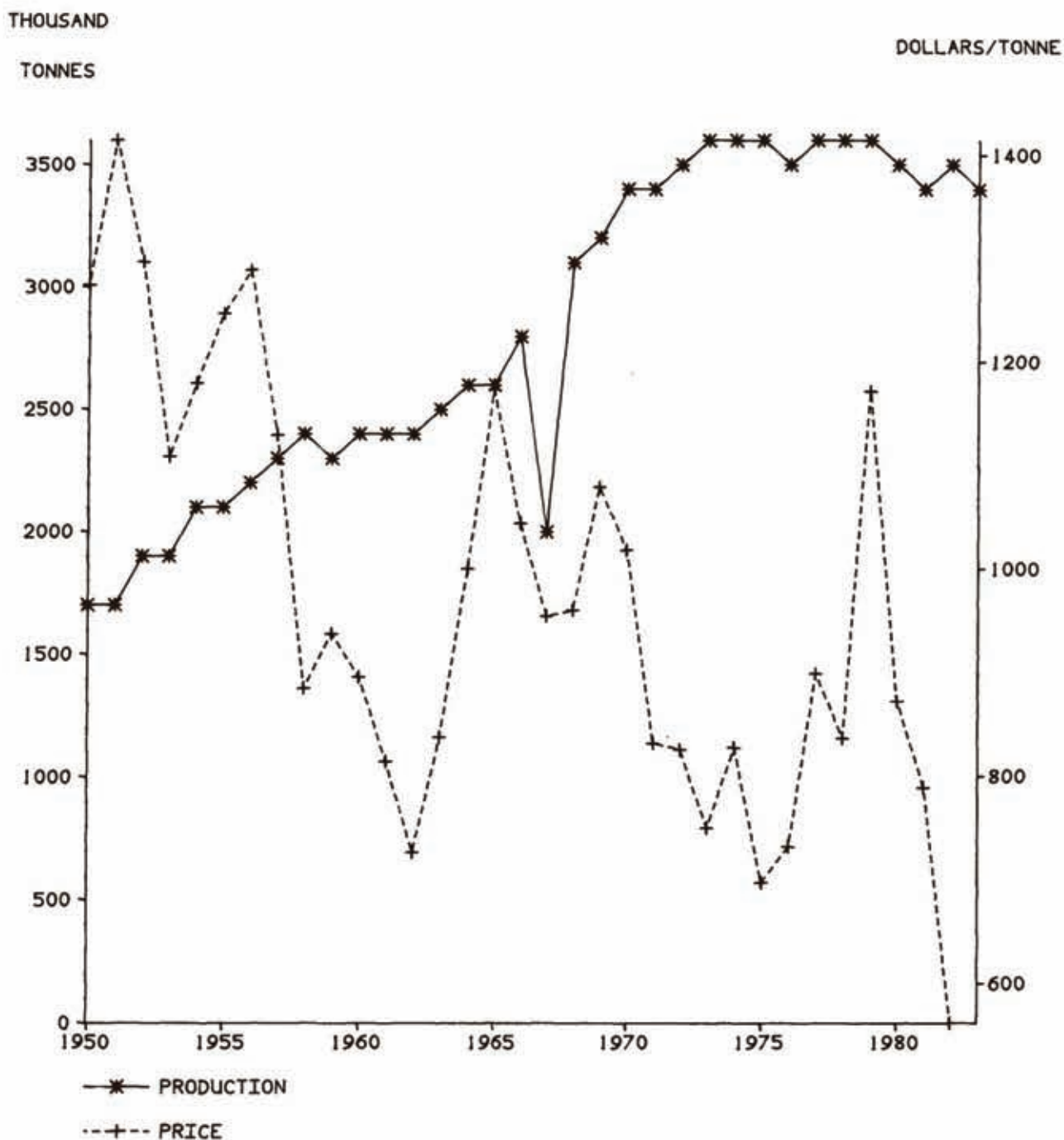


Figure 5 World mine production of lead from 1950 to 1983 compared with the yearly average producer price of lead metal on the New York Market expressed in constant 1982 US dollars.

Constant commodity price taken from 'Commodity Trade and Price Trends' published by the Johns Hopkins University Press for the World Bank (1983-84 edition).

Mine Production of Lead

tonnes (metal content)

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------------------------|-----------|-----------|-----------|-----------|-----------|
| United Kingdom | 4 701 | 3 600 | 6 965 | 3 993 | 3 797 |
| France | 29 531 | 28 847 | 19 186 | 5 860 | 2 000 |
| Germany, Federal Republic of (a) | 25 200 | 23 000 | 21 600 | 23 500 | 23 500 |
| Greece | 21 638 | 22 097 | 22 400 | 19 470 | 20 090 |
| Irish Republic | 69 000 | 58 000 | 29 000 | 39 000 | 34 000 |
| Italy | 28 100 | 23 600 | 21 300 | 16 300 | 23 500 |
| Austria | 5 214 | 5 475 | 5 683 | 5 574 | 5 750 |
| Bulgaria | 108 000 | 100 000 | 90 000 | 95 000 | 95 000 |
| Czechoslovakia | * 3 400 | 2 904 | 2 675 | 2 649 | 2 652 |
| Finland | 1 920 | 1 779 | 2 007 | 1 882 | 2 137 |
| Greenland | 31 600 | 29 800 | 27 000 | 26 500 | 21 600 |
| Hungary | 965 | 1 064 | 937 | 583 | 671 |
| Norway | 2 996 | 2 469 | 2 973 | 4 002 | 4 074 |
| Poland | 57 000 | 47 500 | 44 200 | 45 300 | 47 000 |
| Romania | * 33 500 | * 23 000 | * 20 000 | * 27 000 | * 28 500 |
| Soviet Union | * 590 000 | * 580 000 | * 570 000 | * 575 000 | * 580 000 |
| Spain | 72 262 | 87 105 | 83 909 | 71 988 | 82 100 |
| Sweden | 81 626 | 72 132 | 88 103 | 86 767 | 85 762 |
| Turkey | 7 334 | 7 800 | 8 385 | 10 675 | 8 900 |
| Yugoslavia | 129 776 | 121 465 | 118 556 | 113 100 | 114 400 |
| Algeria | 2 200 | 2 400 | 3 200 | 3 000 | 3 000 |
| Congo | 7 000 | 7 000 | 7 682 | 4 000 | 4 000 |
| Morocco | 110 743 | 115 454 | 112 832 | 99 495 | 97 300 |
| Namibia | 41 000 | 47 700 | 46 500 | 34 900 | 33 800 |
| Nigeria | * 100 | * 100 | * 200 | * 200 | * 300 |
| South Africa | — | 86 059 | 98 901 | 90 288 | 80 200 |
| Tunisia | 10 000 | 8 800 | 6 000 | 5 300 | 4 900 |
| Zambia | 17 554 | 14 131 | 18 018 | 23 198 | 14 572 |
| Canada | 341 777 | 296 641 | 332 045 | 341 212 | 251 467 |
| Guatemala (b) | 90 | 92 | 110 | 100 | 60 |
| Honduras | 15 755 | 13 763 | 13 654 | 12 417 | * 15 000 |
| Mexico | 173 455 | 145 549 | 157 384 | 145 844 | 167 405 |
| USA (a) | 525 569 | 550 366 | 445 535 | 512 516 | 449 038 |
| Argentina | 31 775 | 32 606 | 32 652 | 30 100 | 28 800 |
| Bolivia | 15 359 | 17 225 | 16 757 | 12 433 | 12 400 |
| Brazil | 22 445 | 21 754 | 21 650 | 19 360 | 18 821 |
| Chile | 252 | 461 | 223 | 1 552 | 1 639 |
| Colombia | 226 | 187 | 154 | 235 | 185 |
| Peru (a) | 174 000 | 189 133 | 186 735 | 173 900 | 205 100 |
| Burma | 14 500 | 5 900 | 4 900 | 9 100 | 8 900 |
| China | * 155 000 | * 160 000 | * 160 000 | * 160 000 | * 160 000 |
| India | 14 403 | 14 433 | 15 200 | 14 000 | 19 900 |
| Iran (c) | 15 000 | 12 000 | 20 000 | 25 000 | 20 000 |
| Japan | 46 259 | 43 209 | 45 882 | 45 225 | 46 900 |
| Korea, Dem. P.R. of | * 100 000 | * 100 000 | * 90 000 | * 80 000 | * 75 000 |
| Korea, Republic of | 11 073 | 11 406 | 13 635 | 12 166 | 12 225 |
| Philippines | 1 949 | 1 812 | 1 066 | — | — |
| Thailand | 8 719 | 10 560 | 17 273 | 18 580 | 21 019 |
| Australia | 421 581 | 397 491 | 388 122 | 455 338 | 480 626 |
| World total | 3 600 000 | 3 500 000 | 3 400 000 | 3 500 000 | 3 400 000 |

(a) Recoverable

(b) Smelter

(c) Years ended 20 March following that stated

Production of Refined Lead

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|-----------|-----------|-----------|-------------|
| United Kingdom | 368 330 | 324 790 | 333 361 | 306 194 | 322 196 |
| Belgium (a) | 113 412 | 127 908 | 109 932 | 99 720 | 134 152 |
| Denmark (b) | 25 166 | 23 018 | 24 030 | 15 927 | 10 052 |
| France | 219 712 | 218 831 | 227 998 | 208 559 | 198 400 |
| Germany, Federal Republic of | 373 300 | 350 300 | 348 300 | 350 500 | 352 500 |
| Greece | 22 000 | 21 067 | 20 900 | 3 200 | — |
| Irish Republic | 5 000 | 7 000 | 13 000 | 10 000 | 8 000 |
| Italy | 126 218 | 133 657 | 132 956 | 133 660 | 126 829 |
| Netherlands | 30 100 | 27 700 | 19 700 | 25 600 | 37 800 |
| Austria | 19 889 | 18 062 | 16 640 | 18 706 | 18 241 |
| Bulgaria | * 120 000 | * 118 000 | * 123 000 | * 118 000 | * 116 000 |
| Czechoslovakia | 19 020 | 20 014 | 20 663 | 21 071 | 21 030 |
| Finland | 6 594 | 5 751 | 5 535 | 4 400 | 6 000 |
| German Democratic Republic | * 42 000 | * 42 000 | * 48 000 | * 50 000 | * 40 000 |
| Norway | 418 | 284 | 161 | 69 | 45 |
| Poland | 84 200 | 82 000 | 69 000 | 78 800 | 81 000 |
| Portugal | 4 500 | 5 600 | 3 000 | 4 000 | 6 000 |
| Romania | 40 900 | 40 991 | 40 665 | 45 675 | 49 300 |
| Soviet Union | * 780 000 | * 780 000 | * 800 000 | * 800 000 | * 800 000 |
| Spain | 127 000 | 120 700 | 117 200 | 131 600 | 144 700 |
| Sweden | 49 287 | 47 123 | 21 795 | 63 690 | 62 805 |
| Switzerland | 5 000 | 5 000 | 3 500 | 3 000 | 7 000 |
| Turkey | 5 900 | 2 800 | 2 500 | 3 100 | 4 000 |
| Yugoslavia | 111 040 | 101 751 | 86 401 | 81 248 | 97 531 |
| Algeria | 5 000 | 5 000 | 5 000 | 5 500 | 5 000 |
| Morocco | 36 800 | 42 400 | 52 300 | 58 600 | 57 600 |
| Namibia | 41 700 | 42 700 | 41 700 | 40 600 | 35 400 |
| Nigeria | 1 500 | 2 000 | 2 000 | 2 000 | 1 500 |
| South Africa | 23 300 | 35 400 | 26 900 | 30 400 | 23 600 |
| Tunisia | 17 441 | 19 195 | 17 530 | 15 320 | 10 398 |
| Zambia | 12 758 | 10 047 | 9 866 | 14 645 | 14 572 |
| Canada | 252 400 | 234 580 | 238 108 | 238 882 | 241 957 |
| Jamaica | * 2 000 | * 2 000 | * 1 000 | * 1 000 | * 1 000 |
| Mexico | 224 900 | 184 300 | 188 600 | 163 200 | 191 500 |
| Trinidad & Tobago | * 2 000 | * 2 000 | * 2 000 | * 2 000 | * 2 000 |
| USA | 1 225 684 | 1 150 469 | 1 067 579 | 1 032 230 | (c) 964 006 |
| Argentina | 33 600 | 41 700 | 34 600 | 30 600 | 31 300 |
| Brazil | 99 083 | 84 950 | 65 686 | 49 350 | 49 520 |
| Colombia | * 2 500 | * 3 000 | * 3 000 | * 3 000 | * 3 000 |
| Peru | 90 700 | 87 300 | 84 200 | 82 000 | 72 700 |
| Venezuela | 10 000 | 10 000 | 10 000 | 10 000 | * 10 000 |
| Burma | 6 237 | 6 014 | 4 068 | 7 829 | 7 636 |
| China | * 170 000 | * 175 000 | * 175 000 | * 175 000 | * 195 000 |
| India | 20 946 | 25 581 | 25 406 | 23 193 | 21 556 |
| Japan | 282 700 | 304 941 | 317 017 | 302 200 | 321 642 |
| Korea, Dem. P.R. of | * 70 000 | * 65 000 | * 65 000 | * 60 000 | * 60 000 |
| Korea, Republic of | 13 400 | 15 000 | 21 200 | 15 000 | 19 400 |
| Malaysia | 2 100 | 5 200 | 3 500 | 3 000 | 4 000 |
| Philippines | 1 900 | 4 800 | 4 000 | 6 000 | 6 000 |
| Taiwan | 20 000 | 16 800 | 30 000 | 35 000 | 38 000 |
| Thailand | 1 500 | 5 000 | 5 000 | 5 000 | 5 000 |
| Australia | 257 584 | 233 654 | 239 169 | 247 112 | 223 529 |
| New Zealand | 9 000 | 7 000 | 7 000 | 6 000 | 6 000 |
| World total | 5 600 000 | 5 400 000 | 5 300 000 | 5 200 000 | 5 300 000 |

Note: 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) Sales

(c) Excludes Pb content of primary antimonial lead

Exports of Lead

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|----------|----------|----------|----------|----------|
| United Kingdom | | | | | |
| Ores & concentrates | 5 187 | 3 535 | 2 378 | 2 496 | 10 096 |
| Unwrought | 125 081 | 127 930 | 104 513 | 94 800 | 88 231 |
| Unwrought alloys | 11 467 | 14 108 | 25 608 | 33 235 | 24 816 |
| Scrap | 32 369 | 30 662 | 18 221 | 22 607 | 22 314 |
| Belgium-Luxembourg | | | | | |
| Ore | 1 197 | 8 058 | — | 75 | 37 |
| Unwrought | 63 437 | 72 012 | 59 904 | 63 230 | 63 887 |
| Unwrought alloys | 10 743 | 12 250 | 10 675 | 11 418 | 12 501 |
| Scrap | 22 531 | 16 718 | 13 417 | 13 811 | 6 063 |
| Denmark | | | | | |
| Ore | 515 | — | — | — | 220 |
| Unwrought | 5 887 | 4 375 | 5 986 | 2 655 | 356 |
| Unwrought alloys | 9 302 | 10 723 | 8 822 | 7 289 | 7 580 |
| Scrap | 1 322 | 1 707 | 1 889 | 5 977 | 8 040 |
| France | | | | | |
| Ore | 34 | 69 | 140 | 44 | 3 096 |
| Unwrought | 40 647 | 42 618 | 45 841 | 41 083 | 33 888 |
| Unwrought alloys | 17 880 | 15 007 | 16 348 | 14 734 | 15 761 |
| Scrap | 30 191 | 7 851 | 10 635 | 8 928 | 10 674 |
| Germany, Federal Republic of | | | | | |
| Ore | 2 577 | 2 000 | 300 | 55 | 741 |
| Unwrought | 74 381 | 65 952 | 63 278 | 62 711 | 76 969 |
| Unwrought alloys | 33 050 | 32 810 | 33 084 | 37 911 | 43 361 |
| Scrap | 19 964 | 20 041 | 18 550 | 13 588 | 17 194 |
| Greece | | | | | |
| Ore | 55 610 | 39 124 | 21 580 | 28 700 | 36 800 |
| Irish Republic | | | | | |
| Ores & concentrates | 115 276 | 110 238 | 63 779 | 49 383 | 59 606 |
| Unwrought (a) | 3 196 | 1 857 | 3 612 | 1 715 | 177 |
| Scrap | 954 | 1 881 | 2 226 | 3 858 | 2 995 |
| Italy | | | | | |
| Ore | 19 359 | 21 353 | 17 319 | 21 549 | 21 023 |
| Unwrought (a) | 20 504 | 4 199 | 4 434 | 4 573 | 5 896 |
| Scrap | 257 | 21 | 180 | 496 | 1 168 |
| Netherlands | | | | | |
| Unwrought | 3 768 | 6 023 | 1 676 | 2 448 | 1 141 |
| Unwrought alloys | 14 939 | 13 673 | 12 090 | 11 697 | 12 056 |
| Scrap | 35 362 | 36 153 | 33 604 | 26 835 | 25 946 |
| Austria | | | | | |
| Unwrought | 413 | 391 | 334 | 837 | 767 |
| Scrap | 79 | 3 | 4 | 111 | 2 |
| Bulgaria | | | | | |
| Unwrought (a)(f) | * 10 200 | * 7 900 | * 4 600 | * 5 800 | * 2 100 |
| Czechoslovakia | | | | | |
| Ores & concentrates (f) | * 5 200 | * 4 700 | * 5 700 | * 5 700 | * 5 700 |
| Finland | | | | | |
| Ore | 2 035 | 2 047 | 3 135 | 17 | 42 708 |
| Unwrought (a) | 992 | 869 | 853 | 1 088 | 1 345 |
| Greenland | | | | | |
| Ores & concentrates | 39 057 | 43 199 | 31 399 | 34 424 | ... |
| Hungary | | | | | |
| Scrap | * 1 230 | 6 865 | 6 953 | 6 220 | 2 594 |
| Norway | | | | | |
| Ore | 6 293 | 3 754 | 5 161 | 7 449 | 6 898 |
| Unwrought (a) | 254 | 126 | 31 | 29 | 131 |
| Scrap | 7 598 | 8 753 | 8 020 | 6 507 | 6 706 |
| Poland | | | | | |
| Unwrought | 7 098 | ... | ... | ... | ... |
| Portugal | | | | | |
| Ore | 1 635 | 1 420 | 956 | 1 193 | ... |
| Soviet Union | | | | | |
| Unwrought | * 95 000 | * 90 000 | * 90 000 | * 90 000 | * 90 000 |
| Spain | | | | | |
| Ore | — | 9 394 | 32 182 | 20 364 | 154 |
| Unwrought (a) | 19 644 | 7 632 | 21 003 | 33 342 | 39 545 |

Exports of Lead

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-------------------------|---------|---------|---------|---------|----------|
| Sweden | | | | | |
| Ore | 59 190 | 56 788 | 91 258 | 49 246 | 51 317 |
| Unwrought | 43 185 | 39 856 | 24 276 | 51 149 | 52 204 |
| Unwrought alloys | 1 735 | 2 754 | 2 099 | 3 264 | 3 207 |
| Scrap | 36 | 65 | 23 | 69 | 513 |
| Switzerland | | | | | |
| Unwrought | 4 874 | 4 063 | 4 847 | 5 101 | 7 694 |
| Scrap | 11 608 | 8 174 | 7 311 | 6 725 | 5 980 |
| Turkey | | | | | |
| Ore (e) | — | 4 275 | — | 2 022 | 2 725 |
| Yugoslavia | | | | | |
| Concentrates | 13 496 | 10 070 | 12 864 | 9 116 | 4 274 |
| Unwrought | 33 852 | 24 322 | 13 583 | 17 769 |) 18 105 |
| Unwrought alloys | 3 121 | 3 243 | 2 114 | 1 152 | |
| Algeria | | | | | |
| Ore | 3 720 | 4 556 | ... | ... | ... |
| Congo | | | | | |
| Ore | 4 018 | 2 604 | ... | ... | ... |
| Ivory Coast | | | | | |
| Unwrought | 372 | 630 | 649 | ... | ... |
| Scrap | 776 | 522 | 844 | ... | ... |
| Kenya | | | | | |
| Scrap | 392 | — | — | 0 | ... |
| Morocco | | | | | |
| Ore | 118 540 | 111 637 | 89 735 | 61 930 | 72 119 |
| Unwrought | 34 250 | 32 806 | 42 488 | 51 908 | 55 697 |
| Senegal | | | | | |
| Scrap | 302 | 36 | 153 | 141 | 93 |
| South Africa | | | | | |
| Concentrates (b) | — | 64 922 | 93 945 | 101 141 | 93 646 |
| Unwrought | 26 000 | 24 000 | 22 300 | 22 500 | ... |
| Sudan | | | | | |
| Scrap | 661 | 718 | — | ... | ... |
| Tunisia | | | | | |
| Unwrought | 11 116 | 11 943 | 10 821 | 10 102 | ... |
| Scrap | 554 | 338 | 513 | 4 275 | ... |
| Zambia | | | | | |
| Unwrought | 8 465 | 8 749 | 8 300 | 11 200 | 12 700 |
| Canada | | | | | |
| Ore (b) | 151 495 | 147 008 | 146 307 | 106 744 | 85 548 |
| Unwrought | 117 992 | 126 539 | 119 816 | 146 168 | 147 281 |
| Scrap | 21 882 | 21 106 | 9 921 | 15 895 | 8 535 |
| Honduras | | | | | |
| Ores & concentrates (b) | 19 804 | 12 185 | 11 909 | 8 111 | ... |
| Mexico | | | | | |
| Ores & concentrates | 2 565 | 1 343 | 6 497 | 0 | 370 |
| Unwrought | 76 558 | 61 770 | 57 177 | 61 883 | 78 988 |
| Panama | | | | | |
| Unwrought (a) | 688 | 428 | 410 | 520 | 175 |
| USA | | | | | |
| Ores & concentrates (b) | 33 090 | 38 021 | 33 050 | 29 105 | 20 123 |
| Unwrought | 6 587 | 148 355 | 14 485 | 47 374 | 13 245 |
| Unwrought alloys | 800 | 9 216 | 2 334 | 3 846 | 4 443 |
| Scrap | 119 854 | 119 759 | 59 454 | 52 269 | 50 920 |
| Argentina | | | | | |
| Ores & concentrates | 6 233 | 15 180 | 18 007 | ... | ... |
| Bolivia | | | | | |
| Ore (b) | 15 633 | 15 936 | 15 613 | 11 557 | 9 342 |
| Colombia | | | | | |
| Ore | 312 | 361 | 92 | 331 | — |
| Peru | | | | | |
| Ores & concentrates | 139 409 | 156 720 | 173 748 | 231 748 | 298 870 |
| Unwrought (a) | 86 037 | 74 227 | 87 000 | 66 000 | 55 000 |

Exports of Lead

Lead
tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|---------------------|----------|----------|----------|----------|---------|
| Burma (d) | | | | | |
| Unwrought | 3 353 | 5 509 | 6 101 | 8 984 | ... |
| Hong Kong | | | | | |
| Scrap | 1 482 | 1 891 | 2 522 | 2 291 | 2 596 |
| Iran (c) | | | | | |
| Ore | 25 898 | 15 538 | 7 906 | 60 | ... |
| Japan | | | | | |
| Ores & concentrates | 8 266 | 6 139 | 7 810 | 4 807 | 3 001 |
| Unwrought (a) | 9 152 | 6 296 | 2 900 | 7 530 | 15 501 |
| Scrap | 6 178 | 3 711 | 690 | — | 129 |
| Korea, Dem.P.R. of | | | | | |
| Unwrought (a)(f) | * 28 000 | * 40 300 | * 12 500 | * 23 500 | * 9 400 |
| Korea, Republic of | | | | | |
| Ore | 6 600 | 4 000 | 8 400 | 800 | — |
| Philippines | | | | | |
| Concentrates | 5 574 | 3 232 | 1 801 | — | — |
| Singapore | | | | | |
| Scrap | 3 311 | 2 256 | 3 524 | 2 812 | 1 862 |
| Taiwan | | | | | |
| Unwrought | 10 421 | 11 370 | 14 078 | 14 790 | 16 033 |
| Thailand | | | | | |
| Ore | 16 796 | 21 653 | 37 460 | 37 636 | 42 737 |
| Australia | | | | | |
| Ores & concentrates | 63 530 | 58 449 | 63 233 | 91 312 | 91 227 |
| Unwrought— | | | | | |
| Base bullion (b) | 162 235 | 163 598 | 136 593 | 165 433 | 159 390 |
| Refined (a) | 164 978 | 168 495 | 176 664 | 201 335 | 185 673 |
| Scrap | 7 614 | 9 563 | 5 299 | 1 986 | 4 465 |

Note: In this table the term 'unwrought' lead corresponds to item 685.1 of the Standard International Trade Classification (Revision 2) 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

Imports of Lead

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-------------------------------|----------|----------|----------|----------|----------|
| United Kingdom | | | | | |
| Ores & concentrates (b) | 67 812 | 56 060 | 59 832 | 39 216 | 34 571 |
| Unwrought | 199 805 | 199 516 | 159 393 | 169 653 | 138 146 |
| Unwrought alloys | 5 398 | 4 701 | 3 031 | 3 997 | 1 786 |
| Scrap | 9 081 | 10 571 | 754 | 953 | 1 246 |
| Belgium-Luxembourg | | | | | |
| Ore | 82 218 | 75 709 | 83 142 | 106 078 | 85 480 |
| Unwrought | 50 242 | 47 458 | 35 147 | 37 319 | 55 356 |
| Unwrought alloys | 7 558 | 6 828 | 6 087 | 6 572 | 7 945 |
| Scrap | 12 632 | 11 944 | 7 520 | 11 238 | 13 485 |
| Denmark | | | | | |
| Unwrought | 6 355 | 3 231 | 2 270 | 4 225 | 10 268 |
| Unwrought alloys | 2 522 | 3 292 | 1 322 | 3 246 | 2 912 |
| Scrap | 19 012 | 16 546 | 18 161 | 7 706 | 6 757 |
| France | | | | | |
| Ore | 134 824 | 139 029 | 142 392 | 167 556 | 144 346 |
| Unwrought | 45 749 | 47 455 | 33 848 | 35 113 | 33 303 |
| Unwrought alloys | 6 068 | 7 633 | 6 767 | 8 308 | 15 829 |
| Scrap | 26 411 | 31 187 | 21 058 | 19 836 | 13 246 |
| Germany, Federal Republic of | | | | | |
| Ore | 191 179 | 181 679 | 214 800 | 192 371 | 217 753 |
| Unwrought | 105 236 | 135 259 | 100 570 | 140 184 | 103 830 |
| Unwrought alloys | 23 797 | 25 390 | 15 219 | 13 793 | 14 840 |
| Scrap | 64 538 | 43 309 | 34 594 | 35 606 | 30 886 |
| Greece | | | | | |
| Ore | 3 468 | 7 022 | 3 | 39 | ... |
| Unwrought (a) | 4 965 | 7 806 | 5 772 | 16 440 | 23 919 |
| Irish Republic | | | | | |
| Unwrought (a) | 4 007 | 3 352 | 1 389 | 1 478 | 973 |
| Scrap | 3 906 | 4 203 | 7 455 | 7 689 | 3 918 |
| Italy | | | | | |
| Ore | 48 761 | 44 264 | 26 213 | 275 | 5 589 |
| Unwrought (a) | 151 411 | 173 137 | 132 783 | 128 363 | 133 498 |
| Scrap | 48 707 | 44 139 | 15 268 | 24 626 | 21 642 |
| Netherlands | | | | | |
| Unwrought | 44 069 | 49 325 | 30 280 | 40 392 | 30 587 |
| Unwrought alloys | 12 004 | 13 295 | 11 112 | 6 668 | 6 152 |
| Scrap | 10 022 | 9 752 | 11 483 | 11 614 | 15 220 |
| Austria | | | | | |
| Ore | 6 193 | 4 156 | 1 728 | 6 993 | 4 611 |
| Unwrought | 29 539 | 32 396 | 35 740 | 32 549 | 31 362 |
| Scrap | 1 920 | 2 628 | 3 605 | 2 367 | 2 925 |
| Bulgaria | | | | | |
| Ore (h) | * 21 000 | * 24 500 | * 34 000 | * 13 200 | * 16 000 |
| Czechoslovakia | | | | | |
| Unwrought (a) | 40 000 | 40 000 | 38 000 | 30 000 | 28 000 |
| Finland | | | | | |
| Unwrought (a) | 16 306 | 20 498 | 21 422 | 20 282 | 12 319 |
| Hungary | | | | | |
| Unwrought & semi-manufactures | 13 240 | 12 891 | 11 033 | 13 647 | 11 930 |
| Norway | | | | | |
| Unwrought | 7 065 | 8 430 | 6 571 | 6 189 | 6 100 |
| Unwrought alloys | 5 037 | 5 179 | 5 208 | 6 107 | 6 076 |
| Poland | | | | | |
| Unwrought | 9 805 | 6 654 | 3 060 | 6 358 | 1 600 |
| Portugal | | | | | |
| Unwrought (a) | 14 896 | 16 638 | 19 244 | 20 083 | ... |
| Scrap | 91 | 1 050 | 21 | 220 | ... |
| Soviet Union | | | | | |
| Ore (h) | * 40 000 | * 35 400 | * 35 900 | * 15 000 | * 49 800 |
| Unwrought | * 80 000 | * 80 000 | * 80 000 | * 80 000 | * 80 000 |
| Spain | | | | | |
| Ore | 15 155 | 28 081 | 28 190 | 66 115 | 64 599 |
| Unwrought (a) | 1 165 | 4 324 | 7 172 | 6 495 | 5 268 |
| Scrap | 286 | 129 | 1 908 | 370 | 1 486 |

Imports of Lead

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-------------------|--------|--------|--------|--------|--------|
| Sweden | | | | | |
| Unwrought | 1 186 | 590 | 7 043 | 1 717 | 1 852 |
| Unwrought alloys | 1 749 | 1 165 | 1 279 | 2 444 | 2 048 |
| Scrap | 6 988 | 3 984 | 4 340 | 5 040 | 2 984 |
| Switzerland | | | | | |
| Unwrought | 11 592 | 17 981 | 10 155 | 12 867 | 10 429 |
| Turkey | | | | | |
| Unwrought (a) | 2 921 | 5 451 | 5 358 | 3 828 | 8 735 |
| Scrap | — | 1 059 | 101 | 50 | — |
| Yugoslavia | | | | | |
| Concentrates | 1 978 | 2 731 | 1 023 | — | 6 537 |
| Unwrought | 9 521 | 10 060 | 12 117 | 15 623 | 10 740 |
| Scrap | 1 124 | — | — | — | — |
| Algeria | | | | | |
| Unwrought | 4 225 | 8 529 | ... | ... | ... |
| Unwrought alloys | 975 | 314 | ... | ... | ... |
| Egypt | | | | | |
| Unwrought & scrap | 4 803 | 9 106 | 7 106 | 11 520 | ... |
| Ghana | | | | | |
| Unwrought (a) | 113 | ... | ... | ... | ... |
| Kenya | | | | | |
| Unwrought (a) | 272 | 162 | 198 | 178 | ... |
| Libya | | | | | |
| Unwrought | 1 587 | 725 | ... | ... | ... |
| Madagascar | | | | | |
| Unwrought (a) | 268 | 189 | 60 | 184 | ... |
| Mozambique | | | | | |
| Unwrought | ... | 225 | ... | ... | ... |
| Nigeria | | | | | |
| Unwrought (a) | 303 | ... | ... | ... | ... |
| South Africa | | | | | |
| Ore | — | 950 | 17 | 15 | — |
| Unwrought | 3 365 | 9 303 | 9 405 | 3 976 | 5 438 |
| Scrap | 31 517 | 6 212 | 7 752 | 12 734 | 216 |
| Sudan | | | | | |
| Unwrought | — | 302 | 90 | 103 | ... |
| Tunisia | | | | | |
| Ore | 8 277 | 9 985 | 19 400 | 18 733 | ... |
| Canada | | | | | |
| Unwrought | 2 133 | 2 602 | 9 221 | 5 661 | 2 551 |
| Costa Rica | | | | | |
| Unwrought (a) | 118 | 177 | 21 | ... | 72 |
| El Salvador | | | | | |
| Unwrought (a) | 350 | 47 | 44 | ... | ... |
| Mexico | | | | | |
| Unwrought & scrap | 385 | 1 264 | 1 050 | 1 014 | ... |
| Nicaragua | | | | | |
| Unwrought (a) | 198 | 196 | ... | ... | ... |
| Trinidad & Tobago | | | | | |
| Unwrought (a) | 282 | 175 | 198 | 50 | ... |

Imports of Lead

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-------------------------|---------|---------|---------|---------|---------|
| USA | | | | | |
| Ores & concentrates (b) | 39 998 | 44 095 | 58 545 | 35 807 | 47 514 |
| Unwrought— | | | | | |
| Base bullion | 1 709 | 315 | 449 | 19 | 53 |
| Other | 174 279 | 71 640 | 92 166 | 80 743 | 113 602 |
| Alloys | 20 238 | 11 693 | 11 570 | 12 001 | 19 149 |
| Scrap | 3 645 | 2 018 | 1 930 | 4 107 | 2 630 |
| Argentina | | | | | |
| Unwrought | 4 421 | 4 708 | 1 397 | ... | ... |
| Brazil | | | | | |
| Ore | 41 994 | 34 801 | 15 405 | — | 6 591 |
| Unwrought (a) | 602 | 12 | 151 | 611 | 649 |
| Colombia | | | | | |
| Unwrought (a) | 2 051 | 2 612 | 1 944 | 1 504 | 1 328 |
| Uruguay | | | | | |
| Unwrought | 3 094 | 2 663 | 1 619 | 966 | 476 |
| Venezuela | | | | | |
| Unwrought (a) | 843 | 5 006 | 6 697 | 6 079 | ... |
| Scrap | 3 378 | 3 225 | 404 | — | ... |
| China | | | | | |
| Refined (f) | 34 700 | 31 500 | 28 500 | 12 700 | 6 000 |
| Hong Kong | | | | | |
| Unwrought (a) | 1 902 | 2 065 | 1 460 | 2 026 | 2 591 |
| Scrap | 458 | 471 | 377 | 205 | 157 |
| India | | | | | |
| Unwrought (c) | 35 723 | 23 640 | 24 192 | ... | ... |
| Unwrought alloys (c) | 5 349 | 3 050 | 2 874 | ... | ... |
| Indonesia | | | | | |
| Unwrought (a) | 4 833 | 7 397 | 8 083 | 6 923 | ... |
| Iran (d) | | | | | |
| Unwrought | 137 | 4 439 | 1 120 | 19 717 | ... |
| Israel (g) | | | | | |
| Unwrought | 2 883 | 1 089 | 1 932 | 1 752 | 1 909 |
| Japan | | | | | |
| Ore | 218 544 | 258 634 | 255 765 | 225 654 | 237 807 |
| Unwrought | 50 372 | 73 129 | 57 464 | 52 442 | 52 752 |
| Unwrought alloys | 12 300 | 17 583 | 10 008 | 9 336 | 8 457 |
| Scrap | 2 023 | 5 020 | 2 668 | 2 762 | 1 012 |
| Jordan | | | | | |
| Unwrought & scrap | 1 481 | 2 028 | 1 377 | 1 078 | 745 |
| Korea, Republic of | | | | | |
| Unwrought (a) | 19 750 | 20 616 | 40 156 | 227 136 | 38 394 |
| Scrap | 29 437 | 23 387 | 4 301 | 5 704 | 6 661 |
| Malaysia | | | | | |
| Unwrought (a) | 5 367 | 6 174 | 7 941 | 7 288 | ... |
| Scrap | 883 | 486 | 294 | 23 | ... |
| Philippines | | | | | |
| Unwrought (a) | 7 649 | 5 422 | 7 019 | 6 323 | 9 600 |
| Singapore | | | | | |
| Unwrought (a) | 4 373 | 8 095 | 3 900 | 3 163 | 5 873 |
| Syria | | | | | |
| Unwrought & scrap | 2 154 | 1 624 | 1 573 | 1 638 | ... |

Imports of Lead

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------|--------|--------|--------|--------|--------|
| Taiwan | | | | | |
| Unwrought (a) | 8 856 | 10 777 | 7 419 | 8 805 | 17 540 |
| Scrap | 46 964 | 44 690 | 38 796 | 35 142 | 48 215 |
| Thailand | | | | | |
| Unwrought | 9 447 | 14 417 | 10 589 | 10 260 | 16 718 |
| Unwrought alloys | 1 389 | 2 363 | 2 060 | 981 | 1 135 |
| New Zealand (e) | | | | | |
| Unwrought (a) | 7 522 | 6 758 | 6 557 | 5 375 | 5 873 |

Note: In this table the term 'unwrought' lead corresponds to item 685.1 of the Standard International Trade Classification (Revision 2) 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) Imports from western countries only

(g) Figures may be incomplete as value only given in Israeli trade return for imports from some countries

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

Production of Lithium Minerals

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-----------------|----------|----------|----------|----------|----------|
| Portugal | | | | | |
| Lepidolite | 1 200 | 1 200 | 1 200 | * 800 | * 700 |
| Soviet Union | * 50 000 | * 55 000 | * 55 000 | * 55 000 | * 55 000 |
| Namibia | ... | ... | 1 263 | 990 | * 1 000 |
| Rwanda | | | | | |
| Amblygonite | * 28 | * 30 | * 25 | — | — |
| Zimbabwe | 13 197 | 21 030 | 16 444 | 9 786 | 19 193 |
| USA (a)(b) | * 5 000 | * 5 000 | * 5 000 | * 3 500 | * 4 500 |
| Argentina | 106 | 80 | 25 | 113 | 118 |
| Brazil | | | | | |
| Amblygonite | 187 | 182 | 277 | 66 | 113 |
| Lepidolite | 58 | 51 | 2 | 74 | 1 |
| Petalite | 1 501 | 2 487 | 2 080 | 2 293 | 1 892 |
| Spodumene | — | 98 | 243 | 341 | 116 |
| China | * 10 000 | * 14 000 | * 14 000 | * 14 000 | * 14 000 |
| World total (a) | * 6 600 | * 6 900 | * 6 800 | * 5 200 | * 6 300 |

(a) Li content

(b) Mostly spodumene

Exports of Lithium

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|---------|---------|--------|-------|-------|
| United Kingdom | | | | | |
| Metal | 0 | 0 | 3 | 17 | 97 |
| Oxides | 3 | 67 | 7 | 98 | 117 |
| Carbonate | 7 | 9 | 19 | 73 | 72 |
| Belgium-Luxembourg | | | | | |
| Oxides | 8 | 20 | 54 | 67 | 2 |
| France | | | | | |
| Oxides | 75 | 52 | 47 | 105 | 62 |
| Germany, Federal Republic of | | | | | |
| Metal | 12 | 23 | 19 | 40 | 60 |
| Oxides | 717 | 859 | 490 | 510 | 610 |
| Carbonate | 681 | 785 | 876 | 929 | 914 |
| Netherlands | | | | | |
| Oxides | 302 | 34 | 70 | 188 | 145 |
| Carbonate | 458 | 175 | 125 | 299 | 432 |
| South Africa | | | | | |
| Lithium minerals (a) | * 3 000 | * 4 000 | ... | ... | ... |
| Zimbabwe | | | | | |
| Lithium minerals | 13 432 | 18 373 | 16 163 | 9 739 | ... |
| USA | | | | | |
| Oxides | 2 630 | 3 035 | 2 740 | 2 381 | 2 594 |
| Carbonate | ... | ... | ... | 4 949 | 8 065 |
| Brazil | | | | | |
| Lithium minerals | 1 075 | 2 000 | 2 204 | 2 805 | 17 |

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

Imports of Lithium

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-------|-------|-------|-------|-------|
| United Kingdom | | | | | |
| Metal | 3 | 5 | ... | ... | 7 |
| Oxides | 611 | 428 | 340 | 1 046 | 1 533 |
| Carbonate | 467 | 393 | 375 | 375 | 430 |
| Belgium-Luxembourg | | | | | |
| Metal | 6 | 1 | 7 | 16 | 2 |
| Oxides | 159 | 255 | 133 | 209 | 160 |
| Carbonate | 166 | 174 | 126 | 199 | 239 |
| France | | | | | |
| Metal | 4 | 27 | 6 | 8 | 8 |
| Oxides | 520 | 451 | 467 | 520 | 602 |
| Carbonate | 469 | 328 | 335 | 358 | 440 |
| Germany, Federal Republic of | | | | | |
| Metal | 9 | 8 | 7 | 14 | 13 |
| Oxides | 464 | 568 | 1 205 | 1 684 | 641 |
| Carbonate | 5 171 | 4 162 | 4 597 | 3 858 | 4 014 |
| Italy | | | | | |
| Metal | 0 | 9 | 1 | 0 | 2 |
| Oxides | 385 | 277 | 293 | 120 | 215 |
| Carbonate | 442 | 315 | 286 | 340 | 297 |
| Netherlands | | | | | |
| Oxides | 400 | 81 | 132 | 278 | 143 |
| Carbonate | 672 | 408 | 392 | 497 | 697 |
| Spain | | | | | |
| Lithium minerals | 416 | 366 | 433 | 233 | ... |
| Metal | 49 | 1 | 0 | 11 | ... |
| Oxides | 138 | 127 | 120 | 101 | ... |
| South Africa | | | | | |
| Lithium minerals | 4 452 | 5 327 | 870 | 1 163 | 1 228 |
| USA | | | | | |
| Lithium minerals | 3 983 | 5 247 | 708 | 13 | 7 |
| Brazil | | | | | |
| Oxides | 356 | 280 | 416 | 220 | 346 |
| Japan | | | | | |
| Metal | 20 | 20 | 30 | 35 | 30 |
| Oxides | 780 | 603 | 631 | 670 | 766 |

Production of Magnesite

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|---------------------|-------------|-------------|-------------|-------------|-------------|
| Greece | 1 677 666 | 1 500 454 | 817 375 | 967 106 | 890 510 |
| Austria | 1 103 649 | 1 318 156 | 1 158 852 | 1 031 404 | 1 005 768 |
| Czechoslovakia | 654 000 | 666 000 | 664 000 | 672 000 | 662 000 |
| Poland | 20 010 | 19 610 | 11 282 | 17 047 | 16 100 |
| Soviet Union | * 1 950 000 | * 2 000 000 | * 2 100 000 | * 2 150 000 | * 2 200 000 |
| Spain | 381 867 | 505 532 | 476 392 | * 450 000 | * 540 000 |
| Turkey | 729 442 | 825 876 | 783 966 | 910 249 | 724 541 |
| Yugoslavia | 293 305 | 261 841 | 299 676 | 328 000 | 304 000 |
| South Africa | 65 336 | 78 808 | 56 557 | 31 927 | 22 560 |
| Zimbabwe | 84 495 | 78 217 | 60 194 | 60 660 | 24 072 |
| Canada (b) | 52 553 | 53 127 | 49 545 | 35 250 | 28 000 |
| Brazil (c) | 270 848 | 316 910 | 285 885 | 226 772 | 231 297 |
| Colombia | 1 582 | 1 582 | * 1 600 | * 1 600 | * 1 600 |
| China | * 2 000 000 | * 2 000 000 | * 2 000 000 | * 2 000 000 | * 2 000 000 |
| India | 396 000 | 380 113 | 462 534 | 417 900 | 434 072 |
| Iran (a) | * 5 000 | * 4 000 | * 4 000 | * 5 000 | * 5 000 |
| Korea, Dem. P.R. of | * 1 825 000 | * 1 850 000 | * 1 850 000 | * 1 850 000 | * 1 850 000 |
| Pakistan | 2 728 | 778 | 1 551 | 1 206 | 1 844 |
| Australia | 29 301 | 32 198 | 26 445 | 29 671 | * 28 000 |
| New Zealand | — | — | 308 | 0 | — |
| World total | 11 500 000 | 11 900 000 | 11 100 000 | 11 200 000 | 11 000 000 |

Note: In addition to the countries listed, Bulgaria, Egypt, Kenya, New Caledonia and USA are also believed to produce magnesite

(a) Years ended 20 March following that stated

(b) Officially described as magnesitic dolomite and brucite

(c) Includes beneficiated and directly shipped material

Exports of Magnesite

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-------------------------------|-----------|-----------|-----------|-----------|-------------|
| United Kingdom | | | | | |
| Crude | 2 678 | 115 | 70 | 491 | 42 |
| Calcined | 5 777 | 4 850 | 7 261 | 30 532 | 7 394 |
| Belgium-Luxembourg | | | | | |
| Crude | 1 592 | 30 640 | 80 | 1 293 | 365 |
| Calcined | 3 070 | 3 769 | 1 418 | 1 536 | 1 210 |
| France | | | | | |
| Crude | 51 | 142 | 53 | 1 610 | 66 |
| Calcined | 514 | 1 153 | 1 363 | 662 | 2 208 |
| Germany, Federal Republic of | | | | | |
| Crude | 135 | 42 | 47 | 21 | 168 |
| Calcined | 13 314 | 11 367 | 22 879 | 17 093 | 18 890 |
| Greece | | | | | |
| Crude | 25 467 | 46 830 | 37 420 |) 351 232 | 375 261 |
| Calcined | 448 054 | 374 335 | 243 415 |) | |
| Irish Republic | 35 901 | 73 395 | 77 361 | 70 861 | 33 127 |
| Italy | | | | | |
| Crude | 285 | 274 | 965 | 35 597 | 1 134 |
| Calcined | 49 336 | 49 737 | 58 296 | 1 907 | 28 669 |
| Netherlands | | | | | |
| Crude | 1 919 | 2 024 | 1 561 | 1 302 | 1 875 |
| Calcined | 32 334 | 28 601 | 26 169 | 28 001 | 25 678 |
| Austria | | | | | |
| Crude | 607 |) 137 837 | 96 636 | 160 567 | 1 461 |
| Calcined | 111 414 |) | | | 129 583 |
| Czechoslovakia | 377 000 | 385 000 | 305 000 | 303 000 | 291 000 |
| Norway | 17 534 | 17 120 | 19 247 | 12 865 | 9 575 |
| Spain | | | | | |
| Crude & calcined | 93 459 | 91 166 | 98 749 | 105 443 | 113 128 |
| Sweden | 520 | 225 | 169 | 266 | 240 |
| Turkey | | | | | |
| Crude | 2 360 | 4 520 | 16 169 | 19 521 | 10 003 |
| Calcined | 39 146 | 73 320 | 99 437 | 116 212 | 82 067 |
| Yugoslavia | 28 325 | 24 321 | 29 360 | 24 524 | 5 049 |
| South Africa (c) | £302 000 | £136 000 | £35 000 | £477 000 | £670 000 |
| Zimbabwe | 57 055 | 56 877 | 52 923 | 54 801 | ... |
| Brazil | | | | | |
| Calcined | 104 399 | 88 847 | 106 189 | 78 849 | 73 802 |
| China (a) | * 99 000 | * 212 000 | * 210 200 | * 316 800 | * 300 800 |
| Hong Kong | | | | | |
| Crude & calcined (Re-exports) | 1 320 | 5 074 | 8 988 | 10 977 | 15 416 |
| India | | | | | |
| Crude | 14 | 25 | 104 | ... | ... |
| Calcined | 5 415 | 6 821 | 2 219 | ... | ... |
| Israel (b) | 9 183 | 4 168 | — | ... | (a)* 24 800 |
| Japan | 20 | 1 482 | 2 560 | 2 974 | 3 728 |
| Korea, Dem. P.R. of | * 757 800 | * 794 000 | * 613 000 | ... | ... |
| Korea, Republic of | | | | | |
| Crude & calcined | 900 | 1 000 | — | — | — |
| Singapore | 102 | 337 | 333 | 187 | 151 |
| of which: Re-exports | 102 | 325 | 125 | 42 | 151 |
| Australia | 4 228 | 4 627 | 2 617 | 2 830 | ... |

Notes:

- 1 So far as possible sea water magnesia has been excluded from this table if specifically identified in trade accounts. Countries known to produce sea water magnesia and which do not specifically identify it in their trade accounts are Irish Republic, Israel and Norway
- 2 The term 'calcined', as used here, includes dead-burned, sintered and caustic-burned (caustic calcined) material

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

(b) Figures may be incomplete as value only given in Israeli trade return for exports to some countries

(c) Values shown are for the common customs area

Imports of Magnesite

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------------------|----------|----------|----------|----------|----------|
| United Kingdom | | | | | |
| Crude | 9 750 | 12 296 | 11 707 | 13 769 | 15 282 |
| Calcined | 102 111 | 60 799 | 75 500 | 69 766 | 107 420 |
| Belgium-Luxembourg | | | | | |
| Crude | 864 | 759 | 663 | 711 | 1 500 |
| Calcined | 20 834 | 12 037 | 10 862 | 11 953 | 13 901 |
| Denmark | | | | | |
| Crude | 355 | 395 | 1 393 | 660 | 6 |
| Calcined | 15 853 | 13 024 | 9 010 | 9 274 | 10 583 |
| France | | | | | |
| Crude | 412 | 1 022 | 395 | 172 | 5 691 |
| Calcined | 94 488 | 106 225 | 106 019 | 121 048 | 157 645 |
| Germany, Federal Republic of | | | | | |
| Crude | 3 356 | 2 097 | 733 | 797 | 4 395 |
| Calcined | 373 291 | 408 462 | 340 779 | 319 561 | 356 929 |
| Greece | | | | | |
| Crude | 9 | 65 |) 275 | 393 | 7 139 |
| Calcined | 327 | 711 |) | | |
| Irish Republic | 29 776 | 32 116 | 19 816 | 37 114 | 40 042 |
| Italy | | | | | |
| Crude | 8 496 | 15 531 | 11 955 | 31 020 | 16 096 |
| Calcined | 74 407 | 89 262 | 56 653 | 30 167 | 73 908 |
| Netherlands | | | | | |
| Crude | 5 589 | 2 203 | 2 971 | 1 792 | 3 187 |
| Calcined | 62 711 | 68 356 | 54 815 | 59 874 | 54 923 |
| Austria | | | | | |
| Crude | 2 | 6 | 52 | 5 | 111 |
| Calcined | 113 184 | 125 512 | 104 440 | 99 694 | 95 445 |
| Bulgaria (b) | * 100 | * 20 100 | * 17 100 | * 7 100 | * 8 200 |
| Finland | 15 379 | 15 865 | 16 775 | 19 973 | 21 336 |
| German Democratic Republic (b) | * 58 900 | * 70 000 | * 40 600 | * 50 100 | * 33 000 |
| Hungary | | | | | |
| Calcined | 120 346 | 118 258 | 103 865 | 101 161 | 98 312 |
| Norway | 6 030 | 4 508 | 3 840 | 5 620 | 5 142 |
| Poland | | | | | |
| Calcined | 319 921 | 317 120 | 227 767 | 223 455 | 243 021 |
| Portugal | 422 | 1 596 | 1 486 | ... | ... |
| Romania (b) | * 41 100 | * 39 000 | * 23 100 | * 25 800 | * 29 700 |
| Soviet Union | | | | | |
| Calcined | 518 021 | 539 601 | 593 015 | 705 112 | 618 370 |
| Spain | | | | | |
| Crude & calcined | 53 822 | 72 725 | 78 660 | 56 516 | 49 456 |
| Sweden | 22 672 | 20 024 | 21 767 | 22 214 | 20 752 |
| Switzerland | | | | | |
| Calcined | 3 953 | 4 186 | 4 753 | 4 212 | 4 221 |
| Yugoslavia | | | | | |
| Crude | 2 232 | 30 232 | 31 505 | 10 771 |) 46 545 |
| Calcined | 41 650 | 46 197 | 58 665 | 29 138 |) |
| Algeria | | | | | |
| Crude | 78 | 7 | ... | ... | ... |
| Calcined | 592 | 796 | ... | ... | ... |
| Egypt | 1 198 | 106 | 6 134 | 5 470 | ... |
| Morocco | 109 | 140 | 115 | 163 | ... |
| South Africa | | | | | |
| Crude & calcined | 124 827 | 98 384 | 94 090 | 105 916 | 59 213 |
| Tanzania | 330 | 300 | 165 | ... | ... |
| Zaire | 274 | 1 179 | ... | ... | ... |
| Canada | | | | | |
| Calcined | 84 931 | 76 599 | 59 018 | 37 657 | 42 054 |
| Mexico | | | | | |
| Crude & calcined | 28 794 | 29 099 | 13 212 | 13 081 | ... |
| USA | | | | | |
| Crude & calcined | 90 285 | 77 267 | 91 754 | 75 758 | 101 994 |

Imports of Magnesite

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------|--------|---------|---------|---------|----------|
| Argentina | | | | | |
| Calcined | 25 729 | 8 794 | 2 404 | ... | ... |
| Brazil | | | | | |
| Crude & calcined | 48 | 3 193 | 849 | 1 446 | 697 |
| Peru | | | | | |
| Crude & calcined | 4 760 | 9 230 | 7 041 | 2 016 | 1 689 |
| Venezuela | | | | | |
| Crude & calcined | 10 720 | 5 163 | 3 014 | 580 | ... |
| Hong Kong | 2 672 | 8 493 | 11 332 | 17 826 | 20 378 |
| India | 27 153 | 33 369 | 3 384 | ... | ... |
| Indonesia | 967 | 1 085 | 225 | 88 | ... |
| Iran | 102 | 414 | 1 050 | 975 | ... |
| Israel | 2 097 | 1 426 | 544 | 295 | (b)* 200 |
| Japan | | | | | |
| Crude | 25 292 | 38 017 | 30 764 | 57 432 | 44 778 |
| Calcined | 96 219 | 142 433 | 168 592 | 192 516 | 238 958 |
| Korea, Republic of | 51 | 123 | 7 346 | 7 575 | 7 232 |
| Malaysia | 3 192 | 5 580 | 3 008 | 2 429 | ... |
| Pakistan (a) | 1 014 | 1 381 | 1 918 | 664 | 1 209 |
| Philippines | | | | | |
| Crude & calcined | 3 913 | 6 856 | 3 198 | 5 404 | 9 501 |
| Singapore | 288 | 638 | 431 | 603 | 371 |
| Syria | 20 | 87 | 523 | 60 | ... |
| Taiwan | 4 272 | 7 685 | 7 446 | 11 918 | 17 736 |
| Thailand | | | | | |
| Crude | 5 922 | 9 609 | 4 627 | 1 243 | 4 376 |
| Calcined | 1 354 | 1 061 | 944 | 1 637 | 2 095 |
| Australia | | | | | |
| Calcined | 15 477 | 20 782 | 21 016 | 15 734 | ... |
| New Zealand (a) | 4 617 | 6 190 | 2 622 | 1 841 | 1 944 |

Notes:

- 1 So far as possible sea water magnesia has been excluded from this table if specifically identified in trade accounts
- 2 The term 'calcined', as used here, includes dead-burned, sintered and caustic-burned (caustic calcined) material

(a) Years ended 30 June of that stated

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

MANGANESE

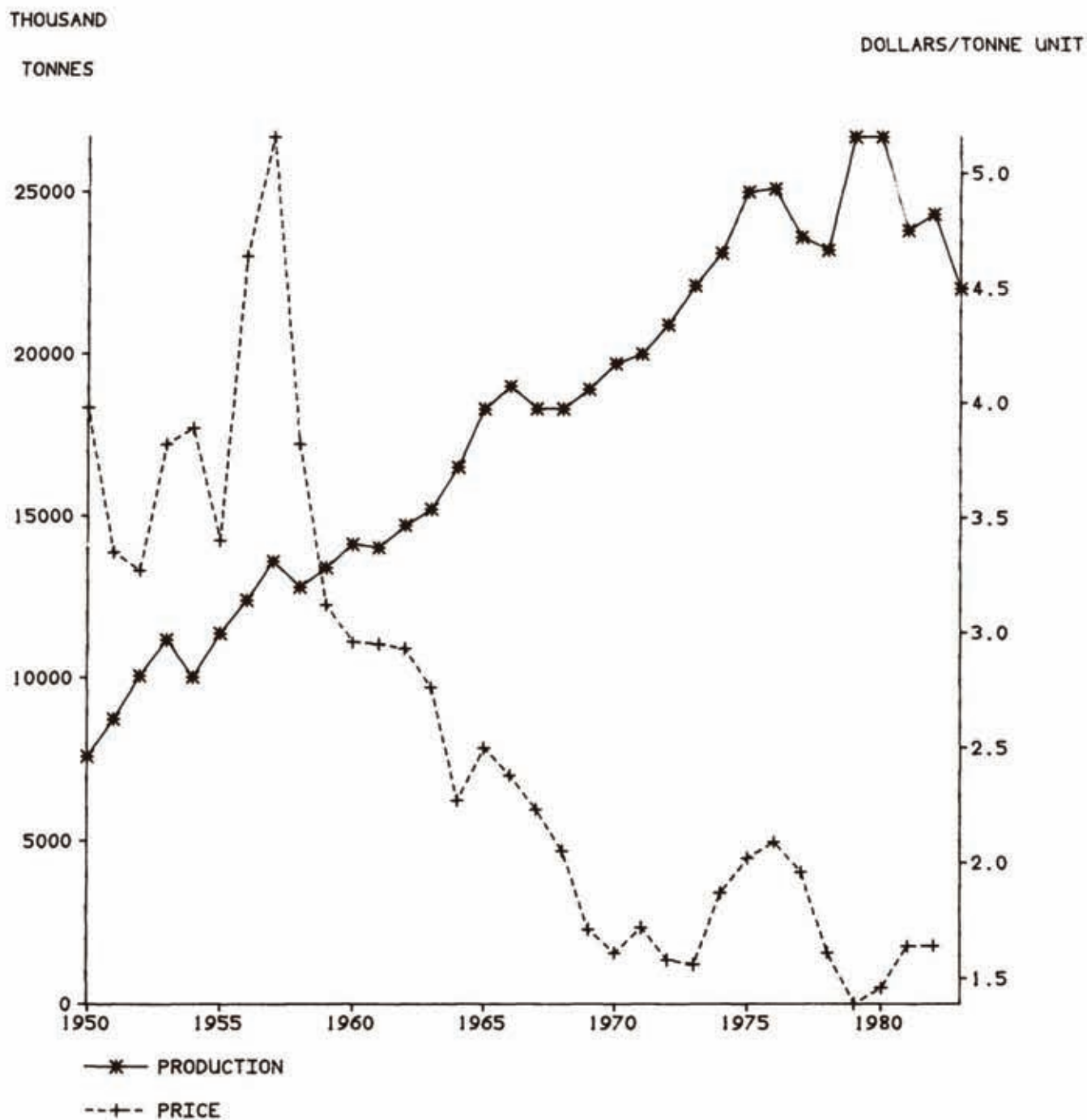


Figure 6 World production of manganese ore from 1950 to 1983 compared with the yearly average price of Indian manganese ore c.i.f. US ports expressed in constant 1982 US dollars.

Constant commodity price taken from 'Commodity Trade and Price Trends' published by the Johns Hopkins University Press for the World Bank (1983-84 edition).

Production of Manganese Ore

tonnes

| Country | | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------|-------|-------------|-------------|-------------|-------------|------------|
| Greece | (50%) | 5 750 | 5 555 | 5 800 | 5 600 | 4 636 |
| Italy | (30%) | 9 782 | 9 165 | 8 756 | 8 727 | 7 205 |
| Austria (e) | | 58 969 | 58 141 | 55 876 | 61 549 | 65 284 |
| Bulgaria | (30%) | 42 000 | 49 000 | 45 000 | 45 000 | 45 000 |
| Czechoslovakia (d) | (17%) | * 900 | * 900 | * 900 | * 900 | * 900 |
| Hungary | (30%) | 83 000 | 82 564 | 70 833 | 82 855 | 58 606 |
| Romania | (22%) | * 81 600 | * 81 600 | * 81 600 | * 81 600 | * 81 600 |
| Soviet Union | (35%) | 10 244 000 | 9 750 000 | 9 150 000 | 9 821 000 | 9 876 000 |
| Turkey | (40%) | 41 584 | 41 634 | 14 932 | 7 310 | 3 200 |
| Yugoslavia | (34%) | 30 150 | 30 250 | 31 149 | 27 000 | 32 000 |
| Gabon | (50%) | 2 300 094 | 2 146 752 | 1 487 783 | 1 511 000 | 1 856 586 |
| Ghana | (40%) | 253 800 | 249 900 | 233 146 | 159 946 | * 190 500 |
| Morocco | (50%) | 135 709 | 130 662 | 109 645 | 94 120 | 73 515 |
| South Africa | | | | | | |
| Metallurgical | (40%) | 4 952 920 | 5 328 737 | 4 698 831 | 4 878 697 | 2 626 672 |
| Chemical | (55%) | 229 423 | 366 689 | 340 856 | 337 820 | 259 291 |
| Zaire | (48%) | — | 6 350 | 17 610 | — | — |
| Mexico | (36%) | 492 664 | 447 128 | 578 314 | 508 667 | 369 456 |
| USA (a) | (13%) | 218 356 | 157 748 | 158 540 | 28 584 | 30 412 |
| Argentina | (30%) | 10 190 | 6 146 | 2 706 | 4 000 | 5 000 |
| Brazil (f) | (45%) | 2 259 331 | 2 281 450 | 2 042 144 | 2 340 974 | 2 091 631 |
| Chile | (38%) | 24 969 | 27 701 | 25 557 | 16 111 | 26 050 |
| China | (30%) | * 1 500 000 | * 1 600 000 | * 1 600 000 | * 1 600 000 | 1 600 000 |
| India (c) | (35%) | 1 771 000 | 1 692 000 | 1 528 000 | 1 480 952 | 1 263 241 |
| Indonesia | (50%) | 5 909 | 4 299 | 2 587 | 17 894 | * 17 200 |
| Iran (b) | (34%) | * 23 000 | — | — | — | — |
| Japan | (35%) | 87 900 | 79 579 | 86 178 | 78 160 | 77 100 |
| Korea, Republic of | (40%) | 35 | 81 | — | — | — |
| Malaysia (d) | | 31 605 | 4 003 | — | — | — |
| Philippines | (44%) | 3 769 | 2 556 | 3 113 | 1 556 | 1 540 |
| Thailand | (45%) | 35 366 | 54 310 | 10 917 | 7 758 | 6 710 |
| Australia | (48%) | 1 724 098 | 2 019 511 | 1 448 977 | 1 127 000 | 1 353 356 |
| Vanuatu | (42%) | 5 694 | — | — | — | — |
| World total | | 26 700 000 | 26 700 000 | 23 800 000 | 24 300 000 | 22 000 000 |

Notes:

- 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 also believed to produce manganese ore

- (a) Shipments of manganiferous iron ore only
(b) Years ended 20 March following that stated
(c) Includes ore grading 54% to less than 35% Mn
(d) Manganiferous iron ore
(e) Mn content of domestic iron ore
(f) Includes beneficiated and direct shipping ore

Exports of Manganese

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-------------|--------------|-------------|-------------|-------------|
| United Kingdom | | | | | |
| Ore (a) | 4 043 | 8 331 | 6 197 | 6 659 | 1 413 |
| Metal | 363 | 405 | 147 | 878 | 1 232 |
| Belgium-Luxembourg | | | | | |
| Ore | 6 107 | 5 929 | 8 333 | 8 546 | 2 882 |
| Metal | 26 | 306 | 141 | 265 | 1 185 |
| France | | | | | |
| Ore (a) | 7 092 | 6 397 | 17 242 | 11 136 | 20 907 |
| Metal | 2 325 | 2 276 | 2 987 | 4 188 | 4 949 |
| Germany, Federal Republic of | | | | | |
| Ore (a) | 1 946 | 1 406 | 2 174 | 1 497 | 4 020 |
| Metal | 59 | 124 | 43 | 99 | 143 |
| Greece | | | | | |
| Ore | 200 | 750 | 1 500 | 300 | 1 429 |
| Italy | | | | | |
| Ore (a) | 5 | 3 | 1 327 | 1 345 | 1 009 |
| Netherlands | | | | | |
| Ore | 37 422 | 39 536 | 44 913 | 42 077 | 43 208 |
| Metal | 2 083 | 2 487 | 3 266 | 3 845 | 2 257 |
| Bulgaria | | | | | |
| Ore (c) | * 8 100 | * 8 000 | * 8 000 | * 10 000 | * 39 000 |
| Hungary | | | | | |
| Ore | 56 795 | 37 745 | 221 066 | 15 865 | 9 608 |
| Norway | | | | | |
| Ore | 1 287 | 1 955 | 2 561 | 5 | 1 522 |
| Portugal | | | | | |
| Ore | 2 050 | 650 | 3 410 | 450 | ... |
| Soviet Union | | | | | |
| Ore | 1 317 000 | 1 255 000 | 1 194 000 | 1 144 000 | 1 079 000 |
| Sweden | | | | | |
| Ore | 164 | 7 | 115 | 182 | 509 |
| Metal | 104 | 77 | 79 | 68 | 111 |
| Turkey | | | | | |
| Ore | 8 450 | 8 960 | — | — | — |
| Yugoslavia | | | | | |
| Ore | 922 | — | 1 274 | 3 030 | 5 175 |
| Gabon | | | | | |
| Ore | 2 304 700 | 2 136 000 | 1 400 000 | ... | ... |
| Ghana | | | | | |
| Ore | 222 733 | (c)* 211 000 | 143 000 | 97 000 | (c)* 73 000 |
| Morocco | | | | | |
| Ore | 139 351 | 112 317 | 99 668 | 81 594 | 57 860 |
| South Africa | | | | | |
| Ore (c) | * 3 500 000 | * 3 350 000 | * 3 200 000 | * 2 800 000 | * 2 300 000 |
| Metal (c) | * 27 100 | * 26 200 | * 27 400 | * 17 400 | * 16 800 |
| Zaire | | | | | |
| Ore | * 40 000 | * 42 000 | * 13 000 | ... | ... |
| Mexico | | | | | |
| Ore | 201 550 | 135 901 | 207 347 | 169 891 | ... |
| USA | | | | | |
| Ore | 59 848 | 222 483 | 80 284 | 34 475 | 21 299 |
| Metal | 6 062 | 11 374 | 4 394 | 3 266 | 5 937 |
| Brazil | | | | | |
| Ore | 1 187 311 | 1 037 438 | 1 018 355 | 845 991 | 747 436 |
| China | | | | | |
| Ore (c) | * 46 700 | * 24 000 | * 22 200 | * 23 200 | * 22 700 |
| Metal (c) | * 100 | * 500 | * 600 | * 300 | * 850 |
| India | | | | | |
| Ore (b) | 629 944 | 243 548 | 429 882 | ... | ... |
| Indonesia | | | | | |
| Ore | 1 770 | 9 574 | 29 018 | 8 400 | ... |
| Japan | | | | | |
| Ore | 6 230 | 1 855 | 991 | 1 557 | 1 973 |
| Malaysia | | | | | |
| Ore | 11 500 | — | 2 000 | 10 | ... |

Exports of Manganese

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------------|-----------|-----------|---------|---------|-----------|
| Philippines | | | | | |
| Ore (a) | 7 383 | 1 000 | 2 800 | — | 1 315 |
| Singapore | | | | | |
| Ore | 20 706 | 32 788 | 27 203 | 19 104 | 27 449 |
| of which: Re-exports | 3 687 | 13 858 | 6 236 | 3 668 | 8 065 |
| Thailand | | | | | |
| Ore | 35 738 | 50 820 | 16 920 | 2 000 | 1 |
| Australia | | | | | |
| Ore | 1 156 785 | 1 328 203 | 899 687 | 906 000 | 1 004 000 |
| Vanuatu | | | | | |
| Ore | 12 080 | 3 520 | — | — | — |

Note: Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys

(a) Includes manganiferous iron ore

(b) Includes ferruginous manganese ore

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

Imports of Manganese

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|-----------|---------|---------|---------|
| United Kingdom | | | | | |
| Ore (b) | 544 220 | 126 610 | 278 056 | 178 946 | 367 206 |
| Metal | 3 072 | 3 292 | 1 962 | 2 741 | 3 424 |
| Belgium-Luxembourg | | | | | |
| Ore | 432 140 | 299 848 | 244 784 | 227 057 | 162 653 |
| Metal | 1 133 | 1 178 | 711 | 1 467 | 1 757 |
| Denmark | | | | | |
| Ore | 1 168 | 819 | 611 | 510 | 322 |
| France | | | | | |
| Ore (b) | 1 274 849 | 1 225 909 | 880 817 | 921 816 | 745 625 |
| Metal | 3 471 | 6 930 | 984 | 1 173 | 1 481 |
| Germany, Federal Republic of | | | | | |
| Ore (b) | 716 780 | 489 548 | 606 851 | 393 546 | 434 261 |
| Metal | 5 848 | 5 731 | 5 146 | 5 989 | 5 468 |
| Greece | | | | | |
| Ore | 4 726 | 29 277 | 5 | 26 157 | ... |
| Irish Republic | | | | | |
| Ore (b) | 27 035 | 32 391 | 16 103 | 10 815 | 21 152 |
| Italy | | | | | |
| Ore (b) | 424 231 | 409 846 | 354 225 | 333 064 | 385 550 |
| Metal | 1 887 | 1 397 | 1 711 | 1 713 | 1 974 |
| Netherlands | | | | | |
| Ore | 89 268 | 46 779 | 53 392 | 67 628 | 44 389 |
| Metal | 2 090 | 2 558 | 3 474 | 4 102 | 2 170 |
| Austria | | | | | |
| Ore | 433 | 1 726 | 459 | 439 | 362 |
| Bulgaria | | | | | |
| Ore | 100 000 | 99 700 | 114 000 | 81 900 | ... |
| Czechoslovakia | | | | | |
| Ore | 541 000 | 525 000 | 480 000 | 502 000 | 506 000 |
| Finland | | | | | |
| Ore | 18 916 | 10 735 | 337 | 1 733 | 10 154 |
| German Democratic Republic | | | | | |
| Ore (a) | 73 800 | 46 600 | 46 000 | 39 800 | 27 400 |
| Hungary | | | | | |
| Ore | 15 569 | 15 537 | 150 | 404 | 343 |
| Norway | | | | | |
| Ore | 815 148 | 807 700 | 484 640 | 764 085 | 623 305 |
| Metal | 1 173 | 713 | 351 | 320 | 1 579 |
| Poland | | | | | |
| Ore | 739 889 | 664 187 | 583 207 | 689 370 | 574 194 |
| Portugal | | | | | |
| Ore | 235 709 | 173 823 | 109 916 | 122 071 | ... |
| Spain | | | | | |
| Ore | 487 333 | 432 648 | 253 987 | 260 600 | 213 765 |
| Metal | 351 | 1 565 | 2 869 | 454 | ... |
| Sweden | | | | | |
| Ore | 14 111 | 354 | 531 | 25 835 | 24 557 |
| Metal | 1 259 | 1 459 | 708 | 1 331 | 1 442 |
| Turkey | | | | | |
| Ore | 2 214 | 2 429 | 722 | 1 952 | 1 910 |
| Yugoslavia | | | | | |
| Ore | 115 041 | 131 053 | 87 741 | 109 043 | 130 169 |
| Ivory Coast | | | | | |
| Ore | 1 103 | 1 007 | 900 | 1 800 | ... |
| Kenya | | | | | |
| Ore (b) | 3 199 | 1 404 | 2 089 | 1 407 | ... |
| South Africa | | | | | |
| Ore | 29 842 | 3 972 | 7 052 | 4 351 | 5 542 |
| Zimbabwe | | | | | |
| Ore | 5 850 | 5 295 | 4 149 | 6 795 | 4 174 |
| Canada | | | | | |
| Ore (a) | 45 150 | 95 161 | 119 748 | 71 658 | 42 260 |
| Metal | 8 275 | 6 957 | 10 371 | 781 | 2 652 |
| Mexico | | | | | |
| Ore | 29 637 | 99 298 | 64 238 | 59 320 | ... |

Imports of Manganese

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|---------------------|-----------|-----------|-----------|-----------|-----------|
| USA | | | | | |
| Ore | 430 441 | 633 228 | 587 244 | 208 390 | 334 113 |
| Metal | 6 108 | 6 937 | 7 573 | 5 049 | 5 606 |
| Argentina | | | | | |
| Ore | 87 335 | 58 891 | 56 211 | ... | ... |
| Brazil | | | | | |
| Ore | 101 395 | 28 501 | 15 289 | 11 324 | 19 206 |
| Metal | 1 104 | 1 019 | 754 | 1 020 | 1 174 |
| Colombia | | | | | |
| Ore | 1 962 | 4 603 | 3 993 | 4 284 | 1 477 |
| Peru | | | | | |
| Ore | 714 | 963 | 1 638 | 1 442 | 625 |
| Venezuela | | | | | |
| Ore | 52 | 5 552 | 23 386 | 54 436 | ... |
| Hong Kong | | | | | |
| Ore | 1 000 | 374 | — | 5 | 204 |
| India | | | | | |
| Ore | 5 143 | 17 881 | 900 | ... | ... |
| Metal | 392 | 136 | 258 | ... | ... |
| Indonesia | | | | | |
| Ore | 6 966 | 11 968 | 9 513 | 4 890 | ... |
| Japan | | | | | |
| Ore (c) | 2 692 042 | 2 953 309 | 2 492 728 | 2 146 444 | 1 623 244 |
| Korea, Dem. P.R. of | | | | | |
| Ore (d) | * 21 000 | * 29 100 | * 15 000 | * 28 200 | * 20 200 |
| Korea, Republic of | | | | | |
| Ore | 230 636 | 208 200 | 282 015 | 236 585 | 196 457 |
| Malaysia | | | | | |
| Ore | 2 498 | 2 351 | 1 557 | 1 332 | ... |
| Philippines | | | | | |
| Ore (b) | 3 456 | 6 626 | 1 984 | 3 021 | 3 981 |
| Singapore | | | | | |
| Ore | 33 517 | 60 468 | 80 900 | 68 209 | 44 840 |
| Taiwan | | | | | |
| Ore | 148 013 | 142 975 | 62 742 | 135 556 | 106 195 |
| Thailand | | | | | |
| Ore | 2 304 | 9 | 9 | 2 932 | — |
| Australia | | | | | |
| Ore | 119 | 2 422 | 2 139 | 451 | * 1 000 |
| Metal | 957 | 1 838 | 1 693 | 567 | ... |

Note: Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys

(a) Mn content

(b) Includes manganiferous iron ore

(c) Includes ferruginous manganese ore

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

Production of Mercury

kilograms

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-------------|-------------|-------------|-------------|-------------|
| Germany, Federal Republic of | 91 000 | 56 000 | 76 000 | 53 000 | — |
| Italy | — | 3 303 | 251 643 | 159 350 | — |
| Czechoslovakia | 171 000 | 159 000 | 153 000 | 151 000 | 144 000 |
| Finland | 46 000 | 75 000 | 67 189 | 70 000 | 64 000 |
| Soviet Union | * 2 000 000 | * 1 800 000 | * 1 700 000 | * 1 700 000 | * 1 700 000 |
| Spain | 1 147 106 | 1 656 000 | 1 560 469 | 1 540 000 | 1 416 000 |
| Turkey | 162 771 | 153 801 | 204 345 | 246 262 | 161 148 |
| Yugoslavia | — | — | — | — | 51 750 |
| Algeria | 507 806 | 841 904 | * 863 000 | * 379 500 | * 345 000 |
| Mexico | 68 000 | 145 000 | 240 000 | 295 000 | 275 000 |
| USA | 1 017 609 | 1 056 839 | 961 935 | 888 025 | 864 239 |
| China | * 700 000 | * 700 000 | * 700 000 | * 700 000 | * 700 000 |
| World total | 5 900 000 | 6 600 000 | 6 800 000 | 6 200 000 | 5 700 000 |

Exports of Mercury

kilograms

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|-----------|-----------|-----------|-----------|
| United Kingdom | 137 320 | 79 888 | 69 515 | 212 975 | 131 004 |
| Belgium-Luxembourg | 17 800 | 19 900 | 14 200 | 34 200 | 77 200 |
| Denmark | 2 700 | 4 000 | 7 200 | 4 300 | 5 000 |
| France | 132 000 | 38 000 | 23 000 | 8 000 | 107 000 |
| Germany, Federal Republic of | 103 200 | 219 600 | 137 000 | 278 500 | 573 200 |
| Italy | 328 250 | 229 977 | 49 791 | 98 700 | 379 800 |
| Netherlands | 101 000 | 189 000 | 149 000 | 113 000 | 418 000 |
| Austria | 15 100 | 5 200 | 6 600 | 3 500 | 3 600 |
| Finland | 21 000 | 55 000 | 52 000 | 62 000 | 66 000 |
| Norway | 47 000 | 98 000 | 69 000 | 133 000 | 63 000 |
| Spain | 1 303 000 | 665 000 | 741 000 | 615 000 | 904 000 |
| Sweden | 19 000 | 29 000 | 9 000 | 10 000 | 114 000 |
| Switzerland | 6 005 | 9 023 | 4 652 | 3 216 | 951 |
| Turkey | 83 283 | 135 110 | 156 042 | 317 229 | 241 708 |
| Yugoslavia | — | — | 100 000 | — | 2 000 |
| Algeria | 561 900 | 370 530 | — | — | — |
| Dominican Republic | 22 044 | 10 308 | 5 102 | 1 620 | — |
| Mexico | 183 269 | 385 876 | 238 995 | 188 508 | — |
| USA (a) | * 92 000 | * 110 000 | * 84 000 | * 121 000 | * 245 000 |
| China (a) | * 276 200 | * 413 800 | * 556 200 | * 314 500 | * 218 600 |
| Hong Kong (Re-exports) | 28 | 30 855 | 133 614 | 26 769 | 76 176 |
| Japan | 539 922 | 321 970 | 238 448 | 251 503 | 25 453 |
| Singapore | 776 | 2 337 | 13 724 | 50 287 | 15 357 |
| of which: Re-exports | 766 | 1 936 | 13 582 | 50 277 | 15 309 |

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

Imports of Mercury

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|--------------|--------------|--------------|--------------|
| United Kingdom | 306 392 | 231 607 | 205 412 | 260 929 | 185 052 |
| Belgium-Luxembourg | 120 300 | 224 200 | 178 800 | 285 200 | 262 200 |
| Denmark | 14 000 | 10 100 | 8 900 | 7 900 | 8 000 |
| France | 138 000 | 145 000 | 108 000 | 105 000 | 171 000 |
| Germany, Federal Republic of | 461 300 | 436 400 | 212 200 | 242 700 | 560 300 |
| Greece | 2 000 | 3 000 | 1 000 | 4 000 | 2 000 |
| Irish Republic | 4 700 | 7 600 | 2 700 | 15 400 | 11 800 |
| Italy | 59 790 | 152 577 | 80 710 | 37 100 | 27 700 |
| Netherlands | 120 000 | 205 000 | 158 000 | 131 000 | 344 000 |
| Austria | 23 800 | 19 500 | 15 200 | 10 000 | 12 700 |
| Finland | 3 000 | 4 000 | 4 000 | 38 000 | ... |
| German Democratic Republic | * 174 100 | (e)* 300 000 | (e)* 200 000 | (e)* 250 000 | (e)* 220 000 |
| Hungary | 39 000 | 38 000 | 77 000 | 132 000 | 77 000 |
| Norway | 1 000 | 1 000 | 1 000 | 16 000 | 4 000 |
| Poland | * 33 000 | * 13 000 | ... | ... | ... |
| Portugal | 28 100 | 32 300 | 29 300 | 70 000 | ... |
| Romania | * 309 200 | * 132 000 | * 9 000 | ... | ... |
| Sweden | 24 000 | 16 000 | 23 000 | 12 000 | 32 000 |
| Switzerland | 25 183 | 38 114 | 21 884 | 30 317 | 40 076 |
| Yugoslavia | 10 372 | 18 636 | 45 000 | 50 000 | 67 000 |
| Algeria | 6 525 | 1 299 | ... | ... | ... |
| Morocco | 7 213 | 9 903 | 8 699 | 9 854 | ... |
| South Africa | 52 800 | 103 000 | 94 300 | 63 400 | 41 900 |
| Tunisia | 5 715 | 188 | 7 004 | 343 | ... |
| Canada | 50 712 | 50 485 | 48 217 | 53 000 | 74 000 |
| USA | 1 002 642 | 472 523 | 455 112 | 529 512 | 505 215 |
| Argentina | 64 276 | 35 070 | 29 653 | ... | ... |
| Brazil | 158 448 | 201 443 | 93 372 | 125 800 | 91 956 |
| Colombia | 20 689 | 22 303 | 47 013 | 28 201 | 55 079 |
| Peru | 29 859 | 37 707 | 24 714 | 16 946 | 11 454 |
| Uruguay | 300 | 4 800 | 2 400 | 900 | 400 |
| Venezuela | 23 233 | 8 000 | 4 000 | 5 173 | ... |
| Burma (d) | 11 000 | 26 000 | 99 000 | ... | ... |
| Hong Kong | 74 221 | 91 690 | 98 927 | 70 077 | 99 546 |
| India | 211 000 | 354 533 | 353 409 | ... | ... |
| Indonesia | 3 628 | 53 997 | 23 645 | 18 052 | ... |
| Iran (b) | 17 231 | 5 942 | 228 846 | 6 948 | ... |
| Israel (a) | 10 000 | 14 000 | 11 000 | ... | (e)* 6 300 |
| Japan | 108 350 | 91 759 | 69 509 | 81 309 | 123 525 |
| Korea, Republic of | 26 217 | 28 805 | 22 635 | 19 107 | 19 218 |
| Malaysia | 3 040 | 103 320 | 6 560 | 20 980 | ... |
| Pakistan (c) | 32 860 | 31 754 | 50 798 | 43 134 | 93 867 |
| Philippines | 11 552 | 354 | 4 655 | 3 484 | 1 784 |
| Saudi Arabia | 215 374 | 1 684 392 | 83 241 | 11 721 | 21 750 |
| Singapore | 4 002 | 3 099 | 14 301 | 74 938 | 27 910 |
| Sri Lanka | 1 595 | 450 | 12 211 | 183 | 406 |
| Syria | 57 | 2 594 | — | — | ... |
| Taiwan | 56 678 | 12 848 | 14 604 | 15 570 | 8 743 |
| Thailand | 12 529 | 12 583 | 19 987 | 10 850 | 8 472 |
| Australia | 47 990 | 38 874 | 57 791 | 35 007 | ... |

(a) Figures may be incomplete as value only given in Israeli trade return for imports from some 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) BGS estimates, based on known exports from certain countries

Production of Mica

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------|----------|----------|----------|----------|----------|
| France (e) | 7 100 | 8 838 | 9 059 | 7 950 | 9 286 |
| Norway (b) | * 6 000 | * 4 500 | * 4 600 | * 3 600 | * 4 000 |
| Soviet Union | * 46 000 | * 46 000 | * 47 000 | * 48 000 | * 49 000 |
| Spain (e) | 5 169 | 4 831 | 3 524 | * 3 430 | * 3 400 |
| Yugoslavia | 338 | 249 | 265 | * 270 | * 270 |
| Madagascar | | | | | |
| Phlogopite (c) | 1 168 | 1 642 | 588 | 1 300 | 1 096 |
| Morocco | 363 | 331 | 1 805 | 512 | * 500 |
| Mozambique | 251 | * 200 | * 200 | * 200 | * 200 |
| South Africa | | | | | |
| Waste | 1 720 | 2 528 | 2 395 | 1 762 | 2 672 |
| Sudan | 2 000 | 1 500 | 183 | 165 | 10 |
| Tanzania | | | | | |
| Sheet | 9 | 3 | 2 | 1 | * 4 |
| Zimbabwe | 1 275 | 1 022 | 1 406 | 844 | 547 |
| Mexico | 243 | 3 600 | 2 077 | 120 | * 200 |
| USA (d) | | | | | |
| Waste (e) | 122 000 | 105 000 | 121 000 | 96 000 | 127 000 |
| Argentina | | | | | |
| Sheet | 860 | 218 | 44 | 24 | 32 |
| Waste | 1 140 | 616 | 459 | 298 | * 300 |
| Brazil (a) | 4 075 | 4 818 | 1 950 | 1 077 | 3 408 |
| India | | | | | |
| Crude | 9 073 | 7 934 | 8 534 | 8 822 | 7 284 |
| Waste | 5 107 | 4 393 | 4 456 | 4 493 | 3 700 |
| Sri Lanka | 369 | 145 | 182 | 291 | * 270 |
| Taiwan | 1 150 | 338 | 85 | 44 | 311 |
| World total | 215 000 | 198 000 | 210 000 | 179 000 | 213 000 |

Note: In addition to the countries listed, Canada, China, Namibia, Pakistan and Romania are also believed to produce mica

(a) Exports

(b) Crude only

(c) Block and splittings

(d) Sold or used by producers

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

Exports of Mica

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|---------|----------|------------|------------|----------|
| United Kingdom | | | | | |
| Unmanufactured | 966 | 966 | 412 | 508 | 105 |
| Ground | 3 626 | 2 647 | 1 871 | 1 243 | 1 169 |
| Waste | 285 | 162 | 643 | 1 697 | 2 403 |
| Belgium-Luxembourg | | | | | |
| Unmanufactured | 22 | 41 | — | — | — |
| Ground | 138 | 23 | 38 | 18 | 32 |
| Denmark | | | | | |
| Ground | 58 | 30 | 12 | 8 | 12 |
| France | | | | | |
| Unmanufactured | 173 | 354 | 2 119 | 1 473 | 1 832 |
| Ground | 3 111 | 3 462 | 3 895 | 3 608 | 3 969 |
| Germany, Federal Republic of | | | | | |
| Unmanufactured | 25 | 20 | 71 | 20 | 13 |
| Ground | 618 | 640 | 1 020 | 859 | 906 |
| Italy | | | | | |
| Unmanufactured | 191 | 440 | 324 | 546 | 227 |
| Ground | 471 | 687 | 423 | 677 | 271 |
| Netherlands | | | | | |
| Unmanufactured | 21 | 75 | 676 | 589 | 383 |
| Ground | 1 209 | 906 | 2 407 | 2 521 | 2 451 |
| Austria | 185 | 230 | 448 | 602 | 829 |
| Norway | 2 915 | 2 112 | 2 298 | 1 820 | 2 009 |
| Portugal | 232 | — | 189 | 145 | ... |
| Spain | 3 939 | 6 059 | 2 683 | 2 021 | 465 |
| Sweden | 10 | 11 | 7 | 1 | 58 |
| Switzerland | 46 | 117 | 27 | 115 | 75 |
| Madagascar | 1 205 | 1 148 | 998 | 1 408 | ... |
| Morocco | 1 | 485 | 1 353 | 1 570 | ... |
| Mozambique | ... | 127 | ... | ... | ... |
| South Africa | | | | | |
| Ground | 1 316 | 1 091 |) (a)* 900 | (a)* 1 150 | (a)* 950 |
| Waste | — | — |) | | |
| Zimbabwe | | | | | |
| Ground | 1 203 | 759 | 758 | 518 | ... |
| USA | | | | | |
| Unmanufactured | 5 370 | 6 103 | 3 892 | 2 584 | 2 185 |
| Ground | 5 303 | 7 427 | 6 364 | 7 620 | 7 453 |
| Argentina | 2 202 | 846 | 71 | ... | ... |
| Brazil | 4 075 | 4 818 | 1 950 | 1 077 | 3 408 |
| China (a) | * 7 700 | * 10 700 | * 10 200 | * 12 200 | * 13 100 |
| India | | | | | |
| Block | 1 181 | 1 153 | 1 367 | ... | ... |
| Splittings | 4 135 | 4 468 | 4 313 | ... | ... |
| Condenser films | 71 | 117 | 116 | ... | ... |
| Waste | 7 248 | 12 494 | 10 575 | ... | ... |
| Japan | 246 | 326 | 373 | 149 | 158 |
| Korea, Republic of | 656 | — | 10 | — | — |
| Singapore | 150 | 272 | 351 | 200 | 363 |
| of which: Re-exports | 150 | 271 | 350 | 161 | 194 |
| Sri Lanka | 555 | 628 | 1 393 | 1 007 | 1 043 |

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

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

Imports of Mica

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|--------|--------|--------|--------|---------|
| United Kingdom | | | | | |
| Block | 69 | 89 | 19 | 72 |) 144 |
| Splittings | 289 | 475 | 200 | 262 |) |
| Ground | 3 641 | 6 824 | 2 180 | 2 117 | 3 323 |
| Waste | 13 920 | 13 835 | 11 495 | 11 622 | 12 941 |
| Belgium-Luxembourg | | | | | |
| Unmanufactured | 621 | 3 755 | 410 | 750 | 890 |
| Ground | 1 183 | 1 250 | 1 202 | 1 054 | 882 |
| Denmark | 274 | 175 | 179 | 167 | 223 |
| France | | | | | |
| Unmanufactured | 2 701 | 5 943 | 3 930 | 4 340 | 1 156 |
| Ground | 717 | 1 013 | 989 | 1 124 | 1 097 |
| Germany, Federal Republic of | | | | | |
| Unmanufactured | 5 563 | 7 098 | 5 044 | 6 684 | 5 133 |
| Ground | 3 068 | 3 233 | 4 030 | 4 661 | 5 381 |
| Greece | 172 | 271 | 192 | 210 | 139 |
| Irish Republic | 847 | 358 | 313 | 375 | 168 |
| Italy | | | | | |
| Unmanufactured | 455 | 437 | 495 | 283 | 269 |
| Ground | 568 | 654 | 786 | 698 | 628 |
| Netherlands | | | | | |
| Unmanufactured | 57 | 69 | 49 | 203 | 348 |
| Ground | 2 094 | 1 930 | 3 865 | 3 782 | 3 704 |
| Austria | 250 | 318 | 231 | 222 | 203 |
| Finland | 291 | 253 | 177 | 187 | 239 |
| German Democratic Republic | 1 234 | 1 424 | 1 224 | 1 616 | 1 350 |
| Norway | | | | | |
| Unmanufactured | 94 | 657 | 283 | 214 | 190 |
| Waste | 1 991 | 1 512 | 1 588 | 1 932 | 1 763 |
| Poland | 1 756 | 1 844 | 1 442 | 1 066 | 779 |
| Portugal | 469 | 347 | 466 | 375 | ... |
| Soviet Union | * 550 | * 550 | * 550 | * 575 | ... |
| Spain | 1 030 | 1 421 | 1 343 | 1 136 | 1 316 |
| Sweden | 467 | 408 | 337 | 422 | 438 |
| Switzerland | 598 | 546 | 655 | 682 | 480 |
| Turkey | 45 | 52 | 22 | 23 | 39 |
| Yugoslavia | 1 134 | 686 | 539 | 243 | 978 |
| Kenya | 33 | 40 | 119 | 10 | ... |
| South Africa | 685 | 1 187 | 948 | 545 | 486 |
| Tunisia | 75 | 94 | 107 | 166 | ... |
| Canada | 3 131 | 2 597 | 3 133 | 2 860 | 2 791 |
| Jamaica | 89 | 37 | 73 | 77 | 134 |
| Mexico | 72 | 99 | 153 | 129 | ... |
| Trinidad & Tobago | 170 | 181 | 176 | 184 | 197 |
| USA | | | | | |
| Block | 110 | 32 | 14 | 58 | 8 |
| Splittings | 1 776 | 1 916 | 1 097 | 809 | 164 |
| Ground | 4 111 | 5 046 | 6 064 | 4 910 | 4 674 |
| Waste | 80 | 33 | 186 | 450 |) 2 407 |
| Other unmanufactured | 2 916 | 3 439 | 3 946 | 2 392 |) |
| Brazil | 99 | 153 | 170 | 76 | 109 |
| Colombia | 84 | 49 | 80 | 980 | 105 |
| Peru | 66 | 42 | 160 | 49 | 30 |
| Uruguay | 22 | 184 | 71 | 16 | 19 |
| Venezuela | 785 | 1 338 | 1 316 | 1 969 | ... |
| Brunei | 94 | 58 | 25 | 13 | 24 |
| Hong Kong | 585 | 31 | 33 | 42 | 19 |
| Indonesia | 105 | 260 | 389 | 587 | ... |
| Iran (a) | 644 | 113 | 253 | 0 | ... |
| Japan | | | | | |
| Block | 209 | 2 620 | 1 344 | 886 | 783 |
| Splittings | 621 | 708 | 516 | 598 | 1 301 |
| Waste | 611 | 3 502 | 4 833 | 4 008 | 4 395 |
| Other unmanufactured | 3 011 | 4 830 | 5 905 | 9 017 | 3 226 |

Imports of Mica

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------|---------|---------|---------|---------|---------|
| Korea, Republic of | 163 | 134 | 121 | 185 | 434 |
| Malaysia | 39 | 111 | 73 | 83 | ... |
| Philippines | 61 | 109 | 77 | 173 | 84 |
| Saudi Arabia | 769 | 1 038 | 908 | 1 584 | 1 032 |
| Singapore | 265 | 1 415 | 1 250 | 1 392 | 1 553 |
| Taiwan | | | | | |
| Unmanufactured | 160 | 92 | 34 | 33 | 50 |
| Ground | 364 | 245 | 258 | 224 | 174 |
| Thailand | 116 | 119 | 82 | 91 | 172 |
| Australia | | | | | |
| Unmanufactured | 293 | 338 | 243 |) | ... |
| Ground | 336 | 621 | 562 |) 474 | ... |
| New Zealand (b) | £70 000 | £44 000 | £70 000 | £92 000 | £91 000 |

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

(a) Years ended 20 March following that stated

(b) Years ended 30 June of that stated

Mine Production of Molybdenum

tonnes (metal content)

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------|----------|----------|----------|----------|----------|
| Bulgaria | * 150 | * 150 | * 150 | * 150 | * 150 |
| Soviet Union | * 10 200 | * 10 400 | * 10 700 | * 11 000 | * 11 100 |
| Turkey | 65 | 100 | * 100 | * 100 | * 100 |
| Niger | 10 | 122 | 116 | 42 | ... |
| Canada | 11 175 | 11 889 | 12 850 | 13 961 | 10 523 |
| Mexico | 48 | 74 | 451 | 5 190 | 5 866 |
| USA | 65 302 | 68 350 | 63 458 | 38 275 | 15 400 |
| Chile | 13 560 | 13 668 | 15 360 | 20 048 | 15 267 |
| Peru | 1 152 | 2 407 | 3 054 | 2 873 | 2 563 |
| China | * 2 000 | * 2 000 | * 2 000 | * 2 000 | * 2 000 |
| Japan | 70 | 56 | 74 | 98 | 95 |
| Korea, Republic of | 190 | 302 | 467 | 363 | 143 |
| Mongolia | 222 | 487 | 660 | * 1 000 | * 700 |
| Philippines | 141 | 91 | 94 | 80 | * 40 |
| World total | 104 000 | 110 000 | 109 000 | 95 000 | 64 000 |

Note: In addition to the countries listed, Australia, Democratic P.R. of Korea, and Romania are also believed to produce molybdenum

Exports of Molybdenum

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|--------|--------|---------|---------|---------|
| United Kingdom | | | | | |
| Ores & concentrates | 4 301 | 2 290 | 4 257 | 5 769 | 6 120 |
| Metal | 332 | 174 | 261 | 365 | 460 |
| Oxides | 381 | 1 937 | 1 086 | 1 854 | 1 035 |
| Belgium-Luxembourg | | | | | |
| Ores & concentrates | 5 945 | 5 542 | 9 093 | 9 300 | 8 649 |
| Metal | 177 | 117 | 183 | 67 | 90 |
| Oxides | 105 | 176 | 154 | 53 | 35 |
| France | | | | | |
| Ores & concentrates | 395 | 1 180 | 1 481 | 502 | 364 |
| Metal | 166 | 133 | 180 | 165 | 284 |
| Oxides | 22 | 21 | 1 | ... | ... |
| Germany, Federal Republic of | | | | | |
| Ores & concentrates | 6 669 | 6 984 | 5 428 | 7 442 | 6 898 |
| Metal | 391 | 488 | 319 | 431 | 622 |
| Italy | | | | | |
| Ores & concentrates | 184 | 175 | 209 | 348 | 298 |
| Metal | 36 | 11 | 6 | 20 | 150 |
| Netherlands | | | | | |
| Ores & concentrates (b) | 23 363 | 29 159 | 16 768 | 14 047 | 8 905 |
| Metal | 185 | 181 | 148 | 247 | 184 |
| Oxides | 1 445 | 2 247 | 1 546 | 1 683 | 1 504 |
| Austria | | | | | |
| Metal | 1 101 | 1 017 | 1 018 | 1 047 | 1 201 |
| Sweden | | | | | |
| Ores & concentrates | 1 206 | 1 346 | 1 691 | 1 970 | 1 458 |
| Metal | 11 | 7 | 38 | 7 | 5 |
| Canada | | | | | |
| Ores & concentrates (a) | 11 482 | 14 584 | 13 688 | 17 429 | 11 349 |
| USA | | | | | |
| Ores & concentrates (a) | 32 789 | 31 011 | 23 291 | 22 581 | 21 350 |
| Metal | 1 097 | 937 | 1 643 | 998 | 826 |
| Chile | | | | | |
| Ores & concentrates (a) | 6 617 | 7 312 | 9 109 | 11 163 | 3 830 |
| Peru | | | | | |
| Ores & concentrates (a) | 2 131 | 2 995 | * 2 500 | * 2 500 | * 2 000 |
| Japan | | | | | |
| Metal | 71 | 37 | 54 | 54 | 51 |
| Korea, Republic of | | | | | |
| Ores & concentrates | 374 | 322 | 651 | 360 | — |
| Philippines | | | | | |
| Ores & concentrates | 210 | 180 | 139 | 155 | 122 |

Note: Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys

(a) Mo content

(b) May include other ores

Imports of Molybdenum

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|---------|--------|---------|--------|---------|
| United Kingdom | | | | | |
| Ores & concentrates | 15 285 | 13 672 | 15 149 | 17 738 | 14 419 |
| Metal | 274 | 237 | 176 | 178 | 308 |
| Oxides | 284 | 296 | 432 | 195 | 191 |
| Belgium-Luxembourg | | | | | |
| Ores & concentrates | 15 856 | 15 922 | 20 772 | 20 469 | 22 976 |
| Metal | 189 | 149 | 126 | 162 | 278 |
| Oxides | 28 | 17 | 120 | 192 | 298 |
| France | | | | | |
| Ores & concentrates | 7 413 | 7 094 | 9 078 | 7 713 | 5 650 |
| Metal | 206 | 263 | 117 | 166 | 225 |
| Oxides | 119 | 227 | 62 | 29 | 35 |
| Germany, Federal Republic of | | | | | |
| Ores & concentrates | 22 065 | 18 087 | 18 138 | 21 524 | 19 061 |
| Metal | 797 | 1 102 | 984 | 766 | 749 |
| Oxides | 515 | 453 | 502 | 265 | 274 |
| Italy | | | | | |
| Ores & concentrates | 5 866 | 6 039 | 4 522 | 2 768 | 2 360 |
| Metal | 251 | 163 | 120 | 110 | 174 |
| Oxides | 619 | 158 | 68 | 232 | 47 |
| Netherlands | | | | | |
| Ores & concentrates (a) | 27 944 | 28 247 | 21 501 | 19 677 | 13 816 |
| Metal | 235 | 175 | 148 | 172 | 235 |
| Oxides | 64 | 107 | 83 | 19 | 29 |
| Austria | | | | | |
| Metal | 366 | 366 | 188 | 38 | 143 |
| Oxides | 1 639 | 1 527 | 1 493 | 1 896 | 1 748 |
| Finland | | | | | |
| Ores & concentrates | 512 | 675 | 454 | 488 | 558 |
| Metal | 4 | 5 | 4 | 6 | 3 |
| Soviet Union | | | | | |
| Ores & concentrates (b) | * 3 400 | * 500 | * 1 000 | ... | * 1 000 |
| Spain | | | | | |
| Metal | 31 | 33 | 17 | 36 | 26 |
| Sweden | | | | | |
| Ores & concentrates | 7 927 | 6 034 | 5 618 | 6 397 | 5 238 |
| Metal | 69 | 73 | 43 | 59 | 50 |
| Switzerland | | | | | |
| Metal | 15 | 24 | 20 | 29 | 9 |
| Yugoslavia | | | | | |
| Metal | 16 | 15 | 15 | 15 | 23 |
| South Africa | | | | | |
| Metal | 32 | 19 | 11 | 11 | 26 |
| Oxides | 144 | 312 | 170 | 138 | 10 |
| Canada | | | | | |
| Oxides | 336 | 362 | 423 | 193 | 141 |
| Mexico | | | | | |
| Ores & concentrates | 693 | 289 | 927 | 240 | ... |
| Metal | 234 | 151 | 204 | 52 | ... |
| USA | | | | | |
| Ores & concentrates | 2 408 | 2 050 | 2 678 | 2 488 | 1 354 |
| Metal | 238 | 305 | 246 | 183 | 271 |
| Oxides | 591 | 1 481 | 1 191 | 2 087 | 2 590 |
| Argentina | | | | | |
| Oxides | 368 | 296 | 250 | 509 | ... |
| Brazil | | | | | |
| Ores & concentrates | 8 535 | 2 123 | 2 240 | 1 303 | 1 465 |
| Metal | 208 | 115 | 44 | 42 | 28 |

Imports of Molybdenum

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|---------------------|--------|--------|--------|--------|--------|
| India | | | | | |
| Metal | 37 | 17 | 30 | ... | ... |
| Japan | | | | | |
| Ores & concentrates | 18 431 | 20 388 | 16 290 | 17 245 | 18 737 |
| Metal | 182 | 146 | 219 | 296 | 203 |
| Oxides | 613 | 826 | 660 | 635 | 549 |
| Philippines | | | | | |
| Metal | 71 | 4 | 127 | 13 | 30 |
| Singapore | | | | | |
| Metal | 0 | 1 | 1 | 9 | 19 |
| Taiwan | | | | | |
| Metal | 48 | 44 | 44 | 45 | 70 |
| Australia | | | | | |
| Ores & concentrates | 243 | 326 | 155 | ... | ... |

Note: Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys

(a) May include other ores

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

NICKEL

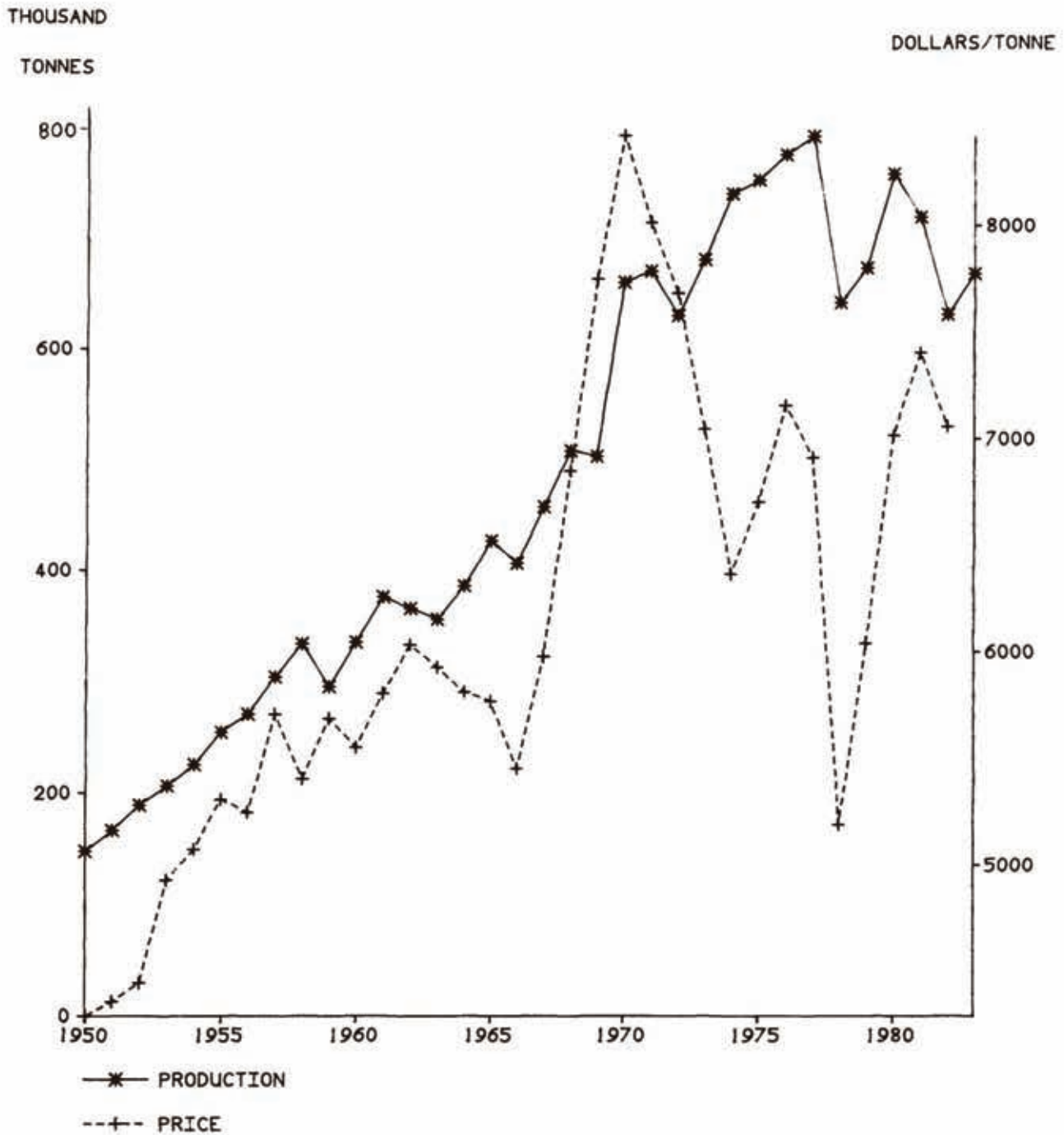


Figure 7 World mine production of nickel from 1950 to 1983 compared with the yearly average f.o.b. price of Canadian nickel cathodes expressed in constant 1982 US dollars. Constant commodity price taken from 'Commodity Trade and Price Trends' published by the Johns Hopkins University Press for the World Bank (1983-84 edition).

Mine Production of Nickel

tonnes (metal content)

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------------------|-----------|-----------|-----------|-----------|-----------|
| Greece (d) | 14 632 | 13 900 | 10 900 | 5 000 | 12 900 |
| Albania | * 8 500 | * 8 500 | * 8 800 | * 9 000 | * 9 000 |
| Finland | 6 618 | 6 550 | 7 557 | 6 335 | 5 300 |
| German Democratic Republic | 2 500 | 2 700 | 2 700 | 2 500 | 2 200 |
| Norway | 593 | 508 | 489 | 405 | * 500 |
| Poland | * 1 200 | * 1 100 | * 1 000 | * 700 | * 300 |
| Soviet Union | * 145 000 | * 143 000 | * 150 000 | * 170 000 | * 172 000 |
| Yugoslavia | * 500 | * 500 | * 2 000 | * 3 500 | * 1 000 |
| Botswana | 16 173 | 15 442 | 18 279 | 17 763 | 18 214 |
| Morocco | 500 | 500 | 500 | 500 | — |
| South Africa (a) | * 25 300 | * 25 700 | * 25 000 | * 20 500 | * 20 500 |
| Zimbabwe | 14 591 | 15 075 | 13 018 | 13 301 | 10 146 |
| Canada (b) | 126 482 | 184 802 | 160 247 | 88 581 | 128 113 |
| Cuba (c) | 32 324 | 38 230 | 40 256 | 37 600 | 39 300 |
| Dominican Republic (d) | 25 112 | 16 350 | 19 020 | 5 958 | 20 200 |
| Guatemala | 6 206 | 6 744 | — | — | — |
| USA | 13 667 | 13 293 | 10 976 | 2 906 | — |
| Brazil | 2 964 | 5 838 | 6 567 | 14 451 | 15 561 |
| Colombia | — | — | — | 2 244 | 14 183 |
| Burma (e) | 18 | 14 | 20 | * 20 | * 20 |
| China | * 11 000 | * 11 000 | * 11 000 | * 13 500 | * 15 000 |
| Indonesia | 35 800 | 40 600 | 49 400 | 48 500 | 38 400 |
| Philippines | 33 287 | 47 114 | 29 247 | 19 634 | 13 900 |
| Australia | 69 709 | 74 323 | 74 355 | 87 552 | 76 625 |
| New Caledonia (f) | 80 464 | 86 592 | 78 090 | 60 129 | 54 340 |
| World total | 673 000 | 758 000 | 719 000 | 631 000 | 668 000 |

(a) Refined nickel and nickel in matte

(b) Refined nickel and nickel in oxide and salts plus nickel in matte and concentrate exported

(c) Ni and Co content of sulphide slurry and oxide

(d) Ni content of ferro-nickel

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

(f) Ni and Co content

Smelter/Refinery Production of Nickel

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------------------|-----------|-----------|-----------|-----------|------------|
| United Kingdom | 18 683 | 19 300 | 25 400 | 6 902 | 23 200 |
| France | 2 558 | 9 792 | 10 051 | 7 361 | 4 900 |
| Greece | 14 600 | 13 880 | 10 860 | 4 778 | 12 858 |
| Albania | * 4 500 | * 4 500 | * 4 500 | * 4 500 | 4 500 |
| Czechoslovakia | * 3 000 | * 1 800 | * 1 600 | * 1 500 | * 3 000 |
| Finland | 11 176 | 12 646 | 13 051 | 12 615 | 14 837 |
| German Democratic Republic | * 3 000 | * 3 000 | * 2 800 | * 3 000 | * 3 000 |
| Norway | 30 686 | 37 123 | 36 954 | 25 833 | 28 309 |
| Poland | * 2 000 | * 1 800 | * 1 500 | * 700 | * 300 |
| Soviet Union | * 160 000 | * 165 000 | * 170 000 | * 190 000 | * 192 000 |
| Yugoslavia | — | — | — | 1 500 | * 1 000 |
| South Africa | 20 400 | 18 100 | 17 200 | 17 300 | 18 400 |
| Zimbabwe | 14 600 | 15 100 | 12 400 | 14 600 | 13 000 |
| Canada | 83 747 | 142 155 | 106 406 | 61 544 | 88 026 |
| Cuba | 19 052 | 20 049 | 20 900 | 21 000 | 21 000 |
| Dominican Republic (a) | 24 553 | 16 552 | 18 679 | 5 484 | 21 202 |
| USA | 40 089 | 40 120 | 44 275 | 40 783 | (b) 30 300 |
| Brazil | 2 463 | 2 504 | 2 334 | 4 813 | 10 741 |
| Colombia | — | — | — | 1 500 | 13 100 |
| China | * 11 000 | * 11 000 | * 12 000 | * 12 500 | * 13 500 |
| Indonesia | 4 000 | 4 421 | 4 703 | 5 000 | 4 300 |
| Japan | 105 900 | 109 300 | 93 600 | 87 300 | 82 300 |
| Philippines | 18 800 | 22 731 | 19 353 | 10 200 | 8 500 |
| Australia | 39 341 | 35 309 | 42 505 | 45 931 | 41 800 |
| New Caledonia | 30 373 | 32 580 | 27 989 | 28 007 | 21 717 |
| World total | 664 000 | 739 000 | 699 000 | 615 000 | 676 000 |

Note: Data relate to refined nickel plus the nickel content of ferro-nickel and nickel oxide

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

(b) Excludes production from domestic ores

Exports of Nickel

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|---|----------|----------|----------|----------|----------|
| United Kingdom | | | | | |
| Mattes, sinters etc. | 1 383 | 2 911 | 4 941 | 2 010 | 572 |
| Unwrought | 13 518 | 9 654 | 18 329 | 10 166 | 12 696 |
| Unwrought alloys | 1 348 | 1 332 | 2 051 | 1 259 | 1 039 |
| Scrap | 4 341 | 4 404 | 4 195 | 5 136 | 5 637 |
| Oxides | 252 | 58 | 162 | 294 | 150 |
| Belgium-Luxembourg | | | | | |
| Unwrought | 290 | 258 | 62 | 562 | 229 |
| Unwrought alloys | 116 | 55 | 56 | 127 | 213 |
| Scrap | 1 656 | 1 440 | 1 432 | 984 | 708 |
| Denmark | | | | | |
| Scrap | 178 | 95 | 32 | 47 | 58 |
| France | | | | | |
| Mattes, sinters etc. | 2 754 | 272 | 3 | 12 | 4 |
| Unwrought | 4 404 | 5 873 | 4 711 | 3 600 | 4 504 |
| Unwrought alloys | 774 | 884 | 553 | 759 | 912 |
| Scrap | 2 708 | 2 179 | 2 461 | 2 064 | 2 070 |
| Oxides | 1 033 | 547 | 235 | 390 | 62 |
| Germany, Federal Republic of | | | | | |
| Mattes, sinters etc. | 1 332 | 302 | 52 | 136 | 5 553 |
| Unwrought | 8 246 | 3 441 | 2 632 | 6 175 | 11 497 |
| Unwrought alloys | 3 091 | 2 995 | 1 869 | 3 286 | 2 861 |
| Scrap | 8 381 | 5 317 | 7 780 | 7 700 | 7 637 |
| Oxides | 147 | 135 | 95 | 135 | 2 437 |
| Italy | | | | | |
| Unwrought (a) | 226 | 169 | 131 | 209 | 713 |
| Scrap | 299 | 271 | 318 | 290 | 165 |
| Netherlands | | | | | |
| Mattes, sinters etc. | 4 034 | 3 686 | 2 602 | 3 115 | 2 782 |
| Unwrought (a) | 3 816 | 4 446 | 3 087 | 2 495 | 2 013 |
| Scrap | 2 071 | 2 168 | 1 564 | 1 808 | 2 206 |
| Oxides | 488 | 572 | 264 | 375 | 781 |
| Austria | | | | | |
| Scrap | 471 | 302 | 451 | 255 | 457 |
| Finland | | | | | |
| Mattes, sinters etc. | 686 | 1 657 | 2 690 | 2 051 | 955 |
| Unwrought (a) | 9 578 | 11 104 | 11 135 | 9 757 | 11 322 |
| Norway | | | | | |
| Ore | 12 692 | 13 773 | 11 360 | 10 824 | 9 952 |
| Unwrought | 33 088 | 31 250 | 36 931 | 29 270 | 30 014 |
| Scrap | 994 | 391 | 583 | 197 | 107 |
| Soviet Union | | | | | |
| Unwrought (b) | * 31 000 | * 30 800 | * 31 700 | * 34 500 | * 35 500 |
| Spain | | | | | |
| Scrap | 302 | 168 | 78 | 24 | 36 |
| Sweden | | | | | |
| Mattes, sinters etc. | 64 | — | — | 106 | 117 |
| Unwrought (a) | 1 640 | 1 906 | 1 397 | 717 | 482 |
| Scrap | 482 | 511 | 525 | 573 | 1 620 |
| Switzerland | | | | | |
| Unwrought, mattes, sinters, etc. & scrap | 679 | 413 | 263 | 264 | 345 |
| Yugoslavia | | | | | |
| Scrap | 210 | 288 | 148 | 170 | 93 |
| South Africa (b) | | | | | |
| Slurry, mattes, sinters etc. | * 47 500 | * 54 900 | * 79 500 | * 48 700 | * 36 200 |
| Unwrought (a) | * 27 700 | * 23 400 | * 18 000 | * 16 600 | * 15 400 |
| Canada | | | | | |
| Ores, concentrates, mattes, sinters etc. (c) | 42 735 | 42 647 | 53 841 | 27 037 | 40 087 |
| Unwrought | 85 459 | 88 493 | 79 987 | 62 463 | 67 386 |
| Scrap | 2 401 | 2 664 | 2 927 | 3 283 | 2 988 |
| Oxides (c) | 17 191 | 16 989 | 14 424 | 13 127 | 11 186 |
| Cuba | | | | | |
| Oxides (e) | 21 671 | 19 656 |) 39 000 | 38 700 | ... |
| Sulphide (e) | 13 737 | 18 139 |) | | |

Exports of Nickel

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------|-----------|-----------|-----------|-----------|-----------|
| USA | | | | | |
| Unwrought (a) | 20 650 | 13 854 | 15 657 | 31 283 | 20 309 |
| Scrap | 9 241 | 18 806 | 9 834 | 10 100 | 12 056 |
| Hong Kong | | | | | |
| Unwrought (Re-exports) | 1 550 | 2 169 | 2 895 | 2 793 | 4 277 |
| Scrap | 205 | 209 | 435 | 487 | 378 |
| Indonesia | | | | | |
| Ore | 781 881 | 883 055 | 842 045 | 721 518 | 514 972 |
| Mattes, sinters etc. | 29 280 | 42 763 | 44 947 | 37 951 | ... |
| Japan | | | | | |
| Unwrought (a) | 1 752 | 1 330 | 1 262 | 298 | 286 |
| Philippines | | | | | |
| Ores & concentrates | 704 299 | 608 825 | 557 583 | 408 712 | 346 973 |
| Unwrought (a) | 14 791 | 18 823 | 15 469 | 5 869 | 10 362 |
| Singapore | | | | | |
| Unwrought (Re-exports) | 274 | 1 392 | 1 201 | 2 774 | 9 440 |
| Taiwan | | | | | |
| Unwrought | 41 | 54 | 36 | 38 | 111 |
| Scrap | 641 | 572 | 947 | 1 198 | 1 423 |
| Australia (d) | * 58 300 | * 53 000 | * 51 600 | * 54 500 | * 61 900 |
| New Caledonia | | | | | |
| Ores | 2 142 152 | 2 012 082 | 1 600 877 | 1 498 837 | 1 065 479 |
| Mattes, sinters etc. | 17 810 | 21 980 | 22 500 | 10 200 | 4 700 |

Notes:

- 1 In this table the term 'unwrought' nickel corresponds to item 683.1 of the Standard International Trade Classification (Revision 2) 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)

Imports of Nickel

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|--------|--------|--------|--------|--------|
| United Kingdom | | | | | |
| Mattes, sinters etc. | 27 822 | 38 325 | 41 232 | 15 015 | 25 937 |
| Unwrought | 17 083 | 16 762 | 16 431 | 14 778 | 10 423 |
| Unwrought alloys | 876 | 1 478 | 526 | 474 | 467 |
| Scrap | 3 078 | 2 174 | 2 390 | 3 359 | 2 298 |
| Oxides | 341 | 1 020 | 257 | 216 | 511 |
| Belgium-Luxembourg | | | | | |
| Mattes, sinters etc. | 177 | 300 | 446 | 338 | 423 |
| Unwrought | 3 680 | 2 624 | 2 176 | 3 149 | 2 993 |
| Unwrought alloys | 570 | 437 | 273 | 969 | 1 347 |
| Scrap | 754 | 519 | 983 | 499 | 327 |
| Oxides | 402 | 164 | 106 | 88 | 349 |
| Denmark | | | | | |
| Unwrought | 193 | 131 | 115 | 159 | 222 |
| Unwrought alloys | 13 | 49 | 0 | 2 | 22 |
| France | | | | | |
| Mattes, sinters etc. | 10 500 | 15 050 | 19 374 | 10 756 | 7 092 |
| Unwrought | 16 005 | 18 029 | 16 802 | 16 377 | 17 893 |
| Unwrought alloys | 3 833 | 4 525 | 3 109 | 3 121 | 2 659 |
| Scrap | 1 444 | 763 | 983 | 466 | 529 |
| Oxides | 141 | 244 | 262 | 243 | 545 |
| Germany, Federal Republic of | | | | | |
| Mattes, sinters etc. | 15 746 | 14 116 | 12 361 | 13 847 | 11 999 |
| Unwrought (a) | 47 708 | 39 329 | 39 929 | 40 576 | 44 830 |
| Scrap | 6 505 | 7 552 | 5 469 | 6 419 | 4 902 |
| Oxides | 612 | 391 | 315 | 193 | 186 |
| Greece | | | | | |
| Unwrought | 175 | 182 | 41 | 153 | 100 |
| Irish Republic | | | | | |
| Unwrought (a) | 108 | 254 | 188 | 187 | 142 |
| Italy | | | | | |
| Mattes, sinters etc. | 5 322 | 2 670 | 1 766 | 2 045 | 2 676 |
| Unwrought | 15 318 | 17 969 | 11 502 | 16 672 | 13 593 |
| Unwrought alloys | 1 534 | 785 | 651 | 1 063 | 664 |
| Scrap | 313 | 685 | 335 | 320 | 143 |
| Oxides | 3 755 | 2 534 | 2 897 | 2 430 | 2 300 |
| Netherlands | | | | | |
| Mattes, sinters etc. | 4 267 | 3 695 | 2 633 | ... | ... |
| Unwrought | 4 949 | 5 518 | 3 681 | 3 312 | 3 054 |
| Unwrought alloys | 129 | 49 | 54 | 78 | 62 |
| Scrap | 875 | 1 021 | 1 377 | 1 527 | 1 320 |
| Oxides | 725 | 1 127 | 1 075 | 1 245 | 267 |
| Austria | | | | | |
| Mattes, sinters etc. | 1 533 | 1 279 | 734 | 833 | 622 |
| Unwrought (a) | 2 849 | 2 378 | 2 586 | 2 129 | 2 888 |
| Scrap | 1 504 | 1 597 | 567 | 357 | 222 |
| Czechoslovakia | | | | | |
| Unwrought (a) | 5 580 | 7 919 | 8 347 | 6 741 | 8 060 |
| Finland | | | | | |
| Ore | 14 798 | 14 676 | 12 402 | 11 579 | 12 188 |
| Mattes, sinters etc. | 7 170 | 7 522 | 6 270 | 7 853 | 9 901 |
| Unwrought (a) | 2 846 | 4 299 | 2 460 | 2 869 | 4 973 |
| Scrap | 1 176 | 1 944 | 1 449 | 1 959 | 1 987 |
| Norway | | | | | |
| Mattes, sinters etc. | 78 897 | 89 855 | 84 252 | 62 419 | 63 140 |
| Unwrought (a) | 85 | 79 | 188 | 85 | 281 |
| Scrap | 1 | 7 | 21 | 31 | 8 |
| Portugal | | | | | |
| Unwrought | 206 | 139 | 246 | 297 | ... |
| Spain | | | | | |
| Mattes, sinters etc. | 2 074 | 1 779 | 2 244 | 2 353 | 2 626 |
| Unwrought (a) | 6 500 | 6 104 | 3 668 | 5 036 | 4 983 |
| Sweden | | | | | |
| Mattes, sinters etc. | 3 475 | 4 453 | 3 113 | 2 603 | 4 059 |
| Unwrought | 11 257 | 10 518 | 7 754 | 10 553 | 9 190 |
| Unwrought alloys | 358 | 292 | 284 | 308 | 372 |
| Scrap | 2 713 | 2 609 | 2 082 | 2 930 | 3 365 |

Imports of Nickel

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|---|-----------|-----------|-----------|-----------|-----------|
| Switzerland | | | | | |
| Unwrought, mattes, sinters etc. & scrap | 1 806 | 1 504 | 1 404 | 1 276 | 989 |
| Yugoslavia | | | | | |
| Unwrought | 1 507 | 1 960 | 2 150 | 1 074 | 1 394 |
| South Africa | | | | | |
| Mattes, sinters etc. | 362 | 0 | 150 | 560 | 455 |
| Unwrought | 651 | 542 | 522 | 103 | 40 |
| Scrap | 37 | 89 | 27 | 0 | — |
| Canada | | | | | |
| Ores, concentrates & scrap (b) | 19 047 | 26 149 | 23 760 | 22 355 | 29 281 |
| Unwrought (a) | 3 108 | 5 224 | 2 927 | 3 403 | 3 355 |
| Mexico | | | | | |
| Mattes, sinters etc. | 4 590 | 3 208 | 4 049 | 4 312 | ... |
| Oxides | 320 | 505 | 511 | 268 | ... |
| USA | | | | | |
| Ore | 4 515 | 4 701 | 8 354 | 1 813 | ... |
| Slurry, mattes, sinters etc. | 55 216 | 66 043 | 85 994 | 50 165 | 56 657 |
| Unwrought (a) | 101 530 | 107 497 | 109 804 | 74 328 | 84 709 |
| Scrap | 3 262 | 3 240 | 4 741 | 3 901 | 5 507 |
| Oxides | 1 650 | 3 794 | 3 928 | 2 852 | 3 818 |
| Argentina | | | | | |
| Unwrought | 826 | 636 | 395 | ... | ... |
| Brazil | | | | | |
| Unwrought (a) | 3 080 | 5 850 | 4 950 | 1 747 | 174 |
| Colombia | | | | | |
| Unwrought | 105 | 121 | 245 | 121 | 231 |
| Venezuela | | | | | |
| Unwrought | 181 | 185 | 207 | 185 | ... |
| Hong Kong | | | | | |
| Unwrought | 2 248 | 3 487 | 4 534 | 3 312 | 5 008 |
| India | | | | | |
| Unwrought (c) | 2 474 | 2 872 | 5 598 | ... | ... |
| Unwrought alloys (c) | 802 | 380 | 2 130 | ... | ... |
| Scrap | 2 377 | 2 261 | 2 992 | ... | ... |
| Japan | | | | | |
| Ore | 4 014 772 | 3 950 321 | 3 462 801 | 2 996 755 | 2 297 076 |
| Mattes, sinters etc. | 43 257 | 51 751 | 36 608 | 41 812 | 38 323 |
| Unwrought | 19 263 | 15 202 | 17 732 | 19 689 | 26 822 |
| Unwrought alloys | 456 | 415 | 151 | 218 | 237 |
| Scrap | 1 948 | 1 806 | 2 252 | 2 938 | 3 668 |
| Oxides | 1 216 | 1 797 | 1 439 | — | — |
| Korea, Republic of | | | | | |
| Unwrought | 1 927 | 2 853 | 3 811 | 2 451 | 2 002 |
| Scrap | 77 | 10 | 4 | 318 | 167 |
| Malaysia | | | | | |
| Unwrought (a) | 6 890 | 3 322 | 2 010 | 499 | ... |
| Taiwan | | | | | |
| Unwrought (a) | 2 324 | 2 230 | 2 479 | 2 822 | 4 060 |
| Australia | | | | | |
| Mattes, sinters etc. | 2 683 | 1 928 | 0 | 31 | 51 |
| Unwrought | 752 | 1 359 | 838 | 1 261 | 178 |
| Unwrought alloys | 98 | 276 | 646 | 682 | 77 |
| New Zealand (d) | | | | | |
| Unwrought (a) | 38 | 107 | 116 | 142 | 10 |

Notes:

- 1 In this table the term 'unwrought' nickel corresponds to item 683.1 of the Standard International Trade Classification (Revision 2) 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

Production of Crude Petroleum

thousand tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|---------|---------|---------|---------|---------|
| United Kingdom | 76 596 | 78 917 | 87 946 | 100 311 | 110 835 |
| Denmark (e) | 421 | 280 | 760 | 1 663 | 2 149 |
| France | 1 196 | 1 405 | 1 676 | 1 646 | 1 660 |
| Germany, Federal Republic of | 4 774 | 4 631 | 4 459 | 4 255 | 4 116 |
| Greece | — | — | 204 | 1 000 | 1 250 |
| Italy | 1 662 | 1 800 | 1 465 | 1 727 | 2 208 |
| Netherlands | 1 316 | 1 280 | 1 348 | 1 637 | 2 589 |
| Albania | * 3 280 | * 1 590 | * 2 190 | * 2 310 | * 4 000 |
| Austria | 1 726 | 1 475 | 1 338 | 1 290 | 1 269 |
| Bulgaria | * 250 | * 250 | * 290 | * 300 | * 300 |
| Czechoslovakia | 108 | 93 | 89 | 89 | 93 |
| German Democratic Republic | * 50 | * 60 | * 60 | * 60 | * 60 |
| Hungary | 2 027 | 2 031 | 2 024 | 2 027 | 2 004 |
| Norway | 18 819 | 24 451 | 23 450 | 24 515 | 30 634 |
| Poland | 331 | 329 | 315 | 241 | 210 |
| Romania | 12 323 | 11 511 | 11 644 | 11 742 | 12 500 |
| Soviet Union | 585 571 | 603 207 | 608 820 | 612 600 | 616 300 |
| Spain | 1 150 | 1 595 | 1 253 | 1 460 | 3 160 |
| Turkey | 2 845 | 2 330 | 2 364 | 2 366 | 2 204 |
| Yugoslavia | 4 143 | 4 229 | 4 375 | 4 340 | 4 125 |
| Algeria | 56 900 | 51 280 | 44 570 | 43 700 | 44 860 |
| Angola | 7 270 | 7 420 | 6 480 | 7 130 | 8 400 |
| Cameroon | 1 730 | 2 790 | 4 420 | 5 410 | 5 650 |
| Congo | 2 784 | 3 067 | 3 811 | 4 382 | 4 910 |
| Egypt | 28 220 | 29 450 | 32 100 | 33 200 | 36 220 |
| Gabon | 9 798 | 8 895 | 7 650 | 7 720 | 7 920 |
| Libya | 100 270 | 86 619 | 57 423 | 50 510 | 53 670 |
| Nigeria | 113 694 | 100 286 | 69 927 | 62 633 | 61 280 |
| Tunisia | 5 536 | 5 627 | 5 407 | 5 146 | 5 532 |
| Zaire | 1 038 | 906 | 1 068 | 1 167 | 1 294 |
| Canada | 79 110 | 75 997 | 67 853 | 67 313 | 70 126 |
| Cuba | 288 | 273 | 253 | 541 | 742 |
| Mexico | 75 542 | 100 348 | 119 537 | 141 987 | 137 808 |
| Trinidad & Tobago | 11 047 | 10 956 | 9 792 | 9 154 | 8 530 |
| USA | 425 827 | 428 091 | 444 682 | 448 676 | 450 000 |
| Argentina | 25 016 | 26 073 | 26 296 | 25 962 | 25 977 |
| Bolivia | 1 476 | 1 262 | 1 174 | 1 293 | 1 160 |
| Brazil | 9 056 | 9 636 | 11 298 | 13 756 | 17 461 |
| Chile | 1 097 | 1 763 | 2 191 | 2 266 | 2 083 |
| Colombia | 6 394 | 6 486 | 6 896 | 7 308 | 7 657 |
| Ecuador | 10 649 | 10 423 | 10 708 | 10 834 | 12 044 |
| Peru | 9 430 | 9 619 | 9 495 | 9 598 | 8 419 |
| Venezuela | 124 106 | 114 788 | 111 688 | 100 391 | 95 526 |
| Abu Dhabi | 70 834 | 65 600 | 55 628 | 47 590 | 44 160 |
| Bahrain | 2 560 | 2 402 | 2 304 | 2 195 | 2 490 |
| Brunei | 12 257 | 10 458 | 8 258 | 8 950 | 8 650 |
| Burma (d) | 1 419 | 1 404 | 1 160 | 1 550 | 1 550 |
| China (a) | 106 150 | 105 950 | 101 220 | 102 120 | 106 070 |
| Dubai | 17 168 | 16 968 | 17 595 | 17 910 | 17 170 |
| India | 12 841 | 9 397 | 14 925 | 19 712 | 25 235 |
| Indonesia | 76 789 | 76 345 | 77 380 | 64 592 | 64 896 |
| Iran | 156 109 | 72 364 | 64 844 | 101 255 | 123 440 |
| Iraq | 169 290 | 135 810 | 43 260 | 44 720 | 46 750 |
| Israel | 22 | 21 | 17 | 13 | 12 |
| Japan | 511 | 459 | 416 | 426 | 449 |
| Kuwait | 125 392 | 83 567 | 56 589 | 41 319 | 53 016 |
| Malaysia | 13 639 | 13 245 | 12 360 | 14 543 | 18 150 |
| Neutral Zone (c) | 29 180 | 28 040 | 19 160 | 15 550 | 19 180 |
| Oman | 14 689 | 14 089 | 16 326 | 16 708 | 19 410 |
| Pakistan | 523 | 497 | 474 | 615 | 650 |
| Philippines | 1 180 | 490 | 290 | 480 | 780 |

Production of Crude Petroleum

thousand tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------|------------------|------------------|------------------|------------------|------------------|
| Qatar | 24 010 | 22 467 | 19 277 | 15 610 | 13 993 |
| Saudi Arabia | 468 428 | 487 702 | 490 209 | 323 687 | 251 790 |
| Sharjah | 665 | 606 | 460 | 740 | 2 450 |
| Syria | 8 826 | 8 391 | 8 660 | 8 219 | 8 538 |
| Taiwan | 210 | 193 | 167 | 127 | 128 |
| Australia | 22 380 | 19 451 | 19 799 | 18 839 | 21 209 |
| New Zealand (b) | 435 | 382 | 460 | 710 | 720 |
| World total | 3 200 000 | 3 010 000 | 2 840 000 | 2 700 000 | 2 720 000 |

Note: 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

PETROLEUM

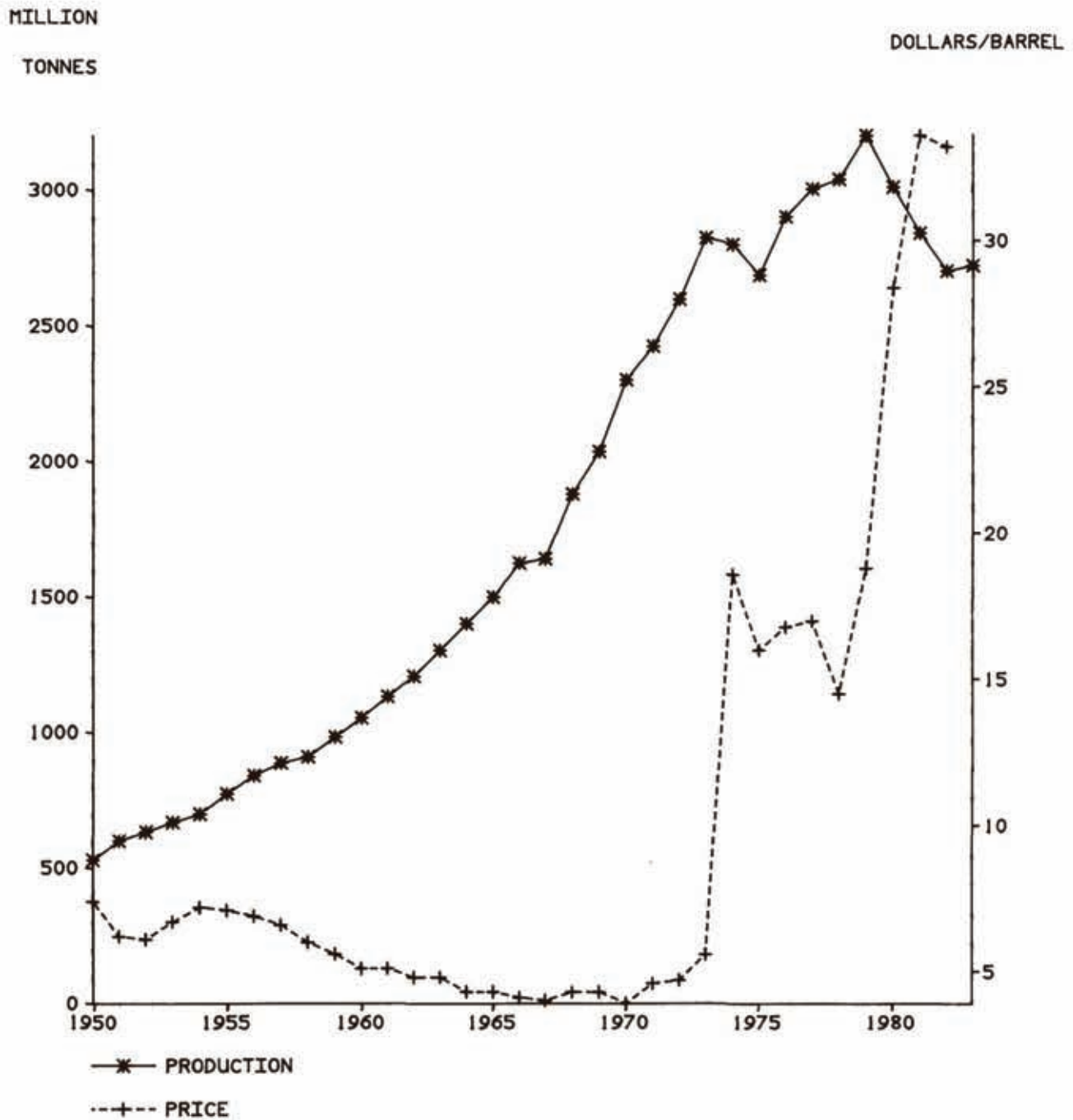


Figure 8 World production of crude petroleum from 1950 to 1983 compared with the weighted average price of OPEC crude expressed in constant 1982 US dollars from 1974. (Light crude f.o.b. Ras Tanura up to 1973).

Constant commodity price taken from 'Commodity Trade and Price Trends' published by the Johns Hopkins University Press for the World Bank (1983-84 edition).

Production of Natural Gas

Million m³

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|-----------|-----------|-----------|------------|
| United Kingdom | 40 292 | 38 716 | 38 755 | 42 603 | (e) 39 539 |
| Belgium | 39 | 47 | 43 | 36 | 23 |
| France | 7 769 | 7 536 | 7 086 | 6 586 | 6 662 |
| Germany, Federal Republic of | 20 685 | 18 645 | 19 058 | 16 110 | 17 623 |
| Irish Republic | ... | 912 | 1 390 | 2 033 | 2 194 |
| Italy | 13 466 | 12 531 | 13 943 | 14 589 | 13 067 |
| Netherlands | 96 488 | 91 153 | 84 617 | 72 035 | 76 536 |
| Albania | * 370 | * 370 | * 380 | * 450 | * 420 |
| Austria | 2 312 | 1 903 | 1 437 | 1 324 | 1 213 |
| Bulgaria | 137 | 190 | 137 | * 140 | * 135 |
| Czechoslovakia | 851 | 626 | 662 | 656 | 613 |
| German Democratic Republic | * 8 800 | * 9 000 | * 9 900 | * 7 900 | ... |
| Hungary | 6 521 | 6 142 | 6 011 | 6 641 | 6 497 |
| Norway | 21 581 | 25 973 | 26 162 | 26 193 | 25 611 |
| Poland | 7 335 | 6 329 | 6 172 | 5 555 | 5 491 |
| Romania | 34 057 | 35 171 | 37 022 | 37 417 | 39 000 |
| Soviet Union | 406 597 | 435 217 | 465 262 | 500 700 | 535 700 |
| Yugoslavia | 1 857 | 1 820 | 1 651 | 1 703 | 2 090 |
| Algeria | * 14 600 | * 11 700 | * 13 200 | * 13 300 | ... |
| Angola | * 70 | * 70 | * 70 | * 70 | ... |
| Egypt | 3 400 | * 1 700 | * 2 000 | * 2 200 | * 2 500 |
| Gabon | 61 | 72 | 76 | 65 | * 135 |
| Libya | 6 785 | 5 168 | 3 058 | 3 256 | * 4 300 |
| Morocco | 75 | 68 | 85 | 78 | ... |
| Nigeria | 1 019 | 1 343 | 2 454 | 2 549 | ... |
| Tunisia | 330 | 355 | 391 | 423 | 412 |
| Canada | 94 426 | 87 109 | 85 530 | 87 102 | 83 311 |
| Mexico | 25 906 | 31 978 | 34 383 | 36 229 | 36 401 |
| Trinidad & Tobago | 2 477 | 2 754 | 2 852 | 3 568 | * 4 000 |
| USA (f) | 557 000 | 549 000 | 543 000 | 503 000 | 454 000 |
| Argentina | 9 270 | 9 872 | 10 159 | 11 864 | * 13 500 |
| Bolivia | 1 962 | 2 227 | 2 438 | 2 297 | * 2 300 |
| Brazil | 858 | 1 000 | 900 | 1 286 | 1 700 |
| Chile | 3 910 | * 3 800 | * 3 700 | 3 530 | ... |
| Colombia | 3 063 | 3 357 | 3 400 | * 3 700 | * 3 700 |
| Peru | 596 | * 595 | * 595 | * 595 | ... |
| Venezuela | 16 298 | 16 679 | 16 643 | 17 608 | 17 165 |
| Afghanistan (c) | 2 327 | 2 790 | 2 675 | 2 460 | ... |
| Bahrain | 4 025 | 3 495 | 3 482 | 3 696 | ... |
| Bangladesh (d) | 1 112 | 1 285 | 1 414 | 1 834 | * 2 000 |
| Brunei | 9 360 | 9 290 | 8 850 | 8 678 | 8 900 |
| Burma (b) | 341 | 420 | 421 | 493 | 838 |
| China | * 14 500 | 14 270 | 12 740 | 11 930 | 12 210 |
| India | 1 925 | 1 462 | 1 997 | 2 412 | 2 856 |
| Indonesia | 28 272 | 29 612 | 31 820 | 31 486 | 33 546 |
| Iran | 19 990 | 8 270 | 7 200 | * 5 700 | ... |
| Iraq | 2 230 | 2 237 | 1 760 | * 1 700 | * 1 700 |
| Israel | 68 | 142 | 175 | 73 | 66 |
| Japan | 2 414 | 2 197 | 2 102 | 2 047 | 2 085 |
| Kuwait (a) | 8 613 | 6 895 | 5 334 | 4 130 | 4 786 |
| Malaysia | 98 | 827 | * 750 | 1 338 | ... |
| Pakistan | 6 797 | 8 134 | 8 937 | 9 771 | 10 000 |
| Qatar | 4 362 | 3 143 | 4 587 | 5 040 | 5 341 |
| Saudi Arabia (a) | * 11 700 | * 14 600 | * 14 600 | * 12 200 | ... |
| Taiwan | 1 721 | 1 708 | 1 502 | 1 232 | 1 237 |
| Australia | 8 381 | 9 567 | 11 260 | 11 595 | 11 914 |
| New Zealand | 1 428 | 1 125 | 1 374 | 2 473 | 2 052 |
| World total | 1 500 000 | 1 500 000 | 1 600 000 | 1 600 000 | 1 500 000 |

Note: So far as possible the figures in this table exclude flared gas

(a) Includes 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) Excluding heavier natural gases and condensates

(f) Dry gas

Exports of Crude Petroleum

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------------|-----------------|-----------------|-----------------|------------------|
| United Kingdom | 38 833 712 | 38 595 732 | 52 548 820 | 60 320 953 | 68 278 840 |
| Belgium-Luxembourg | 3 | 2 | 58 553 | 181 564 | 80 139 |
| France | 74 | 76 | 89 | 584 076 | 436 279 |
| Germany, Federal Republic of | 1 035 545 | 1 257 056 | 1 071 236 | 1 141 828 | 1 114 665 |
| Netherlands | 15 387 | 14 683 | 46 633 | 101 802 | 254 572 |
| Czechoslovakia | 242 000 | 328 000 | 209 000 | 481 000 | ... |
| Hungary | 1 053 000 | 885 000 | 534 000 | 1 796 000 | ... |
| Norway | 18 710 771 | 23 197 329 | 20 453 396 | 20 665 923 | 25 623 382 |
| Soviet Union | * 120 000 000 | * 125 000 000 | * 120 000 000 | * 130 000 000 | * 130 000 000 |
| Spain | — | 144 995 | 114 303 | 170 228 | 191 000 |
| Algeria | 51 739 198 | 46 528 964 | * 35 000 000 | * 20 000 000 | ... |
| Angola | * 5 925 000 | * 6 204 000 | * 5 858 000 | * 5 300 000 | ... |
| Cameroon | 822 397 | 1 612 180 | 1 434 000 | 1 871 770 | ... |
| Congo | 3 721 086 | 3 408 606 | 2 829 853 | 4 572 827 | ... |
| Egypt | 5 245 837 | 8 005 645 | 7 187 997 | 7 863 837 | ... |
| Gabon | 6 939 400 | 7 687 100 | 6 300 000 | 6 650 000 | 6 820 000 |
| Libya | 104 155 494 | 89 864 479 | 51 237 000 | * 49 580 000 | ... |
| Nigeria | 109 143 000 | 96 760 000 | 64 392 000 | * 56 900 000 | ... |
| Tunisia | 5 253 953 | 4 609 280 | 4 991 407 | 3 843 815 | 2 790 149 |
| Zaire | 700 197 | 625 433 | 1 016 488 | 1 109 801 | ... |
| Bahamas (Re-exports) | 23 837 709 | ... | ... | ... | 9 055 316 |
| Canada | 15 277 740 | 11 349 029 | 8 670 665 | 11 096 318 | 15 305 074 |
| Guatemala | — | 53 984 | 93 209 | 157 639 | 265 719 |
| Mexico | 27 547 400 | 42 794 400 | 56 767 400 | 77 140 800 | 79 462 500 |
| Netherlands Antilles | 1 418 000 | 608 000 | ... | ... | 653 000 |
| Trinidad & Tobago | 7 872 600 | 6 710 020 | 6 144 774 | 4 732 628 | 4 962 501 |
| USA | 4 185 611 | 5 259 570 | 2 468 931 | 1 898 938 | 963 724 |
| Bolivia | 197 770 | — | — | — | ... |
| Brazil | 0 | 58 812 | 606 665 | 1 087 486 | 48 771 |
| Ecuador | 6 036 003 | 5 613 596 | 4 745 501 | 4 596 933 | 6 370 879 |
| Peru | 1 846 438 | 1 883 910 | 1 348 779 | 1 525 083 | ... |
| Venezuela | 73 729 000 | 67 782 000 | 66 138 000 | 55 456 000 | 51 132 000 |
| Brunei | 12 239 044 | 11 218 160 | 8 028 719 | 8 287 805 | 8 504 468 |
| China | (a)* 11 320 000 | (a)* 11 300 000 | 13 870 000 | 14 680 000 | 14 830 000 |
| Indonesia | 60 417 683 | 50 886 849 | 50 130 321 | 56 069 961 | 54 894 367 |
| Iran (b) | 118 611 000 | 39 367 000 | (a)* 31 900 000 | (a)* 64 800 000 | (a)* 101 700 000 |
| Iraq | 160 606 000 | 120 909 000 | 34 154 000 | * 35 200 000 | ... |
| Kuwait | 104 640 105 | 63 509 634 | 36 567 575 | 18 578 330 | 27 425 811 |
| Malaysia | 12 034 451 | 11 226 921 | 10 143 173 | 11 973 851 | ... |
| Oman | 14 661 756 | 13 911 620 | 16 380 250 | * 15 992 000 | ... |
| Qatar | 24 042 481 | 22 506 645 | 18 854 784 | 15 565 840 | 13 480 912 |
| Saudi Arabia | 440 137 000 | 454 661 000 | 444 021 000 | 277 321 408 | ... |
| Singapore | 124 215 | 75 652 | 50 440 | 276 145 | 465 105 |
| of which: Re-exports | 124 215 | 75 247 | 50 440 | 276 143 | 465 105 |
| Syria | 7 697 000 | * 6 316 000 | 5 542 000 | 5 317 062 | ... |
| United Arab Emirates | 87 484 205 | 82 557 606 | 70 498 723 | * 57 790 000 | ... |
| Australia | 303 723 | 84 425 | 55 663 | 42 267 | ... |

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

(b) Years ended 20 March following that stated

Imports of Crude Petroleum

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|--------------|--------------|--------------|--------------|--------------|
| United Kingdom | 57 830 226 | 44 541 358 | 32 990 199 | 28 256 208 | 22 802 643 |
| Belgium-Luxembourg | 31 596 685 | 29 913 668 | 27 213 278 | 23 484 441 | 19 984 899 |
| Denmark | 7 951 692 | 5 764 051 | 5 017 574 | 4 492 081 | 5 312 000 |
| France | 126 010 262 | 109 722 147 | 90 095 874 | 76 456 847 | 69 207 937 |
| Germany, Federal Republic of | 107 354 974 | 96 875 766 | 79 246 855 | 72 541 789 | 65 212 699 |
| Greece | 15 495 179 | 10 167 382 | 8 904 377 | 11 539 098 | 11 091 000 |
| Irish Republic | 2 027 219 | 2 113 988 | 652 678 | 495 803 | 1 064 969 |
| Italy | 109 265 764 | 88 534 643 | 84 365 702 | 77 357 539 | 72 813 911 |
| Netherlands | 61 161 661 | 50 448 982 | 39 662 317 | 38 160 400 | 40 274 160 |
| Austria | 8 827 011 | 8 318 277 | 7 532 649 | 6 158 356 | 5 358 960 |
| Bulgaria | * 13 000 000 | * 13 000 000 | * 12 500 000 | * 12 500 000 | ... |
| Czechoslovakia | 18 834 000 | 19 262 000 | 18 500 000 | 17 300 000 | ... |
| Finland | 12 716 457 | 12 876 406 | 10 774 257 | 9 699 907 | 10 303 753 |
| German Democratic Republic | 20 694 000 | 21 876 000 | 22 734 000 | 21 745 000 | 22 648 000 |
| Hungary | 9 638 368 | 8 336 292 | 7 754 183 | 8 775 705 | 8 863 853 |
| Norway | 7 611 074 | 6 197 743 | 3 899 913 | 3 014 340 | 1 758 493 |
| Poland | 16 608 000 | 16 347 000 | 13 510 000 | 13 223 000 | 14 096 000 |
| Portugal | 7 690 682 | 8 032 076 | 7 467 653 | 7 588 000 | ... |
| Romania | 14 298 000 | 15 961 000 | 12 915 000 | 10 924 000 | ... |
| Soviet Union | * 3 500 000 | * 5 000 000 | * 5 000 000 | * 8 000 000 | * 13 000 000 |
| Spain | 42 717 210 | 43 465 852 | 40 348 159 | 37 789 437 | 42 308 000 |
| Sweden | 16 160 000 | 17 898 000 | 14 685 000 | 13 273 939 | 14 857 526 |
| Switzerland | 4 203 409 | 3 832 443 | 3 241 634 | 3 636 660 | 4 046 305 |
| Turkey | 7 191 341 | 12 053 569 | 11 601 750 | 14 162 083 | 14 259 426 |
| Yugoslavia | 11 813 749 | 10 944 393 | 9 353 863 | 8 490 444 | 9 397 515 |
| Canary Islands | 6 031 883 | 6 143 221 | 5 427 477 | 4 516 127 | ... |
| Ethiopia | 698 574 | 636 415 | 749 340 | 749 828 | 733 050 |
| Ghana | 490 201 | * 1 030 000 | * 1 095 000 | * 1 043 000 | ... |
| Ivory Coast | 1 973 807 | 1 861 844 | 1 520 979 | 1 433 774 | ... |
| Kenya | 2 471 453 | 3 119 466 | 2 556 771 | 2 162 459 | ... |
| Liberia | 548 366 | 592 466 | 388 943 | * 500 000 | ... |
| Madagascar | 299 237 | 130 237 | 162 934 | 355 222 | ... |
| Morocco | 4 541 618 | 4 001 187 | 4 476 243 | 4 408 065 | ... |
| Mozambique | 701 100 | 631 327 | 500 000 | * 520 000 | ... |
| Senegal | 794 967 | 248 678 | 684 784 | 723 814 | 930 016 |
| Sierra Leone | 290 750 | 187 224 | 40 962 | ... | ... |
| South Africa | * 13 000 000 | * 15 000 000 | * 17 000 000 | * 16 200 000 | ... |
| Sudan | * 1 050 000 | 690 834 | 809 590 | 736 512 | ... |
| Tanzania | 568 099 | 621 572 | 541 270 | * 560 000 | ... |
| Tunisia | 1 454 996 | 1 146 325 | 1 521 800 | 369 989 | ... |
| Zaire | * 180 000 | * 180 000 | * 160 000 | * 140 000 | ... |
| Zambia | 699 000 | 762 000 | 751 000 | * 700 000 | ... |
| Bahamas | 19 345 084 | 43 012 011 | 32 546 299 | ... | ... |
| Barbados | * 110 000 | 91 000 | * 164 000 | 160 000 | ... |
| Canada | 32 253 452 | 29 861 177 | 28 052 880 | 17 944 468 | 13 147 644 |
| Costa Rica | 366 234 | 485 423 | 477 783 | 396 156 | 374 608 |
| Cuba | 6 131 000 | 6 025 000 | 6 355 000 | 6 247 000 | ... |
| Dominican Republic | 1 712 598 | 1 457 172 | 1 612 837 | 1 360 624 | ... |
| El Salvador | 643 421 | 702 885 | 741 599 | 798 568 | 731 480 |
| Guatemala | 828 869 | 680 421 | 615 071 | 625 875 | 444 197 |
| Honduras | 434 052 | 460 081 | 246 792 | 94 000 | ... |
| Jamaica | 1 211 505 | 982 578 | 796 013 | 908 707 | 1 119 837 |
| Martinique | 195 299 | 149 841 | 48 780 | 155 742 | ... |
| Netherlands Antilles | 27 055 000 | 26 834 000 | * 27 000 000 | * 26 500 000 | 21 945 000 |
| Nicaragua | 437 136 | 587 670 | * 700 000 | 581 797 | ... |
| Panama | 2 165 654 | 1 926 424 | 1 492 014 | 1 640 769 | 1 650 405 |
| Trinidad & Tobago | 6 118 448 | 6 977 141 | 6 928 339 | 3 851 004 | 101 491 |
| USA | 336 278 295 | 269 747 141 | 250 578 675 | 201 826 026 | 183 885 542 |
| Argentina | 1 773 290 | 2 219 366 | 1 169 439 | 666 557 | ... |
| Brazil | 50 158 455 | 43 590 021 | 42 209 325 | 39 766 369 | 36 451 896 |
| Chile | 4 649 000 | 3 283 606 | 2 710 000 | 1 222 000 | ... |
| Colombia | 1 019 243 | 699 612 | 1 530 673 | 849 546 | 2 034 343 |
| Paraguay | 286 006 | 197 391 | 250 538 | 222 849 | 173 413 |
| Peru | 622 | 1 383 | 627 | — | — |
| Uruguay | 1 149 271 | 1 107 793 | 1 758 619 | 1 731 545 | 1 235 504 |

Imports of Crude Petroleum

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-------------|-------------|-------------|-------------|-------------|
| Bahrain | 9 876 000 | 9 548 000 | 10 638 000 | 7 518 000 | ... |
| Bangladesh | 1 040 000 | 1 278 000 | 1 305 000 | 548 902 | ... |
| Cyprus | 514 253 | 624 353 | 623 950 | 543 772 | 511 928 |
| India | 15 467 000 | 16 415 355 | 15 528 267 | 17 327 000 | ... |
| Indonesia | 3 069 846 | 4 903 138 | 2 676 126 | 4 183 387 | ... |
| Israel | 7 927 000 | 7 399 000 | 6 887 000 | 8 266 000 | ... |
| Japan | 249 255 344 | 223 917 000 | 202 897 396 | 190 019 797 | 186 845 724 |
| Jordan | 1 730 735 | 1 753 648 | 2 159 972 | 2 572 769 | 2 545 246 |
| Korea, Republic of | 25 047 873 | 24 844 075 | 24 529 305 | 24 808 174 | 25 307 519 |
| Lebanon | * 1 855 000 | * 2 047 000 | * 1 521 000 | * 487 000 | ... |
| Malaysia | 4 426 235 | 3 960 733 | 3 551 916 | 2 539 982 | ... |
| Pakistan | 2 945 695 | 4 619 075 | 3 954 967 | 4 478 376 | 4 018 741 |
| Philippines | 9 122 255 | 8 831 761 | 8 694 957 | 7 706 454 | 8 461 746 |
| Singapore | 28 163 001 | 25 085 274 | 31 664 934 | 30 311 873 | 30 655 667 |
| Sri Lanka | 1 438 009 | 1 860 653 | 1 698 503 | 1 940 543 | 19 453 439 |
| Syria | 3 322 276 | 3 154 711 | 4 954 216 | 5 224 110 | ... |
| Taiwan | 17 435 865 | 18 107 629 | 17 183 443 | 15 900 414 | 18 711 695 |
| Thailand | 9 334 861 | 8 995 207 | 8 759 983 | 7 841 296 | 7 978 734 |
| Yemen, People's Dem. Rep. of | 199 615 | 467 387 | 488 899 | 547 045 | 343 172 |
| Australia | 10 020 845 | 10 012 576 | 10 079 169 | 11 474 872 | 7 921 758 |
| New Zealand (a) | 1 836 321 | 2 017 872 | 2 055 564 | 1 899 741 | 1 105 777 |

(a) Years ended 30 June of that stated

PHOSPHATE ROCK

THOUSAND
TONNES

DOLLARS/TONNE

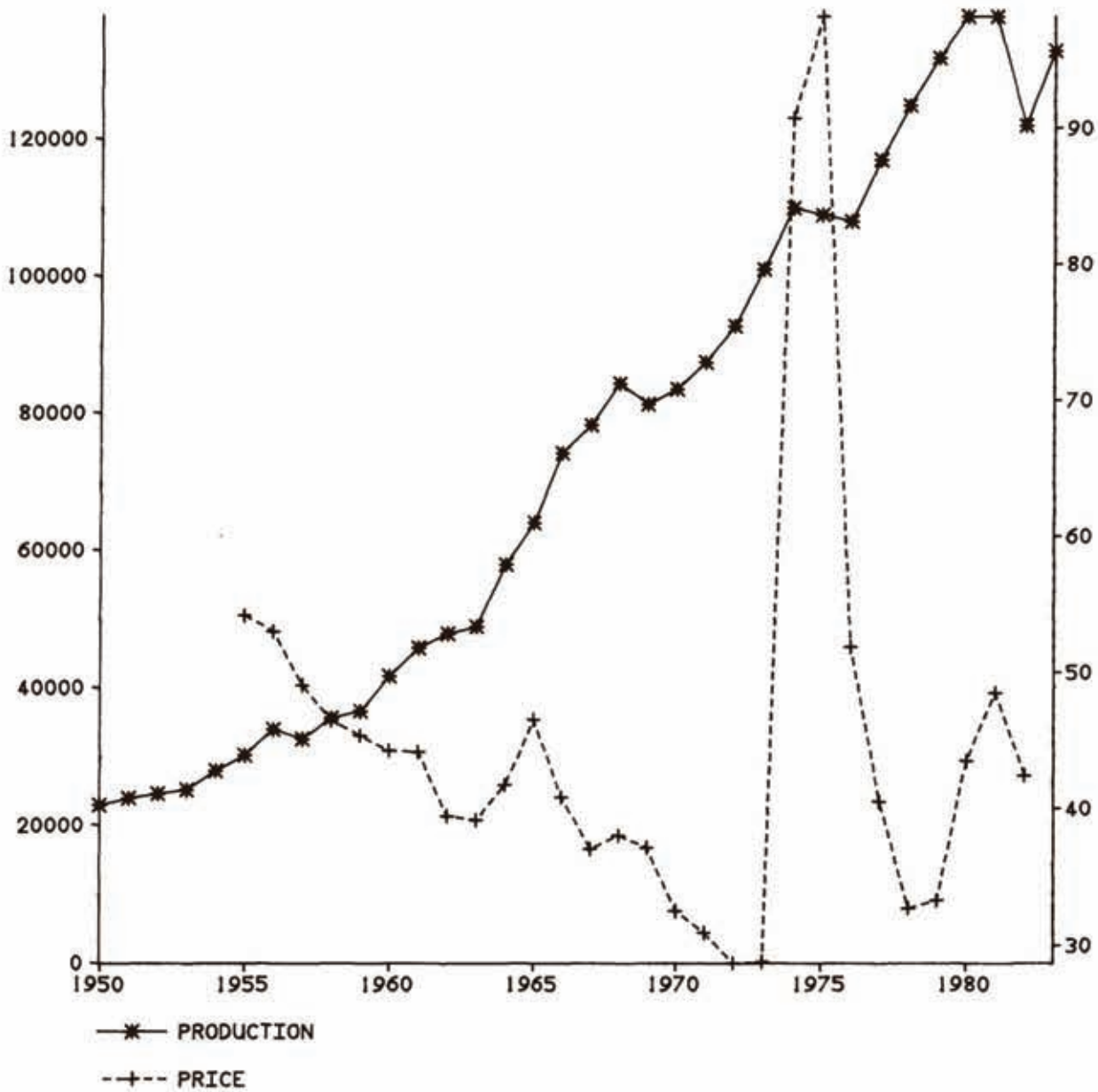


Figure 9 World production of phosphate rock from 1950 to 1983 compared with the yearly average price of Moroccan phosphate f.a.s. Casablanca expressed in constant 1982 US dollars since 1955.

Constant commodity price taken from 'Commodity Trade and Price Trends' published by the Johns Hopkins University Press for the World Bank (1983-84 edition).

Production of Phosphate Rock

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------------|--------------|--------------|--------------|--------------|--------------|
| France | * 24 000 | 25 400 | 28 700 | 24 400 | * 20 000 |
| Finland | 2 690 | 139 837 | 227 964 | 233 053 | 381 216 |
| Soviet Union | * 24 500 000 | * 24 700 000 | * 25 400 000 | * 27 200 000 | * 27 700 000 |
| Sweden | 58 000 | 88 000 | 113 000 | 87 000 | 96 000 |
| Turkey | 37 571 | 82 655 | 103 129 | 35 400 | 104 482 |
| Algeria | 1 132 000 | 1 025 400 | 916 000 | 947 000 | 892 800 |
| Egypt | 645 000 | 658 300 | 720 300 | 707 600 | 646 700 |
| Morocco | 19 999 000 | 18 824 243 | 18 562 162 | 17 094 700 | 20 106 000 |
| Senegal | | | | | |
| Phosphate rock | 1 523 000 | 1 289 543 | 1 792 000 | 837 000 | 1 253 655 |
| Aluminium phosphate (a) | 390 963 | 83 060 | 199 218 | 400 000 | 251 274 |
| Seychelles | | | | | |
| Guano (b) | 6 383 | 4 285 | 1 440 | — | — |
| South Africa | 3 221 000 | 3 282 000 | 3 033 500 | 3 086 400 | 2 720 300 |
| Togo | 2 915 811 | 2 932 845 | 2 215 363 | 2 128 000 | 2 080 674 |
| Tunisia | 4 056 960 | 4 501 907 | 4 924 000 | 4 729 391 | 5 795 662 |
| Zimbabwe | 136 238 | 130 337 | 122 235 | 121 608 | 132 911 |
| Mexico | 274 428 | 396 646 | 503 252 | 653 050 | * 700 000 |
| Netherlands Antilles (b) | 49 757 | 14 634 | — | — | 3 525 |
| USA | 51 611 000 | 54 415 000 | 53 624 000 | 37 414 000 | 42 573 000 |
| Brazil | 1 628 193 | 2 611 641 | 2 710 604 | * 2 800 000 | 3 240 603 |
| Chile | | | | | |
| Guano | — | — | 1 100 | 50 | — |
| Colombia | 6 776 | 6 370 | 17 329 | 20 393 | 16 944 |
| Venezuela | — | — | — | — | 8 216 |
| China | 8 517 000 | 10 726 000 | 10 862 000 | 11 228 000 | * 12 500 000 |
| Christmas Island (b)(c) | 1 360 852 | 1 638 315 | 1 357 838 | 1 345 462 | 1 036 081 |
| India | 681 486 | 543 004 | 565 277 | 631 082 | 787 392 |
| Indonesia | 5 323 | * 5 000 | * 5 000 | * 5 000 | 6 000 |
| Israel | 2 085 500 | 2 307 100 | 1 918 700 | 2 147 800 | 1 965 700 |
| Jordan | 2 825 823 | 3 911 166 | 4 243 643 | 4 390 343 | 4 745 931 |
| Korea, Dem. P.R. of | * 500 000 | * 500 000 | * 500 000 | * 500 000 | 500 000 |
| Philippines | | | | | |
| Phosphate rock | 2 495 | 17 679 | 8 413 | 5 944 | * 10 000 |
| Guano | 3 158 | 24 836 | 2 055 | 15 259 | * 3 000 |
| Syria | 1 170 000 | 1 319 000 | 1 319 000 | 1 461 000 | 1 231 000 |
| Thailand | 4 542 | 5 570 | 2 610 | 4 265 | 5 158 |
| Vietnam | * 200 000 | * 90 000 | * 110 000 | * 160 000 | * 220 000 |
| Australia | 7 557 | 6 621 | 21 997 | 211 463 | 15 300 |
| Banaba (b) | (d) 445 700 | — | — | — | — |
| Nauru (b) | 1 828 420 | 2 086 676 | 1 479 900 | 1 333 300 | 1 684 000 |
| World total | 132 000 000 | 138 000 000 | 138 000 000 | 122 000 000 | 133 000 000 |

(a) Including lime phosphates

(b) Exports

(c) Including phosphate dust

(d) Figure is for 11 months only; mining ceased in November 1979

Exports of Phosphate Rock

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-------------|-------------|-------------|-------------|-------------|
| Belgium-Luxembourg | 18 433 | 11 291 | 14 779 | 10 379 | 28 715 |
| France | 26 017 | 15 498 | 3 441 | 3 804 | 4 953 |
| Germany, Federal Republic of | 952 | 1 555 | 1 959 | 1 602 | 1 925 |
| Netherlands | 71 427 | 64 064 | 26 250 | 23 926 | 39 478 |
| Soviet Union | * 6 000 000 | * 4 500 000 | * 5 000 000 | * 5 000 000 | * 5 000 000 |
| Sweden | 43 816 | 60 675 | 92 575 | 81 414 | 77 198 |
| Algeria | 836 122 | 807 829 | 677 309 | 641 031 | 559 586 |
| Egypt | ... | 25 945 | 55 817 | 174 320 | ... |
| Morocco | 17 856 090 | 16 527 145 | 15 635 480 | 13 976 076 | 13 976 192 |
| Senegal | | | | | |
| Calcium phosphate | 1 429 308 | 1 483 273 | 1 206 539 |) 1 102 411 | 1 268 534 |
| Aluminium phosphate | 101 830 | 77 430 | 50 819 |) | |
| Seychelles | | | | | |
| Guano | 6 383 | 4 285 | 1 440 | — | ... |
| South Africa | 5 321 | 2 841 | 21 521 | 124 180 | 251 214 |
| Togo | 2 692 710 | 2 818 806 | 2 212 495 | 2 055 000 | 2 008 000 |
| Tunisia | 1 598 246 | 1 338 715 | 951 028 | 1 115 147 | 1 208 000 |
| Netherlands Antilles | 49 757 | 14 634 | ... | ... | 3 525 |
| USA | 14 786 811 | 14 320 352 | 10 553 611 | 9 735 025 | 12 197 310 |
| Christmas Island (a) | 1 360 852 | 1 638 315 | 1 357 838 | 1 345 462 | 1 036 081 |
| Israel (b) | 474 653 | 601 887 | 1 215 523 | 1 664 339 | 1 916 879 |
| Jordan | 2 754 615 | 3 623 069 | 3 529 381 | 3 569 701 | 3 701 053 |
| Singapore | 12 465 | 18 653 | 29 988 | 23 791 | 14 395 |
| of which: Re-exports | 10 911 | 14 702 | 27 812 | 20 374 | 12 298 |
| Syria | 1 253 389 | 744 034 | 955 497 | 705 279 | 1 002 104 |
| Australia | 104 | 116 | — | ... | ... |
| Banaba | 445 700 | — | — | — | — |
| Nauru | 1 828 420 | 2 086 676 | 1 479 900 | 1 333 300 | 1 684 000 |

(a) Including phosphate dust

(b) Figures may be incomplete as value only given in Israeli trade return for exports to some countries

Imports of Phosphate Rock

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------------------|-----------|-----------|-----------|-----------|-----------|
| United Kingdom | 1 751 800 | 1 755 115 | 1 456 130 | 1 312 124 | 1 489 067 |
| Belgium-Luxembourg | 2 155 347 | 2 326 081 | 2 251 950 | 2 088 573 | 2 316 777 |
| Denmark | 264 651 | 312 163 | 338 153 | 260 205 | 286 185 |
| France | 5 385 589 | 5 449 733 | 4 551 522 | 4 455 205 | 4 516 315 |
| Germany, Federal Republic of | 2 584 042 | 2 560 313 | 2 210 349 | 1 930 572 | 2 031 054 |
| Greece | 82 864 | 244 260 | 214 317 | 156 986 | 126 193 |
| Irish Republic | 106 400 | 87 059 | 36 859 | 9 669 | 3 405 |
| Italy | 1 624 800 | 1 739 719 | 1 377 281 | 1 161 597 | 1 553 599 |
| Netherlands | 2 451 072 | 2 485 238 | 2 137 710 | 1 949 370 | 2 158 927 |
| Austria | 410 100 | 409 810 | 421 341 | 351 615 | 442 367 |
| Bulgaria (b) | * 697 000 | * 328 000 | * 387 000 | * 272 000 | * 270 000 |
| Czechoslovakia (a) | 322 000 | 323 000 | 271 000 | 280 000 | 281 000 |
| Finland | 672 526 | 613 628 | 410 231 | 495 418 | 443 613 |
| German Democratic Republic (a) | 544 700 | 533 500 | 416 100 | 420 100 | 418 800 |
| Hungary | 595 111 | 671 784 | 674 150 | 567 966 | 648 880 |
| Norway | 427 397 | 477 212 | 402 098 | 461 447 | 414 847 |
| Poland | 3 327 000 | 3 242 000 | 2 938 000 | 3 280 000 | 3 176 000 |
| Portugal | 355 748 | 457 055 | 342 560 | 396 953 | 315 000 |
| Romania (a) | 923 500 | 896 800 | 951 200 | 820 800 | ... |
| Spain | 2 926 065 | 2 604 073 | 2 399 392 | 2 391 303 | 2 484 905 |
| Sweden | 619 160 | 597 445 | 618 932 | 678 932 | 724 394 |
| Switzerland | 13 020 | 13 055 | 9 799 | 7 344 | 5 873 |
| Turkey | 513 122 | 856 070 | 1 268 261 | 625 537 | 922 641 |
| Yugoslavia | 896 443 | 1 382 685 | 1 057 978 | 1 265 072 | 1 801 832 |
| Canary Islands | 6 350 | 2 745 | 6 | — | ... |
| Ivory Coast | 6 207 | 3 630 | 6 100 | 8 785 | ... |
| Mozambique | 3 000 | 4 000 | 4 000 | 2 000 | ... |
| Nigeria | 25 000 | 15 000 | 32 000 | 21 000 | ... |
| Tanzania | 17 951 | 36 000 | 7 | ... | ... |
| Tunisia | 1 000 | 1 | ... | 3 | ... |
| Zimbabwe | 5 421 | — | 7 881 | 14 396 | 27 758 |
| Canada | 3 341 039 | 3 816 514 | 3 245 430 | 2 477 187 | 2 662 725 |
| Mexico | 1 195 915 | 1 000 013 | 1 181 437 | 1 035 723 | 1 140 000 |
| USA | 893 495 | 487 049 | 16 801 | 31 336 | 8 811 |
| Brazil | 753 687 | 772 154 | 466 308 | 234 643 | 5 |
| Colombia | 48 842 | 40 758 | 37 849 | 67 286 | 51 444 |
| Peru | 7 996 | 50 | 0 | 41 | 168 |
| Uruguay | 130 145 | 68 540 | 50 560 | 29 860 | 18 856 |
| Venezuela | 95 020 | 95 040 | 54 290 | 74 898 | ... |
| Bangladesh | 93 000 | 139 000 | 111 000 | 100 000 | ... |
| China | 427 000 | 579 000 | 301 000 | 427 000 | 453 000 |
| India | 1 145 464 | 1 076 639 | 1 371 000 | 1 595 000 | 1 396 000 |
| Japan | 2 827 538 | 2 762 404 | 2 255 714 | 2 216 490 | 2 437 819 |
| Korea, Dem. P.R. of | 325 000 | 197 000 | 159 000 | 109 000 | ... |
| Korea, Republic of | 1 845 039 | 1 670 321 | 1 136 814 | 1 505 459 | 1 591 814 |
| Lebanon | 438 000 | 313 000 | 322 000 | 5 000 | — |
| Malaysia | 160 861 | 344 892 | 219 165 | 208 008 | ... |
| Pakistan (c) | 56 447 | 143 777 | 115 454 | 183 321 | 237 076 |
| Philippines | 96 632 | 30 011 | 5 | 12 | 10 588 |
| Singapore | 5 405 | 20 393 | 20 250 | 27 129 | 16 149 |
| Sri Lanka | 9 | 27 500 | 13 300 | 17 767 | 9 406 |
| Taiwan | 359 569 | 297 797 | 314 016 | 288 081 | 228 636 |
| Australia | 2 368 694 | 2 692 422 | 1 961 897 | 1 923 886 | 2 161 000 |
| New Zealand (c) | 1 349 279 | 1 209 305 | 1 024 671 | 1 025 368 | 915 071 |

(a) P₂O₅ content

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

(c) Years ended 30 June of that stated

Mine Production of Platinum Group Metals

kilograms (metal content)

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|---------------|-----------|-----------|-----------|-----------|-----------|
| Finland (a) | 48 | 28 | 112 | 274 | 139 |
| Soviet Union | * 100 000 | * 101 000 | * 104 000 | * 109 000 | * 112 000 |
| Yugoslavia | | | | | |
| Platinum (a) | 21 | 13 | 15 | * 15 | * 12 |
| Palladium (a) | 163 | 140 | 97 | * 95 | * 90 |
| Ethiopia (c) | 3 | 4 | * 4 | * 4 | * 4 |
| South Africa | * 93 800 | * 96 400 | * 96 700 | * 80 900 | * 80 900 |
| Zimbabwe | | | | | |
| Platinum | — | 93 | 72 | 53 | 53 |
| Palladium | — | 211 | 162 | 86 | 74 |
| Canada (b) | 6 157 | 12 776 | 11 902 | 7 105 | 5 195 |
| USA | 227 | 104 | 228 | 250 | 195 |
| Colombia | 402 | 446 | 460 | 370 | 320 |
| Japan | | | | | |
| Platinum (a) | 378 | 385 | 327 | 479 | 667 |
| Palladium (a) | 700 | 901 | 800 | 867 | 1 155 |
| Australia | | | | | |
| Platinum | 86 | 64 | 65 | * 60 | * 60 |
| Palladium | 214 | 328 | 401 | * 370 | * 370 |
| World total | 202 000 | 213 000 | 215 000 | 200 000 | 201 000 |

Notes:

- 1 Wherever possible, figures relate to quantities of platinum group metals thought to be recovered from ores originating in the country stated. 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
 - 2 In addition to the countries listed, Bulgaria, China, Indonesia, Papua New Guinea and Philippines are also 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

Exports of Platinum Group Metals

kilograms

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------------------|------------|------------|------------|------------|------------|
| United Kingdom | | | | | |
| Platinum | 21 451 | 28 967 | 26 165 | 27 232 | 29 933 |
| Palladium | 8 695 | 10 375 | 13 544 | 11 515 | 11 828 |
| Other platinum metals | 12 463 | 14 176 | 2 890 | 3 645 | 5 199 |
| Waste & scrap | 232 | 1 275 | 104 | 1 781 | 80 |
| Belgium-Luxembourg | | | | | |
| Platinum | 995 | 1 204 | 1 592 | 1 674 | 30 952 |
| Platinum metals | 2 527 | 2 901 | 4 214 | 4 828 | 6 200 |
| Denmark | | | | | |
| Platinum | 65 | 80 | 148 | 368 | 125 |
| Waste & scrap | — | — | 2 388 | 1 768 | 5 000 |
| France | | | | | |
| Platinum | 2 484 | 3 120 | 2 865 | 12 560 | 20 639 |
| Platinum metals | 2 586 | 915 | 1 196 | 1 911 | 2 241 |
| Waste & scrap | 443 | 7 701 | 1 222 | 3 070 | 6 507 |
| Germany, Federal Republic of | | | | | |
| Platinum | 9 014 | 8 676 | 7 431 | 7 378 | 7 004 |
| Palladium | 4 176 | 3 267 | 2 941 | 4 461 | 3 584 |
| Other platinum metals | 3 565 | 2 579 | 2 334 | 2 822 | 3 179 |
| Waste & scrap | 44 562 | 37 568 | 137 | 211 | 212 |
| Irish Republic | | | | | |
| Platinum & platinum metals | 119 | 1 446 | 593 | 1 388 | 930 |
| Italy | | | | | |
| Platinum | 1 352 | 1 973 | 1 687 | 1 552 | 4 275 |
| Platinum metals | 383 | 1 757 | 747 | 315 | 846 |
| Netherlands | | | | | |
| Platinum | 905 | 813 | 735 | 1 010 | 1 234 |
| Platinum metals | 648 | 449 | 255 | 562 | 721 |
| Waste & scrap | ... | ... | 2 000 | 4 000 | 7 000 |
| Austria | | | | | |
| Platinum & platinum metals | 179 | 320 | 288 | 335 | 357 |
| Finland | | | | | |
| Platinum & platinum metals | 71 | 11 | 42 | 26 | 80 |
| Norway | | | | | |
| Platinum & platinum metals | 1 161 | 833 | 1 060 | 1 033 | 1 270 |
| Soviet Union | | | | | |
| Platinum & platinum metals (a) | * 68 100 | * 46 100 | * 46 500 | * 53 000 | * 52 600 |
| Spain | | | | | |
| Platinum & platinum metals | 1 481 | 311 | 593 | 7 285 | 16 000 |
| Sweden | | | | | |
| Platinum & platinum metals | £3 278 100 | £3 348 400 | £2 041 400 | £1 321 600 | £2 708 500 |
| Switzerland | | | | | |
| Platinum | 19 645 | 18 389 | 29 233 | 24 816 | 24 053 |
| Yugoslavia | | | | | |
| Platinum | 1 997 | 126 | — | ... | ... |
| South Africa | | | | | |
| Platinum & platinum metals (a) | * 98 700 | * 89 500 | * 87 600 | * 79 800 | * 75 100 |
| Canada | | | | | |
| Ores & concentrates (b) | 4 906 | 12 369 | 10 094 | 7 172 | 5 757 |
| Platinum metals | 1 779 | 1 165 | 1 001 | 954 | 3 151 |
| of which: Re-exports | 43 | 9 | 0 | 8 | 276 |
| Waste & scrap | 1 665 | 1 431 | 3 394 | 1 583 | 1 219 |
| USA | | | | | |
| Ores & concentrates (b) | 466 | 87 | 296 | 303 | 990 |
| Platinum | 6 045 | 8 608 | 10 459 | 7 612 | 7 597 |
| of which: Re-exports | 192 | 693 | 278 | 3 706 | 3 276 |
| Palladium | 6 966 | 5 897 | 5 393 | 5 829 | 5 748 |
| of which: Re-exports | 293 | 308 | 734 | 622 | 908 |
| Other platinum metals | 9 310 | 4 022 | 2 729 | 2 903 | 2 447 |
| of which: Re-exports | 1 259 | 616 | 184 | 264 | 230 |
| Waste & scrap | 5 476 | 5 296 | 6 398 | 12 529 | 24 139 |

Exports of Platinum Group Metals

kilograms

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--|-------|-------|-------|-------|-------|
| Colombia | | | | | |
| Platinum | — | — | 37 | — | 75 |
| Hong Kong | | | | | |
| Platinum & platinum metals (Re-exports) | 606 | 441 | 124 | 193 | 272 |
| Japan | | | | | |
| Platinum | 1 701 | 1 101 | 1 884 | 1 632 | 1 017 |
| Platinum metals | 1 816 | 1 780 | 1 388 | 3 405 | 3 918 |
| Australia | | | | | |
| Platinum & platinum metals | 339 | 256 | 146 | ... | ... |

Note: In this table the term 'Platinum' and/or 'Platinum metals' as used here includes unwrought, partly worked and alloys

- (a) BGS estimates, based on known imports into certain countries
 (b) Platinum metals content

Imports of Platinum Group Metals

kilograms

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------------------|---------------|----------------|----------------|---------------|----------------|
| United Kingdom | | | | | |
| Ores & concentrates (a) | * £90 332 000 | * £187 731 000 | * £169 072 000 | * £90 722 000 | * £185 481 000 |
| Platinum | 7 815 | 8 025 | 4 643 | 11 209 | 5 658 |
| Palladium | 1 625 | 7 444 | 4 464 | 6 636 | 3 609 |
| Other platinum metals | 2 623 | 4 317 | 1 203 | 1 145 | 998 |
| Waste & scrap | 11 640 | 10 512 | 15 560 | 56 188 | 67 137 |
| Belgium-Luxembourg | | | | | |
| Platinum | 1 605 | 2 137 | 2 008 | 1 989 | 1 558 |
| Platinum metals | 1 006 | 537 | 838 | 858 | 497 |
| Denmark | | | | | |
| Platinum & platinum metals | 693 | 501 | 612 | 609 | 661 |
| France | | | | | |
| Platinum | 9 281 | 6 340 | 5 568 | 6 401 | 3 582 |
| Platinum metals | 4 048 | 5 465 | 9 858 | 18 330 | 22 378 |
| Waste & scrap | 2 100 | 3 092 | 3 479 | 1 536 | 1 467 |
| Germany, Federal Republic of | | | | | |
| Platinum | 15 853 | 12 930 | 13 475 | 24 180 | 15 300 |
| Palladium | 11 882 | 11 443 | 9 022 | 26 553 | 11 123 |
| Other platinum metals | 3 543 | 3 723 | 3 012 | 3 013 | 5 305 |
| Waste & scrap | 29 929 | 59 061 | 23 064 | 38 547 | 49 951 |
| Greece | | | | | |
| Platinum & platinum metals | £1 200 000 | £692 000 | £285 000 | £264 000 | ... |
| Irish Republic | | | | | |
| Platinum & platinum metals | 535 | 935 | 552 | 367 | 866 |
| Italy | | | | | |
| Platinum | 3 050 | 3 574 | 2 392 | 2 159 | 2 493 |
| Platinum metals | 4 613 | 3 942 | 2 977 | 3 362 | 2 775 |
| Waste & scrap | ... | ... | 34 335 | 41 100 | 1 300 |
| Netherlands | | | | | |
| Platinum | 1 108 | 1 379 | 1 059 | 1 318 | 1 643 |
| Platinum metals | 896 | 586 | 545 | 798 | 1 098 |
| Austria | | | | | |
| Platinum & platinum metals | 705 | 813 | 687 | 893 | 513 |
| Bulgaria | | | | | |
| Platinum & platinum metals (e) | * 500 | * 600 | * 300 | * 200 | * 400 |
| Czechoslovakia | | | | | |
| Platinum & platinum metals (e) | * 150 | * 500 | * 150 | * 50 | * 50 |
| Finland | | | | | |
| Platinum & platinum metals | 112 | 182 | 55 | 88 | 73 |
| German Democratic Republic | | | | | |
| Platinum & platinum metals (e) | * 200 | * 200 | * 300 | * 1 000 | * 500 |
| Hungary | | | | | |
| Platinum & platinum metals (e) | * 300 | * 400 | * 500 | * 600 | * 300 |
| Norway | | | | | |
| Platinum & platinum metals | 210 | 172 | 237 | 339 | 456 |
| Poland | | | | | |
| Platinum & platinum metals (e) | * 400 | * 100 | * 50 | * 500 | * 200 |
| Portugal | | | | | |
| Platinum & platinum metals | 272 | 271 | 243 | ... | ... |
| Romania | | | | | |
| Platinum & platinum metals (e) | * 400 | * 300 | * 400 | * 100 | * 50 |
| Spain | | | | | |
| Platinum & platinum metals | 2 431 | 15 185 | 8 245 | 1 362 | ... |
| Sweden | | | | | |
| Platinum & platinum metals | 4 000 | 4 000 | 2 000 | 3 000 | 3 000 |
| Switzerland | | | | | |
| Platinum | 15 410 | 30 876 | 26 348 | 30 474 | 37 949 |
| Turkey | | | | | |
| Platinum & platinum metals | 135 | 862 | 1 348 | 63 | 6 441 |
| Yugoslavia | | | | | |
| Platinum | 2 474 | 202 | ... | 1 000 | 1 000 |

Imports of Platinum Group Metals

kilograms

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------------------|------------|----------|----------|----------|----------|
| Algeria | | | | | |
| Platinum & platinum metals | 624 | 92 | ... | ... | ... |
| Nigeria | | | | | |
| Platinum & platinum metals | 23 | ... | ... | ... | ... |
| South Africa | | | | | |
| Platinum & platinum metals | 854 | 715 | 810 | 1 901 | 1 451 |
| Tunisia | | | | | |
| Platinum | 91 | 11 | ... | 1 | ... |
| Zambia | | | | | |
| Platinum | 11 | ... | ... | ... | ... |
| Canada | | | | | |
| Platinum & platinum metals (c) | 2 296 | 4 998 | 2 058 | 1 742 | 2 191 |
| Costa Rica | | | | | |
| Platinum & platinum metals | 425 | 434 | 562 | 350 | 278 |
| Mexico | | | | | |
| Platinum | 2 | 3 | 1 | 3 | ... |
| Palladium | 148 | 107 | 58 | 90 | ... |
| Other platinum metals | 12 | 34 | 101 | 121 | ... |
| Trinidad & Tobago | | | | | |
| Platinum & platinum metals | 94 | 151 | 15 | 52 | 65 |
| USA | | | | | |
| Ores & concentrates (d) | 345 | 21 | 45 | 43 | 66 |
| Platinum | 44 612 | 44 715 | 33 288 | 25 599 | 31 531 |
| Platinum metals — | | | | | |
| Palladium | 46 795 | 40 952 | 38 285 | 34 214 | 38 070 |
| Iridium, osmium & osmiridium | 1 283 | 1 149 | 670 | 855 | 804 |
| Rhodium | 3 391 | 3 430 | 2 348 | 2 176 | 3 731 |
| Ruthenium | 3 885 | 3 063 | 5 612 | 4 162 | 5 089 |
| Waste & scrap | 4 873 | 11 711 | 17 940 | 10 547 | 12 984 |
| Argentina | | | | | |
| Platinum | 28 | 18 | 22 | ... | ... |
| Palladium | 212 | 940 | 227 | ... | ... |
| Other platinum metals | 126 | 990 | 46 | ... | ... |
| Brazil | | | | | |
| Platinum | 299 | 164 | 143 | 35 | 61 |
| Palladium | 518 | 658 | 334 | 561 | 478 |
| Ecuador | | | | | |
| Platinum & platinum metals | 1 693 | 6 | 8 | ... | ... |
| Venezuela | | | | | |
| Platinum & platinum metals | 2 074 | ... | ... | 58 | ... |
| China | | | | | |
| Platinum & platinum metals (e) | * 1 300 | * 300 | * 200 | * 200 | * 100 |
| Hong Kong | | | | | |
| Platinum & platinum metals | 1 995 | 1 544 | 2 448 | 2 264 | 335 |
| India | | | | | |
| Platinum | 393 | 478 | 323 | ... | ... |
| Iran (f) | | | | | |
| Platinum & platinum metals | £1 180 800 | £874 100 | £897 500 | £655 000 | £732 000 |
| Israel | | | | | |
| Platinum metals | 192 | 136 | 187 | ... | (e)* 230 |
| Japan | | | | | |
| Platinum | 30 486 | 31 410 | 38 078 | 34 673 | 29 869 |
| Platinum metals | 33 247 | 26 074 | 32 000 | 35 380 | 37 509 |
| Korea, Republic of | | | | | |
| Platinum & platinum metals | 3 093 | 2 350 | 56 339 | 829 | 635 |
| Malaysia | | | | | |
| Platinum & platinum metals | 87 | 536 | 685 | 1 853 | ... |
| Singapore | | | | | |
| Platinum | 161 | 600 | 3 963 | 990 | 283 |

Imports of Platinum Group Metals

kilograms

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------------------|-------|--------|--------|-------|-------|
| Taiwan | | | | | |
| Platinum & platinum metals | 8 800 | 3 203 | 3 541 | 2 998 | 1 763 |
| Thailand | | | | | |
| Platinum & platinum metals | 7 | 38 | 5 | 40 | 47 |
| Australia | | | | | |
| Platinum metals | 4 157 | 25 663 | 23 422 | 3 798 | ... |
| New Zealand (b) | | | | | |
| Platinum & platinum metals | 84 | 56 | 93 | 71 | 37 |

Note: In this table the term 'Platinum' and/or 'Platinum metals' as used here includes unwrought, partly worked and alloys

(a) Values shown refer to imports of 'ores and concentrates of silver, platinum and platinum metals'; it is assumed that the imports of silver ores and concentrates are negligible

(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

Production of Potashtonnes (K₂O content)

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|------------|------------|------------|------------|-------------|
| United Kingdom | | | | | |
| Chloride | 277 684 | 321 469 | 294 150 | 252 936 | 318 213 |
| France | | | | | |
| Potassic salts | 2 075 000 | 2 039 000 | 1 969 000 | 1 824 000 | 1 651 000 |
| Germany, Federal Republic of | | | | | |
| Potassic salts | 2 616 000 | 2 737 000 | 2 592 000 | 2 057 000 | 2 419 000 |
| Italy | | | | | |
| Potassic salts | 182 429 | 130 164 | 141 780 | 146 023 | 167 426 |
| German Democratic Republic | | | | | |
| Potassic salts | 3 395 000 | 3 422 000 | 3 460 000 | 3 434 000 | 3 431 000 |
| Soviet Union | 6 635 000 | 8 064 000 | 8 449 000 | 8 079 000 | 9 294 000 |
| Spain | | | | | |
| Potassic salts | 780 632 | 791 498 | 860 891 | 822 696 | 657 000 |
| Canada | | | | | |
| Chloride | 6 704 728 | 7 302 901 | 7 146 629 | 5 197 238 | * 6 000 000 |
| USA | | | | | |
| Potassic salts | 2 225 000 | 2 239 000 | 2 156 000 | 1 784 000 | 1 429 000 |
| Chile | | | | | |
| Nitrate | * 21 600 | * 25 300 | * 21 400 | * 21 800 | * 22 000 |
| China | * 16 000 | * 12 000 | * 20 000 | * 26 000 | * 25 000 |
| Israel | | | | | |
| Chloride | 730 000 | 797 000 | 839 000 | 1 004 000 | * 1 000 000 |
| World total | 25 700 000 | 27 900 000 | 27 900 000 | 24 600 000 | 26 400 000 |

Exports of Potash

Potash

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|---------------------------------|------------|------------|------------|-----------|-----------|
| United Kingdom | | | | | |
| Sulphate | 40 | 473 | 1 237 | 1 093 | 288 |
| Chloride | 164 700 | 200 240 | 91 216 | 76 552 | 145 704 |
| Potassic chemicals | 1 742 | 1 745 | 1 758 | 2 159 | 2 319 |
| Belgium-Luxembourg | | | | | |
| Fertiliser salts (a) | 566 | 729 | 713 | 112 | 137 |
| Sulphate (a) | 297 668 | 325 076 | 291 287 | ... | ... |
| Chloride (a) | 5 138 | 6 060 | 5 849 | 15 367 | 13 781 |
| Potassic chemicals | 1 389 | 1 700 | 2 113 | 3 279 | 2 051 |
| France | | | | | |
| Fertiliser salts | 18 453 | 13 293 | 8 807 | 11 892 | 11 088 |
| Chloride | 412 820 | 311 855 | 345 239 | 447 959 | 433 980 |
| Other potassic fertilisers | 33 937 | 23 553 | 21 825 | 17 604 | 22 527 |
| Potassic chemicals | 20 189 | 18 981 | 21 655 | 22 152 | 2 497 |
| Germany, Federal Republic of | | | | | |
| Fertiliser salts | 49 296 | 35 585 | 39 882 | 38 562 | 38 254 |
| Sulphate | 569 272 | 2 503 623 | 2 348 198 | 1 996 789 | 2 193 135 |
| Chloride | 1 863 298 | | | | |
| Potassic chemicals | 34 132 | 32 413 | 38 012 | 37 656 | 37 212 |
| Italy | | | | | |
| Sulphate | 105 194 | 72 040 | 40 426 | 39 789 | 86 143 |
| Potassic chemicals | 303 | 214 | 20 656 | 25 941 | 5 183 |
| Netherlands | | | | | |
| Chloride (a) | 1 504 | 3 423 | 3 456 | 2 330 | 2 209 |
| Potassic chemicals | 1 738 | 1 351 | 1 912 | 1 505 | 1 750 |
| Czechoslovakia | | | | | |
| Potassic chemicals (d) | * 34 400 | * 34 000 | * 32 300 | * 31 300 | * 28 500 |
| German Democratic Republic | | | | | |
| Fertiliser salts (a) | 2 745 000 | 2 817 000 | 2 860 000 | 2 834 000 | 2 905 000 |
| Poland | | | | | |
| Potassic chemicals | 6 762 | 14 000 | ... | 2 365 | ... |
| Portugal | | | | | |
| Sulphate | — | 100 | — | 196 | ... |
| Other potassic fertilisers | 100 | 1 295 | — | 196 | ... |
| Soviet Union | | | | | |
| Fertiliser salts | 4 773 334 | 6 604 707 | 5 244 747 | 4 956 288 | 4 512 795 |
| Spain | | | | | |
| Sulphate | 80 369 | 78 485 | 95 436 | 66 766 | 64 610 |
| Chloride | 597 132 | 495 867 | 512 038 | 668 424 | 662 595 |
| Potassic chemicals | 19 473 | 13 478 | 6 313 | 8 266 | ... |
| Sweden | | | | | |
| Chloride | 441 | 1 | 8 | 56 | 179 |
| Potassic chemicals | 3 643 | 3 714 | 3 719 | 4 821 | 5 260 |
| Yugoslavia | | | | | |
| Potassic chemicals | 2 349 | 2 115 | 2 611 | 3 892 | 1 268 |
| Canada | | | | | |
| Chloride | 10 630 584 | 10 565 401 | 10 068 019 | 7 221 497 | 8 963 870 |
| USA | | | | | |
| Sulphate | 227 805 | 147 731 | 99 363 | 99 758 | 98 027 |
| Chloride | 891 378 | 1 174 548 | 712 887 | 717 969 | 395 523 |
| Other potassic fertilisers | 310 483 | 324 265 | 279 607 | 288 074 | 235 989 |
| Potassic chemicals | 27 323 | 34 155 | 27 206 | 8 900 | 10 126 |
| Hong Kong | | | | | |
| Potassic chemicals (Re-exports) | 772 | 1 012 | 846 | 891 | 426 |
| India | | | | | |
| Potassic chemicals (c) | 705 | 794 | 641 | 725 | ... |
| Israel (b) | | | | | |
| Potassic chemicals | 2 435 | 3 938 | 3 991 | 4 400 | 3 002 |

Exports of Potash

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------------------|---------|---------|---------|---------|---------|
| Japan | | | | | |
| Sulphate | 2 002 | 3 | 4 300 | 1 020 | 2 |
| Chloride | 4 | 3 | 3 918 | 55 | 56 |
| Potassic chemicals | 5 415 | 7 096 | 5 433 | 6 421 | 8 001 |
| Singapore | | | | | |
| Sulphate | 524 | 468 | 737 | 2 005 | 4 519 |
| of which: Re-exports | 524 | 468 | 737 | 1 979 | 4 519 |
| Chloride | 2 413 | 2 349 | 4 553 | 5 354 | 8 102 |
| of which: Re-exports | 2 406 | 2 098 | 3 852 | 5 054 | 8 002 |
| Other potassic fertilisers | 231 230 | 185 837 | 261 224 | 182 649 | 192 808 |
| of which: Re-exports | 231 172 | 185 736 | 261 090 | 182 539 | 192 759 |
| Taiwan | | | | | |
| Potassic fertilisers | — | 1 000 | 5 589 | 13 037 | 10 250 |
| Potassic chemicals | 1 082 | 1 172 | 685 | 516 | 1 256 |

Note: So far as possible the term 'potassic chemicals', as used in this table, relates to items 522, 54,523, 1 and 2 of the Standard International Trade Classification (Revision 2) and includes caustic potash, carbonate, chlorate, nitrate and sulphate

- (a) K₂O content
- (b) Figures may be incomplete as value only given in Israeli trade return for exports to some countries
- (c) Years ended 31 March following that stated
- (d) BGS estimates, based on known imports into certain countries

Imports of Potash

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|-----------|-----------|-----------|-----------|
| United Kingdom | | | | | |
| Fertiliser salts | 37 626 | 25 428 | 25 011 | 22 492 | 25 720 |
| Sulphate | 21 803 | 17 889 | 12 664 | 14 126 | 11 821 |
| Chloride | 607 860 | 534 836 | 467 011 | 481 542 | 472 538 |
| Potassic chemicals | 25 700 | 22 379 | 18 290 | 22 596 | 25 069 |
| Belgium-Luxembourg | | | | | |
| Fertiliser salts (a) | 10 827 | 8 010 | 7 388 | 5 925 | 5 548 |
| Sulphate (a) | 17 398 | 12 005 | 13 024 | 13 862 | 7 963 |
| Chloride (a) | 595 927 | 655 843 | 569 324 | 518 526 | 587 359 |
| Potassic chemicals | 8 846 | 8 205 | 7 338 | 10 227 | 11 345 |
| Denmark | | | | | |
| Fertiliser salts | 825 | 849 | 875 | 1 775 | 1 275 |
| Sulphate | 62 616 | 46 855 | 68 020 | 35 752 | 30 467 |
| Chloride | 177 777 | 192 380 | 179 635 | 198 684 | 231 477 |
| Potassic chemicals | 5 247 | 5 785 | 5 764 | 6 632 | 6 363 |
| France | | | | | |
| Sulphate | 177 885 | 177 714 | 154 368 | 143 318 | 146 296 |
| Chloride | 184 458 | 276 936 | 197 175 | 212 627 | 705 431 |
| Potassic chemicals | 27 954 | 27 403 | 15 450 | 24 137 | 22 638 |
| Germany, Federal Republic of | | | | | |
| Chloride | 208 373 | 216 961 | 172 867 | 171 274 | 82 992 |
| Potassic chemicals | 15 167 | 17 102 | 13 744 | 21 783 | 15 159 |
| Greece | | | | | |
| Sulphate | 9 116 | 48 480 | 5 076 | 2 317 | 3 597 |
| Potassic chemicals | 788 | 3 596 | 4 378 | 4 765 | 4 612 |
| Irish Republic | | | | | |
| Sulphate | 4 078 | 7 559 | 8 204 | 9 250 | 7 354 |
| Chloride | 373 008 | 258 761 | 311 562 | 248 368 | 295 827 |
| Other potassic fertilisers | 40 | 6 092 | 20 | 402 | 10 |
| Potassic chemicals (f) | 861 | 677 | 1 305 | 1 121 | 1 220 |
| Italy | | | | | |
| Fertiliser salts | 22 316 | 16 983 | 12 719 | 11 341 | 11 687 |
| Sulphate | 64 990 | 41 925 | 50 904 | 27 502 | 32 664 |
| Chloride | 632 046 | 631 323 | 480 139 | 461 404 | 563 626 |
| Other potassic fertilisers | 259 | 32 114 | 21 220 | 21 998 | 18 852 |
| Potassic chemicals | 16 614 | 16 738 | 15 248 | 26 242 | 28 853 |
| Netherlands | | | | | |
| Fertiliser salts (a) | 881 | 578 | 175 | 462 | 322 |
| Sulphate (a) | 44 617 | 30 961 | 37 928 | 28 541 | 37 736 |
| Chloride (a) | 160 386 | 157 754 | 166 019 | 184 046 | 164 677 |
| Potassic chemicals | 27 670 | 28 277 | 25 695 | 26 196 | 30 297 |
| Austria | | | | | |
| Fertiliser salts | 16 302 | 12 216 | 13 531 | 10 963 | 16 598 |
| Sulphate | 36 967 | 25 547 | 28 913 | 33 283 | 19 866 |
| Chloride | 257 027 | 269 149 | 260 144 | 224 644 | 221 256 |
| Other potassic fertilisers | 102 | 1 508 | 2 151 | 3 948 | 4 502 |
| Potassic chemicals | 3 815 | 4 676 | 5 489 | 5 795 | 6 325 |
| Bulgaria | | | | | |
| Fertiliser salts (e) | * 116 600 | * 193 600 | * 206 900 | * 245 100 | * 132 500 |
| Czechoslovakia | | | | | |
| Fertiliser salts (a) | 624 000 | 578 000 | 639 100 | 639 000 | 580 000 |
| Finland | | | | | |
| Sulphate | 10 517 | 17 544 | 30 339 | 187 | 171 |
| Chloride | 289 498 | 288 983 | 262 794 | 302 511 | 374 727 |
| Other potassic fertilisers | 0 | 2 | 5 018 | 6 305 | 0 |
| Potassic chemicals | 1 524 | 3 504 | 2 204 | 3 294 | 3 521 |
| Hungary | | | | | |
| Fertiliser salts | 1 897 | 2 312 | 2 719 | 3 131 | 2 906 |
| Potassic fertilisers | 1 110 300 | 1 322 200 | 1 396 505 | 1 189 723 | 1 416 228 |
| Potassic chemicals | 1 642 | 1 754 | 961 | 1 634 | 757 |
| Iceland | | | | | |
| Sulphate | 3 500 | 200 | 2 687 | 3 450 | 2 851 |
| Chloride | 2 173 | 6 999 | 5 697 | 5 579 | 8 182 |
| Potassic chemicals | 169 | 177 | 190 | 198 | 145 |
| Norway | | | | | |
| Sulphate | 98 338 | 122 527 | 103 185 | 67 872 | 78 776 |
| Chloride | 203 879 | 196 714 | 184 502 | 215 797 | 233 462 |
| Other potassic fertilisers | 373 | 231 | 376 | 687 | 1 480 |
| Potassic chemicals | 3 042 | 2 265 | 2 432 | 3 256 | 2 087 |

Imports of Potash

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------------------|-----------|-----------|-----------|-----------|-----------|
| Poland | | | | | |
| Fertiliser salts | 1 761 000 | 2 428 000 | 2 865 000 | 2 377 000 | 1 685 000 |
| Chloride | 21 646 | 18 230 | 13 409 | 17 796 | ... |
| Potassic chemicals | 10 095 | 10 856 | 7 046 | 6 838 | ... |
| Portugal | | | | | |
| Sulphate | 1 040 | 2 300 | 4 350 | 5 895 | ... |
| Chloride | 89 944 | 83 826 | 86 507 | 55 996 | ... |
| Potassic chemicals | 2 521 | 2 726 | 2 896 | ... | ... |
| Romania | | | | | |
| Fertiliser salts (a) | 179 000 | 150 100 | 226 300 | 314 000 | ... |
| Spain | | | | | |
| Potassic chemicals | 7 284 | 4 892 | 14 774 | 11 542 | ... |
| Sweden | | | | | |
| Fertiliser salts | — | 459 | 1 026 | 1 323 | 1 701 |
| Potassic fertilisers | 1 095 | 616 | 418 | 893 | 660 |
| Potassic chemicals | 2 982 | 3 549 | 2 583 | 2 090 | 3 094 |
| Switzerland | | | | | |
| Fertiliser salts | 87 606 | 87 735 | 85 990 | 86 356 | 96 524 |
| Potassic chemicals | 8 843 | 9 413 | 8 175 | 8 652 | 9 907 |
| Turkey | | | | | |
| Sulphate | 28 465 | 23 064 | 51 381 | 39 941 | 6 990 |
| Other potassic fertilisers | 4 593 | 3 792 | 2 | 16 990 | 31 392 |
| Potassic chemicals | 6 711 | 4 901 | 3 563 | ... | ... |
| Yugoslavia | | | | | |
| Sulphate | 13 455 | 13 582 | 13 850 | 14 508 |) 547 376 |
| Chloride | 381 541 | 448 216 | 431 091 | 436 709 | |
| Potassic chemicals | 264 897 | 260 310 | 194 298 | 188 244 | |
| Algeria | | | | | |
| Sulphate | 42 416 | 47 045 | * 46 500 | * 25 000 | ... |
| Potassic chemicals | 1 134 | 371 | ... | ... | ... |
| Cameroon | | | | | |
| Fertiliser salts | 9 000 | 5 000 | ... | ... | ... |
| Potassic fertilisers | 4 820 | 8 297 | ... | 40 057 | ... |
| Canary Islands | | | | | |
| Potassic chemicals | 2 251 | 2 | 2 400 | 1 179 | ... |
| Egypt | | | | | |
| Potassic fertilisers | 4 731 | 5 025 | 24 814 | 5 003 | ... |
| Gabon | | | | | |
| Fertiliser salts | ... | 1 610 | 569 | 444 | 1 863 |
| Potassic fertilisers | ... | 1 339 | 1 540 | 1 693 | 1 053 |
| Ivory Coast | | | | | |
| Sulphate | 9 800 | 2 708 | 8 150 |) 44 070 | ... |
| Chloride | 32 537 | 16 015 | 35 327 | | |
| Potassic chemicals | 110 | 11 | 18 | | ... |
| Kenya | | | | | |
| Potassic fertilisers | 91 | 613 | 5 855 | 20 951 | ... |
| Liberia | | | | | |
| Potassic fertilisers | 863 | 202 | 139 | ... | ... |
| Libya | | | | | |
| Potassic fertilisers | 17 576 | 38 814 | ... | ... | ... |
| Madagascar | | | | | |
| Potassic fertilisers | 7 443 | 3 286 | 678 | 8 278 | ... |
| Malawi | | | | | |
| Potassic fertilisers | 13 542 | 9 553 | ... | ... | ... |
| Mauritius | | | | | |
| Potassic fertilisers | 24 838 | 22 694 | 23 198 | 22 764 | 21 433 |
| Morocco | | | | | |
| Sulphate | 47 195 | 36 734 | 43 141 | 47 226 | ... |
| Chloride | 35 636 | 41 660 | 31 216 | 24 620 | ... |
| Potassic chemicals | 1 644 | 1 436 | 1 577 | 1 610 | ... |
| Mozambique | | | | | |
| Potassic fertilisers | ... | 5 595 | ... | ... | ... |
| Nigeria | | | | | |
| Potassic fertilisers | 5 288 | ... | ... | ... | ... |
| Senegal | | | | | |
| Potassic fertilisers | 19 938 | 196 | 17 230 | 4 002 | 9 091 |

Imports of Potash

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------------------|-----------|-----------|-----------|-----------|-----------|
| South Africa | | | | | |
| Potassic fertilisers | 201 372 | 244 573 | 272 883 | 209 679 | 230 354 |
| Potassic chemicals | 4 473 | 4 402 | 4 285 | 5 529 | 4 704 |
| Sudan | | | | | |
| Potassic chemicals | 151 | 202 | ... | 11 | ... |
| Tanzania | | | | | |
| Potassic fertilisers | 6 050 | 8 333 | ... | ... | ... |
| Tunisia | | | | | |
| Potassic fertilisers | 12 228 | 15 112 | 5 638 | 5 522 | ... |
| Zaire | | | | | |
| Potassic fertilisers | 2 593 | 934 | ... | ... | ... |
| Zimbabwe | | | | | |
| Sulphate | 21 815 | 31 207 | 20 428 | 16 817 | ... |
| Chloride | 28 644 | ... | 24 171 | 31 311 | ... |
| Belize | | | | | |
| Potassic fertilisers | 403 | — | 377 | 335 | 671 |
| Canada | | | | | |
| Sulphate | 20 106 | 9 414 | 18 288 | 20 045 | 15 411 |
| Chloride | 2 042 | 28 889 | 8 596 | 1 881 | 2 277 |
| Other potassic fertilisers | 49 626 | 44 549 | 52 956 | 57 651 | 47 367 |
| Potassic chemicals | 8 145 | 7 824 | 7 078 | 6 964 | 8 834 |
| Costa Rica | | | | | |
| Potassic fertilisers | 52 863 | 63 106 | 49 625 | 42 537 | 36 250 |
| Cuba | | | | | |
| Sulphate | 23 800 | 24 800 | 22 700 | 22 400 | ... |
| Chloride | 189 800 | 295 800 | 330 200 | 311 300 | ... |
| Dominica | | | | | |
| Potassic fertilisers | 3 951 | 1 155 | 698 | 1 766 | 5 058 |
| Dominican Republic | | | | | |
| Sulphate | 2 040 | 6 690 | 8 302 | 1 818 | ... |
| Other potassic fertilisers | 15 411 | 36 744 | 25 963 | 9 405 | ... |
| El Salvador | | | | | |
| Potassic fertilisers | 13 991 | 140 | 80 | 17 195 | 240 |
| Guadeloupe | | | | | |
| Potassic fertilisers | 2 530 | 3 617 | 3 211 | 2 346 | ... |
| Guatemala | | | | | |
| Potassic fertilisers | 12 091 | 17 724 | 20 740 | 6 976 | 6 525 |
| Honduras | | | | | |
| Potassic fertilisers | 9 148 | 5 623 | 8 550 | ... | ... |
| Jamaica | | | | | |
| Potassic fertilisers | 8 780 | 2 869 | 13 687 | 8 477 | 6 726 |
| Martinique | | | | | |
| Potassic fertilisers | 1 098 | 648 | 14 586 | 10 966 | ... |
| Mexico | | | | | |
| Sulphate | 38 596 | 28 109 | 18 454 | 20 028 | ... |
| Chloride | 116 886 | 120 564 | 149 868 | 95 895 | ... |
| Potassic chemicals | 5 275 | 3 288 | 3 384 | 1 983 | ... |
| Nicaragua | | | | | |
| Potassic fertilisers | 18 | 12 932 | 20 971 | 3 297 | ... |
| Panama | | | | | |
| Potassic fertilisers | 8 743 | 4 976 | 1 480 | 7 501 | 6 289 |
| St. Kitts-Nevis-Anguilla | | | | | |
| Potassic fertilisers | 4 | 0 | 499 | 182 | ... |
| Trinidad & Tobago | | | | | |
| Potassic fertilisers | 1 782 | 5 266 | 6 511 | 1 540 | 973 |
| USA | | | | | |
| Fertiliser salts | 33 035 | 35 788 | 38 789 | 23 068 | 33 605 |
| Sulphate | 20 190 | 45 302 | 36 756 | 12 147 | 61 409 |
| Chloride | 8 413 900 | 8 039 331 | 7 803 130 | 6 489 641 | 7 144 557 |
| Other potassic fertilisers | 86 | 2 878 | 137 | 33 | 167 |
| Potassic chemicals | 12 168 | 12 259 | 14 786 | 11 750 | ... |
| Argentina | | | | | |
| Sulphate | 11 445 | 8 200 | 5 172 | ... | ... |
| Chloride | 7 503 | 6 360 | 4 040 | ... | ... |
| Potassic chemicals | 6 968 | 1 608 | 5 161 | ... | ... |

Imports of Potash

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------------------|-----------|-----------|-----------|-----------|-----------|
| Brazil | | | | | |
| Sulphate | 71 168 | 65 975 | 50 647 | 68 334 | 28 490 |
| Chloride | 1 758 874 | 2 119 950 | 1 222 908 | 1 425 443 | 1 188 262 |
| Potassic chemicals | 25 613 | 28 735 | 16 572 | 12 389 | 4 977 |
| Chile | | | | | |
| Sulphate | 4 850 | 8 250 | 5 600 | 1 651 | ... |
| Chloride | 12 650 | 22 600 | 14 100 | 18 849 | ... |
| Colombia | | | | | |
| Sulphate | 19 066 | 19 057 | 8 142 | 13 003 | 9 233 |
| Chloride | 82 392 | 135 749 | 89 034 | 148 770 | 123 366 |
| Potassic chemicals | 1 834 | 1 759 | 1 910 | 2 437 | 1 769 |
| Ecuador | | | | | |
| Chloride | 10 815 | 25 901 | 6 808 | ... | ... |
| Other potassic fertilisers | 1 846 | 1 873 | 1 271 | ... | ... |
| Guyana | | | | | |
| Potassic fertilisers | 700 | 518 | 2 024 | 2 251 | ... |
| Peru | | | | | |
| Sulphate | 3 841 | 7 053 | 4 489 | 3 167 | ... |
| Chloride | 17 004 | 14 211 | 16 523 | 6 304 | 5 253 |
| Potassic chemicals | 582 | 1 067 | 635 | 850 | 929 |
| Uruguay | | | | | |
| Sulphate | 2 001 | 1 934 | 1 500 | ... | 310 |
| Chloride | 11 117 | 7 480 | 6 028 | 3 134 | 4 539 |
| Potassic chemicals | 120 | 144 | 113 | 22 | 67 |
| Venezuela | | | | | |
| Potassic fertilisers | 2 | 48 430 | 74 790 | 253 | ... |
| Potassic chemicals | 1 087 | ... | ... | 2 337 | ... |
| China | | | | | |
| Potassic fertilisers (e) | * 429 000 | * 397 000 | * 762 000 | * 230 400 | * 712 000 |
| Cyprus | | | | | |
| Potassic fertilisers | 1 037 | 408 | 671 | 2 144 | 271 |
| Hong Kong | | | | | |
| Potassic chemicals | 676 | 1 589 | 1 621 | 1 336 | 859 |
| India (b) | | | | | |
| Sulphate | 8 445 | 99 356 | 46 122 | ... | ... |
| Chloride | 406 513 | 640 706 | 780 378 | ... | ... |
| Other potassic fertilisers | 70 568 | 149 201 | 130 904 | ... | ... |
| Potassic chemicals | 223 | 613 | 282 | ... | ... |
| Indonesia | | | | | |
| Sulphate | 2 950 | 5 852 | 32 631 | 19 022 | ... |
| Other potassic fertilisers | 107 175 | 136 314 | 180 946 | 204 746 | ... |
| Potassic chemicals | 913 | 901 | 1 424 | 1 304 | ... |
| Iran (c) | | | | | |
| Potassic chemicals | * 50 | (e)* 100 | (e)* 300 | 68 | ... |
| Japan | | | | | |
| Sulphate | 208 435 | 234 658 | 190 651 | 201 623 | 223 754 |
| Chloride | 1 098 918 | 1 263 195 | 978 037 | 1 049 094 | 1 059 323 |
| Other potassic fertilisers | 34 419 | 35 547 | 40 275 | 49 341 | 55 572 |
| Potassic chemicals | 3 146 | 9 566 | 12 461 | 15 340 | 21 191 |
| Jordan | | | | | |
| Potassic fertilisers | 994 | 144 | 274 | 1 117 | 348 |
| Korea, Dem. P.R. of | | | | | |
| Potassic fertilisers (e) | * 83 500 | * 82 900 | * 81 700 | * 53 200 | * 99 000 |
| Korea, Republic of | | | | | |
| Sulphate | 32 098 | 27 800 | 11 926 | 24 801 | 1 999 |
| Chloride | 242 688 | 231 237 | 217 104 | 365 366 | 308 604 |
| Other potassic fertilisers | 84 516 | — | 40 548 | — | 22 920 |
| Potassic chemicals | 5 404 | 4 827 | 5 631 | 2 937 | 2 738 |
| Malaysia | | | | | |
| Fertiliser salts | 214 | 1 188 | 2 055 | 313 | ... |
| Sulphate | 9 664 | 6 026 | 9 607 | 5 486 | ... |
| Chloride | 81 371 | 196 461 | 81 656 | 146 634 | ... |
| Other potassic fertilisers | 286 079 | 273 254 | 163 441 | 178 337 | ... |
| Philippines | | | | | |
| Sulphate | 8 246 | 4 899 | 8 365 | 10 300 | 6 988 |
| Chloride | 92 740 | 129 474 | 79 175 | 88 391 | 40 993 |
| Other potassic fertilisers | 6 505 | 1 102 | 1 436 | 1 490 | 16 235 |
| Potassic chemicals | 1 220 | 1 128 | 1 439 | 1 734 | 1 433 |

Imports of Potash

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------------------|---------|---------|---------|---------|---------|
| Singapore | | | | | |
| Sulphate | 13 687 | 22 570 | 8 225 | 2 000 | 11 510 |
| Chloride | 26 858 | 45 754 | 14 814 | 39 411 | 64 955 |
| Other potassic fertilisers | 257 099 | 239 303 | 234 276 | 220 091 | 192 670 |
| Sri Lanka | | | | | |
| Chloride | 33 529 | 75 018 | 61 701 | 51 038 | 32 563 |
| Other potassic fertilisers | 5 000 | 19 915 | 10 650 | 19 720 | 36 491 |
| Taiwan | | | | | |
| Chloride | 161 647 | 224 387 | 247 244 | 138 206 | 152 833 |
| Potassic chemicals | 7 814 | 6 512 | 7 361 | 4 807 | 7 911 |
| Thailand | | | | | |
| Sulphate | 7 900 | 10 500 | 12 005 | 11 600 | 13 015 |
| Chloride | — | 18 505 | 22 278 | 8 985 | 424 |
| Other potassic fertilisers | 7 700 | 500 | 200 | 30 379 | 59 280 |
| Potassic chemicals | 10 820 | 4 643 | 5 674 | 10 356 | 3 599 |
| Australia | | | | | |
| Sulphate | 8 546 | 19 013 | 22 172 | 7 613 | 8 600 |
| Chloride | 158 064 | 183 522 | 178 467 | 217 832 | 177 300 |
| Other potassic fertilisers | 15 037 | 24 332 | 725 | 1 014 | 6 |
| Potassic chemicals (d) | 9 612 | 9 512 | 9 419 | 6 135 | 10 942 |
| Fiji | | | | | |
| Potassic fertilisers | 2 241 | 2 767 | 4 389 | 3 592 | 2 289 |
| New Zealand (d) | | | | | |
| Sulphate | 1 134 | 1 874 | 1 418 | 817 | 1 717 |
| Chloride | 220 463 | 149 752 | 198 806 | 168 381 | 123 142 |
| Other potassic fertilisers | 136 | 72 | 4 933 | 1 821 | 13 654 |
| Potassic chemicals | 1 778 | 1 292 | 632 | 1 163 | 941 |

Note: So far as possible the term 'potassic chemicals', as used in this table, relates to items 522. 54,523.1 and 2 of the Standard International Trade Classification (Revision 2) and includes caustic potash, carbonate, chlorate, nitrate and sulphate.

- (a) K₂O content
- (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) BGS estimates, based on known exports from certain countries
- (f) May include some sodium peroxide

Production of Rare Earth Minerals

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|---------------------------|----------|----------|----------|----------|----------|
| Madagascar | | | | | |
| Bastnaesite | 22 | * 23 | * 23 | * 23 | * 23 |
| Nigeria | | | | | |
| Monazite | * 20 | * 20 | — | — | — |
| Zaire | | | | | |
| Monazite | 92 | 51 | 35 | 32 | 8 |
| USA | | | | | |
| Bastnaesite (a) | 16 515 | 15 986 | 17 082 | 17 501 | 17 083 |
| Monazite (a) | * 1 200 | * 700 | * 850 | * 950 | * 1 000 |
| Brazil | | | | | |
| Monazite | 2 318 | 2 532 | 2 460 | 1 814 | 5 256 |
| India | | | | | |
| Monazite (d) | 3 254 | 3 395 | 3 704 | * 4 000 | * 4 000 |
| Malaysia | | | | | |
| Monazite (b) | 466 | 327 | 320 | 1 376 | 1 051 |
| Xenotime (b) | — | — | — | 14 | 13 |
| Sri Lanka | | | | | |
| Monazite | 4 | 63 | * 60 | 304 | * 300 |
| Thailand | | | | | |
| Monazite | 32 | 152 | 107 | 162 | 277 |
| Xenotime | 6 | 52 | 45 | 46 | 38 |
| Australia | | | | | |
| Monazite | 16 340 | 14 079 | 13 282 | 9 562 | * 14 500 |
| Xenotime | 19 | 27 | 52 | 46 | ... |
| World total (c) | 52 100 | 48 500 | 50 000 | 48 100 | 55 700 |
| World total (REO content) | * 31 200 | * 29 000 | * 29 900 | * 28 800 | * 33 300 |

Notes:

- 1 With the exception of the data for USA, figures in this table refer to gross tonnage of rare earth concentrates
 - 2 Rare earth minerals are also believed to be produced in China and the Soviet Union (about 2 300 tonnes REO per annum) and possibly, on a small scale, in Indonesia, Democratic P.R. of Korea and South Africa
- (a) REO content
(b) Exports
(c) Expressed as weight of concentrates produced; USA production has been grossed up to concentrate equivalent on the assumption that both its bastnaesite and monazite concentrates contain 60% REO
(d) Years ended 31 March following that stated

Exports of Rare Earths

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--|---------|---------|---------|--------|-------|
| United Kingdom | | | | | |
| Ferro-cerium & other pyrophoric alloys | 22 | 31 | 9 | 25 | 19 |
| Metals | 48 | 56 | 34 | 65 | 41 |
| Belgium-Luxembourg | | | | | |
| Ferro-cerium & other pyrophoric alloys | — | — | 47 | 24 | — |
| France | | | | | |
| Ferro-cerium & other pyrophoric alloys | 10 | 13 | 82 | 56 | 127 |
| Metals | 109 | 34 | 24 | 18 | 59 |
| Germany, Federal Republic of | | | | | |
| Cerium compounds | 1 773 | 1 874 | 1 712 | 880 | 218 |
| Other rare earth compounds | 126 | 86 | 66 | 53 | 13 |
| Ferro-cerium & other pyrophoric alloys | 39 | 75 | 55 | 54 | 50 |
| Metals | 154 | 157 | 147 | 253 | 170 |
| Italy | | | | | |
| Ferro-cerium & other pyrophoric alloys | 5 | — | — | 15 | 7 |
| Metals | 107 | 26 | 10 | 10 | 55 |
| Austria | | | | | |
| Metals | 300 | 196 | 275 | 378 | 385 |
| Spain | | | | | |
| Ferro-cerium & other pyrophoric alloys | 18 | 32 | 9 | 23 | 30 |
| Algeria | | | | | |
| Cerium metal | — | 47 | — | — | — |
| South Africa (a) | | | | | |
| Rare earth compounds | £1 500 | £1 000 | £1 200 | — | £540 |
| USA | | | | | |
| Ores & concentrates | 8 334 | 9 115 | 9 587 | 4 836 | 5 102 |
| Ferro-cerium & other pyrophoric alloys | 38 | 16 | 10 | 27 | 66 |
| Brazil | | | | | |
| Cerium compounds | 120 | 0 | 15 | 310 | 875 |
| Ferro-cerium & other pyrophoric alloys | 600 | 451 | 235 | 174 | 290 |
| Metals | 4 | 18 | 70 | 68 | 124 |
| China | | | | | |
| Rare earth compounds (b) | * 1 000 | * 2 100 | * 1 100 | * 800 | * 900 |
| Japan | | | | | |
| Ferro-cerium & other pyrophoric alloys | 76 | 76 | 89 | 59 | 79 |
| Malaysia | | | | | |
| Ores & concentrates | 466 | 327 | 320 | 1 376 | 1 051 |
| Thailand | | | | | |
| Ores & concentrates | 47 | 10 | 76 | 120 | 82 |
| Australia | | | | | |
| Ores & concentrates | 13 154 | 10 250 | 14 028 | 15 153 | — |

Notes:

- Trade in rare earth compounds has been omitted from this table in those cases where it is not separately distinguished from the trade in compounds of thorium and uranium, as under the Standard International Trade Classification (Revision 2), item 524.92
- Rare earths are here taken to include yttrium and scandium; the term 'metals' includes intermixtures and interalloys thereof

(a) Values shown are for the common customs area

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

Imports of Rare Earths

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--|----------|---------|---------|---------|----------|
| United Kingdom | | | | | |
| Ferro-cerium & other pyrophoric alloys | 30 | 44 | 26 | 15 | 6 |
| Metals | 95 | 108 | 33 | 11 | 24 |
| Belgium-Luxembourg | | | | | |
| Cerium compounds | 53 | 52 | 97 | 81 | 104 |
| Other rare earth compounds | 6 | 23 | 5 | 61 | 11 |
| Ferro-cerium & other pyrophoric alloys | 1 | 28 | 14 | 23 | 5 |
| Metals | 43 | 21 | 1 | 10 | 15 |
| Denmark | | | | | |
| Cerium compounds | 2 | 1 | 1 | 1 | 1 |
| Ferro-cerium & other pyrophoric alloys | 2 | 2 | 2 | 2 | 1 |
| France | | | | | |
| Cerium compounds | 149 | 66 | 46 | 264 | 524 |
| Other rare earth compounds | 423 | 328 | 653 | 787 | 845 |
| Ferro-cerium & other pyrophoric alloys | 119 | 129 | 70 | 73 | 124 |
| Metals | 15 | 11 | 64 | 76 | 75 |
| Germany, Federal Republic of | | | | | |
| Cerium compounds | 965 | 752 | 509 | 587 | 546 |
| Other rare earth compounds | 230 | 152 | 188 | 193 | 220 |
| Ferro-cerium & other pyrophoric alloys | 37 | 14 | 30 | 11 | 13 |
| Metals | 107 | 60 | 76 | 74 | 129 |
| Italy | | | | | |
| Ferro-cerium & other pyrophoric alloys | 14 | 9 | 13 | 50 | 4 |
| Metals | 28 | 138 | 37 | 140 | 63 |
| Netherlands | | | | | |
| Cerium compounds | 1 075 | 1 263 | 1 354 | 2 160 | 2 984 |
| Other rare earth compounds | 54 | 29 | 335 | 2 526 | 2 671 |
| Metals | 5 | 0 | 0 | 1 | 81 |
| Austria | | | | | |
| Metals | 170 | 2 | 3 | 149 | 91 |
| Finland | | | | | |
| Ferro-cerium & other pyrophoric alloys | 4 | 1 | 10 | 1 | 1 |
| Portugal | | | | | |
| Ferro-cerium & other pyrophoric alloys | 5 | 6 | 2 | 44 | ... |
| Switzerland | | | | | |
| Ferro-cerium & other pyrophoric alloys | 4 | 4 | 4 | 0 | 3 |
| Metals | 7 | 6 | 1 | 2 | 4 |
| Turkey | | | | | |
| Metals | 2 | 4 | — | ... | ... |
| South Africa | | | | | |
| Rare earth compounds (a) | £130 000 | £84 000 | £79 000 | £58 000 | £100 000 |
| USA | | | | | |
| Ores & concentrates | 6 287 | 5 147 | 7 469 | 6 799 | 4 028 |
| Cerium compounds | 161 | 247 | 178 | 33 | 25 |
| Other rare earth compounds | 385 | 506 | 203 | 177 | 609 |
| Ferro-cerium & other pyrophoric alloys | 56 | 65 | 83 | 86 | 104 |
| Metals | 81 | 346 | 188 | 96 | 77 |
| Argentina | | | | | |
| Cerium compounds | 8 | 12 | 14 | ... | ... |
| Other rare earth compounds | 7 | 29 | 8 | ... | ... |
| Ferro-cerium & other pyrophoric alloys | 1 | 24 | 4 | ... | ... |
| Metals | 30 | 27 | 1 | ... | ... |

Imports of Rare Earths

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|---|-------|-------|-------|-------|-------|
| Brazil | | | | | |
| Cerium compounds | 65 | 51 | 29 | 91 | 100 |
| Other rare earth compounds | — | 27 | 10 | 16 | 15 |
| Metals | 14 | 21 | 26 | 53 | 0 |
| Venezuela | | | | | |
| Ferro-cerium & other pyrophoric alloys | 3 | 2 | ... | 5 | ... |
| Indonesia | | | | | |
| Ferro-cerium & other pyrophoric alloys | 58 | 61 | 3 | 0 | ... |
| Japan | | | | | |
| Cerium compounds | 70 | 52 | 62 | 58 | 53 |
| Other rare earth compounds | 4 648 | 4 809 | 5 694 | 3 969 | 3 975 |
| Ferro-cerium & other pyrophoric alloys | 15 | 7 | 10 | 16 | 23 |
| Metals | 86 | 42 | 8 | 9 | 26 |
| Korea, Republic of | | | | | |
| Cerium compounds | 58 | 31 | 38 | 85 | 100 |

Notes:

- 1 Trade in rare earth compounds has been omitted from this table in those cases where it is not separately distinguished from the trade in compounds of thorium and uranium, as under the Standard International Trade Classification (Revision 2), item 524.92
- 2 Rare earths are here taken to include yttrium and scandium; the term 'metals' includes intermixtures and interalloys thereof

(a) Values shown are for the common customs area

Salt

Production of Salt

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|--------------|--------------|--------------|--------------|--------------|
| United Kingdom | | | | | |
| Rock salt | 1 590 000 | 1 746 000 | 1 350 000 | 2 209 000 | 1 316 000 |
| Brine salt | 1 915 000 | 1 607 608 | 1 454 204 | 1 554 000 | 1 394 000 |
| Salt in brine (a) | 4 315 000 | 3 799 900 | 3 915 824 | 3 874 000 | 3 601 000 |
| Denmark | 380 448 | 347 423 | 397 578 | 399 280 | 451 855 |
| France | | | | | |
| Rock salt | 1 274 000 | 851 000 | 749 000 | 925 000 | * 800 000 |
| Salt in brine | 5 042 000 | 4 415 310 | 3 870 300 | 3 711 000 | 4 239 000 |
| Sea salt | 1 814 000 | 1 277 000 | 1 392 000 | 1 539 000 | * 1 540 000 |
| Germany, Federal Republic of | | | | | |
| Rock salt | 9 270 000 | 7 197 000 | 8 212 000 | 7 044 000 | 6 119 000 |
| Brine salt | 893 000 | 880 000 | 836 000 | 842 000 | 743 000 |
| Salt in brine | 5 182 885 | 4 578 299 | 4 461 585 | 4 296 827 | 4 404 455 |
| Greece | 162 534 | 120 969 | 130 591 | * 131 000 | * 131 000 |
| Italy | | | | | |
| Rock salt & brine salt | 4 490 118 | 3 997 096 | 3 600 846 | 3 604 580 | 3 453 817 |
| Sea salt | 1 179 000 | * 1 270 000 | * 960 000 | * 1 000 000 | * 1 100 000 |
| Netherlands | 3 951 000 | 3 464 000 | 3 578 000 | 3 191 000 | 3 124 000 |
| Albania | * 62 500 | * 66 500 | * 66 500 | * 66 500 | * 70 000 |
| Austria | | | | | |
| Rock salt | 968 | 1 018 | 1 330 | 1 085 | 1 288 |
| Salt in brine | 247 000 | 261 000 | 264 000 | 214 000 | * 141 000 |
| Evaporated salt | 380 329 | 410 130 | 462 485 | 433 557 | 359 118 |
| Bulgaria | * 86 000 | * 86 000 | * 86 000 | * 86 000 | * 86 000 |
| Czechoslovakia | 372 277 | 371 241 | 409 436 | 436 489 | 343 356 |
| German Democratic Republic | 3 052 000 | 3 127 700 | 3 111 800 | 3 115 400 | * 3 126 300 |
| Poland | | | | | |
| Rock salt | 1 458 000 | 1 464 000 | 1 313 000 |) 4 329 000 | 4 326 000 |
| Other salt | 2 971 000 | 3 069 000 | 2 960 000 |) | |
| Portugal | | | | | |
| Rock salt | 408 959 | 401 923 | 406 699 | 406 254 | 429 231 |
| Sea salt | 166 620 | 217 560 | 249 055 | 247 815 | 250 000 |
| Romania | 4 720 000 | 5 056 000 | 5 033 000 | 4 756 000 | * 5 000 000 |
| Soviet Union | * 14 300 000 | * 14 500 000 | * 15 200 000 | * 15 800 000 | * 16 200 000 |
| Spain | | | | | |
| Rock salt | 2 187 419 | 2 379 476 | 2 300 175 | 2 200 000 | * 2 300 000 |
| Sea salt | 1 236 864 | 1 103 665 | 1 393 033 |) 1 080 000 | * 1 100 000 |
| Other salt | 23 090 | 25 570 | 27 972 |) | |
| Switzerland | | | | | |
| Evaporated salt | 34 006 | 30 020 | 29 902 | 34 557 | 31 753 |
| Other salt | 306 680 | 330 359 | 355 406 | 282 307 | 240 131 |
| Turkey | 945 437 | 1 178 643 | 1 396 422 | 1 318 870 | 1 309 011 |
| Yugoslavia | | | | | |
| Rock salt | 137 441 | 168 921 | 192 579 |) | |
| Sea salt | 20 500 | 22 081 | 36 185 |) 428 000 | 425 000 |
| Other salt | 193 807 | 188 414 | 191 112 |) | |
| Algeria | | | | | |
| Brine salt & sea salt | 162 000 | 154 000 | 128 000 | 140 000 | * 150 000 |
| Angola | * 50 000 | * 50 000 | * 50 000 | * 50 000 | * 40 000 |
| Egypt | 615 979 | 636 000 | 837 000 | 829 000 | * 853 000 |
| Ethiopia (d) | 107 433 | 121 977 | * 125 200 | * 124 300 | * 124 300 |
| Ghana | * 50 000 | * 50 000 | * 50 000 | * 50 000 | * 50 000 |
| Kenya | 16 158 | 26 966 | 27 796 | 24 411 | 83 427 |
| Libya | * 10 000 | * 10 000 | * 10 000 | * 10 000 | * 12 000 |
| Madagascar | * 30 000 | * 30 000 | 27 919 | 29 629 | * 30 000 |
| Mali | * 4 500 | * 4 500 | * 4 500 | * 4 500 | * 5 500 |
| Mauritius (c) | * 6 000 | * 6 000 | 5 000 | 4 500 | 6 196 |
| Morocco | 102 000 | 67 477 | 47 219 | 63 592 | 69 853 |
| Mozambique | * 28 000 | * 28 000 | * 28 000 | * 28 000 | * 28 000 |
| Namibia | * 230 000 | * 230 000 | 193 000 | 184 000 | * 190 000 |
| Senegal | 140 000 | * 140 000 | * 140 000 | 159 700 | 169 600 |
| Somalia | 30 000 | 30 000 | * 30 000 | * 30 000 | * 30 000 |
| South Africa | 538 785 | 573 474 | 539 801 | 592 102 | 726 841 |
| Sudan | 81 210 | 73 537 | 72 649 | 27 927 | 150 000 |

Production of Salt

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-----------------------|------------|------------|------------|------------|--------------|
| Tanzania | 34 352 | 36 734 | 27 400 | 32 100 | 28 900 |
| Tunisia (c) | 417 000 | 460 000 | 436 000 | 413 000 | 350 000 |
| Bahamas | 440 000 | 684 000 | 970 000 | 816 000 | 850 000 |
| Canada | | | | | |
| Rock salt | 4 934 574 | 4 507 416 | 4 371 314 | 5 159 638 | 5 808 906 |
| Other salt (e) | 2 381 374 | 2 915 438 | 2 871 280 | 2 772 566 | 2 733 363 |
| Costa Rica | 46 000 | 40 000 | 39 000 | 110 000 | 109 000 |
| Cuba | 122 487 | 130 453 | 161 000 | 198 000 | 200 000 |
| Dominican Republic | 41 081 | 45 665 | 33 017 | 47 692 | * 48 000 |
| El Salvador (c) | * 27 000 | * 27 000 | * 25 000 | * 25 000 | * 20 000 |
| Guatemala (c) | 20 700 | 18 400 | 23 000 | 27 600 | 34 500 |
| Honduras | * 32 000 | * 32 000 | * 32 000 | * 32 000 | * 32 000 |
| Mexico | 6 169 426 | 6 575 302 | 7 953 263 | 5 480 158 | * 5 500 000 |
| Netherlands Antilles | * 400 000 | * 400 000 | * 400 000 | * 400 000 | * 400 000 |
| Nicaragua (c) | * 18 000 | * 20 000 | * 18 000 | * 18 000 | * 18 000 |
| Panama (c) | 17 085 | 18 583 | 14 562 | 11 051 | 38 778 |
| USA (f) | | | | | |
| Rock salt | 13 509 000 | 10 710 000 | 10 769 000 | 12 250 000 | 9 018 000 |
| Salt in brine | 22 390 000 | 20 168 000 | 18 901 000 | 16 407 000 | 17 113 000 |
| Evaporated salt | 5 644 000 | 5 728 000 | 5 625 000 | 5 720 000 | 5 153 000 |
| Argentina | | | | | |
| Rock salt | 865 | 474 | 623 | 1 000 | 2 000 |
| Other salt | 618 692 | 1 003 202 | 936 961 | 594 000 | 550 000 |
| Brazil | | | | | |
| Rock salt | 688 905 | 795 781 | 838 879 | 835 750 | 929 269 |
| Sea salt | 2 866 000 | 3 136 000 | 2 766 319 | 2 887 803 | 3 259 291 |
| Chile | 589 845 | 441 105 | 290 279 | 674 002 | 680 000 |
| Colombia | | | | | |
| Rock salt | 383 459 | 346 568 | 316 250 | 300 534 | 265 919 |
| Sea salt | 369 456 | 491 017 | 398 686 | 201 587 | 291 361 |
| Peru | 398 820 | 456 987 | 506 000 | 485 000 | 490 000 |
| Venezuela (c) | 246 182 | 243 145 | 280 060 | 329 677 | * 250 000 |
| Afghanistan (g) | 67 600 | 37 100 | 30 400 | ... | ... |
| Bangladesh (j) | 674 038 | 463 378 | 269 058 | 560 000 | ... |
| Burma (b)(c)(h) | 258 000 | 268 000 | 270 000 | 269 000 | 288 000 |
| China | 14 770 000 | 17 280 000 | 18 320 000 | 16 380 000 | * 15 875 000 |
| Cyprus | 5 980 | 7 582 | 9 299 | 9 857 | - |
| India | | | | | |
| Rock salt | 4 363 | 4 683 | 4 326 | 4 123 | 4 563 |
| Other salt | 7 031 000 | 8 004 000 | 8 928 000 | 7 308 000 | * 10 000 000 |
| Indonesia | 706 000 | 690 000 | 286 000 | 800 000 | * 700 000 |
| Iran (g) | * 700 000 | * 600 000 | * 600 000 | * 700 000 | * 750 000 |
| Iraq | * 91 000 | * 91 000 | * 82 000 | * 82 000 | * 72 500 |
| Israel | 107 352 | 118 010 | 132 250 | 148 000 | * 145 000 |
| Japan (i) | 1 079 000 | 1 112 000 | 1 100 000 | 1 020 000 | * 1 180 000 |
| Jordan (b) | 18 000 | 30 583 | 24 200 | 8 763 | 34 000 |
| Kampuchea, Democratic | 26 500 | * 30 000 | 24 000 | 38 000 | * 40 000 |
| Korea, Dem. P.R. of | * 560 000 | * 570 000 | * 570 000 | * 570 000 | * 570 000 |
| Korea, Republic of | 500 000 | 455 000 | 602 000 | 864 000 | * 850 000 |
| Kuwait | 19 986 | 20 825 | 18 931 | 19 347 | * 20 000 |
| Laos | * 18 000 | * 20 000 | * 20 000 | 9 000 | * 10 000 |
| Lebanon | * 20 000 | * 20 000 | * 20 000 | * 10 000 | * 5 000 |
| Mongolia | * 15 000 | * 15 000 | * 15 000 | * 15 000 | * 16 000 |
| Pakistan | | | | | |
| Rock salt | 512 000 | 507 359 | 511 582 | 539 697 | 570 000 |
| Sea salt | 191 700 | 181 107 | 5 649 | 223 200 | * 226 000 |
| Philippines | 322 131 | 346 387 | 355 289 | 364 420 | * 360 000 |
| Sri Lanka | 121 443 | 114 270 | 104 388 | 176 437 | 128 800 |
| Syria | 68 000 | 90 000 | 85 000 | 102 000 | 88 000 |
| Taiwan | 366 355 | 722 425 | 351 330 | 262 103 | 79 188 |
| Thailand | | | | | |
| Rock salt | 11 000 | 16 744 | 11 000 | 11 100 | 5 679 |
| Other salt | * 160 000 | * 160 000 | * 160 000 | * 160 000 | * 160 000 |

Production of Salt

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|---------------------------|-------------|-------------|-------------|-------------|-------------|
| Vietnam | * 530 000 | * 435 000 | * 400 000 | * 650 000 | * 900 000 |
| Yemen Arab Republic | * 90 000 | * 65 000 | * 55 000 | * 55 000 | * 55 000 |
| Yemen Democratic Republic | 25 000 | 15 000 | 28 000 | 58 000 | 66 000 |
| Australia | 5 215 201 | 5 664 893 | 6 716 221 | 6 100 000 | * 6 000 000 |
| New Zealand | 55 000 | 5 500 | 55 500 | 70 000 | 81 000 |
| World total | 174 100 000 | 169 800 000 | 171 900 000 | 165 800 000 | 165 000 000 |

Notes:

- 1 This table does not include production of refined salt
- 2 Salt is known to have been produced in many countries for which statistics are not available. Among these are Martinique, Mauritania and Nigeria

- (a) Used for purposes other than salt-making
- (b) Brine salt
- (c) Sea salt
- (d) Years ended 6 July of that stated
- (e) Including salt in brine
- (f) Sold or used by producers
- (g) Years ended 20 March following that stated
- (h) Years ended 31 March following that stated
- (i) Government licensed plants
- (j) Years ended 30 June of that stated

Exports of Salt

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|--------------|--------------|-----------|-----------|------------|
| United Kingdom | 424 187 | 393 425 | 426 479 | 484 659 | 378 865 |
| Belgium-Luxembourg | 144 225 | 115 384 | 107 219 | 124 875 | 170 973 |
| Denmark | 38 212 | 46 177 | 121 400 | 114 188 | 191 686 |
| France | 230 393 | 129 735 | 235 312 | 493 741 | 448 765 |
| Germany, Federal Republic of | 2 499 321 | 1 840 658 | 2 047 691 | 1 941 571 | 1 793 005 |
| Italy | 1 235 023 | 740 051 | 394 646 | 474 285 | 262 584 |
| Netherlands | 2 475 143 | 2 159 021 | 2 297 827 | 2 011 004 | 2 193 162 |
| Austria | 90 | 153 | 645 | 1 443 | 1 014 |
| German Democratic Republic | 1 232 000 | 1 210 000 | 1 272 000 | 1 387 000 | 1 390 000 |
| Norway | 1 594 | 1 576 | 2 982 | 5 173 | 3 523 |
| Poland | 253 056 | 296 711 | 240 966 | 337 396 | 376 675 |
| Portugal | 15 025 | 1 524 | 371 | 718 | ... |
| Romania | 841 200 | 1 024 700 | 1 001 000 | ... | ... |
| Soviet Union | 402 660 | 480 865 | 452 843 | 460 815 | 338 931 |
| Spain | 782 339 | 479 691 | 335 600 | 580 694 | 474 256 |
| Sweden | 5 037 | 1 475 | 4 313 | 3 798 | 6 646 |
| Switzerland | 3 459 | 234 | 278 | 698 | 548 |
| Algeria | 3 480 | 2 000 | ... | ... | ... |
| Cape Verde Islands | 20 096 | 11 455 | ... | ... | ... |
| Egypt | 84 960 | 49 407 | 19 500 | 4 864 | ... |
| Ethiopia | 4 100 | 5 050 | 28 500 | 11 000 | 5 010 |
| Ghana | 4 129 | ... | ... | ... | ... |
| Kenya | 146 | 703 | 105 | 63 | ... |
| Madagascar | 2 575 | 1 290 | 2 239 | 837 | ... |
| Senegal | 95 923 | 125 448 | 154 034 | 155 807 | 152 157 |
| South Africa | 53 612 | 53 745 | 68 708 | 67 197 | 98 816 |
| Sudan | 148 | 157 | 4 002 | 19 391 | ... |
| Tanzania | 13 751 | 11 511 | 19 316 | ... | ... |
| Tunisia | 352 050 | 272 972 | 368 823 | 329 356 | ... |
| Bahamas | 1 495 537 | ... | ... | ... | 856 334 |
| Canada | 1 822 240 | 1 655 768 | 1 507 768 | 1 734 059 | 1 915 597 |
| El Salvador | 21 703 | 24 980 | 10 733 | 16 555 | 12 823 |
| Jamaica | 1 294 | 3 902 | 2 405 | 3 969 | 2 558 |
| Mexico | 5 233 356 | 5 256 556 | 5 019 654 | 4 688 281 | ... |
| Netherlands Antilles | 213 683 | 385 616 | ... | ... | 202 137 |
| Nicaragua | 4 905 | 320 | 6 073 | 2 180 | ... |
| USA | 632 308 | 753 871 | 946 194 | 908 422 | 469 139 |
| Argentina | 27 665 | 13 370 | 12 134 | ... | ... |
| Brazil | 138 240 | 178 778 | 141 861 | 186 180 | 243 225 |
| Colombia | 189 757 | 151 470 | 5 250 | 7 500 | 25 250 |
| China | (e)* 191 000 | (e)* 774 000 | 1 110 000 | 910 000 | 960 000 |
| India (b) | 45 794 | 56 533 | 62 856 | ... | ... |
| Iran (c) | 1 062 | 760 | 1 171 | 836 | ... |
| Israel (a) | 4 328 | 19 227 | ... | ... | (e)* 9 700 |
| Japan | 2 774 | 2 299 | 1 173 | 1 609 | 1 292 |
| Jordan | 554 | 17 981 | 7 072 | 1 674 | 306 |
| Korea, Republic of | 1 827 | 99 | 11 711 | 172 | 3 193 |
| Kuwait | 745 | 1 854 | 2 064 | ... | ... |
| Malaysia | 540 | 411 | 740 | 1 385 | ... |
| Pakistan (d) | 17 215 | 20 120 | 5 659 | 8 422 | 4 402 |
| Saudi Arabia | 1 970 | 3 357 | 6 646 | 3 818 | ... |
| Singapore | 14 131 | 13 695 | 14 033 | 9 272 | 17 458 |
| of which: Re-exports | 13 371 | 13 109 | 13 473 | 8 937 | 17 228 |
| Taiwan | 16 106 | 13 950 | 3 065 | 1 000 | 672 |
| Thailand | 113 271 | 123 989 | 101 483 | 65 109 | 47 483 |
| Australia | 4 512 965 | 4 514 717 | 3 963 949 | 4 129 764 | 4 534 000 |

(a) Figures may be incomplete as value only given in Israeli trade return for exports to some countries

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

Imports of Salt

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|-----------|-----------|-----------|-----------|
| United Kingdom | 748 017 | 363 535 | 97 923 | 183 607 | 93 957 |
| Belgium-Luxembourg | 1 218 636 | 988 386 | 1 168 848 | 1 073 256 | 1 101 805 |
| Denmark | 366 142 | 267 231 | 206 369 | 289 805 | 143 084 |
| France | 187 546 | 139 160 | 160 776 | 169 353 | 162 837 |
| Germany, Federal Republic of | 937 522 | 628 220 | 701 547 | 801 054 | 749 322 |
| Greece | 7 468 | 39 239 | 26 015 | 23 959 | 16 635 |
| Irish Republic | 87 656 | 87 333 | 74 849 | 88 964 | 79 218 |
| Italy | 240 246 | 195 538 | 176 485 | 313 431 | 378 105 |
| Netherlands | 313 733 | 71 173 | 66 711 | 86 813 | 134 917 |
| Austria | 49 453 | 1 277 | 116 | 164 | 232 |
| Bulgaria (a) | * 49 800 | * 56 400 | * 50 100 | * 67 700 | * 42 000 |
| Czechoslovakia (a) | * 127 500 | * 178 700 | * 190 100 | * 177 300 | * 120 300 |
| Faeroe Islands | 18 102 | 15 977 | 36 413 | 23 719 | ... |
| Finland | 659 660 | 726 593 | 721 283 | 639 386 | 495 618 |
| Greenland | 8 503 | 8 088 | 5 203 | 6 233 | ... |
| Hungary | 683 251 | 820 520 | 768 006 | 755 482 | 572 569 |
| Iceland | 49 243 | 105 556 | 77 810 | 69 699 | 80 733 |
| Malta | £100 600 | £136 900 | £123 300 | £102 100 | £134 800 |
| Norway | 455 230 | 453 607 | 518 189 | 518 177 | 505 514 |
| Portugal | 48 800 | 92 042 | 51 564 | 43 018 | ... |
| Soviet Union | * 100 000 | * 100 000 | * 100 000 | * 100 000 | * 100 000 |
| Spain | 838 | 1 033 | 1 271 | 869 | ... |
| Sweden | 1 195 040 | 1 158 073 | 1 055 559 | 947 392 | 1 103 432 |
| Switzerland | 1 967 | 1 994 | 1 755 | 1 775 | 2 004 |
| Turkey | 50 015 | 25 | 59 | 67 | 81 |
| Yugoslavia | 194 103 | 282 389 | 337 155 | 294 720 | 241 104 |
| Burundi | 13 167 | 14 370 | 12 904 | 18 524 | ... |
| Cameroon | 32 017 | 18 618 | ... | ... | ... |
| Canary Islands | 423 | 1 033 | 293 | 729 | ... |
| Central African Republic | 4 204 | 5 716 | ... | ... | ... |
| Congo | 32 636 | 2 688 | 3 317 | 4 625 | ... |
| Gabon | 3 314 | 6 984 | 7 876 | 9 051 | 6 779 |
| Ivory Coast | 43 850 | 42 149 | 46 158 | 45 039 | ... |
| Kenya | 27 981 | 17 914 | 28 476 | 2 395 | ... |
| Liberia | 6 177 | 3 138 | 5 180 | ... | ... |
| Libya | 4 920 | 5 842 | ... | ... | ... |
| Malawi | 15 931 | 12 970 | ... | ... | ... |
| Mali | 9 194 | ... | ... | ... | ... |
| Mauritius | 672 | 1 115 | 804 | 539 | 1 663 |
| Morocco | 9 454 | 5 | 10 258 | 6 | ... |
| Niger | 28 774 | 27 313 | 14 718 | 29 343 | ... |
| Nigeria | 338 682 | ... | ... | ... | ... |
| Reunion | 2 680 | 2 170 | 2 690 | ... | ... |
| Rwanda | 10 747 | 12 530 | ... | ... | ... |
| Seychelles | 275 | 288 | 309 | 392 | 317 |
| Sierra Leone | 9 276 | 9 821 | 10 428 | ... | ... |
| South Africa | 23 413 | 20 502 | 25 667 | 1 998 | 43 550 |
| Togo | 4 547 | 4 972 | 3 193 | ... | ... |
| Uganda | 6 789 | 2 793 | ... | ... | ... |
| Upper Volta | 14 372 | 14 405 | 18 956 | ... | ... |
| Zaire | * 3 000 | * 2 300 | * 5 600 | ... | ... |
| Zambia | 39 382 | ... | ... | ... | ... |
| Zimbabwe | 48 644 | 55 007 | 111 902 | 53 315 | ... |
| Belize | 1 032 | 395 | 518 | 575 | 746 |
| Canada | 1 275 627 | 1 151 203 | 1 254 985 | 1 526 873 | 814 264 |
| Costa Rica | 7 756 | 15 894 | 6 726 | 2 278 | 221 |
| Dominica | 332 | 735 | 384 | 529 | 457 |
| Grenada | 638 | 473 | 527 | 472 | ... |
| Guadeloupe | 2 704 | 2 360 | 1 975 | 2 170 | ... |
| Guatemala | 18 912 | 19 759 | 31 331 | 16 053 | 15 819 |
| Honduras | ... | 881 | 811 | ... | ... |
| Jamaica | 27 904 | 28 702 | 41 269 | 45 387 | 18 235 |
| Martinique | 2 400 | 2 526 | 2 444 | 2 427 | ... |
| Mexico | 864 | 1 339 | 2 263 | 1 106 | ... |
| Nicaragua | 16 513 | 28 165 | 32 795 | 14 037 | ... |
| Panama | 683 | 2 386 | 6 949 | 8 713 | 945 |
| St Kitts-Nevis-Anguilla | 208 | 228 | 197 | 288 | ... |

Imports of Salt

Salt

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------|-----------|-----------|-----------|-----------|-----------|
| St Lucia | 1 053 | 644 | 875 | 605 | ... |
| St Vincent | 502 | 537 | 446 | ... | ... |
| Trinidad & Tobago | 29 207 | 14 868 | 7 437 | 19 896 | ... |
| USA | 4 868 002 | 4 806 336 | 4 512 676 | 4 944 627 | 5 440 388 |
| French Guiana | ... | 458 | 442 | 475 | ... |
| Guyana | 5 109 | 1 817 | 4 556 | 2 018 | ... |
| Paraguay | 22 490 | 18 040 | 20 363 | 16 145 | 26 186 |
| Peru | 453 | 583 | 362 | 2 250 | 537 |
| Suriname | 1 852 | 1 685 | 1 541 | 1 969 | ... |
| Uruguay | 62 098 | 57 499 | 24 876 | 13 250 | 67 144 |
| Venezuela | 18 389 | 17 256 | 78 | 95 | ... |
| Abu Dhabi | 6 806 | 7 883 | 3 074 | 2 140 | ... |
| Bahrain | 1 092 | 1 415 | 1 886 | 1 589 | ... |
| Brunei | 194 | 4 202 | 4 620 | 1 056 | 1 133 |
| Cyprus | 713 | 365 | 673 | 719 | 742 |
| Dubai | 10 563 | 9 023 | 12 741 | 17 079 | 20 596 |
| Hong Kong | 73 206 | 73 410 | 31 921 | 79 955 | 101 053 |
| India | 89 | 1 869 | 4 724 | ... | ... |
| Indonesia | 2 608 | 542 | 389 | 668 | ... |
| Japan | 6 817 626 | 7 477 049 | 6 509 749 | 6 269 116 | 6 380 780 |
| Jordan | 1 739 | 1 422 | 1 965 | 528 | 1 314 |
| Korea, Republic of | 489 880 | 716 288 | 970 242 | 662 062 | 757 371 |
| Kuwait | 5 701 | 37 134 | 13 606 | ... | ... |
| Malaysia | 203 910 | 154 531 | 134 799 | 131 504 | ... |
| Oman | 1 831 | 2 335 | 7 042 | 8 883 | 6 133 |
| Philippines | 63 989 | 60 022 | 44 679 | 130 587 | 109 633 |
| Qatar | 1 406 | 1 039 | 3 232 | 2 377 | 2 305 |
| Saudi Arabia | 7 332 | 8 821 | 14 639 | 18 049 | 20 665 |
| Singapore | 47 139 | 48 064 | 41 477 | 41 704 | 50 472 |
| Taiwan | 677 456 | 563 710 | 481 271 | 382 147 | 584 903 |
| Thailand | 332 | 424 | 345 | 45 169 | 21 149 |
| Australia | 19 620 | 7 740 | 7 321 | 6 596 | ... |
| Fiji | 3 043 | 1 732 | 3 821 | 2 598 | 3 125 |
| New Caledonia | 565 | 519 | 440 | 679 | 523 |
| New Zealand (b) | 32 610 | 62 761 | 65 209 | 98 042 | 79 124 |
| Solomon Islands | 897 | 1 206 | 2 114 | ... | ... |
| Vanuatu | ... | 282 | 303 | 297 | 292 |
| Western Samoa | 581 | 793 | 591 | ... | ... |

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

(b) Years ended 30 June of that stated

Sillimanite

Production of Sillimanite Minerals

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------------|----------------|----------------|----------------|----------------|----------------|
| France | | | | | |
| Andalusite | 28 982 | * 30 000 | 40 000 | 36 600 | 41 900 |
| Soviet Union | | | | | |
| Kyanite (a) | * 50 000 | * 70 000 | * 70 000 | * 80 000 | * 100 000 |
| Spain | | | | | |
| Andalusite & kyanite | 5 355 | 6 471 | 6 151 | 5 100 | * 5 000 |
| South Africa | | | | | |
| Andalusite | 134 177 | 196 516 | 181 272 | 155 723 | 116 576 |
| Sillimanite | 19 574 | 16 194 | 15 504 | 10 060 | 815 |
| Zimbabwe | | | | | |
| Kyanite | — | 716 | 870 | 2 207 | — |
| USA | | | | | |
| Kyanite (b) | * 100 000 | * 125 000 | * 115 000 | * 100 000 | * 100 000 |
| Brazil | | | | | |
| Kyanite (d) | 1 750 | 4 270 | 1 590 | 423 | 526 |
| India | | | | | |
| Andalusite | — | — | 146 | 536 | 2 573 |
| Kyanite | 40 709 | 49 141 | 36 583 | 37 954 | 40 241 |
| Sillimanite | 16 108 | 14 488 | 12 273 | 12 463 | 8 810 |
| Korea, Republic of | | | | | |
| Andalusite | 60 | 82 | 90 | 33 | 289 |
| Australia | | | | | |
| Sillimanite (c) | 568 | 661 | 331 | 783 | * 800 |
| World total | 397 000 | 514 000 | 480 000 | 442 000 | 418 000 |

Note: In addition to the countries listed above as producing sillimanite minerals, synthetic mullite is known to have been produced in Denmark, France, Hungary, Japan, Yugoslavia, United Kingdom and the USA.

(a) May include other sillimanite minerals

(b) Includes related minerals

(c) Excluding sillimanite clay

(d) Includes beneficiated and directly shipped material

Exports of Sillimanite Minerals

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--|----------|----------|----------|----------|----------|
| United Kingdom | | | | | |
| Sillimanite minerals | 4 889 | 5 037 | 2 809 | 2 326 | 2 502 |
| Belgium-Luxembourg | | | | | |
| Sillimanite minerals— | | | | | |
| Crude | 30 | 334 | 829 | 113 | 588 |
| Other | 162 | 68 | 135 | 66 | 39 |
| Denmark | | | | | |
| Sillimanite minerals | 328 | 46 | 529 | 1 | 20 |
| France | | | | | |
| Sillimanite minerals— | | | | | |
| Crude | 10 | 18 | 8 | — | 0 |
| Other | 163 | 419 | 310 | 78 | 166 |
| Germany, Federal Republic of | | | | | |
| Sillimanite minerals— | | | | | |
| Crude | 1 974 | 1 995 | 2 039 | 1 001 | 1 305 |
| Calcined | 7 538 | 7 495 | 11 534 | 7 789 | 4 250 |
| Italy | | | | | |
| Sillimanite minerals— | | | | | |
| Crude & calcined | 734 | 75 | 22 | 6 | 22 |
| Other | 273 | 75 | 155 | 58 | 24 |
| Netherlands | | | | | |
| Sillimanite minerals— | | | | | |
| Crude | 275 | 733 | 4 | 152 | 498 |
| Other | 244 | 1 163 | 543 | 789 | 489 |
| Czechoslovakia | | | | | |
| Sillimanite minerals (b) | * 24 000 | * 23 500 | * 24 700 | * 17 800 | * 14 600 |
| South Africa | | | | | |
| Andalusite | 69 810 | 106 786 | 60 047 | 76 714 | 69 264 |
| Sillimanite | 19 672 | 14 531 | 8 982 | 6 309 | 2 560 |
| USA | | | | | |
| Kyanite & related minerals (a) (b) | * 58 000 | * 64 000 | * 65 000 | * 58 500 | * 64 500 |
| Brazil | | | | | |
| Kyanite | 3 379 | 2 629 | 50 | 3 | — |
| India | | | | | |
| Kyanite | 1 659 | 756 | 445 | ... | ... |
| Sillimanite | 25 | 235 | 200 | ... | ... |
| Japan | | | | | |
| Sillimanite minerals, chamotte & dinas earth | 22 721 | 21 460 | 15 281 | 12 400 | 8 439 |
| New Zealand | | | | | |
| Sillimanite minerals | ... | 3 692 | 5 442 | 6 560 | 10 129 |

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

(a) May include some chamotte and dinas earth

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

Imports of Sillimanite Minerals

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|---|--------|--------|--------|--------|--------|
| United Kingdom | | | | | |
| Sillimanite minerals | 35 524 | 46 248 | 35 098 | 35 141 | 35 618 |
| Belgium-Luxembourg | | | | | |
| Sillimanite minerals— | | | | | |
| Crude | 441 | 1 349 | 365 | 230 | 1 978 |
| Other | 1 572 | 1 729 | 516 | 3 561 | 851 |
| Denmark | | | | | |
| Sillimanite minerals | 276 | 1 134 | 136 | 422 | 270 |
| France | | | | | |
| Sillimanite minerals— | | | | | |
| Crude | 2 782 | 3 195 | 604 | 1 707 | 1 283 |
| Other | 2 344 | 8 458 | 1 284 | 1 480 | 2 458 |
| Germany, Federal Republic of | | | | | |
| Sillimanite minerals— | | | | | |
| Crude | 22 120 | 50 729 | 15 536 | 26 417 | 14 070 |
| Calcined | 43 192 | 51 095 | 54 936 | 55 636 | 58 219 |
| Greece | | | | | |
| Sillimanite minerals | 3 552 | — | 11 | 633 | 271 |
| Italy | | | | | |
| Sillimanite minerals— | | | | | |
| Crude | 10 277 | 11 711 | 7 011 | 18 639 | 12 261 |
| Other | 7 366 | 19 988 | 20 529 | 17 576 | 11 452 |
| Netherlands | | | | | |
| Sillimanite minerals— | | | | | |
| Crude | 1 114 | 1 693 | 1 514 | 3 038 | 864 |
| Other | 350 | 1 666 | 397 | 986 | 813 |
| Austria | | | | | |
| Sillimanite minerals | 82 043 | 90 394 | 90 975 | 78 793 | 73 637 |
| Norway | | | | | |
| Sillimanite minerals, chamotte & dinas earth | 1 127 | 1 097 | 1 090 | 526 | 380 |
| Mexico | | | | | |
| Mullite | 458 | 1 310 | 1 038 | 3 407 | ... |
| Argentina | | | | | |
| Sillimanite minerals | 566 | 1 857 | 33 | ... | ... |
| Japan | | | | | |
| Sillimanite minerals | 22 801 | 26 682 | 28 280 | 26 627 | 17 675 |
| Mullite, chamotte & dinas earth | 77 961 | 66 849 | 47 371 | 34 613 | 23 847 |
| Korea, Republic of | | | | | |
| Sillimanite minerals | 1 070 | 2 015 | 1 581 | 1 007 | 1 307 |
| Mullite | 1 341 | 11 583 | 2 955 | 3 936 | 2 047 |
| Australia | | | | | |
| Sillimanite minerals & dinas earth | 3 033 | 7 966 | 658 | 342 | ... |

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

Mine Production of Silver

kilograms (metal content)

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-------------|-------------|-------------|-------------|-------------|
| United Kingdom | — | 1 373 | 3 278 | 3 280 | 2 635 |
| France | 74 935 | 73 772 | 53 059 | 29 111 | 21 451 |
| Germany, Federal Republic of | 36 700 | 37 700 | 39 300 | 39 700 | 36 300 |
| Greece | 54 500 | 52 000 | 60 500 | 49 200 | 55 900 |
| Irish Republic | 32 900 | 24 000 | 28 000 | 3 600 | 9 900 |
| Italy (a) | 33 121 | 42 499 | 55 344 | 55 737 | 73 450 |
| Bulgaria | * 25 000 | * 24 000 | * 23 000 | * 25 000 | * 25 000 |
| Czechoslovakia | * 35 000 | * 35 000 | * 35 000 | * 33 000 | * 30 000 |
| Finland | 42 408 | 48 024 | 61 702 | 36 964 | 30 478 |
| German Democratic Republic | * 48 000 | * 47 000 | * 45 000 | * 45 000 | * 43 000 |
| Greenland | 17 800 | 16 800 | 15 200 | 15 000 | 12 300 |
| Poland | 702 000 | 766 000 | 640 000 | 657 000 | 678 000 |
| Portugal | 1 095 | 861 | 714 | 732 | 631 |
| Romania | * 30 000 | * 28 000 | * 25 000 | * 25 000 | * 25 000 |
| Soviet Union | * 1 550 000 | * 1 550 000 | * 1 580 000 | * 1 595 000 | * 1 600 000 |
| Spain | 71 348 | 140 788 | 175 045 | 117 800 | * 124 000 |
| Sweden | 175 699 | 165 988 | 184 504 | 184 511 | 204 046 |
| Turkey | * 7 800 | * 6 200 | * 6 200 | * 6 800 | * 6 800 |
| Yugoslavia (a) | 162 181 | 148 791 | 137 516 | 103 976 | 124 000 |
| Algeria | * 3 100 | * 3 100 | * 3 400 | * 3 400 | * 3 700 |
| Morocco | 83 000 | 81 400 | 83 600 | 81 700 | 87 000 |
| Namibia | 112 600 | 104 700 | 107 500 | 87 500 | 109 900 |
| South Africa | 100 664 | 222 188 | 235 397 | 215 959 | 202 589 |
| Tunisia | 3 170 | 7 332 | 2 621 | 3 562 | 2 803 |
| Zaire | 91 700 | 78 756 | 80 119 | 59 176 | 29 405 |
| Zambia | 28 417 | 23 752 | 22 219 | 27 599 | 29 027 |
| Zimbabwe | 30 418 | 29 681 | 26 913 | 28 708 | 29 186 |
| Canada | 1 146 908 | 1 069 635 | 1 129 394 | 1 313 630 | 1 203 467 |
| Dominican Republic | 70 797 | 50 480 | 63 255 | 68 357 | 41 342 |
| El Salvador | 4 715 | 4 547 | 4 261 | 2 666 | 1 900 |
| Honduras | 64 569 | 54 935 | 56 697 | 52 221 | 77 800 |
| Mexico | 1 536 772 | 1 472 557 | 1 654 829 | 1 550 221 | 1 910 839 |
| Nicaragua | 12 143 | 5 103 | 4 359 | 2 350 | 2 000 |
| USA | 1 178 710 | 1 005 579 | 1 265 418 | 1 251 895 | 1 350 397 |
| Argentina | 68 714 | 73 309 | 78 326 | 83 500 | 82 000 |
| Bolivia | 178 592 | 189 715 | 205 332 | 186 738 | 158 300 |
| Brazil | 33 579 | 24 394 | 19 300 | 23 625 | 15 112 |
| Chile | 271 836 | 298 545 | 361 107 | 382 188 | 465 159 |
| Colombia | 3 090 | 4 714 | 4 440 | 4 232 | 3 078 |
| Ecuador | 1 100 | 900 | 1 000 | 313 | 98 |
| Peru (b) | 1 220 800 | 1 337 100 | 1 387 200 | 1 692 100 | 1 792 400 |
| Burma | 30 700 | 29 700 | 24 100 | 16 400 | 17 355 |
| China | * 60 000 | * 60 000 | * 65 000 | * 70 000 | * 80 000 |
| India | 11 515 | 11 377 | 17 298 | 14 405 | 15 792 |
| Indonesia | 25 100 | 21 800 | 25 800 | 32 100 | 32 600 |
| Japan | 270 725 | 247 741 | 270 800 | 294 674 | 307 216 |
| Korea, Dem. P.R. of | * 48 000 | * 45 000 | * 40 000 | * 30 000 | 35 000 |
| Korea, Republic of | 61 830 | 63 169 | 84 137 | 76 623 | 66 557 |
| Malaysia | 13 453 | 13 604 | 14 708 | 16 202 | 15 092 |
| Philippines | 57 167 | 60 715 | 62 943 | 61 724 | 59 300 |
| Taiwan | 2 656 | 2 957 | 6 683 | 15 679 | 10 739 |
| Australia | 832 210 | 766 816 | 743 557 | 906 863 | 1 052 833 |
| Fiji | 324 | 214 | 260 | 576 | 412 |
| Papua New Guinea | 44 877 | 37 198 | 42 388 | 43 400 | 47 414 |
| World total | 10 804 000 | 10 712 000 | 11 363 000 | 11 727 000 | 12 441 000 |

(a) Smelter and/or refinery production

(b) Recoverable

Exports of Silver

kilograms

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-------------|-------------|-----------|-----------|-----------|
| United Kingdom | | | | | |
| Metal | 1 668 387 | 2 493 727 | 1 642 087 | 2 571 398 | 3 373 284 |
| Waste & scrap | 552 346 | 296 810 | 137 812 | 97 883 | 691 011 |
| Belgium-Luxembourg | | | | | |
| Metal | 661 338 | 1 511 492 | 883 939 | 947 881 | 1 069 356 |
| Denmark | | | | | |
| Metal | 45 919 | 57 193 | 33 595 | 51 252 | 34 000 |
| France | | | | | |
| Metal | 401 468 | 947 144 | 556 192 | 348 136 | 1 291 718 |
| Waste & scrap | 459 869 | 337 595 | 227 930 | 406 029 | 347 571 |
| Germany, Federal Republic of | | | | | |
| Metal | 1 157 614 | 1 731 216 | 1 115 685 | 1 364 636 | 1 487 183 |
| Waste & scrap | 162 526 | 185 435 | 366 738 | 396 058 | 655 945 |
| Greece | | | | | |
| Metal | 25 322 | 49 765 | 46 000 | 2 000 | ... |
| Italy | | | | | |
| Metal | 28 723 | 231 627 | 95 232 | 56 200 | 132 800 |
| Netherlands | | | | | |
| Metal | 314 142 | 252 792 | 116 196 | 178 390 | 159 244 |
| Austria | | | | | |
| Metal | 81 934 | 44 660 | 31 008 | 58 478 | 52 972 |
| Waste & scrap | 15 038 | 8 352 | 2 478 | 693 | 2 224 |
| Finland | | | | | |
| Metal | 17 277 | 45 000 | 56 000 | 85 000 | 34 000 |
| Norway | | | | | |
| Metal | 23 306 | 26 574 | 32 950 | 29 973 | 31 405 |
| Poland | | | | | |
| Metal | 347 000 | 516 000 | 397 000 | 370 000 | 405 000 |
| Spain | | | | | |
| Metal | 103 000 | 5 722 040 | 304 000 | 129 363 | 196 000 |
| Sweden | | | | | |
| Metal | 227 000 | 241 000 | 197 000 | 181 000 | 210 000 |
| Switzerland | | | | | |
| Metal | 1 040 984 | 1 039 455 | 718 473 | 724 035 | 367 455 |
| Yugoslavia | | | | | |
| Metal | 91 082 | 59 183 | 48 000 | 77 000 | 90 000 |
| Waste & scrap | 4 604 | 830 | ... | 1 000 | ... |
| Morocco | | | | | |
| Metal | 39 150 | 24 176 | 31 361 | 52 029 | ... |
| South Africa | | | | | |
| Metal | (d)* 94 200 | (d)* 75 700 | 216 303 | 237 661 | 228 475 |
| Tunisia | | | | | |
| Metal | — | 4 143 | ... | 2 700 | ... |
| Canada | | | | | |
| Ores & concentrates (b) | 415 737 | 396 801 | 551 202 | 603 089 | 440 909 |
| Metal | 923 135 | 886 640 | 916 781 | 1 137 295 | 1 051 415 |
| Dominican Republic | | | | | |
| Metal (c) | 83 794 | 63 421 | 77 610 | 82 255 | * 55 000 |
| El Salvador | | | | | |
| Metal | 4 722 | 5 042 | 4 324 | 2 672 | 852 |
| Honduras | | | | | |
| Concentrates (b) | 75 929 | 50 521 | 49 020 | 45 599 | ... |
| Metal | 229 | — | — | ... | ... |
| Mexico | | | | | |
| Ores & concentrates | 15 327 057 | ... | ... | ... | ... |
| Metal | 941 341 | 1 051 294 | 1 205 763 | 1 190 651 | ... |
| Nicaragua | | | | | |
| Metal (a) | 8 786 | 4 000 | ... | ... | 14 180 |
| USA | | | | | |
| Ores & concentrates (b) | 1 355 | 9 564 | 6 634 | 1 459 | 2 093 |
| Metal | 540 636 | 1 806 418 | 493 915 | 423 046 | 458 190 |
| Waste & scrap | 596 914 | 726 100 | 390 855 | 390 892 | 566 110 |
| Argentina | | | | | |
| Metal | 5 747 | 21 319 | 8 202 | ... | ... |
| Bolivia | | | | | |
| Ores & concentrates (b) | 181 399 | 176 464 | 203 660 | 151 000 | 158 000 |

Exports of Silver

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--|-----------|-----------|-----------|-----------|-----------|
| Chile | | | | | |
| Metal | ... | ... | 218 165 | 295 677 | 271 166 |
| Peru | | | | | |
| Metal | 740 031 | 494 000 | 895 000 | 808 700 | 1 017 100 |
| China | | | | | |
| Metal (d) | — | * 19 100 | * 12 900 | * 3 700 | * 17 000 |
| Hong Kong | | | | | |
| Metal | 45 266 | 61 192 | 40 208 | 22 459 | 11 602 |
| of which: Re-exports | 45 266 | 57 424 | 39 879 | 21 183 | 8 212 |
| Waste & scrap | 26 817 | 222 871 | 311 596 | 95 220 | 419 139 |
| of which: Re-exports | 16 411 | 74 770 | 211 343 | 35 288 | 35 632 |
| India | | | | | |
| Metal | 118 611 | 9 207 | ... | ... | ... |
| Japan | | | | | |
| Metal | 121 210 | 214 828 | 148 447 | 128 995 | 220 011 |
| Waste & scrap | 24 000 | 29 000 | ... | 1 000 | ... |
| Korea, Republic of | | | | | |
| Ores & concentrates | 2 000 000 | 3 400 000 | 2 652 000 | 3 149 000 | 792 000 |
| Metal | 46 956 | 34 660 | 15 302 | 49 332 | 59 451 |
| Malaysia | | | | | |
| Metal | 4 542 | 16 471 | 57 258 | 47 150 | ... |
| Philippines | | | | | |
| Metal | 5 232 | 347 | 408 | 3 776 | 18 545 |
| Singapore | | | | | |
| Metal | 2 869 | 32 680 | 8 344 | 6 807 | 11 108 |
| of which: Re-exports | 1 748 | 18 481 | 5 521 | 2 873 | 6 442 |
| Thailand | | | | | |
| Metal | 113 151 | 166 230 | 31 410 | 62 436 | 103 024 |
| Australia | | | | | |
| Silver-lead bullion | 354 556 | 385 270 | 333 498 | 432 711 | ... |
| Silver in all ores, concentrates etc. | 79 543 | 52 284 | 109 664 | 171 069 | ... |
| Metal | 84 830 | 85 195 | 90 228 | 234 468 | ... |
| Fiji | | | | | |
| Metal | 339 | 232 | 264 | 550 | 396 |
| Papua New Guinea | | | | | |
| Metal | 44 877 | 37 198 | 42 388 | 43 400 | 47 414 |

Notes:

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

(a) Including waste and scrap

(b) Ag content

(c) Officially described as 'dore' (Au/Ag alloy), but contains a higher proportion of silver

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

Imports of Silver

kilograms

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|-----------|-----------|-----------|-----------|
| United Kingdom | | | | | |
| Metal | 1 220 010 | 3 791 483 | 1 941 051 | 1 433 971 | 2 476 676 |
| Waste & scrap | 701 254 | 584 952 | 982 040 | 1 360 722 | 402 741 |
| Belgium-Luxembourg | | | | | |
| Metal | 768 940 | 1 407 086 | 1 166 728 | 1 321 789 | 1 599 738 |
| Denmark | | | | | |
| Metal | 103 661 | 87 427 | 72 801 | 82 871 | 74 000 |
| France | | | | | |
| Metal | 931 601 | 832 048 | 663 630 | 630 123 | 539 071 |
| Waste & scrap | 76 389 | 148 431 | 33 937 | 31 651 | 155 163 |
| Germany, Federal Republic of | | | | | |
| Metal | 1 290 169 | 1 072 399 | 798 049 | 1 270 477 | 1 109 742 |
| Waste & scrap | 595 016 | 667 656 | 471 841 | 724 065 | 717 436 |
| Greece | | | | | |
| Metal | 131 578 | 34 936 | 13 000 | 7 000 | 15 000 |
| Italy | | | | | |
| Metal | 768 907 | 568 216 | 531 641 | 575 300 | 318 100 |
| Netherlands | | | | | |
| Metal | 146 279 | 216 149 | 143 676 | 144 859 | 134 548 |
| Austria | | | | | |
| Metal | 196 083 | 134 530 | 181 374 | 218 962 | 135 242 |
| Waste & scrap | 544 | 1 252 | 6 451 | 94 | 15 |
| Finland | | | | | |
| Metal | 47 622 | 112 000 | 86 000 | 67 000 | 67 000 |
| Iceland | | | | | |
| Metal | 853 | 920 | 1 007 | 707 | 570 |
| Malta | | | | | |
| Metal | 2 642 | 1 793 | 1 177 | 321 | 414 |
| Norway | | | | | |
| Metal | 82 884 | 60 385 | 70 120 | 83 527 | 42 262 |
| Portugal | | | | | |
| Metal | 44 236 | 11 264 | 31 588 | 32 000 | ... |
| Spain | | | | | |
| Metal | 49 957 | 626 363 | 54 000 | 31 901 | 52 000 |
| Sweden | | | | | |
| Metal | 474 000 | 451 000 | 417 000 | 244 000 | 168 000 |
| Switzerland | | | | | |
| Metal | 789 323 | 1 577 818 | 901 160 | 1 139 623 | 1 172 851 |
| Turkey | | | | | |
| Metal (b) | 1 475 | 4 995 | 2 206 | 9 465 | 1 741 |
| Yugoslavia | | | | | |
| Metal | 20 746 | 510 504 | 9 000 | 19 000 | 17 000 |
| Algeria | | | | | |
| Metal | 5 940 | 1 389 | ... | ... | ... |
| Egypt | | | | | |
| Metal | 4 359 | 667 | 1 846 | 1 258 | ... |
| Gabon | | | | | |
| Metal | ... | 833 | 899 | 578 | 156 |
| Ivory Coast | | | | | |
| Metal | 4 941 | 4 174 | 1 252 | ... | ... |
| Kenya | | | | | |
| Metal | 280 | 216 | 17 | 10 | ... |
| Libya | | | | | |
| Metal | 14 215 | 9 571 | ... | ... | ... |
| Madagascar | | | | | |
| Metal | 602 | 244 | 1 615 | 138 | ... |
| Morocco | | | | | |
| Metal | 623 | 248 | 5 536 | 1 100 | ... |
| Nigeria | | | | | |
| Metal | 14 | ... | ... | ... | ... |
| Senegal | | | | | |
| Metal | 3 203 | 31 | 209 | 222 | 99 |
| South Africa | | | | | |
| Metal | 23 052 | 23 607 | 25 689 | 27 764 | 24 148 |

Imports of Silver

kilograms

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-------------------------|-----------|-----------|-----------|-----------|-----------|
| Tunisia | | | | | |
| Metal | 200 | 488 | ... | 814 | ... |
| Zaire | | | | | |
| Metal | 98 | 108 | ... | ... | ... |
| Canada | | | | | |
| Metal | 38 309 | 339 188 | 327 291 | 484 186 | 339 439 |
| Costa Rica | | | | | |
| Metal | 1 605 | 881 | 425 | 385 | 377 |
| Guatemala | | | | | |
| Metal | 152 | 2 | 734 | 41 | 69 |
| Jamaica | | | | | |
| Metal | 4 418 | 297 | 979 | 626 | * 500 |
| Nicaragua | | | | | |
| Metal (a) | 329 | 1 000 | ... | ... | ... |
| Panama | | | | | |
| Metal (a) | 1 226 | 772 | 866 | 755 | 1 035 |
| Trinidad & Tobago | | | | | |
| Metal | 2 331 | 1 090 | 761 | 1 838 | 1 476 |
| USA | | | | | |
| Ores & concentrates (c) | 508 280 | 463 528 | 515 431 | 592 450 | ... |
| Metal | 2 524 841 | 2 091 002 | 2 563 755 | 3 187 475 | 5 013 955 |
| Waste & scrap | 74 951 | 95 752 | 108 187 | 137 529 | 87 078 |
| Argentina | | | | | |
| Metal | 5 394 | 24 557 | 34 299 | ... | ... |
| Brazil | | | | | |
| Metal | 170 954 | 109 418 | 56 060 | 89 496 | 99 704 |
| Colombia | | | | | |
| Metal | 329 004 | 2 629 | 9 415 | 6 028 | 2 074 |
| Ecuador | | | | | |
| Metal | 1 811 | 1 040 | 489 | ... | ... |
| Peru | | | | | |
| Metal | 4 180 | 494 | 581 | 1 638 | 504 |
| Uruguay | | | | | |
| Metal | 1 900 | 100 | 100 | 56 | 25 |
| Venezuela | | | | | |
| Metal | 48 207 | ... | ... | 26 244 | ... |
| Brunei | | | | | |
| Metal | 544 | 27 | 344 | 2 485 | 210 |
| Dubai | | | | | |
| Metal | 25 804 | 43 072 | 30 839 | 133 830 | 294 985 |
| Hong Kong | | | | | |
| Metal | 26 437 | 32 465 | 15 304 | 24 009 | 25 576 |
| Waste & scrap | 8 816 | 2 812 | 812 | 5 925 | 2 567 |
| India | | | | | |
| Metal | 1 247 | 148 | 589 | ... | ... |
| Indonesia | | | | | |
| Metal | 2 296 | 145 | 44 | 48 | ... |
| Iran (d) | | | | | |
| Metal | 16 436 | 6 942 | 10 644 | 9 499 | ... |
| Japan | | | | | |
| Ores & concentrates | 4 113 000 | 3 400 000 | — | — | — |
| Metal | 731 613 | 593 694 | 440 385 | 517 605 | 422 451 |
| Korea, Republic of | | | | | |
| Metal | 21 780 | 71 980 | 4 955 | 5 132 | 5 659 |
| Malaysia | | | | | |
| Metal | 3 073 | 12 497 | 9 605 | 26 321 | ... |
| Philippines | | | | | |
| Metal | 2 654 | 189 | 687 | 325 | 833 |
| Saudi Arabia | | | | | |
| Metal | 3 063 | 11 794 | 13 399 | 3 256 | 758 |
| Singapore | | | | | |
| Metal | 24 905 | 22 345 | 68 610 | 33 036 | 22 617 |

Imports of Silver

kilograms

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-----------------|---------|--------|---------|--------|--------|
| Taiwan | | | | | |
| Metal | 118 209 | 20 521 | 21 858 | 26 446 | 39 308 |
| Thailand | | | | | |
| Metal | 15 275 | 14 359 | 191 551 | 13 001 | 11 949 |
| Australia | | | | | |
| Metal | 405 | 7 050 | 1 306 | 105 | ... |
| New Zealand (e) | | | | | |
| Metal | 54 393 | 47 795 | 43 046 | 41 971 | 40 708 |

Notes:

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

(a) Including waste and scrap

(b) Including gilt

(c) Ag content

(d) Years ended 20 March following that stated

(e) Years ended 30 June of that stated

Production of Sulphur and Pyrites

thousand tonnes (sulphur content)

| Country | | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|--|---------|---------|---------|---------|---------|
| United Kingdom | | | | | | |
| Recovered (a)(c) | | 57 | 66 | 42 | 51 | * 50 |
| Recovered (d) | | 80 | 80 | 75 | 59 | 55 |
| Belgium | | | | | | |
| Recovered (c)(d) | | 270 | 270 | * 270 | * 250 | * 250 |
| Denmark | | | | | | |
| Recovered (d) | | 8 | 8 | 6 | 7 | 7 |
| France | | | | | | |
| Recovered (d) | | 2 120 | 2 058 | 1 926 | 1 632 | 1 659 |
| Germany, Federal Republic of | | | | | | |
| Pyrites (45%) | | 203 | 222 | 213 | 229 | * 200 |
| Recovered (c) | | 450 | 450 | 400 | * 400 | * 400 |
| Recovered (d) | | 904 | 1 034 | 1 024 | 1 092 | * 845 |
| Recovered (e) | | 93 | * 90 | * 95 | * 100 | * 95 |
| Greece | | | | | | |
| Pyrites (45%) | | 75 | 65 | 74 | 52 | 65 |
| Irish Republic | | | | | | |
| Pyrites (47%) | | 14 | 12 | 11 | 6 | * 10 |
| Italy | | | | | | |
| Pyrites (43%) | | 346 | 331 | 262 | 269 | 262 |
| Recovered (d) | | 250 | 250 | 230 | 210 | * 210 |
| Sulphur ore | | 19 | 23 | 22 | 20 | 9 |
| Netherlands | | | | | | |
| Recovered (c)(d) | | * 158 | * 142 | * 145 | * 165 | * 175 |
| Austria | | | | | | |
| Recovered | | 34 | 28 | 37 | 48 | 40 |
| Anhydrite | | 27 | 24 | 25 | 27 | 26 |
| Bulgaria | | | | | | |
| Pyrites (42%) | | * 315 | * 300 | * 200 | * 200 | * 200 |
| Recovered | | * 75 | * 70 | * 70 | * 70 | * 70 |
| Czechoslovakia | | | | | | |
| Pyrites (42%) | | 60 | 60 | * 60 | * 60 | * 60 |
| Recovered | | 10 | 10 | * 10 | * 10 | * 10 |
| Sulphur ore | | 5 | 5 | * 5 | * 5 | * 5 |
| Finland | | | | | | |
| Pyrites (44%) | | 85 | 97 | 134 | 146 | * 86 |
| Recovered (c) | | 263 | 247 | 268 | 270 | 264 |
| Recovered (d) | | 38 | 37 | 48 | 39 | 44 |
| German Democratic Republic | | | | | | |
| Pyrites (42%) | | * 10 | * 10 | * 10 | — | — |
| Recovered | | * 350 | * 350 | * 350 | * 360 | * 360 |
| Norway | | | | | | |
| Pyrites (50%) | | 121 | 212 | 219 | 213 | 208 |
| Recovered (c)(d) | | * 46 | * 46 | * 49 | * 46 | * 50 |
| Poland | | | | | | |
| Frasch (g) | | 4 830 | 5 164 | 4 773 | 4 935 | 4 999 |
| Recovered (c) | | * 310 | * 300 | * 300 | * 300 | * 300 |
| Recovered (d) | | * 35 | * 30 | * 30 | * 30 | * 30 |
| Anhydrite | | * 20 | * 20 | * 20 | * 20 | * 20 |
| Portugal | | | | | | |
| Pyrites (44%) | | 152 | 168 | 125 | 116 | 124 |
| Romania | | | | | | |
| Pyrites (42%) | | * 400 | * 350 | * 300 | * 200 | * 200 |
| Recovered | | * 130 | * 140 | * 150 | * 150 | * 150 |
| Soviet Union | | | | | | |
| Frasch | | * 800 | * 800 | * 800 | * 800 | * 800 |
| Pyrites (46%) | | * 3 500 | * 3 550 | * 3 600 | * 3 700 | * 3 700 |
| Recovered (c) | | * 1 700 | * 1 800 | * 1 800 | * 1 800 | * 1 800 |
| Recovered (d) | | * 1 300 | * 1 400 | * 1 450 | * 1 500 | * 1 550 |
| Recovered (e) | | * 40 | * 40 | * 40 | * 40 | * 40 |
| Sulphur ore | | * 1 900 | * 2 000 | * 2 000 | * 1 900 | * 1 800 |
| Spain | | | | | | |
| Pyrites (47%) | | 1 091 | 1 152 | 1 118 | 991 | * 1 000 |
| Recovered (c)(d) | | * 133 | * 140 | * 150 | * 140 | * 130 |

Production of Sulphur and Pyrites

thousand tonnes (sulphur content)

| Country | | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------------|-------|-------|-------|-------|-------|-------|
| Sweden | | | | | | |
| Pyrites | (48%) | 215 | 190 | 201 | 204 | 208 |
| Recovered (c)(d) | | 130 | 130 | * 130 | * 130 | * 130 |
| Sulphur ore | | 35 | 33 | 37 | 23 | * 40 |
| Turkey | | | | | | |
| Pyrites | (45%) | 16 | 35 | 29 | 2 | 16 |
| Recovered | | 80 | 89 | 118 | 126 | 132 |
| Sulphur ore | | 21 | 23 | 29 | 31 | 31 |
| Yugoslavia | | | | | | |
| Pyrites | (42%) | 190 | 255 | 274 | 340 | 291 |
| Recovered (c)(d) | | * 205 | * 205 | * 204 | * 204 | * 183 |
| Algeria | | | | | | |
| Recovered (d) | | 15 | 14 | * 15 | * 10 | * 10 |
| Egypt | | | | | | |
| Recovered (d) | | 3 | 3 | 2 | 2 | * 4 |
| Libya | | | | | | |
| Recovered (d) | | * 15 | * 12 | * 11 | * 12 | * 14 |
| Morocco | | | | | | |
| Pyrites | (48%) | 63 | 36 | 38 | — | — |
| South Africa | | | | | | |
| Pyrites | (48%) | 319 | 557 | 502 | 467 | 474 |
| Recovered (d) | | * 25 | * 25 | * 27 | * 25 | * 32 |
| Recovered (c) | | * 100 | * 100 | * 100 | 135 | 125 |
| Zaire | | | | | | |
| Recovered (c) | | * 25 | * 25 | * 25 | * 25 | * 35 |
| Zambia | | | | | | |
| Recovered | | 74 | 92 | 90 | 84 | * 84 |
| Zimbabwe | | | | | | |
| Pyrites | (42%) | 28 | 29 | 27 | 24 | 12 |
| Recovered | | * 5 | * 5 | * 5 | * 5 | * 5 |
| Canada | | | | | | |
| Pyrites | (45%) | 14 | 14 | 5 | 9 | — |
| Recovered (c) | | 667 | 895 | 783 | 627 | 803 |
| Recovered (d) | | 6 282 | 6 183 | 5 614 | 5 231 | 5 395 |
| Cuba | | | | | | |
| Pyrites | (40%) | 12 | 22 | 15 | 20 | 20 |
| Mexico | | | | | | |
| Frasch | | 1 773 | 1 700 | 1 652 | 1 391 | 1 225 |
| Recovered (c) | | * 100 | * 115 | * 100 | * 100 | * 100 |
| Recovered (d) | | 252 | 402 | 426 | 425 | 377 |
| Netherlands Antilles | | | | | | |
| Recovered (d) | | 91 | 91 | 90 | * 90 | * 90 |
| Trinidad & Tobago | | | | | | |
| Recovered (d) | | 77 | 57 | 44 | * 10 | * 20 |
| USA | | | | | | |
| Frasch | | 6 357 | 6 390 | 6 348 | 4 210 | 3 202 |
| Pyrites | (40%) | 400 | 322 | 307 | 265 | — |
| Recovered (c) | | 1 274 | 1 081 | 1 231 | 908 | 1 133 |
| Recovered (d) | | 4 070 | 4 073 | 4 259 | 4 404 | 4 955 |
| Bolivia (f) | | | | | | |
| Sulphur ore | | 14 | 11 | 10 | 6 | 4 |
| Brazil | | | | | | |
| Recovered (d) | | 59 | 58 | 42 | 70 | 65 |
| Chile | | | | | | |
| Recovered (c) | | 27 | 33 | * 35 | * 35 | * 35 |
| Sulphur ore (b) | | 77 | 87 | 115 | 105 | 107 |
| Colombia | | | | | | |
| Recovered (d) | | 2 | 2 | 2 | 2 | 3 |
| Sulphur ore | | 16 | 26 | 26 | 33 | 31 |
| Ecuador | | | | | | |
| Recovered (d) | | * 10 | * 10 | * 10 | * 10 | * 10 |
| Sulphur ore | | 3 | 4 | 4 | 5 | * 5 |
| Venezuela | | | | | | |
| Recovered (d) | | 85 | 85 | 85 | * 85 | * 85 |
| Bahrain | | | | | | |
| Recovered (d) | | 25 | 33 | 36 | 34 | 49 |

Production of Sulphur and Pyrites

thousand tonnes (sulphur content)

| Country | | 1979 | 1980 | 1981 | 1982 | 1983 |
|-------------------------|-------|---------|---------|---------|---------|---------|
| China | | | | | | |
| Pyrites | (45%) | * 1 682 | * 1 700 | * 1 800 | * 1 800 | * 2 100 |
| Recovered | | * 300 | * 300 | * 300 | * 300 | * 300 |
| Sulphur ore | | * 200 | * 200 | * 200 | * 200 | * 200 |
| Cyprus | | | | | | |
| Pyrites | (44%) | 20 | 24 | 7 | 13 | 21 |
| India | | | | | | |
| Pyrites | (37%) | 25 | 31 | 27 | 21 | 19 |
| Recovered (c) | | * 115 | * 115 | * 92 | * 100 | * 110 |
| Recovered (d) | | 4 | 5 | 4 | 5 | 4 |
| Iran | | | | | | |
| Recovered (d) | | 244 | * 150 | * 6 | * 10 | * 15 |
| Sulphur ore | | * 75 | * 70 | * 50 | * 50 | * 50 |
| Iraq | | | | | | |
| Frasch | | 550 | 700 | 200 | 300 | * 300 |
| Recovered (d) | | * 40 | * 40 | * 40 | * 40 | * 40 |
| Israel | | | | | | |
| Recovered (d) | | * 10 | * 10 | * 10 | * 10 | * 10 |
| Japan | | | | | | |
| Pyrites | (49%) | 300 | 311 | 293 | 276 | 300 |
| Recovered (c)(g) | | 1 350 | 1 300 | 1 236 | 1 268 | * 1 270 |
| Recovered (d) | | 1 241 | 1 173 | 1 080 | 1 051 | 1 075 |
| Korea, Dem. P.R. of | | | | | | |
| Pyrites | (40%) | * 255 | * 250 | * 255 | * 200 | * 200 |
| Recovered (c) | | * 30 | * 30 | * 30 | * 30 | * 30 |
| Korea, Republic of | | | | | | |
| Recovered (c) | | * 54 | * 54 | * 54 | * 54 | * 54 |
| Recovered (d) | | * 36 | * 36 | * 36 | * 36 | * 36 |
| Kuwait | | | | | | |
| Recovered (d) | | 114 | 82 | 109 | 141 | * 145 |
| Pakistan | | | | | | |
| Recovered | | 14 | * 14 | * 15 | * 19 | * 20 |
| Philippines | | | | | | |
| Pyrites | (46%) | 40 | 53 | 45 | 30 | * 80 |
| Saudi Arabia | | | | | | |
| Recovered (d) | | * 125 | * 460 | * 600 | * 900 | * 800 |
| Singapore | | | | | | |
| Recovered (d) | | 20 | 20 | 10 | * 10 | * 10 |
| Taiwan | | | | | | |
| Recovered | | 9 | 8 | 10 | 20 | 27 |
| Australia | | | | | | |
| Pyrites | (48%) | 29 | — | — | — | — |
| Recovered (c) | | 366 | 350 | 356 | 430 | 452 |
| Total Frasch | | 14 300 | 14 700 | 13 800 | 11 600 | 10 500 |
| Total Pyrites | | 10 000 | 10 400 | 10 100 | 9 900 | 10 100 |
| Total Recovered | | 26 600 | 27 100 | 26 500 | 26 000 | 26 900 |
| Total Sulphur ore | | 2 400 | 2 500 | 2 500 | 2 400 | 2 300 |
| World total (all forms) | | 53 300 | 54 700 | 52 900 | 49 900 | 49 800 |

Note: Pyrites: nominal sulphur content is shown in parentheses

(a) 'Spent Oxide'

(b) Includes 'caliche' at 45% S content

(c) From smelter gases

(d) From petroleum refining and/or natural gas

(e) Other

(f) Exports

(g) Includes S content of 'sulphur ore'

Exports of Sulphur and Pyrites

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|-----------|-----------|-----------|-----------|
| United Kingdom | | | | | |
| Sulphur— | | | | | |
| Crude | 1 344 | 1 116 | 1 095 | 1 201 | 1 685 |
| Sublimed & precipitated | 247 | 133 | 128 | 295 | 177 |
| Belgium-Luxembourg | | | | | |
| Pyrites | 522 | 32 | 193 | 1 223 | 1 051 |
| Sulphur— | | | | | |
| Crude | 11 578 | 14 032 | 9 129 | 7 136 | 7 479 |
| Sublimed & precipitated | 42 | 148 | 87 | 117 | 79 |
| Denmark | | | | | |
| Sulphur | 24 | 51 | 222 | 80 | 3 428 |
| France | | | | | |
| Sulphur— | | | | | |
| Crude | 1 245 258 | 1 099 266 | 889 321 | 685 985 | 677 396 |
| Refined | 361 | 378 | 309 | 1 789 | 1 524 |
| Sublimed | 2 843 | 2 210 | 2 000 | 2 192 | 2 494 |
| Precipitated | 157 | 124 | 115 | 78 | 109 |
| Germany, Federal Republic of | | | | | |
| Pyrites | 1 238 | 968 | 2 089 | 2 031 | 1 041 |
| Sulphur— | | | | | |
| Crude | 356 669 | 394 400 | 448 041 | 602 559 | 461 821 |
| Sublimed & precipitated | 1 238 | 952 | 454 | 280 | 314 |
| Greece | | | | | |
| Sulphur | 10 756 | 2 036 | 5 758 | 442 | 4 884 |
| Italy | | | | | |
| Pyrites | 3 379 | 3 797 | 30 521 | 3 733 | 3 626 |
| Sulphur— | | | | | |
| Crude | 5 449 | 3 817 | 3 073 | 4 913 | 7 299 |
| Sublimed & precipitated | 142 | 48 | 195 | 150 | 65 |
| Netherlands | | | | | |
| Sulphur— | | | | | |
| Crude | 10 997 | 16 002 | 13 689 | 13 650 | 15 100 |
| Sublimed & precipitated | 18 | 36 | 6 | 1 | 20 |
| Albania | | | | | |
| Pyrites (c) | — | * 22 900 | * 31 600 | * 34 600 | * 61 800 |
| Finland | | | | | |
| Pyrites | 13 | — | 69 538 | 69 387 | 157 180 |
| Norway | | | | | |
| Pyrites | 27 256 | 190 107 | 210 459 | 171 883 | 186 867 |
| Sulphur | 3 283 | 1 842 | 4 405 | 2 753 | 7 525 |
| Poland | | | | | |
| Sulphur | 3 892 000 | 3 903 000 | 3 817 000 | 3 973 000 | 4 034 000 |
| Portugal | | | | | |
| Pyrites | 133 | 1 | 1 | ... | ... |
| Sulphur | 205 | 82 | 120 | 60 | ... |
| Soviet Union | | | | | |
| Pyrites | 915 000 | 911 000 | 536 000 | 359 000 | 362 000 |
| Spain | | | | | |
| Pyrites— | | | | | |
| Iron | 118 953 | 234 477 | 378 678 | 347 438 | 347 655 |
| Cupreous | 8 010 | 410 | — | — | ... |
| Sulphur— | | | | | |
| Crude | 14 629 | 6 264 | 2 143 | 1 476 | 1 284 |
| Sublimed & precipitated | 2 966 | 6 993 | 10 486 | 5 026 | 2 509 |
| Sweden | | | | | |
| Pyrites | 7 046 | 84 705 | 60 571 | 31 177 | 97 |
| Sulphur | 20 597 | 29 513 | 22 888 | 1 310 | 1 641 |
| Switzerland | | | | | |
| Sulphur— | | | | | |
| Crude | 15 | 20 | 19 | 8 249 | 6 260 |
| Sublimed & precipitated | 5 | 10 | 8 | 5 | 3 |
| Yugoslavia | | | | | |
| Pyrites | 75 828 | 67 942 | 14 428 | 20 954 | 95 764 |
| Sulphur | 5 335 | 1 138 | 2 039 | ... | ... |

Exports of Sulphur and Pyrites

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-------------------------|-----------|-----------|-------------|-----------|-----------|
| South Africa | | | | | |
| Sulphur | 2 463 | 47 181 | 66 091 | 31 867 | 10 523 |
| Zimbabwe | | | | | |
| Pyrites | 5 776 | 9 345 | 6 122 | — | ... |
| Canada | | | | | |
| Pyrites | £113 000 | £135 000 | £56 000 | £111 000 | £41 000 |
| Sulphur | 5 154 832 | 6 850 566 | 7 309 309 | 6 111 606 | 5 670 813 |
| Mexico | | | | | |
| Sulphur | 1 120 171 | 1 150 402 | 1 199 879 | 889 536 | 945 000 |
| Netherlands Antilles | | | | | |
| Sulphur | 107 802 | 66 361 | ... | ... | 87 471 |
| USA | | | | | |
| Sulphur | 1 962 851 | 1 681 189 | 1 392 169 | 993 992 | 994 754 |
| Bolivia | | | | | |
| Sulphur | 13 532 | 11 244 | 10 202 | 5 914 | 3 010 |
| Colombia | | | | | |
| Sulphur | 1 031 | 2 400 | 1 704 | 5 858 | 1 869 |
| Venezuela | | | | | |
| Sulphur | 42 832 | 8 645 | ... | ... | ... |
| Cyprus | | | | | |
| Pyrites | 143 224 | 89 441 | 35 670 | 1 099 | 11 031 |
| India | | | | | |
| Sulphur— | | | | | |
| Crude | 271 | 491 | 35 | ... | ... |
| Sublimed & precipitated | 207 | — | — | ... | ... |
| Iran (a) | | | | | |
| Sulphur | 22 001 | * 50 000 | (c)* 58 400 | ... | ... |
| Japan | | | | | |
| Sulphur— | | | | | |
| Crude | 414 884 | 364 268 | 231 326 | 299 451 | 239 025 |
| Sublimed & precipitated | 221 | 1 029 | 174 | 200 | 371 |
| Kuwait | | | | | |
| Sulphur | 72 531 | 240 380 | 127 285 | ... | ... |
| Singapore | | | | | |
| Sulphur— | | | | | |
| Crude | 5 190 | 3 130 | 9 006 | 12 999 | 28 997 |
| Sublimed & precipitated | 16 068 | 17 451 | 20 060 | 8 126 | 8 570 |
| Taiwan | | | | | |
| Sulphur— | | | | | |
| Crude | 3 695 | 1 310 | 817 | 1 553 | 1 728 |
| Sublimed & precipitated | 139 | 631 | 444 | 430 | 105 |
| Australia | | | | | |
| Zinc concentrates (b) | 96 500 | 134 100 | 118 000 | ... | ... |

(a) Years ended 20 March following that stated

(b) Recoverable sulphur

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

Imports of Sulphur and Pyrites

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-------------|-----------|-----------|-----------|-----------|
| United Kingdom | | | | | |
| Pyrites |) | | 13 273 | 15 690 | 21 961 |
| Sulphur— |) 1 194 448 | 1 140 428 | | | |
| Crude |) | | 886 018 | 849 549 | 842 801 |
| Sublimed & precipitated | 491 | 475 | 636 | 842 | 457 |
| Belgium-Luxembourg | | | | | |
| Pyrites | 195 210 | 189 433 | 207 379 | 235 540 | 276 252 |
| Sulphur— | | | | | |
| Crude | 549 346 | 481 737 | 444 699 | 358 718 | 399 067 |
| Sublimed & precipitated | 5 128 | 1 353 | 1 936 | 1 071 | 1 505 |
| Denmark | | | | | |
| Pyrites | 1 | 19 | 581 | 25 | 112 |
| Sulphur— | | | | | |
| Crude | 74 184 | 79 665 | 73 069 | 63 585 | 60 769 |
| Sublimed & precipitated | 115 | 114 | 119 | 143 | 102 |
| France | | | | | |
| Pyrites | 672 | 732 | 775 | 1 429 | 1 028 |
| Sulphur— | | | | | |
| Crude | 715 224 | 630 971 | 552 694 | 458 442 | 537 557 |
| Refined | 1 153 | 2 006 | 430 | 900 | 430 |
| Sublimed & precipitated | 412 | 586 | 254 | 111 | 68 |
| Germany, Federal Republic of | | | | | |
| Pyrites | 98 943 | 132 716 | 57 735 | 71 472 | 80 190 |
| Sulphur— | | | | | |
| Crude | 385 973 | 360 317 | 277 808 | 287 861 | 327 349 |
| Sublimed & precipitated | 732 | 661 | 507 | 635 | 891 |
| Greece | | | | | |
| Pyrites | 14 413 | 69 977 | 46 582 | 112 799 | 67 452 |
| Sulphur— | | | | | |
| Crude | 58 053 | 41 186 | 61 888 | 142 251 | 43 294 |
| Sublimed & precipitated | 339 | 48 | 102 | 58 | 59 |
| Irish Republic | | | | | |
| Sulphur— | | | | | |
| Crude | 534 | 528 | 473 | 443 | 493 |
| Sublimed & precipitated | 113 | 120 | 89 | 178 | 90 |
| Italy | | | | | |
| Pyrites | 286 351 | 291 010 | 252 991 | 109 155 | 262 813 |
| Sulphur— | | | | | |
| Crude | 754 861 | 609 564 | 476 015 | 375 588 | 464 907 |
| Sublimed & precipitated | 1 591 | 1 297 | 1 010 | 1 238 | 961 |
| Netherlands | | | | | |
| Pyrites | 169 | 153 | 164 | 163 | 223 |
| Sulphur— | | | | | |
| Crude | 455 504 | 467 883 | 456 933 | 383 418 | 299 006 |
| Sublimed & precipitated | 248 | 215 | 165 | 328 | 280 |
| Austria | | | | | |
| Pyrites | 3 264 | 3 834 | 582 | 650 | 804 |
| Sulphur— | | | | | |
| Crude | 112 019 | 124 693 | 102 818 | 84 658 | 93 489 |
| Sublimed & precipitated | 62 | 117 | 28 | 96 | 248 |
| Bulgaria | | | | | |
| Pyrites (a) | * 263 000 | * 289 700 | * 295 600 | * 257 000 | * 262 000 |
| Sulphur (a) | * 3 500 | * 59 000 | * 95 100 | * 75 900 | * 60 000 |
| Czechoslovakia | | | | | |
| Sulphur | 501 000 | 485 000 | 537 000 | 503 000 | 525 000 |
| Finland | | | | | |
| Sulphur— | | | | | |
| Crude | 42 132 | 58 357 | 52 824 | 68 825 | 54 460 |
| Sublimed & precipitated | 3 205 | 16 | 19 | 12 | 19 |

Imports of Sulphur and Pyrites

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------------------|-----------|-----------|-----------|-----------|-----------|
| German Democratic Republic | | | | | |
| Pyrites | 8 200 | * 100 | ... | * 8 700 | ... |
| Sulphur | * 178 200 | * 179 400 | * 167 000 | * 166 000 | ... |
| Hungary | | | | | |
| Pyrites | 83 518 | 89 676 | 89 237 | 49 575 | 80 067 |
| Sulphur | 167 344 | 250 960 | 183 164 | 163 701 | 174 692 |
| Malta | | | | | |
| Sulphur | 95 | 170 | 93 | 220 | 217 |
| Norway | | | | | |
| Sulphur— | | | | | |
| Crude | 2 583 | 2 853 | 3 002 | 2 570 | 3 886 |
| Sublimed & precipitated | 24 | 17 | 27 | 12 | 16 |
| Portugal | | | | | |
| Sulphur | 90 433 | 94 028 | 117 876 | 113 481 | ... |
| Romania | | | | | |
| Pyrites | * 75 800 | * 144 200 | ... | ... | ... |
| Sulphur (a) | * 224 300 | * 81 400 | * 396 300 | * 295 900 | * 146 300 |
| Soviet Union | | | | | |
| Sulphur | * 600 000 | * 700 000 | * 800 000 | * 800 000 | * 800 000 |
| Spain | | | | | |
| Sulphur— | | | | | |
| Crude | 109 576 | 94 116 | 112 949 | 91 331 | 63 819 |
| Sublimed & precipitated | 6 230 | 265 | 537 | 530 | 638 |
| Sweden | | | | | |
| Pyrites | 26 441 | 79 938 | 21 588 | 85 | 168 |
| Sulphur— | | | | | |
| Crude | 48 332 | 41 423 | 23 250 | 8 645 | 4 919 |
| Sublimed & precipitated | 32 | 1 138 | 4 515 | 2 012 | 5 962 |
| Switzerland | | | | | |
| Pyrites | 16 020 | 10 556 | 4 924 | 118 | 156 |
| Sulphur— | | | | | |
| Crude | 46 560 | 48 188 | 29 735 | 36 391 | 39 336 |
| Sublimed & precipitated | 158 | 231 | 188 | 127 | 198 |
| Turkey | | | | | |
| Pyrites | — | — | 117 695 | 70 427 | 89 995 |
| Sulphur— | | | | | |
| Crude | 52 682 | 41 048 | 91 289 | 114 696 | 76 868 |
| Sublimed & precipitated | 77 | 42 | 121 | 90 | 140 |
| Yugoslavia | | | | | |
| Pyrites | 124 227 | 68 413 | 49 232 | 11 750 | ... |
| Sulphur— | | | | | |
| Crude | 12 268 | 11 700 | 12 222 | 16 718 |) 121 579 |
| Refined | 54 374 | 44 718 | 47 353 | 52 340 |) |
| Sublimed & precipitated | 1 078 | 506 | 479 | 740 | 1 868 |
| Algeria | | | | | |
| Sulphur— | | | | | |
| Crude | 66 322 | 52 117 | ... | ... | ... |
| Sublimed & precipitated | 5 926 | 6 990 | ... | ... | ... |
| Egypt | | | | | |
| Pyrites | — | — | 55 155 | 36 500 | ... |
| Sulphur | 46 177 | 70 595 | 59 428 | 56 276 | ... |
| Ethiopia | | | | | |
| Sulphur | 761 | — | 1 159 | 483 | 1 820 |
| Gabon | | | | | |
| Sulphur | ... | 1 857 | 4 937 | 7 849 | 9 157 |
| Ivory Coast | | | | | |
| Sulphur | 7 997 | 2 474 | 7 797 | 4 023 | ... |
| Kenya | | | | | |
| Sulphur— | | | | | |
| Crude | 1 199 | 6 901 | 1 500 | 538 | ... |
| Sublimed & precipitated | — | 516 | 1 374 | 350 | ... |

Imports of Sulphur and Pyrites

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-------------------------|-----------|-----------|-----------|-----------|-----------|
| Morocco | | | | | |
| Sulphur— | | | | | |
| Crude | 517 145 | 702 271 | 810 257 | 1 026 563 | ... |
| Refined | 45 407 | 115 | 178 | 188 | ... |
| Sublimed | 7 | 3 | 1 | 0 | ... |
| Nigeria | | | | | |
| Sulphur | 1 485 | ... | ... | ... | ... |
| Senegal | | | | | |
| Sulphur | 18 209 | 14 293 | 20 581 | 13 050 | 14 396 |
| South Africa | | | | | |
| Pyrites | 904 | 10 772 | 5 090 | 171 | 108 |
| Sulphur— | | | | | |
| Crude | 811 730 | 913 609 | 764 885 | 590 201 | 383 414 |
| Sublimed & precipitated | 1 308 | 2 431 | 2 177 | 137 | 111 |
| Tanzania | | | | | |
| Sulphur | 10 636 | 12 146 | 38 | ... | ... |
| Tunisia | | | | | |
| Sulphur | 581 665 | 678 489 | 836 700 | 963 980 | ... |
| Zaire | | | | | |
| Sulphur | ... | * 350 | * 150 | ... | ... |
| Zimbabwe | | | | | |
| Sulphur | 18 440 | 15 705 | 25 529 | 24 454 | ... |
| Canada | | | | | |
| Sulphur | 1 699 | 1 767 | 4 633 | 2 159 | 2 365 |
| Cuba | | | | | |
| Sulphur | 129 000 | 149 000 | 168 000 | 169 000 | ... |
| El Salvador | | | | | |
| Sulphur | 14 781 | — | 0 | 17 | 2 481 |
| Guatemala | | | | | |
| Sulphur | 4 880 | 14 267 | 416 | 709 | 62 |
| Jamaica | | | | | |
| Sulphur — | | | | | |
| Crude | 5 766 | 5 516 | 8 542 | 24 | 19 |
| Sublimed & precipitated | 59 | 5 251 | 108 | 301 | 2 962 |
| Mexico | | | | | |
| Sulphur— | | | | | |
| Crude | 771 | 761 | 20 799 | 542 | ... |
| Sublimed & precipitated | 574 | 329 | 378 | 364 | ... |
| Nicaragua | | | | | |
| Sulphur | 381 | 487 | 397 | 709 | ... |
| Trinidad & Tobago | | | | | |
| Sulphur | 14 986 | 3 058 | 39 | 52 | 3 062 |
| USA | | | | | |
| Pyrites | 31 166 | 32 977 | 11 343 | 20 539 | 870 |
| Sulphur | 2 494 422 | 2 520 944 | 2 522 000 | 1 905 188 | 1 694 919 |
| Argentina | | | | | |
| Sulphur | 125 649 | 55 330 | 75 960 | ... | ... |
| Brazil | | | | | |
| Sulphur— | | | | | |
| Crude | 686 041 | 939 092 | 817 072 | 882 540 | 953 789 |
| Sublimed & precipitated | 317 | 657 | 472 | 479 | 538 |
| Chile | | | | | |
| Sulphur | ... | 120 258 | ... | ... | ... |
| Colombia | | | | | |
| Sulphur— | | | | | |
| Crude | 35 262 | 46 662 | 21 907 | 31 783 | 26 377 |
| Sublimed & precipitated | 38 | 83 | 130 | 136 | 85 |
| Peru | | | | | |
| Sulphur | 14 575 | 9 926 | 8 672 | 920 | 3 802 |

Imports of Sulphur and Pyrites

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-------------------------|--------------|--------------|---------|---------|---------|
| Uruguay | | | | | |
| Sulphur | 22 452 | 18 114 | 11 651 | 6 315 | 5 872 |
| Venezuela | | | | | |
| Sulphur— | | | | | |
| Crude | 115 | 139 | 155 | 168 | ... |
| Sublimed & precipitated | 42 | ... | ... | 29 | ... |
| China | | | | | |
| Sulphur | (a)* 250 300 | (a)* 347 200 | 260 534 | 337 698 | 357 082 |
| Cyprus | | | | | |
| Sulphur | 1 547 | 2 857 | 1 583 | 1 901 | 3 140 |
| Hong Kong | | | | | |
| Sulphur— | | | | | |
| Crude | 344 | 1 104 | 1 218 | 1 189 | 696 |
| Sublimed | 779 | 109 | 1 | 13 | 273 |
| India | | | | | |
| Sulphur— | | | | | |
| Crude | 959 152 | 677 685 | 620 105 | ... | ... |
| Sublimed | 470 | 2 355 | 139 | ... | ... |
| Indonesia | | | | | |
| Sulphur— | | | | | |
| Crude | 2 643 | 2 623 | 10 399 | 3 413 | ... |
| Sublimed & precipitated | 29 367 | 50 609 | 89 527 | 82 805 | ... |
| Iran (c) | | | | | |
| Sulphur | 411 | 359 | 243 | 210 | ... |
| Israel | | | | | |
| Sulphur | 50 700 | 37 053 | 135 425 | 137 341 | 164 358 |
| Japan | | | | | |
| Pyrites | 7 300 | — | — | — | — |
| Sulphur | 582 | 818 | 467 | 5 | 7 |
| Jordan | | | | | |
| Sulphur— | | | | | |
| Crude | 758 | 1 144 | 990 | 31 595 | 113 148 |
| Sublimed & precipitated | 644 | 334 | 948 | 27 409 | 42 494 |
| Korea, Republic of | | | | | |
| Sulphur— | | | | | |
| Crude | 582 055 | 519 184 | 386 430 | 440 660 | 448 076 |
| Sublimed & precipitated | 673 | 343 | 321 | 368 | 706 |
| Malaysia | | | | | |
| Sulphur— | | | | | |
| Crude | 8 019 | 10 257 | 6 737 | 4 888 | ... |
| Sublimed & precipitated | 4 578 | 5 430 | 7 036 | 6 237 | ... |
| Pakistan (b) | | | | | |
| Sulphur | 5 942 | 22 366 | 20 857 | 29 458 | 25 605 |
| Philippines | | | | | |
| Sulphur— | | | | | |
| Crude | 5 466 | 4 808 | 497 | 1 564 | 1 719 |
| Sublimed & precipitated | 12 675 | 23 820 | 19 007 | 22 615 | 17 884 |
| Singapore | | | | | |
| Sulphur— | | | | | |
| Crude | 568 | 245 | 219 | 57 | 69 |
| Sublimed & precipitated | 168 | 596 | 3 273 | 262 | 159 |
| Sri Lanka | | | | | |
| Sulphur— | | | | | |
| Crude | 520 | 431 | 125 | 433 | 405 |
| Sublimed & precipitated | 317 | 642 | 335 | 115 | 163 |
| Syria | | | | | |
| Sulphur— | | | | | |
| Crude | 7 696 | 12 778 | 25 623 | ... | ... |
| Sublimed & precipitated | 84 | 55 | 97 | 40 | ... |
| Taiwan | | | | | |
| Sulphur— | | | | | |
| Crude | 186 479 | 122 737 | 75 887 | 25 358 | 48 380 |
| Sublimed & precipitated | 130 629 | 250 497 | 264 015 | 156 287 | 205 885 |

Imports of Sulphur and Pyrites

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-------------------------|---------|---------|---------|---------|---------|
| Thailand | | | | | |
| Sulphur— | | | | | |
| Crude | 13 878 | 37 750 | 12 333 | 18 745 | 27 409 |
| Refined | 13 185 | 1 964 | 12 195 | 12 997 | 3 581 |
| Sublimed & precipitated | 643 | 284 | 193 | 201 | 257 |
| Australia | | | | | |
| Sulphur | 436 221 | 686 857 | 555 517 | 458 936 | 392 581 |
| New Zealand (b) | | | | | |
| Sulphur— | | | | | |
| Crude | 257 986 | 249 187 | 247 597 | 179 494 | 209 962 |
| Sublimed & precipitated | 275 | 325 | 235 | 194 | 291 |

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

(b) Years ended 30 June of that stated

(c) Years ended 20 March following that stated

Production of Talc

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|-----------|-----------|-----------|-------------|
| United Kingdom | 16 600 | 17 297 | 18 312 | 19 000 | 16 000 |
| France | 268 000 | 316 000 | 290 000 | 324 000 | 289 440 |
| Germany, Federal Republic of | 14 986 | 15 499 | 15 400 | 14 300 | 14 300 |
| Greece | | 2 529 | 2 697 | 2 166 | 1 666 |
| Italy | 157 382 | 165 905 | 163 708 | 163 770 | 158 974 |
| Austria | 116 420 | 116 708 | 116 425 | 117 092 | 122 128 |
| Finland | 256 087 | 302 167 | 307 915 | 325 298 | 318 430 |
| Hungary | 2 932 | 3 492 | 4 409 | 3 328 | 2 440 |
| Norway | 87 485 | 87 635 | 86 376 | * 85 000 | * 87 000 |
| Portugal | 2 748 | 3 756 | 3 512 | 3 376 | 7 325 |
| Romania | * 60 000 | * 60 000 | * 60 000 | * 60 000 | * 60 000 |
| Soviet Union | * 480 000 | * 490 000 | * 500 000 | * 510 000 | * 510 000 |
| Spain | 71 047 | 73 949 | 69 068 | 62 500 | * 63 500 |
| Sweden | 17 746 | 15 856 | 15 581 | 17 753 | ... |
| Egypt | 4 406 | 4 007 | 5 723 | 8 291 | ... |
| South Africa | | | | | |
| Talc | 9 451 | 9 466 | 9 464 | 9 743 | 7 617 |
| Wonderstone (pyrophyllite) | 5 795 | 4 900 | 5 662 | 4 070 | 3 575 |
| Zambia | — | — | 921 | 271 | 1 313 |
| Zimbabwe | 1 170 | 456 | 386 | 270 | 552 |
| Canada | 90 330 | 91 848 | 82 715 | 71 000 | 97 000 |
| Mexico | 7 835 | 10 088 | 13 733 | 12 270 | * 12 000 |
| USA | | | | | |
| Talc | 1 150 000 | 1 022 000 | 1 121 000 | 952 000 | 889 000 |
| Pyrophyllite | 168 000 | 103 000 | 97 000 | 79 000 | 79 000 |
| Argentina | | | | | |
| Talc | 24 059 | 24 575 | 33 741 |) | |
| Pyrophyllite | 9 886 | 5 226 | 1 026 |) 29 000 | * 29 000 |
| Steatite | 882 | 2 930 | 1 452 |) | |
| Brazil | | | | | |
| Talc (b) | 310 397 | 338 450 | 325 191 | 308 644 | 326 145 |
| Pyrophyllite (b) | 55 081 | 74 606 | 178 464 | 76 624 | 42 967 |
| Chile | 850 | 1 139 | 665 | 283 | ... |
| Colombia | 6 085 | 5 900 | 6 050 | 6 240 | 6 639 |
| Paraguay | 210 | 250 | 150 | * 150 | ... |
| Peru | 6 576 | 8 595 | * 9 100 | * 8 600 | * 9 000 |
| Uruguay | 2 126 | 2 206 | 1 589 | 2 000 | ... |
| Afghanistan (a) | 500 | — | — | — | — |
| Burma (c) | 191 | 219 | 146 | 165 | 128 |
| China | * 150 000 | * 915 000 | * 900 000 | * 900 000 | * 900 000 |
| India | | | | | |
| Steatite | 373 000 | 349 000 | 355 000 | 327 533 | 276 448 |
| Pyrophyllite | 34 708 | 35 077 | 41 681 | 43 602 | 59 042 |
| Japan | | | | | |
| Talc | 122 987 | 147 916 | 119 931 | 105 759 | 85 241 |
| Pyrophyllite | 933 790 | 1 126 359 | 1 025 721 | 977 306 | 1 064 507 |
| Korea, Dem. P.R. of | * 160 000 | * 170 000 | * 170 000 | * 170 000 | * 170 000 |
| Korea, Republic of | | | | | |
| Talc | 236 824 | 204 662 | 169 401 | 124 793 | 171 214 |
| Pyrophyllite | 541 383 | 514 511 | 395 216 | 466 324 | 460 922 |
| Pakistan | 32 938 | 29 613 | 24 997 | 20 498 | 15 960 |
| Philippines | 3 570 | 863 | 446 | 1 008 | 878 |
| Taiwan | 11 194 | 9 911 | 24 774 | 30 661 | 27 053 |
| Thailand | 13 542 | 11 726 | 12 035 | 21 998 | 20 148 |
| Australia | | | | | |
| Talc | 138 266 | 159 962 | 74 840 | 143 325 |) * 150 000 |
| Pyrophyllite | 19 209 | 11 002 | 8 146 | 9 467 |) |
| World total | 6 200 000 | 7 100 000 | 6 900 000 | 6 600 000 | 6 600 000 |

(a) Years ended 20 March following that stated

(b) Includes beneficiated and directly shipped material

(c) Years ended 31 March following that stated

Exports of Talc

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|--------------|--------------|------------|------------|------------|
| United Kingdom | 5 604 | 5 806 | 6 902 | 3 572 | 4 270 |
| Belgium-Luxembourg | 21 186 | 23 332 | 28 267 | 24 184 | 27 510 |
| France | 75 159 | 81 332 | 73 897 | 75 785 | 82 480 |
| Germany, Federal Republic of | 6 333 | 6 138 | 3 772 | 4 158 | 4 663 |
| Greece | 1 405 | ... | 525 | 105 | 566 |
| Italy | 55 181 | 54 014 | 52 180 | 46 082 | 49 546 |
| Netherlands | 4 066 | 8 011 | 14 902 | 13 926 | 17 551 |
| Austria | 98 139 | 97 760 | 110 322 | 98 656 | 104 252 |
| Czechoslovakia | 7 000 | 7 000 | (a)* 6 400 | (a)* 6 800 | (a)* 6 200 |
| Finland | 59 317 | 54 044 | 60 314 | 53 099 | 42 912 |
| Norway | 52 446 | 55 729 | 53 203 | 50 032 | 50 693 |
| Spain | 15 030 | 11 357 | 7 439 | 9 165 | 28 481 |
| Sweden | 3 776 | 5 850 | 6 378 | 8 393 | 13 768 |
| Switzerland | 71 | 97 | 152 | 113 | 137 |
| Turkey | 615 | 1 692 | 1 401 | 987 | 677 |
| Yugoslavia | 590 | 810 | 630 | 905 | 942 |
| South Africa | | | | | |
| Wonderstone (pyrophyllite) | 6 353 | ... | ... | ... | ... |
| Other | 69 | 500 | ... | ... | ... |
| USA | 287 034 | 274 946 | 282 330 | 210 110 | 197 689 |
| Argentina | 217 | 5 | 0 | ... | ... |
| Brazil | 320 | 495 | 498 | 175 | 1 295 |
| China | (a)* 363 000 | (a)* 384 000 | 386 045 | 521 166 | 534 378 |
| Hong Kong (Re-exports) | 8 908 | 5 302 | 7 663 | 11 852 | 14 121 |
| India | 13 355 | 7 000 | 8 323 | ... | ... |
| Japan | 1 145 | 1 691 | 1 923 | 2 032 | 4 058 |
| Korea, Dem. P.R. of (a) | * 63 800 | * 45 200 | * 30 400 | * 40 100 | * 27 700 |
| Korea, Republic of | 69 134 | 53 478 | 50 444 | 41 836 | 45 898 |
| Malaysia | 9 | 5 | 66 | 32 | ... |
| Singapore | 807 | 554 | 1 222 | 909 | 981 |
| of which: Re-exports | 805 | 549 | 1 142 | 902 | 947 |
| Taiwan | 1 401 | 1 043 | 1 706 | 1 114 | 1 823 |
| Thailand | 550 | 3 050 | 2 384 | 3 511 | 5 153 |
| Australia | 107 849 | 83 059 | 82 641 | 80 049 | ... |

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

Imports of Talc

Talc

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|-----------|-----------|-----------|------------|
| United Kingdom | 65 757 | 62 367 | 55 838 | 58 508 | 59 847 |
| Belgium-Luxembourg | 36 915 | 52 903 | 45 491 | 58 750 | 34 390 |
| Denmark | 8 775 | 7 991 | 8 958 | 7 427 | 8 464 |
| France | 18 028 | 20 514 | 20 811 | 18 908 | 23 217 |
| Germany, Federal Republic of | 125 688 | 130 765 | 122 478 | 121 699 | 141 789 |
| Greece | 2 564 | 2 265 | 1 595 | 1 607 | 1 738 |
| Irish Republic | 2 016 | 2 569 | 2 492 | 2 538 | 2 725 |
| Italy | 21 791 | 24 066 | 25 810 | 20 479 | 22 943 |
| Netherlands | 23 404 | 32 827 | 37 771 | 39 015 | 45 455 |
| Albania (d) | * 700 | * 1 900 | * 1 100 | * 1 400 | * 900 |
| Austria | 2 746 | 2 118 | 1 674 | 2 623 | 1 729 |
| Finland | 868 | 805 | 573 | 682 | 671 |
| Hungary | 2 699 | 5 572 | 4 162 | 4 828 | 4 201 |
| Norway | 6 654 | 6 878 | 5 608 | 4 549 | 5 675 |
| Poland | 26 043 | 23 180 | 12 818 | 15 226 | 16 662 |
| Portugal | 3 336 | 3 670 | 4 098 | 5 120 | ... |
| Soviet Union | * 120 000 | * 120 000 | * 120 000 | * 120 000 | * 120 000 |
| Spain | 10 945 | 15 163 | 10 300 | 9 124 | 9 415 |
| Sweden | 45 745 | 36 717 | 34 852 | 26 133 | 22 315 |
| Switzerland | 10 911 | 12 951 | 13 255 | 12 684 | 11 991 |
| Turkey | 235 | 115 | 248 | 227 | 321 |
| Yugoslavia | 4 611 | 5 121 | 3 642 | 3 616 | 4 037 |
| Algeria | 2 219 | 1 428 | ... | ... | ... |
| Cameroon | 297 | 387 | ... | ... | ... |
| Egypt | 628 | 140 | 526 | 2 523 | ... |
| Ghana | 141 | ... | ... | ... | ... |
| Ivory Coast | 915 | 1 405 | 1 375 | ... | ... |
| Kenya | 2 556 | 2 986 | 4 539 | 3 292 | ... |
| Libya | 497 | 823 | ... | ... | ... |
| Morocco | 797 | 917 | 822 | 974 | ... |
| Senegal | 180 | 115 | 152 | — | — |
| South Africa | 1 819 | 2 412 | 2 676 | 2 503 | 2 556 |
| Tunisia | 1 676 | 1 875 | 1 928 | 1 472 | ... |
| Zaire | 183 | * 50 | * 150 | ... | ... |
| Canada | 50 350 | 50 774 | 30 322 | 34 521 | 35 390 |
| Costa Rica | 894 | 991 | 708 | 667 | 969 |
| Dominican Republic | 811 | 827 | 770 | 1 217 | ... |
| El Salvador | 231 | 175 | 202 | 297 | 390 |
| Guatemala | 632 | 475 | 425 | 402 | 37 |
| Honduras | ... | 134 | 229 | ... | ... |
| Jamaica | 18 482 | 210 | 286 | 287 | 505 |
| Mexico | | | | | |
| Pyrophyllite | 246 | 172 | 285 | 142 | ... |
| Other | 159 845 | 150 138 | 163 970 | 93 534 | ... |
| Nicaragua | 160 | 188 | ... | ... | ... |
| Panama | 488 | 554 | 551 | 176 | 233 |
| Trinidad & Tobago | 3 642 | 618 | 1 034 | 691 | 2 413 |
| USA | 20 298 | 18 687 | 24 497 | 24 044 | 39 911 |
| Argentina | 550 | 510 | 391 | ... | ... |
| Brazil | 111 | 117 | 86 | 35 | 36 |
| Colombia | 2 559 | 2 377 | 2 128 | 2 732 | 2 193 |
| Ecuador | 618 | 556 | 346 | ... | ... |
| Peru | 485 | 551 | 783 | 715 | 427 |
| Venezuela | 7 729 | 8 379 | 8 034 | 9 437 | ... |
| Cyprus | 517 | 790 | 144 | 270 | 412 |
| Hong Kong | 10 793 | 7 488 | 9 607 | 12 807 | 15 526 |
| Indonesia | 10 533 | 10 977 | 12 880 | 17 338 | ... |
| Iran (a) | 387 | 407 | 606 | 16 | ... |
| Israel (c) | 655 | 711 | 1 455 | ... | (d)* 1 250 |
| Japan | 550 265 | 501 086 | 441 604 | 584 281 | 615 182 |
| Malaysia | 7 326 | 6 085 | 7 613 | 5 073 | ... |

Imports of Talc

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-----------------|--------|--------|--------|--------|--------|
| Philippines | 4 347 | 8 098 | 9 779 | 8 666 | 9 709 |
| Singapore | 4 885 | 5 143 | 9 000 | 7 659 | 8 119 |
| Sri Lanka | 1 585 | 1 215 | 1 069 | 1 297 | 703 |
| Syria | 745 | 2 191 | 3 602 | 1 119 | .. |
| Taiwan | 5 297 | 4 775 | 4 694 | 6 356 | 6 662 |
| Thailand | 15 533 | 11 775 | 13 409 | 13 931 | 19 160 |
| Australia | 420 | 382 | 329 | 253 | .. |
| New Zealand (b) | 3 181 | 3 161 | 2 047 | 3 523 | 5 826 |

(a) Years ended 20 March following that stated

(b) Years ended 30 June of that stated

(c) Figures may be incomplete as value only given in Israeli trade return for imports from some countries

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

Production of Tantalum and Niobium (Columbium) Minerals

tonnes

| Country | | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------------|------------|----------|----------|----------|----------|---------|
| Portugal | | | | | | |
| Columbite-tantalite | (25%, 25%) | 3 | 4 | 9 | 6 | 3 |
| Spain | | | | | | |
| Tantalite | (— , 25%) | 34 | 51 | 58 | * 55 | * 55 |
| Mozambique | | | | | | |
| Tantalite | (14%, 42%) | * 34 | ... | ... | ... | ... |
| Microlite | (4%, 55%) | * 32 | ... | ... | ... | ... |
| Nigeria | | | | | | |
| Columbite | (43%, 6%) | 580 | 555 | 380 | 169 | 80 |
| Tantalite | (30%, 30%) | 1 | 1 | 1 | — | — |
| Rwanda | | | | | | |
| Columbite-tantalite | (30%, 23%) | 47 | 60 | 57 | 62 | * 50 |
| Zaire | | | | | | |
| Columbite-tantalite | (27%, 27%) | 78 | 102 | 80 | 53 | 37 |
| Zimbabwe | | | | | | |
| Columbite-tantalite | (11%, 28%) | 30 | 41 | 45 | 36 | 35 |
| Canada | | | | | | |
| Pyrochlore | (43%, —) | 4 053 | 4 105 | 4 568 | 4 748 | 2 462 |
| Tantalite | (3%, 44%) | 295 | 214 | 193 | 109 | — |
| Brazil | | | | | | |
| Pyrochlore | (42%, —) | 28 909 | 30 700 | 29 886 | 19 593 | 16 828 |
| Columbite-tantalite | (20%, 30%) | 374 | 538 | 299 | 201 | 264 |
| Djalmaite | (1%, 50%) | 10 | 18 | 13 | 4 | 7 |
| Malaysia | | | | | | |
| Columbite | (40%, 14%) | 40 | 33 | 23 | 8 | 67 |
| Thailand | | | | | | |
| Columbite | (27%, 16%) | 382 | 213 |) 49 | 39 | 549 |
| Tantalite | (20%, 30%) | 25 | 143 |) | | |
| Struverite | (— , 6%) | 231 | 301 | 44 | 10 | 275 |
| Australia | | | | | | |
| Columbite-tantalite | (20%, 33%) | 147 | 202 | 264 | 166 | * 150 |
| World total concentrates | | 35 000 | 37 000 | 36 000 | 25 000 | 21 000 |
| Nb content | | * 14 000 | * 15 000 | * 15 000 | * 10 500 | * 8 500 |
| Ta content | | * 500 | * 600 | * 400 | * 300 | * 400 |

Notes:

- 1 Niobium and tantalum minerals are believed to have been produced also in the Soviet Union and China, and minor quantities in Argentina, Burundi, Namibia and Zambia
- 2 The figures in this table refer to gross tonnage of tantalum and niobium concentrates. Estimated average niobium and tantalum contents of these are given in the form (Nb%, Ta%) for each country and each mineral, relating where possible to the later years
- 3 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. 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 | 1979 | 1980 | 1981 | 1982 | 1983 |
|--|---------|---------|---------|---------|---------|
| United Kingdom | | | | | |
| Niobium & tantalum ores & concentrates (a) | 144 | 6 | 15 | — | 0 |
| Tantalum | 43 | 34 | 28 | 9 | 29 |
| France | | | | | |
| Niobium & tantalum ores (a) | 12 | 4 | — | — | 0 |
| Tantalum | 22 | 20 | 22 | 23 | 12 |
| Germany, Federal Republic of | | | | | |
| Niobium & tantalum ores (a) | 1 276 | 2 211 | 1 862 | 1 424 | 1 328 |
| Tantalum | 81 | 97 | 42 | 76 | 87 |
| Niobium | 41 | 90 | 50 | 45 | 97 |
| Italy | | | | | |
| Tantalum | 5 | 16 | 7 | 54 | 13 |
| Netherlands | | | | | |
| Tantalum | 8 | 182 | 4 | 4 | 9 |
| Austria | | | | | |
| Tantalum | 15 | 10 | 9 | 10 | 12 |
| Nigeria | | | | | |
| Columbite | 1 970 | ... | ... | ... | ... |
| Rwanda | | | | | |
| Columbite-tantalite | 75 | 76 | ... | ... | ... |
| Zaire | | | | | |
| Columbite-tantalite | 51 | 9 | * 70 | ... | ... |
| Canada | | | | | |
| Niobium & tantalum ores & concentrates | * 3 600 | * 3 100 | * 3 700 | * 4 200 | * 1 600 |
| USA | | | | | |
| Tantalum ores & concentrates | 149 | 212 | 45 | 111 | 55 |
| Tantalum | 334 | 362 | 208 | 238 | 155 |
| Niobium | * 45 | * 55 | * 70 | * 45 | * 45 |
| Brazil | | | | | |
| Pyrochlore | 1 660 | 2 430 | — | — | — |
| Columbite-tantalite | 328 | 456 | 290 | 166 | 115 |
| Japan | | | | | |
| Tantalum | 30 | 40 | 27 | 9 | 9 |
| Malaysia | | | | | |
| Columbite & tantalite | 79 | 41 | 64 | 29 | ... |
| Tin slags | 10 824 | 25 648 | 16 090 | 12 696 | ... |
| Singapore | | | | | |
| Tantalum ores & concentrates | 31 | 187 | 123 | 58 | 29 |
| of which: Re-exports | 31 | 187 | 123 | 28 | 29 |
| Tin slags | 1 194 | 6 678 | 2 326 | 1 244 | 1 856 |
| of which: Re-exports | 24 | 6 164 | 2 111 | 970 | 1 422 |
| Taiwan | | | | | |
| Tantalum | 4 | 75 | 453 | 11 | 84 |
| Thailand | | | | | |
| Columbite & tantalite | 432 | 496 | 134 | 93 | 125 |
| Tin slags | 3 507 | 3 306 | 2 043 | 2 444 | 1 577 |
| Australia | | | | | |
| Tantalite-columbite | 312 | 373 | 150 | 192 | ... |

Note: Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys

(a) Figures up to 1980 include vanadium ore, but this is thought to be negligible

Imports of Tantalum and Niobium

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--|--------|--------|-------|--------|-------|
| United Kingdom | | | | | |
| Niobium & tantalum ores & concentrates (a) | 621 | 131 | 11 | — | — |
| Tantalum | 75 | 59 | 36 | 31 | 51 |
| Niobium | 36 | 23 | 13 | 12 | 18 |
| Belgium-Luxembourg | | | | | |
| Niobium & tantalum ores (a) | 2 245 | 2 537 | 2 679 | 1 685 | 997 |
| Niobium | 10 | 3 | 6 | 3 | 1 |
| France | | | | | |
| Niobium & tantalum ores (a) | 0 | 2 | 1 | 1 | — |
| Tantalum | 52 | 34 | 33 | 55 | 31 |
| Niobium | 5 | 3 | 3 | 20 | 26 |
| Germany, Federal Republic of | | | | | |
| Niobium & tantalum ores (a) | 1 458 | 1 341 | 553 | 185 | 370 |
| Tantalum | 252 | 255 | 115 | 102 | 125 |
| Niobium | 22 | 23 | 32 | 24 | 41 |
| Italy | | | | | |
| Niobium & tantalum ores (a) | 449 | 24 | — | 0 | — |
| Tantalum | 7 | 7 | 2 | 2 | 2 |
| Niobium | 1 | 1 | 1 | 1 | 3 |
| Netherlands | | | | | |
| Tantalum | 1 | 2 | 3 | 1 | 0 |
| Austria | | | | | |
| Tantalum | 43 | 37 | 19 | 29 | 12 |
| USA | | | | | |
| Tantalum concentrates | 695 | 1 139 | 885 | 588 | 243 |
| Niobium concentrates | 1 708 | 2 197 | 903 | 413 | 657 |
| Tantalum | 106 | 118 | 68 | 76 | 68 |
| Niobium | 3 | 54 | 4 | 7 | 2 |
| Tin slags (b) — | | | | | |
| Ta content | 517 | 602 | 406 | * 260 | — |
| Nb content | 514 | 643 | 382 | * 300 | — |
| Japan | | | | | |
| Niobium minerals | 1 659 | 1 764 | 1 367 | 2 050 | 740 |
| Tantalum ores & concentrates | 304 | 309 | 38 | 20 | 121 |
| Tantalum | 77 | 47 | 26 | 32 | 48 |
| Malaysia | | | | | |
| Tantalum | — | 0 | 46 | — | — |
| Singapore | | | | | |
| Tantalum ores & concentrates | 143 | 208 | 307 | 147 | 162 |
| Tin slags | 17 563 | 12 360 | 9 343 | 10 083 | 2 762 |

Note: Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys

(a) Figures up to 1980 include vanadium ore, but this is thought to be negligible

(b) Ta and Nb content is approximately 10% and 7%, respectively, of gross weight

TIN

THOUSAND
TONNES

DOLLARS/TONNE

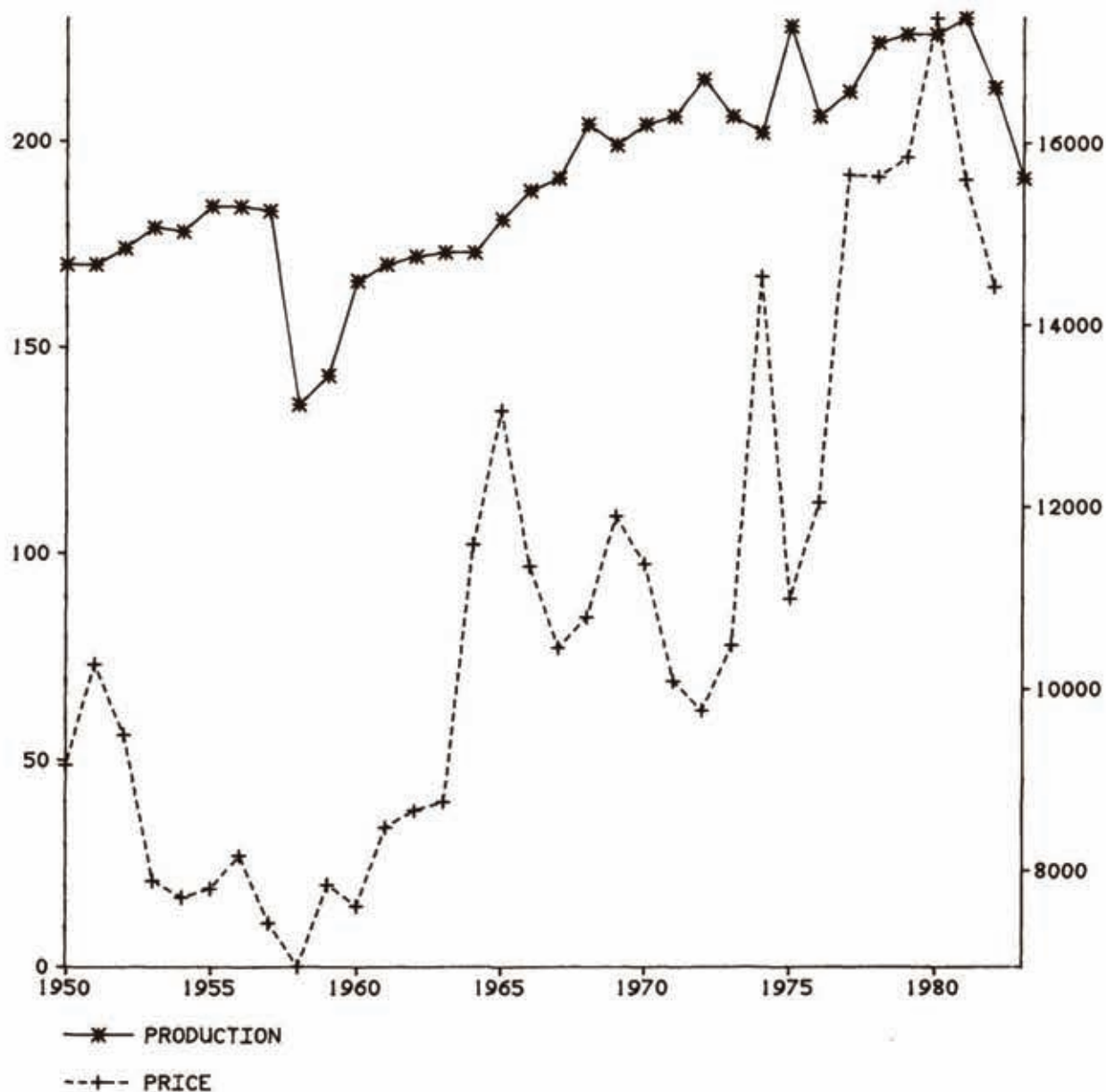


Figure 10 World mine production of tin from 1950 to 1983 compared with the yearly average price of Straits tin metal on the New York Market expressed in constant 1982 US dollars.

Constant commodity price taken from 'Commodity Trade and Price Trends' published by the Johns Hopkins University Press for the World Bank (1983-84 edition).

Mine Production of Tin

tonnes (metal content)

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------------------|----------|----------|----------|----------|----------|
| United Kingdom | 2 708 | 3 291 | 3 729 | 4 208 | 4 000 |
| Czechoslovakia | * 180 | 215 | 300 | 200 | 200 |
| German Democratic Republic | * 1 600 | * 1 800 | * 1 600 | * 1 700 | * 1 800 |
| Portugal | 240 | 292 | 356 | 411 | 375 |
| Soviet Union | * 18 000 | * 17 000 | * 16 000 | * 16 000 | * 17 000 |
| Spain | 496 | 437 | 564 | 518 | 395 |
| Cameroon | 18 | * 24 | * 24 | * 24 | * 24 |
| Namibia | * 1 000 | * 1 000 | * 800 | * 800 | * 800 |
| Niger | 73 | 78 | 71 | 52 | * 50 |
| Nigeria | 2 802 | 2 585 | 2 349 | 1 881 | 1 560 |
| Rwanda | * 1 400 | * 1 600 | 1 287 | 1 189 | 1 074 |
| South Africa | 2 697 | 2 913 | 2 811 | 3 035 | 2 668 |
| Uganda | 37 | 67 | 30 | 30 | * 30 |
| Zaire | 2 623 | 2 184 | 2 452 | 2 331 | 2 138 |
| Zimbabwe | 969 | 934 | 1 157 | 1 196 | 1 234 |
| Canada (a) | 337 | 243 | 239 | 135 | 141 |
| Mexico | 23 | 60 | 28 | 27 | 50 |
| USA | * 100 | * 100 | * 100 | * 100 | * 100 |
| Argentina | 386 | 351 | 413 | 304 | 338 |
| Bolivia | 27 648 | 27 271 | 29 780 | 26 773 | 26 528 |
| Brazil | 7 005 | 6 930 | 8 297 | 8 218 | 13 275 |
| Peru (b) | 870 | 1 077 | 1 519 | 1 672 | 2 368 |
| Burma | * 1 000 | 1 295 | 1 396 | 1 624 | 1 597 |
| China | * 14 000 | * 14 600 | * 15 000 | * 15 000 | * 15 000 |
| Indonesia | 29 436 | 32 527 | 35 391 | 33 806 | 26 553 |
| Japan | 661 | 549 | 562 | 533 | 599 |
| Korea, Republic of | 40 | 9 | 6 | — | — |
| Laos | * 170 | * 290 | * 200 | * 225 | * 200 |
| Malaysia | 62 995 | 61 404 | 59 938 | 52 342 | 41 367 |
| Thailand | 33 962 | 33 685 | 31 474 | 26 109 | 19 943 |
| Australia | 12 571 | 11 588 | 12 267 | 12 126 | * 9 600 |
| World total | 226 000 | 226 000 | 230 000 | 213 000 | 191 000 |

(a) Sn in concentrates exported and in tin-lead alloys produced

(b) Recoverable

Smelter Production of Tin

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|----------|----------|----------|----------|----------|
| United Kingdom | 8 025 | 5 829 | 6 863 | 8 164 | 6 467 |
| Belgium | 2 165 | 2 822 | 65 | — | — |
| Germany, Federal Republic of | 2 488 | 638 | 562 | — | — |
| Netherlands | * 1 720 | * 1 148 | * 3 500 | * 2 757 | * 5 398 |
| Czechoslovakia | 120 | 215 | 289 | 295 | 307 |
| German Democratic Republic | * 1 600 | * 1 800 | * 1 500 | * 2 000 | * 2 000 |
| Portugal | 445 | 495 | 424 | 444 | 419 |
| Soviet Union | * 18 000 | * 17 000 | * 16 000 | * 17 000 | * 18 000 |
| Spain | 3 529 | 3 369 | 3 100 | 2 800 | 2 800 |
| Nigeria | 2 858 | 2 684 | 2 489 | 1 808 | 1 244 |
| South Africa | 819 | 1 100 | 2 056 | 2 884 | * 2 400 |
| Zaire | 458 | 216 | 450 | 353 | 134 |
| Zimbabwe | 949 | 918 | 1 139 | 1 197 | * 1 200 |
| Mexico | 1 291 | 1 382 | 866 | 971 | * 950 |
| USA | 4 600 | 3 000 | 2 000 | 3 500 | 2 500 |
| Argentina | * 120 | * 200 | * 200 | * 200 | * 200 |
| Bolivia (a) | 15 696 | 17 533 | 19 937 | 18 980 | 14 164 |
| Brazil | 10 132 | 8 796 | 7 789 | 9 298 | 12 741 |
| China | * 14 000 | * 14 600 | * 15 000 | * 15 000 | * 15 000 |
| Indonesia | 27 790 | 30 465 | 32 429 | 29 755 | 28 390 |
| Japan | 1 252 | 1 319 | 1 313 | 1 296 | 1 260 |
| Malaysia | 73 068 | 71 318 | 70 326 | 62 836 | 53 338 |
| Thailand | 33 058 | 34 689 | 32 636 | 25 479 | 18 467 |
| Australia | 5 423 | 4 819 | 4 286 | 3 105 | 2 913 |
| World total | 230 000 | 226 000 | 225 000 | 210 000 | 190 000 |

(a) Refined, including alloys

Exports of Tin

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|----------|------------|----------|------------|---------|
| United Kingdom | | | | | |
| Concentrates | 4 019 | 3 038 | 4 306 | 1 866 | 1 601 |
| Unwrought | 6 243 | 7 050 | 6 264 | 5 417 | 993 |
| Unwrought alloys | 1 214 | 1 184 | 1 436 | 1 193 | 907 |
| Scrap | 22 | 112 | 143 | 356 | 373 |
| Belgium-Luxembourg | | | | | |
| Unwrought | 2 301 | 2 834 | 781 | 306 | 219 |
| Unwrought alloys | 72 | 120 | 44 | 106 | 941 |
| Scrap | 92 | 208 | 102 | 86 | 107 |
| Denmark | | | | | |
| Unwrought | 28 | 13 | 17 | 133 | 661 |
| Unwrought alloys | 740 | 496 | 393 | 540 | 530 |
| Scrap | 546 | 244 | 0 | 21 | 7 |
| France | | | | | |
| Concentrates | 7 | 8 | 35 | 19 | 27 |
| Unwrought | 564 | 244 | 722 | 243 | 317 |
| Unwrought alloys | 102 | 399 | 124 | 192 | 26 |
| Scrap | 881 | 915 | 655 | 472 | 328 |
| Germany, Federal Republic of | | | | | |
| Unwrought | 5 350 | 2 706 | 3 659 | 2 179 | 1 562 |
| Unwrought alloys | 520 | 535 | 1 126 | 1 846 | 2 794 |
| Scrap | 52 | 107 | 106 | 133 | 230 |
| Italy | | | | | |
| Unwrought (a) | 123 | 282 | 112 | 345 | 461 |
| Scrap | 131 | 35 | 121 | 51 | 57 |
| Netherlands | | | | | |
| Unwrought | 525 | 1 101 | 2 081 | 593 | 2 400 |
| Unwrought alloys | 750 | 844 | 867 | 863 | 1 011 |
| Scrap | 513 | 361 | 258 | 440 | 177 |
| Austria | | | | | |
| Unwrought | 10 | 19 | 17 | 20 | 49 |
| Czechoslovakia | | | | | |
| Concentrates | 123 | 106 | 47 | ... | ... |
| Norway | | | | | |
| Scrap | 35 | 52 | 50 | 51 | 52 |
| Spain | | | | | |
| Unwrought | 435 | 135 | 2 | 9 |) 95 |
| Unwrought alloys | 132 | 94 | 245 | 74 |) |
| Scrap | 94 | 65 | 91 | 53 | 122 |
| Sweden | | | | | |
| Unwrought | 61 | 57 | 95 | 42 | 32 |
| Unwrought alloys | 2 | 1 | 67 | 13 | 24 |
| Switzerland | | | | | |
| Unwrought | 168 | 186 | 158 | 218 | 196 |
| Scrap | 90 | 117 | 72 | 110 | 76 |
| Yugoslavia | | | | | |
| Unwrought (a) | 114 | 49 | 56 | 18 | 3 |
| Niger | | | | | |
| Concentrates (b) | 63 | 61 | 54 | 36 | ... |
| Nigeria | | | | | |
| Unwrought (a) | * 2 600 | * 2 700 | * 2 500 | * 1 900 | * 1 150 |
| Rwanda | | | | | |
| Concentrates | 1 876 | 2 084 | * 2 500 | * 300 | — |
| South Africa | | | | | |
| Concentrates (b) | 1 487 | 754 | 546 | 671 |) 1 864 |
| Unwrought (a) | (d)* 750 | (d)* 1 200 | (d)* 750 | (d)* 1 200 |) |
| Tanzania | | | | | |
| Concentrates | 18 | 14 | 9 | * 85 | * 700 |
| Zaire | | | | | |
| Concentrates | 2 466 | 2 768 | 2 569 | 2 798 | * 2 500 |
| Unwrought | 995 | * 450 | * 200 | * 250 | * 200 |
| Canada | | | | | |
| Concentrates (b) | 713 | 883 | 517 | 608 | 381 |
| Jamaica | | | | | |
| Scrap | 327 | 85 398 | 535 | 414 | 479 |

Exports of Tin

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------------|------------|------------|--------|--------|----------|
| USA | | | | | |
| Unwrought (a) | 3 418 | 4 294 | 6 081 | 9 357 | 3 540 |
| of which: Re-exports | 2 849 | 3 699 | 3 719 | 3 588 | 2 200 |
| Scrap | 6 068 | 7 519 | 3 901 | 4 838 | 5 591 |
| Argentina | | | | | |
| Tin-silver ore | 1 406 | 4 997 | 5 883 | ... | ... |
| Bolivia | | | | | |
| Concentrates (b) | 11 304 | 8 313 | 5 525 | 3 238 | 2 509 |
| Unwrought | 15 313 | 14 217 | 18 726 | 18 654 | 13 532 |
| Brazil | | | | | |
| Unwrought | 1 076 | 2 773 | 4 747 | 4 346 | 8 820 |
| Peru | | | | | |
| Concentrates | 2 355 | 2 213 | ... | ... | ... |
| Burma | | | | | |
| Concentrates (c) | 1 766 | 1 426 | 2 436 | 2 210 | * 2 400 |
| China | | | | | |
| Unwrought (a) | (d)* 7 100 | (d)* 2 700 | 5 614 | 3 068 | 3 643 |
| Hong Kong | | | | | |
| Unwrought | 749 | 621 | 1 160 | 1 027 | 627 |
| of which: Re-exports | 680 | 472 | 934 | 787 | 441 |
| Indonesia | | | | | |
| Concentrates | 1 624 | 4 857 | 1 044 | 1 473 | * 1 300 |
| Unwrought (a) | 26 274 | 26 169 | 32 128 | 28 610 | * 25 000 |
| Scrap | 475 | 1 404 | 750 | — | ... |
| Japan | | | | | |
| Unwrought (a) | 84 | 44 | 37 | 94 | 161 |
| Laos | | | | | |
| Concentrates (b) | 42 | 83 | 13 | 564 | 1 284 |
| Malaysia | | | | | |
| Unwrought | 72 113 | 69 498 | 66 437 | 48 584 | 57 141 |
| Singapore | | | | | |
| Concentrates | 6 382 | 5 351 | 3 318 | 4 048 | 10 604 |
| of which: Re-exports | 6 259 | 5 256 | 3 234 | 3 596 | 10 582 |
| Unwrought | 9 835 | 13 885 | 15 335 | 17 909 | 20 754 |
| of which: Re-exports | 7 823 | 10 901 | 13 239 | 15 871 | 17 216 |
| Unwrought alloys | 781 | 755 | 877 | 708 | — |
| of which: Re-exports | 94 | 131 | 289 | 282 | — |
| Thailand | | | | | |
| Unwrought | 31 309 | 33 955 | 30 074 | 24 889 | 17 724 |
| Unwrought alloys | 40 | 25 | 204 | 654 | 1 152 |
| Australia | | | | | |
| Concentrates (b) | 6 435 | 7 423 | 7 305 | 7 075 | 6 202 |
| Unwrought (a) | 2 108 | 1 625 | 1 458 | 677 | 473 |

Note: In this table the term 'unwrought' tin corresponds to item 687.1 of the Standard International Trade Classification (Revision 2) and comprises ingots, pigs, unwrought bars, sticks, etc

(a) Including alloys

(b) Sn content

(c) Years ended 31 March following that stated

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

Imports of Tin

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-------------------------------|----------|----------|----------|----------|----------|
| United Kingdom | | | | | |
| Concentrates | 35 987 | 36 656 | 38 407 | 20 386 | 22 407 |
| Unwrought | 7 747 | 5 157 | 6 354 | 5 184 | 4 802 |
| Unwrought alloys | 783 | 1 972 | 1 798 | 2 446 | 2 549 |
| Scrap | 1 314 | 913 | 1 006 | 1 533 | 2 915 |
| Belgium-Luxembourg | | | | | |
| Concentrates | 2 912 | 3 151 | 126 | 151 | 2 692 |
| Unwrought | 2 606 | 2 627 | 2 550 | 2 195 | 2 034 |
| Unwrought alloys | 188 | 361 | 194 | 201 | 252 |
| Scrap | 175 | 182 | 187 | 62 | 98 |
| Denmark | | | | | |
| Unwrought | 252 | 123 | 90 | 69 | 8 |
| Unwrought alloys | 71 | 124 | 20 | 195 | 511 |
| Scrap | 285 | 250 | 143 | 68 | 364 |
| France | | | | | |
| Concentrates | 941 | — | 0 | — | — |
| Unwrought | 10 348 | 10 362 | 8 852 | 8 356 | 7 900 |
| Unwrought alloys | 217 | 162 | 58 | 201 | 144 |
| Scrap | 99 | 194 | 23 | 29 | 75 |
| Germany, Federal Republic of | | | | | |
| Concentrates | 7 158 | 3 343 | 3 229 | 1 766 | 2 166 |
| Unwrought | 15 773 | 17 132 | 15 925 | 15 016 | 15 171 |
| Unwrought alloys | 1 325 | 1 172 | 1 127 | 1 325 | 1 446 |
| Scrap | 340 | 324 | 344 | 448 | 282 |
| Greece | | | | | |
| Unwrought | 799 | 468 | 413 | 295 | 377 |
| Irish Republic | | | | | |
| Unwrought (a) | 25 | 22 | 21 | 9 | 38 |
| Italy | | | | | |
| Unwrought | 6 732 | 6 336 | 4 507 | 4 657 | 5 432 |
| Unwrought alloys | 380 | 471 | 319 | 410 | 333 |
| Netherlands | | | | | |
| Concentrates | 3 437 | 3 338 | 6 053 | 4 738 | 8 910 |
| Unwrought | 4 728 | 5 233 | 5 330 | 3 772 | 2 037 |
| Unwrought alloys | 811 | 528 | 1 023 | 1 250 | 716 |
| Scrap | 470 | 402 | 242 | 215 | 186 |
| Austria | | | | | |
| Unwrought | 497 | 557 | 410 | 455 | 438 |
| Czechoslovakia | | | | | |
| Unwrought (a) | 3 940 | 4 085 | 3 646 | 3 088 | 2 933 |
| Finland | | | | | |
| Unwrought (a) | 302 | 267 | 191 | 194 | 132 |
| Hungary | | | | | |
| Unwrought & semi-manufactures | 1 724 | 1 662 | 1 369 | 1 772 | 2 038 |
| Norway | | | | | |
| Unwrought | 500 | 524 | 500 | 381 | 324 |
| Unwrought alloys | 83 | 91 | 57 | 79 | 72 |
| Poland | | | | | |
| Unwrought | 3 879 | 3 318 | 2 223 | 4 601 | 4 492 |
| Portugal | | | | | |
| Concentrates | 226 | 308 | 111 | 37 | ... |
| Unwrought | 529 | 572 | 442 | 408 | ... |
| Soviet Union | | | | | |
| Concentrates (e) | * 2 100 | * 1 900 | * 400 | * 2 200 | * 2 200 |
| Unwrought | * 10 000 | * 15 300 | * 14 000 | * 12 000 | * 13 000 |
| Spain | | | | | |
| Concentrates | 3 263 | 4 363 | 4 070 | 2 884 | 3 785 |
| Unwrought (a) | 112 | 72 | 37 | 325 | 99 |
| Sweden | | | | | |
| Unwrought | 530 | 414 | 268 | 264 | 316 |
| Unwrought alloys | 98 | 61 | 45 | 60 | 49 |
| Switzerland | | | | | |
| Unwrought | 868 | 1 026 | 926 | 866 | 890 |
| Turkey | | | | | |
| Unwrought | 321 | 341 | 713 | 651 | 995 |

Imports of Tin

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------|--------|--------|--------|--------|----------|
| Yugoslavia | | | | | |
| Unwrought (a) | 1 604 | 1 032 | 959 | 1 188 | 1 125 |
| Algeria | | | | | |
| Unwrought (a) | 92 | 121 | ... | ... | ... |
| Egypt | | | | | |
| Unwrought & scrap | 241 | 35 | 53 | 160 | * 150 |
| Kenya | | | | | |
| Unwrought (a) | 17 | 22 | 1 | 16 | ... |
| Morocco | | | | | |
| Unwrought (a) | 167 | 185 | 189 | 176 | ... |
| South Africa | | | | | |
| Unwrought | 386 | 225 | 276 | 41 | 18 |
| Tunisia | | | | | |
| Unwrought & scrap | 74 | 92 | 32 | 52 | ... |
| Canada | | | | | |
| Unwrought | 4 689 | 4 527 | 3 791 | 3 235 | 3 749 |
| Mexico | | | | | |
| Concentrates | 2 016 | 2 482 | 2 747 | 973 | ... |
| Unwrought | 609 | 566 | 451 | 454 | ... |
| USA | | | | | |
| Concentrates (b) | 4 529 | 841 | 232 | 1 962 | 969 |
| Unwrought | 48 355 | 45 982 | 45 874 | 27 939 | 34 048 |
| Unwrought alloys | 990 | 865 | 805 | 1 421 | 2 146 |
| Scrap | 628 | 870 | 2 430 | 2 786 | 1 153 |
| Argentina | | | | | |
| Unwrought | 980 | 674 | 612 | 1 229 | 736 |
| Brazil | | | | | |
| Concentrates | 7 542 | 3 605 | 301 | — | — |
| Chile | | | | | |
| Unwrought | 273 | 199 | 307 | 151 | 531 |
| Colombia | | | | | |
| Unwrought (a) | 353 | 430 | 378 | 375 | 242 |
| Peru | | | | | |
| Unwrought (a) | 430 | 631 | 68 | 154 | 278 |
| Uruguay | | | | | |
| Unwrought | 69 | 21 | 39 | 15 | 9 |
| Venezuela | | | | | |
| Unwrought (a) | 511 | 187 | 262 | 216 | ... |
| Hong Kong | | | | | |
| Unwrought | 2 042 | 1 694 | 1 769 | 1 452 | 1 675 |
| India | | | | | |
| Unwrought (a) | 1 879 | 1 708 | 3 151 | ... | ... |
| Scrap | 7 466 | 2 621 | 4 073 | ... | ... |
| Iran (d) | | | | | |
| Unwrought | 409 | 1 019 | 755 | 503 | ... |
| Japan | | | | | |
| Unwrought | 30 478 | 31 068 | 30 223 | 26 185 | 29 333 |
| Korea, Republic of | | | | | |
| Concentrates | 543 | 331 | 151 | 17 | 574 |
| Unwrought (a) | 6 426 | 1 234 | 2 056 | 2 093 | 2 216 |
| Malaysia | | | | | |
| Concentrates | 18 863 | 16 771 | 21 267 | 24 208 | * 29 000 |
| Unwrought (a) | 323 | 296 | 594 | 1 038 | ... |
| Philippines | | | | | |
| Unwrought (a) | 422 | 437 | 6 339 | 429 | 681 |
| Singapore | | | | | |
| Concentrates | 4 227 | 3 370 | 1 996 | 3 041 | 3 674 |
| Unwrought | 1 015 | 2 089 | 1 380 | 1 062 | 1 508 |
| Unwrought alloys | 537 | 503 | 358 | 406 | — |
| Scrap | 156 | 1 032 | 1 503 | 627 | 2 630 |

Imports of Tin

Tin
tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-------------------|-------|------|-------|------|-------|
| Syria | | | | | |
| Unwrought & scrap | 4 132 | 79 | 73 | 21 | ... |
| Taiwan | | | | | |
| Unwrought | 703 | 615 | 1 062 | 945 | 1 557 |
| Australia | | | | | |
| Unwrought | 5 | 44 | 102 | 64 | 103 |
| New Zealand (c) | | | | | |
| Unwrought (a) | 236 | 263 | 205 | 194 | 134 |

Note: In this table the term 'unwrought' tin corresponds to item 687.1 of the Standard International Trade Classification (Revision 2) 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

Production of Titanium Minerals

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------------------------|-------------|-------------|-------------|-------------|-------------|
| Finland | | | | | |
| Ilmenite | 131 500 | 149 700 | 161 500 | 167 800 | 163 900 |
| Norway | | | | | |
| Ilmenite | 819 815 | 827 827 | 659 604 | 551 764 | 544 238 |
| Portugal | | | | | |
| Ilmenite | 268 | 232 | 334 | 472 | 270 |
| Soviet Union | | | | | |
| Ilmenite | * 410 000 | * 420 000 | * 430 000 | * 430 000 | * 435 000 |
| Rutile | * 10 000 | * 10 000 | * 10 000 | * 10 000 | * 10 000 |
| Sierra Leone | | | | | |
| Rutile | 7 500 | 45 440 | 50 795 | 47 709 | 71 800 |
| South Africa | | | | | |
| Ilmenite (d) | * 487 300 | * 584 500 | * 629 200 | * 647 700 | * 647 700 |
| Rutile | * 42 000 | * 48 000 | * 49 900 | * 47 000 | * 56 000 |
| Canada (a) | | | | | |
| Ilmenite (d) | 1 004 260 | 1 853 270 | 2 008 117 | 1 735 000 | 860 000 |
| USA | | | | | |
| Ilmenite (b) | 579 956 | 504 981 | 492 018 | 238 944 | * 235 000 |
| Brazil | | | | | |
| Ilmenite | 13 191 | 16 839 | 19 889 | 13 181 | 30 452 |
| Rutile | 439 | 428 | 205 | 225 | 463 |
| India | | | | | |
| Ilmenite | 162 909 | 184 556 | 188 828 | * 190 000 | * 180 000 |
| Rutile | 6 642 | 7 192 | 8 752 | * 8 000 | * 9 000 |
| Malaysia (c) | | | | | |
| Ilmenite | 212 837 | 199 486 | 176 432 | 77 159 | 222 712 |
| Sri Lanka | | | | | |
| Ilmenite | 55 370 | 33 956 | 80 011 | 68 282 | 81 778 |
| Rutile | 14 675 | 12 789 | 13 301 | 7 212 | 8 093 |
| Australia | | | | | |
| Ilmenite | 1 181 010 | 1 384 563 | 1 321 137 | 1 149 212 | 896 209 |
| Rutile | 274 533 | 311 744 | 230 817 | 220 697 | 158 217 |
| Leucoxene | 22 470 | 23 943 | 19 261 | 19 739 | 13 358 |
| World total | | | | | |
| Ilmenite (Wt. of concs) | 5 100 000 | 6 200 000 | 6 200 000 | 5 300 000 | 4 300 000 |
| Rutile (Wt. of concs) | 356 000 | 436 000 | 364 000 | 341 000 | 314 000 |
| All forms (TiO ₂ content) | * 2 887 000 | * 3 515 000 | * 3 446 000 | * 2 976 000 | * 2 459 000 |

Notes:

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) Includes a mixed product containing ilmenite, leucoxene and rutile

(c) Exports

(d) Processed into slag. In 1983, Canada produced 610 000 tonnes (74–80% TiO₂) and South Africa produced 381 000 tonnes (85% TiO₂)

Exports of Titanium

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-------------|-------------|-------------|-------------|-----------|
| United Kingdom | | | | | |
| Titanium minerals | 1 551 | 645 | 344 | 970 | 512 |
| Oxides | 94 602 | 108 149 | 89 409 | 96 549 | 119 012 |
| Belgium-Luxembourg | | | | | |
| Titanium minerals | 3 426 | 2 814 | 0 | 24 | 13 |
| Metal | 191 | 110 | 103 | 113 | 137 |
| Oxides | 58 418 | 56 755 | 66 727 | 55 834 | 64 101 |
| France | | | | | |
| Titanium minerals | 715 | 2 160 | 1 070 | 105 | 235 |
| Metal | 604 | 734 | 1 185 | 700 | 969 |
| Oxides | 126 370 | 107 461 | 126 407 | 118 413 | 141 958 |
| Germany, Federal Republic of | | | | | |
| Ilmenite | 1 535 | 3 149 | 5 186 | 2 026 | 16 |
| Other titanium minerals | 4 067 | 6 114 | 3 545 | 3 351 | 6 636 |
| Metal | 1 866 | 2 234 | 2 132 | 1 817 | 2 300 |
| Oxides | 210 947 | 185 349 | 215 703 | 208 495 | 210 506 |
| Italy | | | | | |
| Metal | 131 | 103 | 63 | 134 | 184 |
| Oxides | 24 579 | 19 733 | 31 895 | (c) 1 597 | (c) 2 273 |
| Netherlands | | | | | |
| Ilmenite | 2 457 | 4 174 | 1 919 | 657 | 617 |
| Other titanium minerals | 142 | 22 212 | 19 827 | 21 520 | 40 983 |
| Metal | 114 | 77 | 154 | 101 | 36 |
| Oxides | 28 446 | 25 300 | 31 776 | 26 584 | 29 624 |
| Czechoslovakia | | | | | |
| Oxides (b) | * 2 400 | * 2 100 | * 800 | * 2 600 | * 3 400 |
| Finland | | | | | |
| Oxides | (b)* 42 600 | (b)* 36 100 | (b)* 32 000 | (b)* 30 000 | 61 959 |
| Norway | | | | | |
| Titanium minerals | 741 430 | 779 741 | 619 329 | 470 223 | 519 611 |
| Oxides | 1 227 | 1 137 | 1 110 | 1 179 | 2 996 |
| Soviet Union | | | | | |
| Metal (b) | * 4 700 | * 2 800 | * 1 500 | * 1 200 | * 1 200 |
| Spain | | | | | |
| Oxides | 38 974 | 25 745 | 21 991 | 42 716 | 19 385 |
| Sweden | | | | | |
| Titanium minerals | 388 | 23 | 47 | 9 | 34 |
| Metal | 420 | 506 | 603 | 428 | 510 |
| Yugoslavia | | | | | |
| Oxides | 12 132 | 11 353 | 12 560 | 12 847 | 13 867 |
| Sierra Leone | | | | | |
| Rutile | — | 27 687 | 27 375 | 38 000 | ... |
| South Africa | | | | | |
| Titanium minerals (b) | * 53 000 | * 58 300 | * 152 100 | * 127 700 | * 55 700 |
| Titanium slag (b) | * 50 300 | * 108 300 | * 170 600 | * 145 000 | * 120 600 |
| Canada | | | | | |
| Titanium slag (a) | ... | ... | ... | ... | * 500 000 |
| Metal (d) | 728 | 698 | 1 899 | 643 | 702 |
| Oxides (d) | 17 970 | 9 367 | 14 252 | 19 878 | 23 191 |
| USA | | | | | |
| Titanium minerals | 9 780 | 16 567 | 7 004 | 19 724 | 4 369 |
| Metal | 7 903 | 8 094 | 8 816 | 7 432 | 7 198 |
| Oxides | 46 680 | 41 562 | 56 661 | 61 910 | 83 219 |
| China | | | | | |
| Oxides (b) | * 1 500 | * 1 700 | * 1 900 | * 2 300 | * 1 800 |
| Hong Kong | | | | | |
| Oxides (Re-exports) | 1 878 | 2 529 | 2 554 | 1 814 | 2 055 |
| India | | | | | |
| Ilmenite | 53 043 | 11 306 | 10 000 | ... | ... |
| Oxides (e) | 45 | 242 | 174 | ... | ... |
| Japan | | | | | |
| Metal | 7 113 | 8 065 | 10 005 | 7 503 | 6 044 |
| Oxides | 41 163 | 46 343 | 45 491 | 58 241 | 60 351 |
| Malaysia | | | | | |
| Ilmenite | 212 837 | 199 486 | 176 432 | 77 159 | 222 712 |

Exports of Titanium

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------|----------|-----------|----------|----------|----------|
| Sri Lanka | | | | | |
| Ilmenite | 32 640 | 23 970 | 32 816 | 14 144 | 11 190 |
| Taiwan | | | | | |
| Oxides | 961 | 789 | 113 | 234 | 7 971 |
| Australia | | | | | |
| Ilmenite | 906 779 | 1 058 712 | 907 810 | 803 732 | 818 455 |
| Rutile | 317 780 | 315 314 | 216 048 | 198 526 | 232 195 |
| Leucosene | 24 926 | 24 207 | 15 055 | 14 016 | 9 276 |
| Oxides (b) | * 16 800 | * 14 300 | * 15 900 | * 16 200 | * 19 000 |

Notes:

- 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 2) items 522.46 and 533.1
 - 2 Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys
- (a) Sorelslag (70–74% TiO₂): estimated average 700 000 tonnes per year for 1980–82
- (b) BGS estimates, based on known imports into certain countries
- (c) Excluding oxide based pigments
- (d) Exports to the USA only
- (e) Years ended 31 March following that stated

Imports of Titanium

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|----------|----------|----------|----------|----------|
| United Kingdom (a) | | | | | |
| Ilmenite | 302 444 | 261 615 | 225 772 | 258 955 | 188 708 |
| Other titanium minerals | 80 546 | 50 809 | 62 929 | 95 918 | 92 691 |
| Metal (b) | * 7 000 | * 8 000 | * 6 200 | * 7 100 | * 5 600 |
| Oxides | 34 996 | 28 221 | 36 685 | 36 072 | 39 309 |
| Belgium-Luxembourg | | | | | |
| Ilmenite | 75 517 | 33 088 | 78 510 | 37 020 | 63 501 |
| Other titanium minerals | 26 577 | 45 020 | 41 435 | 34 281 | 40 626 |
| Metal | 4 097 | 1 420 | 914 | 1 015 | 790 |
| Oxides | 24 888 | 21 642 | 21 146 | 22 530 | 25 497 |
| Denmark | | | | | |
| Oxides | 7 898 | 7 421 | 8 338 | 7 482 | 8 370 |
| France | | | | | |
| Ilmenite | 119 708 | 85 377 | 90 755 | 80 118 | 116 251 |
| Other titanium minerals | 9 700 | 25 953 | 70 072 | 73 741 | 62 070 |
| Metal | 1 786 | 2 809 | 3 348 | 2 896 | 1 774 |
| Oxides | 45 211 | 43 885 | 44 860 | 43 707 | 44 079 |
| Germany, Federal Republic of | | | | | |
| Ilmenite | 521 534 | 451 088 | 516 503 | 379 513 | 373 776 |
| Other titanium minerals | 52 471 | 33 814 | 22 465 | 29 899 | 29 956 |
| Titanium slag | ... | ... | 250 545 | 203 370 | 195 938 |
| Metal | 3 836 | 4 878 | 4 843 | 3 189 | 2 046 |
| Oxides | 73 206 | 70 834 | 70 260 | 67 402 | 73 730 |
| Greece | | | | | |
| Oxides | 17 122 | 8 691 | 9 280 | 8 052 | 487 |
| Irish Republic | | | | | |
| Oxides | 3 464 | 2 880 | 3 655 | 3 017 | 2 289 |
| Italy | | | | | |
| Ilmenite | 76 629 | 25 | 43 | 1 199 | 2 102 |
| Other titanium minerals | 5 538 | 5 425 | 3 874 | 5 206 | 4 212 |
| Metal | 2 856 | 1 539 | 1 965 | 1 840 | 1 991 |
| Oxides | 45 976 | 43 678 | 49 987 | 48 299 | 53 306 |
| Netherlands | | | | | |
| Ilmenite | 2 885 | 3 312 | 3 628 | 200 | 639 |
| Other titanium minerals | 1 372 | 33 826 | 20 658 | 22 048 | 53 063 |
| Titanium slag | ... | ... | 61 413 | 53 746 | 41 055 |
| Metal | 260 | 239 | 394 | 171 | 244 |
| Oxides | 27 723 | 20 127 | 24 467 | 21 116 | 23 102 |
| Austria | | | | | |
| Oxides | 9 195 | 8 967 | 8 894 | 9 001 | 9 640 |
| Bulgaria | | | | | |
| Titanium minerals (b) | * 1 800 | * 5 600 | * 5 200 | * 4 500 | * 4 100 |
| Oxides (b) | * 2 700 | * 2 300 | * 2 700 | * 1 400 | * 1 300 |
| Czechoslovakia | | | | | |
| Oxides (b) | * 6 000 | * 7 300 | * 5 600 | * 3 800 | * 3 000 |
| Finland | | | | | |
| Titanium minerals | 5 535 | 37 602 | 10 375 | 20 961 | 31 435 |
| Oxides | 700 | 918 | 953 | 1 147 | 2 125 |
| German Democratic Republic | | | | | |
| Oxides (b) | * 23 100 | * 23 500 | * 21 000 | * 19 000 | * 17 200 |
| Norway | | | | | |
| Oxides | 4 582 | 4 490 | 4 189 | 4 373 | 5 086 |
| Portugal | | | | | |
| Oxides | 8 278 | 8 840 | 9 101 | 9 331 | ... |
| Romania | | | | | |
| Oxides (b) | * 12 800 | * 10 800 | * 9 500 | * 5 000 | * 5 500 |
| Spain | | | | | |
| Ilmenite | 162 977 | 134 920 | 146 798 | 138 556 | ... |
| Oxides | 6 774 | 7 902 | 10 128 | 12 660 | ... |
| Sweden | | | | | |
| Titanium minerals | 2 393 | 3 592 | 2 050 | 3 730 | 2 233 |
| Metal | 1 025 | 1 401 | 1 737 | 1 033 | 1 145 |
| Oxides | 18 419 | 16 406 | 17 385 | 18 213 | 22 885 |
| Switzerland | | | | | |
| Oxides | 6 141 | 3 773 | 1 826 | 2 020 | 2 134 |
| Turkey | | | | | |
| Titanium minerals | 1 930 | 2 111 | 2 996 | 2 773 | 3 721 |
| Oxides | 3 321 | 1 681 | 1 173 | 1 746 | 2 250 |

Titanium

Imports of Titanium

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------|---------|---------|----------|----------|----------|
| Yugoslavia | | | | | |
| Rutile | 23 742 | 52 142 | 47 232 | 48 070 | ... |
| Oxides | 6 876 | 5 397 | 5 686 | 4 199 | ... |
| Algeria | | | | | |
| Titanium minerals | 433 | 451 | ... | ... | ... |
| Oxides | 4 561 | 7 775 | ... | ... | ... |
| Egypt | | | | | |
| Oxides | 1 218 | 1 905 | 1 995 | 2 239 | ... |
| Morocco | | | | | |
| Oxides | 3 245 | 2 333 | 2 538 | 3 200 | ... |
| South Africa | | | | | |
| Oxides | 544 | 1 655 | 2 830 | 1 447 | 3 592 |
| Canada | | | | | |
| Metal | 731 | 616 | 552 | 504 | 275 |
| Oxides | 11 330 | 6 283 | 7 300 | 6 106 | 18 523 |
| Mexico | | | | | |
| Ilmenite | 59 724 | 63 588 | 50 820 | 41 994 | ... |
| Rutile sand (f) | 2 692 | 2 938 | 3 218 | 2 563 | ... |
| USA | | | | | |
| Ilmenite | 334 025 | 333 547 | 225 425 | 322 380 | 237 186 |
| Rutile (c) | 272 176 | 250 468 | 206 953 | 162 930 | 101 222 |
| Titanium slag | 101 051 | 176 896 | 220 511 | 224 842 | 125 834 |
| Metal | 8 930 | 9 179 | 10 794 | 3 400 | 4 368 |
| Oxides | 95 203 | 88 532 | 113 367 | 126 039 | 161 260 |
| Argentina | | | | | |
| Titanium minerals | 2 142 | 2 034 | 1 125 | ... | ... |
| Brazil | | | | | |
| Ilmenite | 56 437 | 55 016 | 69 408 | 59 510 | 21 020 |
| Rutile | 2 942 | 4 964 | 2 421 | 3 052 | 1 972 |
| Oxides | 27 929 | 26 262 | 24 067 | 14 918 | 10 362 |
| Colombia | | | | | |
| Oxides | 7 108 | 5 241 | 4 967 | 7 397 | 6 245 |
| Uruguay | | | | | |
| Oxides | 3 404 | 1 745 | 2 210 | 1 532 | 2 001 |
| Venezuela | | | | | |
| Oxides | 9 897 | ... | ... | 11 723 | ... |
| China | | | | | |
| Oxides (b) | * 5 300 | * 7 600 | * 12 000 | * 21 400 | * 12 000 |
| Hong Kong | | | | | |
| Oxides | 6 077 | 5 406 | 6 246 | 5 103 | 6 108 |
| India | | | | | |
| Oxides (d) | 8 460 | 6 497 | 9 917 | ... | ... |
| Indonesia | | | | | |
| Oxides | 11 840 | 10 192 | 12 021 | 14 343 | ... |
| Japan | | | | | |
| Titanium minerals | 420 433 | 409 080 | 323 057 | 367 500 | 411 047 |
| Titanium slag | 75 864 | 152 663 | 66 086 | 91 625 | 63 118 |
| Oxides | 20 486 | 21 011 | 27 230 | 30 018 | 38 087 |
| Korea, Republic of | | | | | |
| Titanium minerals | 12 314 | 31 150 | 21 376 | 29 080 | 32 447 |
| Rutile sand | 4 631 | 3 740 | 4 652 | 4 375 | 5 252 |
| Metal | 82 | 124 | 936 | 391 | 367 |
| Oxides | 15 113 | 10 099 | 14 235 | 15 502 | 19 333 |
| Malaysia | | | | | |
| Oxides | 5 327 | 4 999 | 5 720 | 5 941 | ... |
| Philippines | | | | | |
| Titanium minerals | 493 | 922 | 676 | 1 099 | 973 |
| Oxides | 6 802 | 4 393 | 5 448 | 6 338 | 9 111 |
| Saudi Arabia | | | | | |
| Oxides | 1 480 | 1 948 | 2 876 | 3 184 | 4 277 |
| Singapore | | | | | |
| Titanium minerals | 1 177 | 541 | 85 | 779 | — |
| Oxides | 4 338 | 3 768 | 4 099 | 4 636 | 6 365 |
| Taiwan | | | | | |
| Oxides | 18 933 | 18 099 | 17 292 | 21 406 | 28 910 |

Imports of Titanium

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|-------------|-------|-------|-------|-------|-------|
| Thailand | | | | | |
| Rutile | 799 | 930 | 955 | 1 225 | 1 235 |
| Oxides | 1 458 | 555 | 602 | 757 | 846 |
| Australia | | | | | |
| Oxides | 807 | 802 | 682 | 1 094 | 852 |
| New Zealand | | | | | |
| Oxides (e) | 6 806 | 5 708 | 5 246 | 5 958 | 5 268 |

Notes:

- 1 Significant quantities of titanium Sorelslag are believed to be imported into various Western European countries, but details are not available
 - 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 2) items 522.46 and 533.1
 - 3 Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys
- (a) United Kingdom is known to import about 70 000 tonnes per annum of titanium slag
- (b) BGS estimates, based on known exports from certain countries
- (c) Includes synthetic rutile
- (d) Years ended 31 March following that stated
- (e) Years ended 30 June of that stated
- (f) Micronised for use as an opacifier

Mine Production of Tungsten

tonnes (metal content)

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|---------------------|----------|----------|----------|----------|----------|
| United Kingdom | 66 | (e)* 40 | (e)* 40 | — | — |
| France | 500 | 577 | 591 | 727 | 832 |
| Austria | 1 669 | 2 150 | 1 322 | 1 699 | 1 405 |
| Czechoslovakia | * 80 | * 80 | * 50 | * 50 | * 50 |
| Portugal (c) | 1 387 | 1 580 | 1 395 | 1 358 | 1 187 |
| Soviet Union | * 8 700 | * 8 700 | * 8 850 | * 9 000 | * 9 100 |
| Spain | 394 | 446 | 437 | 557 | * 550 |
| Sweden | 402 | 364 | 394 | 423 | 460 |
| Turkey | 224 | 219 | 284 | 404 | 291 |
| Namibia (d) | 45 | * 50 | — | — | — |
| Rwanda | 348 | 323 | 248 | 322 | 292 |
| Uganda | * 20 | * 20 | * 20 | * 20 | * 20 |
| Zaire (d) | 210 | 134 | 89 | 74 | 85 |
| Zimbabwe | 110 | 90 | 60 | 35 | 23 |
| Canada (a) | 2 581 | 3 178 | 1 995 | 2 403 | 1 220 |
| Mexico | 252 | 266 | 263 | 194 | 90 |
| USA (b) | 3 013 | 2 754 | 3 605 | 1 521 | 980 |
| Argentina | 59 | 35 | 11 | 17 | 17 |
| Bolivia | 2 470 | 2 664 | 2 735 | 2 534 | 2 400 |
| Brazil (a) | 1 177 | 1 104 | 1 574 | 1 524 | 1 026 |
| Peru | 564 | 549 | 521 | 688 | 720 |
| Burma (d) | 719 | 848 | 845 | 865 | 950 |
| China | * 13 000 | * 15 000 | * 13 500 | * 12 500 | * 12 500 |
| India | 20 | 23 | 20 | 28 | 16 |
| Japan | 1 023 | 700 | 548 | 854 | 488 |
| Korea, Dem. P.R. of | * 2 150 | * 2 200 | * 2 200 | * 2 200 | * 500 |
| Korea, Republic of | 2 713 | 2 737 | 2 739 | 2 421 | 2 480 |
| Malaysia | 52 | 35 | 35 | 37 | 49 |
| Thailand | 1 826 | 1 615 | 1 210 | 856 | 562 |
| Australia (c) | 3 193 | 3 575 | 3 517 | 2 618 | 2 060 |
| New Zealand | 8 | 4 | 10 | 7 | 6 |
| World total | 49 000 | 52 000 | 49 000 | 46 000 | 40 000 |

(a) Mainly scheelite

(b) Shipments from mine

(c) Wolframite and scheelite

(d) Including tin-wolframite concentrates

(e) BGS estimates

Exports of Tungsten

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|---------|---------|---------|---------|---------|
| United Kingdom | | | | | |
| Tungsten ore | 30 | 222 | 662 | 1 364 | 219 |
| Metal | 227 | 333 | 436 | 411 | 543 |
| Carbide | 397 | 541 | 739 | 708 | 551 |
| Belgium-Luxembourg | | | | | |
| Tungsten ore | 9 | — | 0 | 10 | — |
| Metal | 159 | 165 | 142 | 128 | 99 |
| France | | | | | |
| Tungsten ore | 1 082 | 846 | 760 | 930 | 818 |
| Metal | 363 | 267 | 432 | 291 | 398 |
| Carbide | ... | ... | 120 | 111 | 134 |
| Germany, Federal Republic of | | | | | |
| Tungsten ore | 174 | 139 | 182 | — | 76 |
| Metal | 606 | 704 | 1 038 | 712 | 860 |
| Italy | | | | | |
| Metal | 99 | 65 | 93 | 65 | 85 |
| Netherlands | | | | | |
| Tungsten ore | 1 161 | 1 656 | 344 | 793 | 629 |
| Metal | 202 | 202 | 300 | 269 | 398 |
| Austria | | | | | |
| Tungsten ore | 25 | — | — | 0 | 73 |
| Metal | 848 | 1 111 | 1 243 | 663 | 874 |
| Portugal | | | | | |
| Tungsten ore | 1 704 | 2 093 | 2 284 | 1 727 | * 1 800 |
| Spain | | | | | |
| Scheelite ore | 256 | 3 903 |) 601 | 686 | 674 |
| Other tungsten ore | 359 | 313 |) | | |
| Metal | 28 | 49 | 22 | 39 | 5 |
| Sweden | | | | | |
| Tungsten ore | 431 | 330 | 691 | 404 | 752 |
| Metal | 54 | 50 | 46 | 99 | 44 |
| Carbide | 195 | 185 | 172 | 158 | 87 |
| Switzerland | | | | | |
| Metal | 24 | 51 | 49 | 68 | 45 |
| Turkey | | | | | |
| Metal | 69 | 140 | 115 | 30 | 305 |
| Rwanda | | | | | |
| Tungsten ores & concentrates | 744 | 715 | * 580 | * 640 | ... |
| South Africa | | | | | |
| Tungsten ore (c) | * 50 | * 20 | * 20 | — | — |
| Uganda | | | | | |
| Wolframite ore | * 200 | * 200 | * 100 | ... | ... |
| Zaire | | | | | |
| Tungsten ore | 142 | 138 | 103 | 89 | ... |
| Zimbabwe | | | | | |
| Tungsten ore | 225 | 201 | 130 | 52 | ... |
| Canada (a) | * 2 300 | * 2 900 | * 1 800 | * 2 600 | ... |
| Mexico | | | | | |
| Tungsten ores & concentrates | 310 | 236 | 402 | 607 | ... |
| USA | | | | | |
| Tungsten ores & concentrates | 1 749 | 1 834 | 281 | 643 | 28 |
| Metal | 1 130 | 1 481 | 1 921 | 1 254 | 900 |
| Ammonium paratungstate (a) | 2 | 3 | 1 | 11 | 6 |
| Carbide | 635 | 662 | 550 | 552 | 330 |
| Bolivia | | | | | |
| Tungsten ore (a) | 2 647 | 3 435 | 3 091 | 3 272 | 2 584 |
| Brazil | | | | | |
| Tungsten ore | 538 | 782 | 1 691 | 1 860 | 1 482 |
| Peru | | | | | |
| Tungsten ores & concentrates | 1 131 | 996 | 930 | 1 110 | 930 |
| Burma (b) | | | | | |
| Tungsten ores & concentrates | 1 052 | 1 278 | 767 | 2 015 | ... |

Exports of Tungsten

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------------------|----------|----------|--------|--------|--------|
| China | | | | | |
| Tungsten ores & concentrates | * 21 000 | * 20 000 | 26 839 | 11 188 | 24 990 |
| Hong Kong | | | | | |
| Tungsten ore (Re-exports) | — | 425 | 2 197 | 4 740 | — |
| Japan | | | | | |
| Metal | 209 | 216 | 242 | 286 | 147 |
| Korea, Dem. P.R. of (a) | * 1 000 | * 1 000 | * 800 | * 800 | ... |
| Korea, Republic of | | | | | |
| Tungsten ore | 1 915 | 1 721 | 6 360 | 1 005 | 1 061 |
| Carbide | 6 | 283 | 311 | 282 | 303 |
| Malaysia | | | | | |
| Wolframite ore | 128 | 109 | 71 | 61 | ... |
| Singapore | | | | | |
| Tungsten ore | 396 | 848 | 971 | 630 | 875 |
| of which: Re-exports | 396 | 800 | 775 | 629 | 777 |
| Metal | 84 | 119 | 173 | 72 | 91 |
| of which: Re-exports | 1 | 40 | 103 | 1 | 23 |
| Thailand | | | | | |
| Tungsten ore | 3 608 | 3 638 | 1 991 | 1 463 | 1 207 |
| Australia | | | | | |
| Wolframite ores & concentrates | 1 624 | 2 311 | 2 093 | 1 752 | 1 532 |
| Scheelite ores & concentrates | 3 442 | 3 715 | 4 254 | 3 215 | 2 335 |

Notes:

- 1 Significant, and possibly increasing, 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) BGS estimates, based on known imports into certain countries

Imports of Tungsten

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|---------|---------|---------|---------|---------|
| United Kingdom | | | | | |
| Tungsten ore | 2 996 | 2 622 | 3 309 | 1 768 | 693 |
| Metal | 245 | 298 | 162 | 243 | 213 |
| Carbide | 344 | 407 | 448 | 510 | 442 |
| Belgium-Luxembourg | | | | | |
| Metal | 300 | 224 | 253 | 155 | 188 |
| Carbide | ... | ... | 176 | 257 | 259 |
| Denmark | | | | | |
| Carbide | ... | ... | 186 | 268 | 316 |
| France | | | | | |
| Tungsten ore | 1 586 | 1 438 | 1 159 | 818 | 277 |
| Metal | 307 | 241 | 258 | 365 | 321 |
| Carbide | ... | ... | 224 | 189 | 251 |
| Germany, Federal Republic of | | | | | |
| Tungsten ore | 4 097 | 2 931 | 2 698 | 2 855 | 3 841 |
| Metal | 831 | 970 | 1 132 | 841 | 946 |
| Carbide | ... | ... | 280 | 317 | 286 |
| Italy | | | | | |
| Tungsten ore | 181 | 173 | 83 | 36 | 54 |
| Metal | 134 | 102 | 84 | 100 | 85 |
| Carbide | ... | ... | 148 | 169 | 158 |
| Netherlands | | | | | |
| Tungsten ore | 99 | 232 | 121 | 739 | 1 317 |
| Metal | 123 | 142 | 428 | 307 | 490 |
| Austria | | | | | |
| Tungsten ore | 4 835 | 4 297 | 3 425 | 2 413 | 3 090 |
| Metal | 728 | 418 | 357 | 316 | 428 |
| Finland | | | | | |
| Metal | 20 | 83 | 27 | 17 | 20 |
| Poland | | | | | |
| Tungsten concentrates | 2 898 | 1 662 | 806 | 2 461 | 30 |
| Soviet Union | | | | | |
| Tungsten concentrates | * 5 000 | * 9 000 | * 7 000 | * 7 000 | * 6 900 |
| Sweden | | | | | |
| Tungsten ore | 2 180 | 3 709 | 2 417 | 1 700 | 681 |
| Metal | 28 | 130 | 29 | 84 | 163 |
| Carbide | 260 | 334 | 327 | 361 | 395 |
| Switzerland | | | | | |
| Metal | 39 | 113 | 79 | 40 | 43 |
| Yugoslavia | | | | | |
| Metal | 24 | 25 | 13 | 14 | 27 |
| South Africa | | | | | |
| Tungsten ores & concentrates | 333 | 2 504 | 400 | 388 | 507 |
| Metal | 201 | 176 | 39 | 13 | 34 |
| Carbide | 53 | 101 | 64 | 65 | 42 |
| Mexico | | | | | |
| Metal | 113 | 117 | 114 | 50 | ... |
| USA | | | | | |
| Tungsten ore | 11 448 | 10 890 | 10 961 | 8 798 | * 6 500 |
| Metal | 771 | 556 | 4 433 | 1 282 | 770 |
| Ammonium paratungstate (a) | 198 | 215 | 461 | 989 | 762 |
| Carbide | 293 | 256 | 367 | 431 | * 250 |
| Venezuela | | | | | |
| Metal | 140 | 24 | 23 | 4 | ... |
| India | | | | | |
| Tungsten ore | 255 | 483 | 567 | * 500 | ... |
| Metal | 21 | 26 | 34 | ... | ... |
| Japan | | | | | |
| Tungsten ore | 3 133 | 3 480 | 2 256 | 2 297 | 3 214 |
| Metal | 162 | 159 | 187 | 143 | 178 |

Imports of Tungsten

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|---------------|------|-------|-------|------|-------|
| Singapore | | | | | |
| Tungsten ore | 487 | 1 347 | 1 925 | 971 | 1 211 |
| Metal | 3 | 23 | 23 | 28 | 94 |
| Taiwan | | | | | |
| Metal | 39 | 56 | 37 | 29 | 36 |
| Australia (b) | | | | | |
| Metal | 0 | 8 | 5 | 12 | 11 |

Notes:

- 1 Significant, and possibly increasing, 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

Mine Production of Vanadium

tonnes (metal content)

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------|----------|----------|---------|----------|---------|
| Finland | 3 632 | 3 009 | 3 279 | 3 315 | 3 359 |
| Norway | * 570 | * 490 | * 340 | * 100 | — |
| Soviet Union | * 9 100 | * 9 500 | * 9 500 | * 9 500 | * 9 500 |
| South Africa | * 12 300 | * 12 700 | 19 424 | * 11 400 | * 8 100 |
| USA | 5 008 | 4 360 | 4 650 | 3 718 | 1 969 |
| Chile | * 460 | * 270 | * 130 | — | — |
| China | * 3 600 | * 4 500 | * 4 500 | * 4 500 | * 4 500 |
| World total | 34 700 | 34 800 | 41 800 | 32 500 | 27 400 |

Note: 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

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|----------|------------|------------|------------|------------|
| United Kingdom | | | | | |
| Pentoxide | 55 | 15 | 102 | 56 | 182 |
| Metal | 0 | 2 | 0 | 17 | 73 |
| Belgium-Luxembourg | | | | | |
| Vanadiferous residues | 1 423 | — | 4 775 | 1 884 | 1 163 |
| Pentoxide | 212 | 143 | 134 | 35 | 83 |
| Vanadium-titanium pig-iron | 2 | 24 | 23 | 8 | 27 |
| Metal | — | — | 32 | 186 | 15 |
| Denmark | | | | | |
| Vanadium-titanium pig-iron | — | 12 | 49 | 23 | 122 |
| France | | | | | |
| Vanadiferous residues | 1 563 | 168 | 112 | 56 | 40 |
| Pentoxide | 6 | 39 | 52 | 26 | — |
| Vanadium-titanium pig-iron | — | — | 23 | 26 | 149 |
| Metal | 0 | 0 | 54 | 23 | 98 |
| Germany, Federal Republic of | | | | | |
| Vanadiferous residues | 904 | 705 | 2 175 | 889 | 1 486 |
| Metal | 109 | 124 | 193 | 135 | 192 |
| Italy | | | | | |
| Vanadiferous residues | 226 | — | 1 726 | 1 484 | 1 956 |
| Netherlands | | | | | |
| Vanadiferous residues | 199 | 17 | 8 | 51 | 20 |
| Vanadium-titanium pig-iron | 3 | 9 | 6 | — | 60 |
| Finland | | | | | |
| Pentoxide | 4 928 | (a)* 3 000 | (a)* 2 000 | (a)* 1 500 | (a)* 3 700 |
| Soviet Union | | | | | |
| Vanadiferous residues | * 12 000 | * 12 000 | * 12 000 | * 12 500 | * 11 800 |
| South Africa | | | | | |
| Pentoxide (a) | * 8 100 | * 6 400 | * 4 400 | * 4 800 | * 2 900 |
| Vanadiferous residues (a) | * 12 000 | * 10 400 | * 11 200 | * 3 600 | * 2 500 |
| USA | | | | | |
| Ores & concentrates (b) | 163 | 74 | 90 | 92 | 95 |
| Pentoxide | 1 057 | 662 | 318 | 1 509 | 2 385 |
| China | | | | | |
| Vanadiferous residues (a) | — | * 700 | * 5 000 | * 2 600 | * 5 100 |
| Pentoxide (a) | * 50 | * 600 | * 2 000 | * 3 000 | * 3 700 |

Notes:

- In this table the term 'pentoxide' also includes vanadium oxides and hydroxides, if any
 - 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) V₂O₅ content

Imports of Vanadium

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|--------|--------|--------|--------|--------|
| United Kingdom | | | | | |
| Vanadiferous residues | 596 | 751 | 8 | — | 0 |
| Pentoxide | 937 | 925 | 1 075 | 745 | 1 929 |
| Vanadium-titanium pig-iron | 49 | — | — | 75 | 184 |
| Metal | 100 | 93 | 133 | 41 | 142 |
| Belgium-Luxembourg | | | | | |
| Vanadiferous residues | 6 272 | 7 001 | 9 350 | 6 905 | 3 137 |
| Pentoxide | 1 169 | 1 535 | 1 542 | 2 964 | 4 062 |
| Metal | — | 1 | 64 | 69 | 27 |
| Denmark | | | | | |
| Vanadium-titanium pig-iron | 401 | 5 | 111 | 306 | ... |
| France | | | | | |
| Pentoxide | 1 315 | 1 207 | 1 513 | 1 223 | 1 126 |
| Vanadium-titanium pig-iron | 50 | 49 | 77 | 25 | 20 |
| Metal | 19 | 19 | 45 | 85 | 29 |
| Germany, Federal Republic of | | | | | |
| Vanadiferous residues | 31 766 | 44 422 | 36 685 | 29 878 | 27 826 |
| Pentoxide | 710 | 1 383 | 2 223 | 2 360 | 1 455 |
| Vanadium-titanium pig-iron | 410 | 485 | 625 | 250 | 2 274 |
| Metal | 42 | — | 2 | 1 | 4 |
| Italy | | | | | |
| Vanadiferous residues | 4 891 | 3 462 | 2 747 | 2 646 | 1 923 |
| Pentoxide | 864 | 490 | 194 | 123 | 106 |
| Vanadium-titanium pig-iron | 250 | 252 | 242 | 266 | — |
| Netherlands | | | | | |
| Vanadiferous residues | 737 | — | 308 | 1 | — |
| Pentoxide | 8 | 14 | 33 | 321 | 25 |
| Vanadium-titanium pig-iron | 75 | 50 | 25 | 125 | 9 |
| Sweden | | | | | |
| Pentoxide | 990 | 517 | 141 | 16 | — |
| Mexico | | | | | |
| Pentoxide | 278 | 250 | 309 | 145 | ... |
| USA | | | | | |
| Vanadiferous residues | 25 157 | 11 883 | 15 094 | 7 007 | * 400 |
| Pentoxide | 1 469 | 1 386 | 573 | 228 | 661 |
| Brazil | | | | | |
| Pentoxide | 1 215 | 1 042 | 578 | 487 | 633 |
| Japan | | | | | |
| Pentoxide | 4 633 | 3 404 | 3 943 | 4 846 | 2 957 |

Notes:

- 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

ZINC

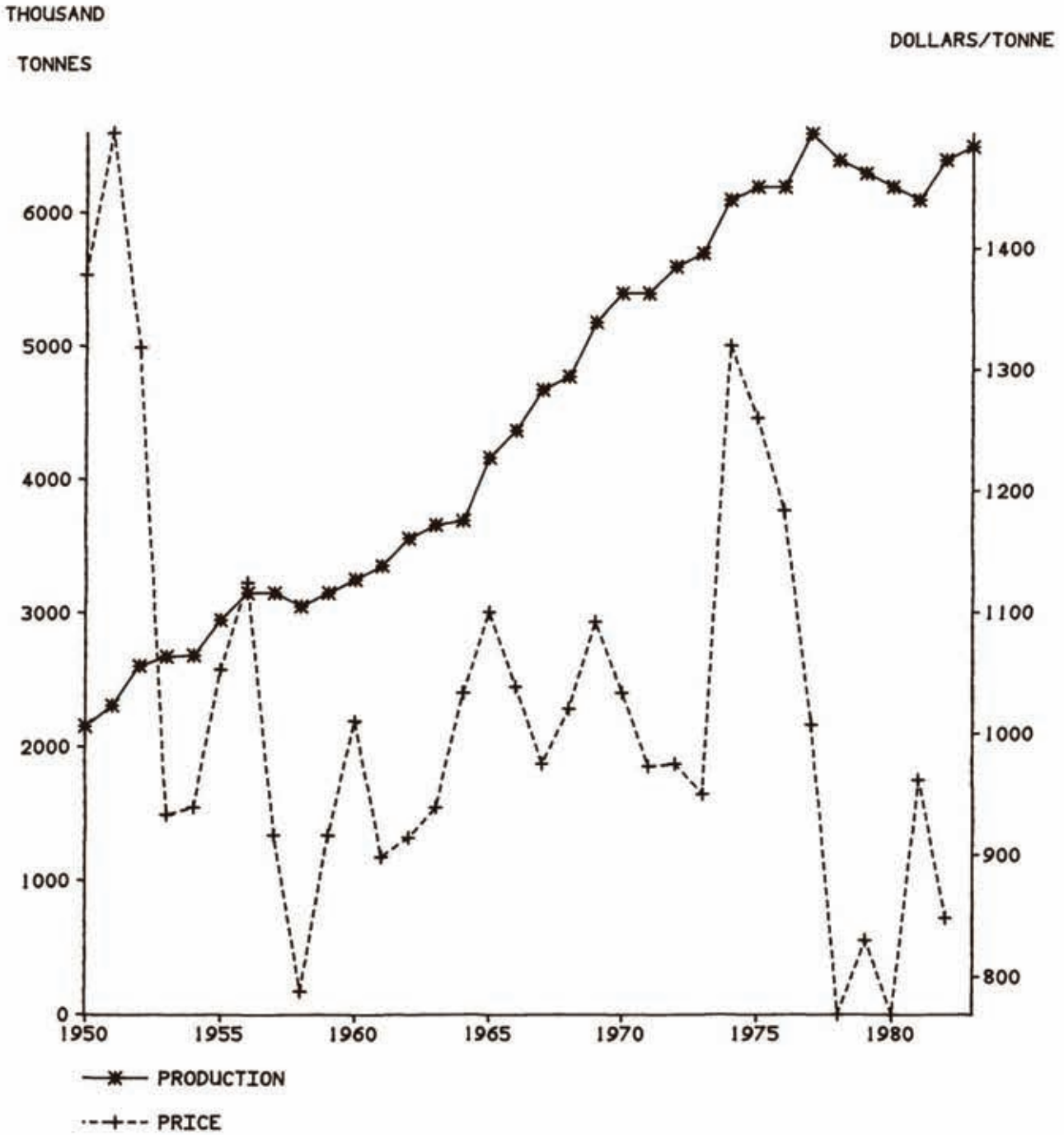


Figure 11 World mine production of zinc from 1950 to 1983 compared with the yearly average producer price of zinc metal on the New York Market expressed in constant 1982 US dollars.

Constant commodity price taken from 'Commodity Trade and Price Trends' published by the Johns Hopkins University Press for the World Bank (1983-84 edition).

Mine Production of Zinc

tonnes (metal content)

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-------------|-------------|-------------|-------------|-------------|
| United Kingdom | 572 | 4 444 | 10 855 | 10 186 | 8 879 |
| France | 36 583 | 36 810 | 37 430 | 37 021 | 34 200 |
| Germany, Federal Republic of | 117 100 | 120 800 | 110 700 | 105 782 | 113 481 |
| Greece | 24 102 | 24 367 | 25 369 | 20 459 | 22 063 |
| Irish Republic | 205 000 | 223 000 | 117 000 | 167 200 | 186 000 |
| Italy | 65 500 | 57 300 | 42 700 | 38 600 | 43 200 |
| Austria | 22 849 | 21 690 | 20 544 | 21 938 | 22 688 |
| Bulgaria | 75 000 | 70 000 | 65 000 | 66 000 | 68 000 |
| Czechoslovakia | 9 100 | 9 636 | 6 614 | 6 555 | 6 665 |
| Finland | 58 316 | 59 421 | 58 618 | 54 665 | 56 300 |
| Greenland | 87 100 | 87 300 | 79 800 | 79 900 | 79 200 |
| Hungary | 3 074 | 2 807 | 2 693 | 1 538 | 2 306 |
| Norway | 28 361 | 27 484 | 29 742 | 31 860 | 32 333 |
| Poland | 237 000 | 216 700 | 201 500 | 183 500 | 189 000 |
| Romania | * 45 000 | * 40 000 | * 40 000 | * 37 000 | * 45 000 |
| Soviet Union | * 1 020 000 | * 1 000 000 | * 1 010 000 | * 1 020 000 | * 1 025 000 |
| Spain | 142 745 | 183 120 | 182 045 | 161 616 | 169 100 |
| Sweden | 169 854 | 175 758 | 192 069 | 178 592 | 214 367 |
| Turkey | 24 894 | 35 820 | 30 769 | 33 543 | 31 000 |
| Yugoslavia | 101 699 | 95 253 | 88 640 | 83 800 | 86 800 |
| Algeria | 2 500 | 8 200 | 10 700 | 11 100 | 12 000 |
| Morocco | 5 680 | 6 071 | 6 454 | 9 856 | 7 600 |
| Namibia | 29 000 | 25 400 | 36 400 | 35 700 | 33 200 |
| South Africa | 56 500 | 87 777 | 87 172 | 91 516 | 109 981 |
| Tunisia | 8 700 | 9 100 | 7 800 | 8 400 | 7 500 |
| Zaire | 78 301 | 67 596 | 67 939 | 82 433 | 74 700 |
| Zambia | 46 492 | 37 076 | 42 170 | 51 117 | 54 634 |
| Canada | 1 204 401 | 1 058 714 | 1 096 257 | 1 189 129 | 1 069 709 |
| Honduras | 22 834 | 19 559 | 19 065 | 24 381 | 38 000 |
| Mexico | 245 477 | 238 231 | 211 629 | 231 910 | 257 444 |
| USA (a) | 267 341 | 317 103 | 312 418 | 303 160 | 275 294 |
| Argentina | 37 509 | 33 681 | 35 150 | 36 400 | 37 000 |
| Bolivia | 44 141 | 50 260 | 47 029 | 45 667 | 47 500 |
| Brazil | 97 700 | 105 000 | 96 582 | 111 882 | 119 843 |
| Chile | 1 847 | 1 134 | 1 516 | 5 656 | 6 005 |
| Ecuador | 1 027 | 629 | 742 | 100 | * 100 |
| Peru (a) | 432 000 | 487 596 | 496 707 | 507 100 | 553 100 |
| Burma | 3 028 | 4 079 | 3 556 | 5 382 | 4 536 |
| China | * 155 000 | * 150 000 | * 160 000 | * 160 000 | * 160 000 |
| India | 42 951 | 32 229 | 34 200 | 32 000 | 36 500 |
| Iran | 25 000 | 30 000 | 35 000 | 40 000 | 50 000 |
| Japan | 245 320 | 238 108 | 242 042 | 251 356 | 255 714 |
| Korea, Dem. P.R. of | * 135 000 | * 130 000 | * 130 000 | * 120 000 | * 120 000 |
| Korea, Republic of | 62 477 | 56 787 | 56 198 | 58 175 | 55 980 |
| Philippines | 9 670 | 6 845 | 5 289 | 3 003 | 2 300 |
| Thailand | 1 000 | — | 2 900 | 4 000 | 3 000 |
| Vietnam | 10 000 | 10 000 | 10 000 | 10 000 | 10 000 |
| Australia | 529 157 | 495 312 | 518 297 | 664 800 | 696 071 |
| World total | 6 300 000 | 6 200 000 | 6 100 000 | 6 400 000 | 6 500 000 |

(a) Recoverable

Production of Slab Zinc

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-------------|-------------|-------------|-------------|-------------|
| United Kingdom | 76 686 | 86 682 | 81 651 | 79 278 | 87 651 |
| Belgium (a) | 261 720 | 249 214 | 250 406 | 240 851 | 275 845 |
| France | 248 977 | 252 769 | 257 131 | 243 781 | 249 500 |
| Germany, Federal Republic of | 355 500 | 365 200 | 366 100 | 333 600 | 356 300 |
| Italy | 202 658 | 206 355 | 180 904 | 158 248 | 155 596 |
| Netherlands | 153 982 | 169 539 | 177 363 | 186 022 | 187 519 |
| Austria | 24 547 | 22 687 | 23 404 | 20 599 | 19 699 |
| Bulgaria | 89 000 | 91 000 | 90 000 | 90 000 | 91 000 |
| Finland | 146 564 | 146 719 | 139 835 | 143 882 | 155 336 |
| German Democratic Republic | * 17 000 | * 16 000 | * 16 000 | * 17 000 | * 16 500 |
| Norway | 77 763 | 79 416 | 80 279 | 72 016 | 90 642 |
| Poland | 209 246 | 217 485 | 167 118 | 165 352 | 170 300 |
| Romania | 46 486 | 45 906 | 45 217 | 44 000 | 42 000 |
| Soviet Union | * 1 085 000 | * 1 060 000 | * 1 060 000 | * 1 050 000 | * 1 060 000 |
| Spain | 186 000 | 151 700 | 179 500 | 181 800 | 189 900 |
| Turkey | 17 200 | 12 600 | 18 100 | 14 900 | 14 300 |
| Yugoslavia | 98 906 | 84 537 | 96 370 | 86 767 | 88 049 |
| Algeria | 23 300 | 25 000 | 27 000 | 28 500 | 30 000 |
| South Africa | 75 400 | 81 400 | 80 941 | 79 700 | 82 400 |
| Zaire | 43 693 | 43 848 | 57 638 | 64 425 | 62 535 |
| Zambia | 38 163 | 33 970 | 33 298 | 39 186 | 37 882 |
| Canada | 580 449 | 591 565 | 618 650 | 511 870 | 617 033 |
| Mexico | 162 354 | 144 550 | 126 890 | 127 359 | 174 991 |
| USA | 472 481 | 340 456 | 346 563 | 228 176 | 235 694 |
| Argentina | 38 700 | 38 700 | 26 800 | 28 900 | 34 400 |
| Brazil | 63 494 | 78 359 | 91 830 | 96 037 | 99 913 |
| Peru | 68 400 | 63 800 | 128 600 | 158 500 | 153 700 |
| China | * 160 000 | * 155 000 | * 160 000 | * 175 000 | * 185 000 |
| India | 63 323 | 43 627 | 57 434 | 52 571 | 54 147 |
| Japan | 789 352 | 735 187 | 670 162 | 662 380 | 701 291 |
| Korea, Dem. P.R. of | * 120 000 | * 105 000 | * 105 000 | * 90 000 | * 95 000 |
| Korea, Republic of | 83 014 | 79 150 | 83 915 | 99 211 | 107 860 |
| Vietnam | 10 000 | 10 000 | 10 000 | 10 000 | 10 000 |
| Australia | 310 150 | 305 959 | 300 352 | 295 890 | 302 951 |
| World total | 6 400 000 | 6 100 000 | 6 200 000 | 5 900 000 | 6 200 000 |

(a) Including alloys

Exports of Zinc

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|-----------|-----------|-----------|-----------|-----------|
| United Kingdom | | | | | |
| Ores & concentrates | — | 7 695 | 26 297 | 18 576 | 7 537 |
| Unwrought | 12 178 | 27 378 | 24 168 | 10 777 | 20 318 |
| Unwrought alloys | 6 942 | 7 387 | 9 009 | 6 730 | 6 168 |
| Scrap | 4 818 | 5 422 | 8 441 | 11 034 | 14 596 |
| Belgium-Luxembourg | | | | | |
| Ore | 60 645 | 25 108 | 41 367 | 18 409 | 41 821 |
| Unwrought | 165 586 | 140 932 | 123 458 | 126 231 | 156 383 |
| Unwrought alloys | 28 040 | 27 246 | 25 094 | 24 962 | 33 767 |
| Scrap | 5 369 | 6 202 | 11 500 | 12 471 | 13 165 |
| Denmark | | | | | |
| Unwrought | 201 | 103 | 2 | 99 | 216 |
| Unwrought alloys | 72 | 823 | 163 | 144 | 114 |
| Scrap | 3 210 | 3 387 | 3 772 | 3 635 | 3 665 |
| France | | | | | |
| Ore | 46 530 | 43 979 | 50 642 | 58 633 | 98 338 |
| Unwrought | 44 533 | 32 913 | 56 554 | 48 994 | 50 711 |
| Unwrought alloys | 2 953 | 2 591 | 5 555 | 2 369 | 1 930 |
| Scrap | 4 280 | 3 209 | 7 861 | 11 407 | 11 908 |
| Germany, Federal Republic of | | | | | |
| Ore | * 110 000 | * 131 500 | * 103 000 | * 141 500 | * 145 800 |
| Unwrought | 88 500 | 101 527 | 112 956 | 103 663 | 122 425 |
| Unwrought alloys | 12 942 | 9 991 | 13 049 | 9 797 | 10 637 |
| Scrap | 8 824 | 10 595 | 7 502 | 8 623 | 14 889 |
| Greece | | | | | |
| Ores & concentrates | 47 489 | 44 740 | 42 100 | 35 700 | 57 500 |
| Irish Republic | | | | | |
| Ores & concentrates | 413 872 | 462 096 | 254 132 | 343 770 | 356 219 |
| Italy | | | | | |
| Ore | 2 365 | 2 907 | 579 | 7 866 | 4 320 |
| Unwrought | 14 050 | 17 588 | 14 292 | 20 712 | 31 714 |
| Unwrought alloys | 2 503 | 2 752 | 6 279 | 4 743 | 4 081 |
| Scrap | 1 418 | 2 138 | 3 432 | 2 927 | 3 278 |
| Netherlands | | | | | |
| Ore | 11 501 | 7 306 | 15 | 22 | 26 |
| Unwrought | 129 044 | 156 103 | 152 920 | 160 187 | 173 605 |
| Unwrought alloys | 7 763 | 7 098 | 9 947 | 8 015 | 10 473 |
| Scrap | 4 419 | 6 576 | 14 840 | 10 603 | 9 509 |
| Austria | | | | | |
| Unwrought | 904 | 1 354 | 2 193 | 2 835 | 4 861 |
| Scrap | 217 | 70 | 703 | 558 | 448 |
| Bulgaria | | | | | |
| Unwrought (a)(b) | * 12 600 | * 10 400 | * 10 600 | * 12 900 | * 17 900 |
| Czechoslovakia | | | | | |
| Ore (b) | * 6 700 | * 8 400 | * 13 600 | * 12 700 | * 14 900 |
| Finland | | | | | |
| Unwrought | 124 030 | 116 622 | 113 807 | 110 967 | 120 991 |
| Unwrought alloys | 5 535 | 3 991 | 2 262 | 7 842 | 10 568 |
| Scrap | 501 | 1 185 | 2 427 | 1 498 | 636 |
| Greenland | | | | | |
| Ores & concentrates | 128 911 | 168 818 | 147 790 | 142 841 | 150 000 |
| Norway | | | | | |
| Ore | 13 241 | 6 395 | 18 349 | 23 627 | 25 658 |
| Unwrought | 56 778 | 60 302 | 57 742 | 54 040 | 71 764 |
| Unwrought alloys | 5 155 | 5 436 | 7 965 | 9 593 | 8 217 |
| Scrap | 1 089 | 1 353 | 525 | 410 | 327 |
| Poland | | | | | |
| Unwrought | 33 162 | 41 408 | 22 161 | 22 519 | 28 000 |
| Soviet Union | | | | | |
| Unwrought | * 70 000 | * 70 000 | * 70 000 | * 80 000 | * 80 000 |
| Spain | | | | | |
| Ore | 13 891 | 54 795 | 44 375 | 27 086 | 12 020 |
| Unwrought (a) | 84 078 | 93 834 | 88 203 | 94 107 | 96 902 |
| Sweden | | | | | |
| Ore | 347 574 | 351 941 | 360 341 | 362 436 | 369 570 |
| Unwrought (a) | 249 | 342 | 1 113 | 900 | 1 098 |
| Scrap | 3 347 | 3 325 | 3 707 | 3 543 | 3 619 |

Exports of Zinc

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------------------|------------|-------------|----------|----------|----------|
| Switzerland | | | | | |
| Unwrought | 151 | 84 | 9 | 12 | 249 |
| Scrap | 1 242 | 892 | 1 264 | 983 | 1 618 |
| Yugoslavia | | | | | |
| Concentrates | 6 600 | 8 831 | 6 047 | 1 181 | ... |
| Unwrought (a) | 31 579 | 19 565 | 21 905 | 22 809 | 25 000 |
| Algeria | | | | | |
| Unwrought | 17 112 | 24 182 | ... | ... | ... |
| Morocco | | | | | |
| Ore | 16 317 | 12 948 | 16 476 | 15 862 | 14 149 |
| South Africa | | | | | |
| Ores & concentrates | 37 367 | * 34 000 | * 35 500 | * 62 000 | * 30 500 |
| Unwrought (b) | ... | * 1 000 | * 1 700 | * 1 300 | * 2 400 |
| Tunisia | | | | | |
| Ore | 6 421 | 20 309 | 17 073 | 10 819 | ... |
| Zaire | | | | | |
| Unwrought | 21 359 | 5 229 | 69 900 | 55 700 | 67 400 |
| Zambia | | | | | |
| Unwrought | 42 086 | 30 787 | 31 520 | 39 900 | 36 900 |
| Canada | | | | | |
| Ore (c) | 598 279 | 435 831 | 516 216 | 457 757 | 660 792 |
| Unwrought | 433 009 | 475 793 | 459 196 | 472 731 | 505 024 |
| Scrap | 15 443 | 22 195 | 29 307 | 73 611 | 17 996 |
| Honduras | | | | | |
| Ores & concentrates (c) | 16 630 | 14 672 | 15 049 | 20 794 | ... |
| Mexico | | | | | |
| Ores & concentrates | 123 947 | 141 140 | 154 460 | 157 245 | 121 624 |
| Unwrought | 74 224 | 59 724 | 22 156 | 14 554 | 78 418 |
| USA | | | | | |
| Ore (c) | 20 095 | 51 432 | 46 539 | 77 289 | 67 474 |
| Unwrought (a) | 917 | 787 | 756 | 1 541 | 1 238 |
| Scrap (c) | 28 149 | 29 542 | 30 361 | 17 086 | 20 942 |
| Argentina | | | | | |
| Ores & concentrates | 19 009 | 35 798 | 15 987 | ... | ... |
| Unwrought | 481 | — | 2 002 | 4 500 | ... |
| Bolivia | | | | | |
| Ores (c) | 53 923 | 46 236 | 44 681 | 44 543 | 41 352 |
| Brazil | | | | | |
| Ore | 9 108 | — | — | — | — |
| Peru | | | | | |
| Concentrates | 664 611 | 754 348 | 711 206 | 654 498 | 797 615 |
| Unwrought (a) | 56 697 | 37 813 | 112 890 | 132 603 | 151 310 |
| Burma (e) | | | | | |
| Concentrates | 3 681 | 8 128 | 7 867 | 6 505 | ... |
| China | | | | | |
| Unwrought (a) | (b)* 8 500 | (b)* 11 000 | 17 474 | 10 181 | 2 051 |
| Hong Kong | | | | | |
| Unwrought (a) (Re-exports) | 2 962 | 6 821 | 3 154 | 1 954 | 2 714 |
| Iran (d) | | | | | |
| Ore | 40 585 | 4 076 | 2 063 | 15 700 | ... |
| Japan | | | | | |
| Unwrought | 37 294 | 41 700 | 51 278 | 40 767 | 49 217 |
| Unwrought alloys | 928 | 1 236 | 1 909 | 2 546 | 6 042 |
| Scrap | 2 640 | 664 | 821 | 938 | 618 |
| Korea, Dem. P.R. of | | | | | |
| Ores & concentrates (b) | * 64 700 | * 54 500 | * 64 000 | * 60 200 | * 27 100 |
| Unwrought (a) (b) | * 54 000 | * 50 000 | * 26 500 | * 29 400 | * 20 600 |

Exports of Zinc

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------------|---------|---------|---------|---------|---------|
| Korea, Republic of | | | | | |
| Unwrought (a) | 8 885 | 11 612 | 8 393 | 6 250 | 0 |
| Philippines | | | | | |
| Concentrates | 22 295 | 14 859 | 11 873 | 3 989 | 4 590 |
| Scrap | 305 | 184 | 370 | 115 | 171 |
| Singapore | | | | | |
| Unwrought | 2 945 | 4 776 | 4 699 | 4 139 | 3 927 |
| of which: Re-exports | 2 027 | 4 612 | 4 519 | 4 085 | 3 599 |
| Scrap | 1 018 | 1 281 | 1 344 | 886 | 1 050 |
| Australia | | | | | |
| Ores & concentrates | 376 806 | 524 274 | 461 032 | 569 054 | 767 437 |
| Unwrought (a) | 197 950 | 219 068 | 176 091 | 231 682 | 232 651 |

Note: In this table the term 'unwrought' zinc corresponds to item 686.1 of the Standard International Trade Classification (Revision 2) 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

Imports of Zinc

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|----------|----------|----------|----------|----------|
| United Kingdom | | | | | |
| Ores & concentrates | 182 067 | 211 561 | 131 799 | 166 084 | 167 171 |
| Unwrought | 176 173 | 130 549 | 112 509 | 119 945 | 115 160 |
| Unwrought alloys | 1 973 | 3 918 | 7 433 | 8 723 | 7 931 |
| Scrap | 1 431 | 1 156 | 524 | 2 065 | 1 817 |
| Belgium-Luxembourg | | | | | |
| Ore | 554 133 | 429 909 | 420 328 | 422 736 | 572 584 |
| Unwrought (a) | 51 484 | 45 577 | 45 598 | 42 604 | 53 148 |
| Scrap | 6 648 | 6 618 | 6 756 | 7 150 | 10 978 |
| Denmark | | | | | |
| Unwrought | 16 003 | 14 972 | 12 031 | 10 181 | 8 740 |
| Unwrought alloys | 1 832 | 2 039 | 2 247 | 1 970 | 3 229 |
| Scrap | 233 | 128 | 128 | 73 | 91 |
| France | | | | | |
| Ore | 494 334 | 469 945 | 459 981 | 476 239 | 583 938 |
| Unwrought | 79 860 | 105 189 | 62 466 | 58 406 | 55 306 |
| Unwrought alloys | 21 393 | 18 930 | 22 393 | 20 398 | 24 038 |
| Scrap | 4 600 | 4 981 | 8 876 | 5 433 | 7 154 |
| Germany, Federal Republic of | | | | | |
| Ore | 502 951 | 618 984 | 506 148 | 556 903 | 542 406 |
| Unwrought | 151 729 | 148 021 | 125 541 | 145 757 | 150 003 |
| Unwrought alloys | 12 821 | 13 760 | 12 422 | 10 619 | 11 960 |
| Scrap | 12 609 | 10 969 | 23 968 | 16 552 | 17 565 |
| Greece | | | | | |
| Unwrought | 20 941 | 18 811 | 18 330 | 14 248 | 12 792 |
| Irish Republic | | | | | |
| Unwrought (a) | 2 810 | 2 349 | 2 098 | 1 814 | 1 939 |
| Scrap | 334 | 205 | 365 | 251 | 184 |
| Italy | | | | | |
| Ore | 232 587 | 357 062 | 264 585 | 234 872 | 201 564 |
| Unwrought | 44 845 | 46 605 | 46 042 | 70 668 | 84 207 |
| Unwrought alloys | 11 651 | 8 644 | 4 050 | 8 675 | 11 509 |
| Scrap | 4 022 | 3 358 | 6 520 | 6 883 | 11 001 |
| Netherlands | | | | | |
| Ore | 340 492 | 346 655 | 348 713 | 452 439 | 381 329 |
| Unwrought | 22 375 | 24 937 | 19 285 | 18 459 | 18 028 |
| Unwrought alloys | 324 | 584 | 1 961 | 697 | 498 |
| Scrap | 9 447 | 9 805 | 6 398 | 10 401 | 13 074 |
| Austria | | | | | |
| Ore | 5 621 | 8 594 | 7 721 | 9 323 | 6 649 |
| Unwrought | 4 469 | 4 074 | 4 461 | 4 114 | 6 139 |
| Scrap | 579 | 339 | 251 | 291 | 265 |
| Bulgaria | | | | | |
| Ore (i) | * 29 300 | * 34 700 | * 42 400 | * 46 100 | * 40 100 |
| Czechoslovakia | | | | | |
| Unwrought | 67 000 | 67 000 | 63 000 | 57 000 | 56 000 |
| Finland | | | | | |
| Ore | 146 816 | 189 488 | 135 547 | 207 835 | 205 579 |
| Unwrought (a) | 1 310 | 1 085 | 453 | 462 | 1 188 |
| German Democratic Republic | | | | | |
| Ore (i) | * 57 900 | * 57 200 | * 49 500 | * 58 200 | * 71 300 |
| Hungary | | | | | |
| Unwrought (g) | 22 471 | 24 319 | 26 660 | 19 291 | 26 904 |
| Iceland | | | | | |
| Unwrought (a) | 72 | 87 | 84 | 89 | 73 |
| Norway | | | | | |
| Ore | 73 102 | 81 839 | 109 986 | 93 619 | 87 894 |
| Unwrought (a) | 884 | 1 051 | 448 | 1 123 | 877 |
| Scrap | 2 629 | 2 414 | 3 123 | 4 540 | 3 966 |
| Poland | | | | | |
| Concentrates | 27 979 | 27 053 | — | ... | ... |
| Unwrought | 2 627 | 2 398 | 4 116 | 5 417 | ... |
| Portugal | | | | | |
| Unwrought | 14 524 | 16 781 | 11 767 | 10 685 | ... |
| Scrap | 781 | 1 138 | 51 | 173 | ... |

Imports of Zinc

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------------------|----------|----------|----------|----------|----------|
| Soviet Union | | | | | |
| Ore | 5 914 | * 50 000 | * 80 000 | * 60 000 | * 60 000 |
| Unwrought | * 45 000 | * 55 000 | * 55 000 | * 60 000 | * 60 000 |
| Unwrought alloys | * 4 000 | * 5 000 | * 5 000 | * 5 000 | * 5 000 |
| Spain | | | | | |
| Ore | 111 703 | 40 191 | 54 275 | 69 449 | 81 455 |
| Unwrought (a) | 830 | 1 743 | 753 | 3 810 | 3 845 |
| Sweden | | | | | |
| Unwrought | 36 241 | 30 450 | 28 048 | 33 138 | 32 650 |
| Unwrought alloys | 5 377 | 7 336 | 2 461 | 2 654 | 3 384 |
| Scrap | 71 | 31 | 1 | 44 | 1 |
| Switzerland | | | | | |
| Unwrought | 21 605 | 25 242 | 21 316 | 18 243 | 20 330 |
| Turkey | | | | | |
| Unwrought | 475 | 726 | 5 231 | 5 974 | 7 910 |
| Yugoslavia | | | | | |
| Concentrates | 55 760 | 65 227 | 56 385 | 58 597 | 29 383 |
| Unwrought | 4 779 | 7 209 | 15 818 | 13 864 | 27 893 |
| Algeria | | | | | |
| Ores & concentrates | 55 474 | 30 491 | ... | ... | ... |
| Egypt | | | | | |
| Unwrought | 2 865 | 2 731 | 7 545 | 5 509 | ... |
| Ivory Coast | | | | | |
| Unwrought (b) | 5 188 | 3 989 | 5 244 | ... | ... |
| Kenya | | | | | |
| Unwrought (a) | 4 735 | 7 231 | 5 146 | 3 460 | ... |
| Libya | | | | | |
| Unwrought | 55 | 7 | ... | ... | ... |
| Morocco | | | | | |
| Unwrought | 2 948 | 2 958 | 2 294 | 2 357 | ... |
| Mozambique | | | | | |
| Unwrought | ... | 1 251 | ... | ... | ... |
| Nigeria | | | | | |
| Unwrought (a) | 9 071 | ... | ... | ... | ... |
| South Africa | | | | | |
| Unwrought | 0 | 1 825 | 8 287 | 3 851 | 3 149 |
| Scrap | 218 | 132 | 1 160 | 520 | 242 |
| Sudan | | | | | |
| Unwrought | 200 | 99 | 98 | 408 | ... |
| Tanzania | | | | | |
| Unwrought (a) | 6 548 | 3 169 | 2 568 | ... | ... |
| Tunisia | | | | | |
| Unwrought (b) | 887 | 1 531 | 871 | 1 266 | ... |
| Canada | | | | | |
| Ores & concentrates (b)(c) | 11 660 | 59 542 | 59 960 | 29 492 | 78 100 |
| Unwrought | 2 877 | 958 | 8 474 | 1 305 | 10 409 |
| Costa Rica | | | | | |
| Unwrought (a) | 4 958 | 5 447 | 3 670 | 1 304 | 3 910 |
| Dominican Republic | | | | | |
| Unwrought | 1 838 | 1 863 | 1 400 | 1 724 | ... |
| Guatemala | | | | | |
| Unwrought (a) | 4 530 | 4 995 | 4 198 | 3 221 | 3 122 |
| Honduras | | | | | |
| Unwrought (a) | 1 020 | 665 | 717 | ... | ... |
| Jamaica | | | | | |
| Unwrought | 1 210 | 458 | 373 | 935 | 918 |
| Nicaragua | | | | | |
| Unwrought (a) | 236 | 980 | 302 | 470 | ... |
| Panama | | | | | |
| Unwrought (a) | 521 | 319 | 370 | 398 | 478 |
| Trinidad & Tobago | | | | | |
| Unwrought | 171 | 330 | 296 | 115 | 1 |

Imports of Zinc

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------------|---------|----------|---------|---------|---------|
| USA | | | | | |
| Ore (c) | 224 952 | 129 922 | 117 737 | 49 344 | 62 210 |
| Unwrought (a) | 527 213 | 410 642 | 602 695 | 447 443 | 613 367 |
| Scrap | 3 259 | 3 470 | 5 782 | 2 653 | 3 900 |
| Argentina | | | | | |
| Unwrought | 2 388 | 2 953 | 1 218 | 2 100 | ... |
| Brazil | | | | | |
| Ores & concentrates | 11 | 36 215 | 49 578 | 55 672 | 58 695 |
| Unwrought | 60 010 | 59 520 | 27 303 | 7 403 | 3 598 |
| Unwrought alloys | 48 | 50 | 61 | 59 | 0 |
| Chile | | | | | |
| Unwrought (a) | 5 200 | 5 800 | 7 100 | 2 500 | ... |
| Colombia | | | | | |
| Unwrought (a) | 13 359 | 14 598 | 13 654 | 15 180 | 13 113 |
| Uruguay | | | | | |
| Unwrought | 2 952 | 1 645 | 1 122 | 959 | 847 |
| Venezuela | | | | | |
| Unwrought | 14 950 |) 25 515 | 18 669 | 13 721 | ... |
| Unwrought alloys | 2 143 | | | 1 579 | ... |
| Burma (d) | | | | | |
| Unwrought (a) | 355 | 591 | 466 | ... | ... |
| China | | | | | |
| Unwrought (a) | * 2 000 | * 400 | 12 409 | 108 084 | 228 708 |
| Cyprus | | | | | |
| Unwrought (a) | 217 | 110 | 50 | 280 | — |
| Hong Kong | | | | | |
| Unwrought (a) | 27 319 | 29 361 | 35 593 | 22 983 | 33 467 |
| Scrap | 150 | — | 19 | 39 | 46 |
| India | | | | | |
| Ores & concentrates | 39 580 | 40 862 | ... | ... | ... |
| Unwrought (d) | 37 119 | 48 016 | 67 568 | ... | ... |
| Unwrought alloys (d) | 29 285 | 15 410 | 15 630 | ... | ... |
| Scrap | 846 | 4 836 | 3 746 | ... | ... |
| Indonesia | | | | | |
| Unwrought (a) | 46 149 | 51 430 | 65 376 | 65 626 | ... |
| Scrap | 0 | 662 | 1 050 | 167 | ... |
| Iran (e) | | | | | |
| Unwrought | 2 440 | 1 862 | 3 649 | 13 528 | ... |
| Israel (h) | | | | | |
| Unwrought | 6 549 | 2 230 | 5 269 | 3 735 | 5 588 |
| Japan | | | | | |
| Ore | 959 229 | 804 851 | 877 995 | 813 408 | 759 924 |
| Unwrought | 36 702 | 41 896 | 31 133 | 45 002 | 42 087 |
| Unwrought alloys | 3 792 | 3 233 | 1 797 | 1 136 | 3 031 |
| Scrap | 243 | 508 | 1 562 | 253 | 248 |
| Korea, Republic of | | | | | |
| Ores & concentrates | 42 601 | 43 760 | 90 323 | 79 176 | 114 399 |
| Unwrought | 2 830 | 36 279 | 2 072 | 1 568 | 5 417 |
| Scrap | 11 060 | 9 191 | 10 146 | 9 252 | 8 577 |
| Malaysia | | | | | |
| Unwrought | 11 267 | 10 703 | 11 512 | 8 501 | ... |
| Unwrought alloys | 2 911 | 5 395 | 5 718 | 7 218 | ... |
| Pakistan (f) | | | | | |
| Unwrought | 7 193 | 7 822 | 12 805 | 8 637 | 13 162 |
| Philippines | | | | | |
| Unwrought (a) | 26 549 | 16 175 | 19 476 | 21 704 | 24 669 |
| Singapore | | | | | |
| Unwrought | 17 388 | 18 693 | 16 738 | 20 409 | 15 986 |
| Scrap | 445 | 351 | 530 | 292 | 479 |
| Sri Lanka | | | | | |
| Unwrought (a) | 551 | 672 | 290 | 209 | 740 |
| Syria | | | | | |
| Unwrought (b) | 343 | 479 | 622 | 610 | ... |

Imports of Zinc

Zinc
tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------|--------|--------|--------|--------|--------|
| Taiwan | | | | | |
| Unwrought | 37 350 | 38 382 | 43 394 | 45 424 | 47 783 |
| Scrap | 15 756 | 28 823 | 33 397 | 29 654 | 43 701 |
| Thailand | | | | | |
| Unwrought | 32 967 | 33 387 | 37 598 | 33 272 | 35 680 |
| Unwrought alloys | 955 | 1 036 | 1 098 | 586 | 578 |
| New Zealand (f) | | | | | |
| Unwrought (a) | 20 255 | 22 594 | 19 296 | 22 265 | 18 407 |

Note: In this table the term 'unwrought' zinc corresponds to item 686.1 of the Standard International Trade Classification (Revision 2) 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) Figures may be incomplete as value only given in Israeli trade return for imports from some countries

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

Production of Zirconium Minerals

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------|----------|----------|----------|-----------|-----------|
| Soviet Union | * 72 600 | * 72 600 | * 72 600 | * 81 600 | * 81 600 |
| South Africa (a) | * 82 000 | * 79 800 | * 99 800 | * 127 000 | * 127 000 |
| USA | * 60 000 | * 60 000 | * 50 000 | * 50 000 | * 50 000 |
| Brazil (b) | 3 337 | 3 933 | 6 937 | 5 365 | 7 431 |
| China | * 12 000 | * 14 000 | * 15 000 | * 15 000 | * 15 000 |
| India | * 12 200 | * 14 800 | * 12 400 | * 12 000 | * 12 000 |
| Malaysia (c) | 1 372 | 552 | 1 258 | 2 270 | 2 548 |
| Sri Lanka | 1 510 | 3 031 | 3 266 | * 5 789 | * 6 000 |
| Thailand | 116 | 61 | 104 | 196 | * 200 |
| Australia | 444 975 | 491 547 | 434 246 | 462 476 | 383 534 |
| World total | 690 000 | 740 000 | 696 000 | 762 000 | 685 000 |

Note: In this table the term 'zirconium minerals' is understood to mean zircon, unless otherwise stated

(a) Includes baddeleyite (ZrO_2)

(b) Includes caldasite, a mixture of zircon and baddeleyite

(c) Exports

Exports of Zirconium

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|----------|----------|----------|----------|-----------|
| United Kingdom | | | | | |
| Concentrates | 1 569 | 1 811 | 748 | 539 | 596 |
| France | | | | | |
| Concentrates | 326 | 260 | 97 | 18 | 188 |
| Metal | 940 | 888 | — | — | — |
| Germany, Federal Republic of | | | | | |
| Concentrates | 8 205 | 11 487 | 12 372 | 16 379 | 14 461 |
| Metal | 128 | 50 | 64 | 64 | 86 |
| Italy | | | | | |
| Concentrates | 3 873 | 461 | 2 925 | 5 305 | 5 062 |
| Netherlands | | | | | |
| Concentrates | 270 | 24 840 | 24 414 | 23 690 | 22 699 |
| South Africa | | | | | |
| Concentrates (a) | * 55 800 | * 84 300 | * 89 900 | * 99 600 | * 131 300 |
| USA | | | | | |
| Concentrates | 9 039 | 7 258 | 10 603 | 10 031 | 12 007 |
| Metal | 1 043 | 776 | 667 | 812 | 718 |
| of which: Re-exports | 205 | 145 | 49 | 15 | 40 |
| Malaysia | | | | | |
| Concentrates | 1 372 | 552 | 1 258 | 2 270 | 2 548 |
| Australia | | | | | |
| Concentrates | 479 440 | 501 812 | 444 186 | 405 203 | 382 456 |

Note: Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys

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

Imports of Zirconium

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------------------------|---------|---------|---------|---------|---------|
| United Kingdom | | | | | |
| Concentrates | 33 667 | 32 426 | 27 615 | 36 792 | 37 404 |
| Metal | 227 | 205 | 113 | 81 | 141 |
| Belgium-Luxembourg | | | | | |
| Concentrates | 2 228 | 2 431 | 4 793 | 6 039 | 3 818 |
| Metal | 108 | 125 | 191 | 169 | 135 |
| France | | | | | |
| Concentrates | 41 904 | 39 618 | 44 762 | 32 115 | 34 935 |
| Metal | 985 | 687 | 174 | 65 | 109 |
| Germany, Federal Republic of | | | | | |
| Concentrates | 50 185 | 56 086 | 69 444 | 67 648 | 68 622 |
| Metal | 218 | 279 | 169 | 399 | 355 |
| Italy | | | | | |
| Concentrates | 67 273 | 65 697 | 55 853 | 66 919 | 75 035 |
| Netherlands | | | | | |
| Concentrates | 214 | 27 011 | 34 108 | 23 149 | 26 076 |
| Bulgaria | | | | | |
| Concentrates (a) | * 1 500 | * 2 100 | * 1 800 | * 2 600 | * 1 800 |
| Spain | | | | | |
| Concentrates | 26 526 | 45 230 | 37 585 | 17 380 | ... |
| Sweden | | | | | |
| Concentrates | 1 129 | 1 592 | 1 151 | 888 | 3 984 |
| Metal | 196 | 174 | 200 | 224 | 289 |
| Turkey | | | | | |
| Concentrates | 42 | 169 | 119 | 216 | 174 |
| South Africa | | | | | |
| Concentrates | 33 | 49 | 140 | 75 | 1 |
| Canada | | | | | |
| Metal | 312 | 229 | 289 | 243 | 191 |
| Mexico | | | | | |
| Zirconium sand (b) | 6 286 | 6 880 | 7 773 | 4 173 | ... |
| USA | | | | | |
| Concentrates | 100 555 | 103 223 | 82 652 | 62 110 | 40 358 |
| Metal | 831 | 655 | 507 | 392 | 347 |
| Argentina | | | | | |
| Concentrates | 1 454 | 1 328 | 739 | ... | ... |
| Brazil | | | | | |
| Concentrates | 1 249 | 2 792 | 5 146 | 5 420 | 6 519 |
| Zirconium sand (b) | 1 730 | 9 124 | 10 151 | 1 754 | 1 004 |
| Japan | | | | | |
| Concentrates | 161 505 | 190 109 | 157 793 | 196 941 | 198 750 |
| Korea, Republic of | | | | | |
| Concentrates | 1 274 | 1 208 | 3 123 | 2 370 | 2 514 |
| Malaysia | | | | | |
| Concentrates | 28 | 88 | 76 | 147 | ... |
| Singapore | | | | | |
| Concentrates | 377 | 1 102 | 2 081 | 2 931 | ... |
| Taiwan | | | | | |
| Zirconium sand (b) | ... | 1 292 | 1 289 | 2 079 | 1 509 |

Note: 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) Micronised for use as an opacifier

Production of Beryl

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------|---------|---------|---------|---------|---------|
| Portugal | 12 | 20 | 18 | 12 | 3 |
| Soviet Union | * 1 800 | * 1 800 | * 1 800 | * 1 850 | * 1 900 |
| Madagascar | 5 | 6 | 7 | 68 | 68 |
| Mozambique | 27 | 20 | 18 | 15 | * 15 |
| Rwanda | 86 | 108 | 59 | 69 | * 70 |
| South Africa | 1 | 0 | 122 | 58 | 21 |
| Zimbabwe | 28 | 9 | 42 | 52 | 48 |
| Argentina | 12 | 31 | 7 | 6 | 7 |
| Brazil (a) | 453 | 500 | 811 | 1 063 | 943 |

Note: In addition to the countries listed, China is believed to produce a significant quantity of beryl and Namibia a small amount

(a) Exports

Production of Borates

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------|-----------|-----------|-----------|-----------|-----------|
| Finland | 3 168 | 2 465 | ... | ... | ... |
| Soviet Union | * 200 000 | * 200 000 | * 200 000 | * 200 000 | * 200 000 |
| Turkey | 1 171 679 | 1 333 563 | 1 528 477 | 1 409 940 | 1 241 400 |
| USA (a) | 1 442 000 | 1 402 000 | 1 344 000 | 1 119 000 | 1 182 000 |
| Argentina | 132 655 | 155 849 | 125 617 | 123 000 | 139 000 |
| Chile | 3 049 | 3 275 | 3 277 | 291 | * 300 |
| Peru | * 12 000 | * 21 000 | * 16 000 | * 14 000 | * 13 000 |
| China | * 27 000 | * 27 000 | * 27 000 | * 27 000 | * 27 000 |

Note: In addition to the countries listed, the Federal Republic of Germany and Iran are also believed to produce borates

(a) Sold or used by producers

Production of Germanium

tonnes (metal content)

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------|------|------|------|------|------|
| France | ... | 10 | 13 | ... | ... |
| Austria | 5 | 5 | 4 | 4 | 6 |
| Soviet Union | * 14 | * 14 | * 15 | * 17 | * 17 |
| USA (a) | * 23 | * 27 | * 28 | * 26 | * 20 |
| Japan | 10 | 13 | 11 | 7 | 7 |

Note: Significant quantities of germanium are also believed to be recovered from imported or domestic material in Belgium, China, Federal Republic of Germany and to a lesser extent in Italy

(a) Includes production of secondary metal

Production of Primary Magnesium Metal

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------|----------|----------|----------|----------|----------|
| France | 9 043 | 9 328 | 7 263 | 9 610 | 11 080 |
| Italy | 8 757 | 9 676 | 10 800 | 9 943 | 9 799 |
| Norway | 44 177 | 44 352 | 47 455 | 35 922 | 29 895 |
| Soviet Union | * 72 000 | * 75 000 | * 76 000 | * 77 000 | * 80 000 |
| Yugoslavia | 500 | 2 508 | 3 859 | 4 200 | 4 700 |
| Canada | 9 015 | 9 252 | 9 548 | 7 630 | * 7 800 |
| USA | 147 385 | 153 747 | 139 809 | 92 712 | 104 717 |
| China | * 6 000 | * 7 000 | * 7 000 | * 7 000 | * 7 000 |
| Japan | 11 400 | 9 300 | 5 700 | 5 600 | 6 000 |

Production of Nepheline Syenite

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------|-------------|-------------|-------------|-------------|-------------|
| Norway | 241 131 | 231 339 | 216 885 | 212 409 | 226 955 |
| Soviet Union | * 2 500 000 | * 2 500 000 | * 2 500 000 | * 2 500 000 | * 2 500 000 |
| Canada | 605 699 | 600 000 | 588 000 | 550 000 | 528 000 |

Production of Perlite

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------------|-----------|-----------|-----------|-----------|-----------|
| Greece | 377 104 | 403 330 | 412 110 | 397 609 | 358 483 |
| Italy | * 90 000 | * 90 000 | * 85 000 | * 80 000 | * 80 000 |
| Czechoslovakia (a) | 38 853 | 40 302 | 42 336 | 45 667 | 44 019 |
| Hungary | 97 895 | 99 270 | 95 190 | 89 975 | 92 530 |
| Soviet Union | * 360 000 | * 360 000 | * 360 000 | * 360 000 | * 360 000 |
| Turkey | 44 084 | 25 879 | 5 650 | 19 229 | 32 909 |
| Mexico | 41 988 | 44 379 | 56 731 | 39 009 | * 40 000 |
| USA | 768 000 | 748 000 | 644 000 | 565 000 | 552 000 |
| Japan | * 75 000 | * 80 000 | * 75 000 | * 75 000 | * 75 000 |
| Philippines | 3 806 | 7 973 | 7 530 | 3 582 | 2 020 |
| Australia | 2 063 | 2 249 | 1 476 | 1 148 | * 2 000 |
| New Zealand | 2 209 | 999 | 999 | 2 163 | 1 008 |

Note: In addition to the countries listed, Algeria, Bulgaria, China, Iceland, Mozambique, South Africa and Yugoslavia are also believed to produce perlite

(a) Expanded

Production of Selenium Metal

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------|------|------|------|------|------|
| Belgium | * 60 | * 60 | * 60 | * 60 | * 60 |
| Finland | 22 | 30 | 19 | 10 | 11 |
| Sweden | 57 | 51 | 44 | 27 | * 40 |
| Yugoslavia | 46 | 45 | 36 | * 42 | * 40 |
| Zambia | 20 | 23 | 22 | 23 | 18 |
| Canada (a) | 512 | 377 | 350 | 222 | 295 |
| Mexico | 75 | 46 | 12 | 29 | 24 |
| USA | 266 | 141 | 252 | 243 | 354 |
| Chile | 39 | 17 | 34 | 23 | * 23 |
| Peru | 18 | 23 | 22 | 21 | 22 |
| Japan | 510 | 471 | 428 | 410 | 433 |

Note: In addition to the countries listed, Australia, Federal Republic of Germany and Soviet Union are also believed to produce selenium metal

(a) Includes production of secondary metal

Production of Strontium Minerals

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|----------------|---------|---------|---------|----------|----------|
| United Kingdom | 6 078 | 6 700 | 14 545 | 17 955 | 12 054 |
| Italy | 1 693 | 1 053 | 6 697 | 3 272 | 414 |
| Spain | 16 560 | 17 480 | 33 120 | * 32 000 | * 33 000 |
| Turkey | 20 529 | 20 000 | 25 000 | * 18 000 | * 18 000 |
| Algeria | 2 900 | * 3 000 | * 3 000 | * 3 000 | * 3 000 |
| Mexico | 39 519 | 40 761 | 41 344 | 31 676 | * 30 000 |
| Argentina (a) | 122 | 268 | 310 | 776 | * 800 |
| Iran (b) | * 8 000 | * 5 000 | * 5 000 | * 4 500 | * 5 000 |
| Pakistan | 620 | 270 | 288 | 465 | 135 |

Note: In addition to the countries listed, China, Federal Republic of Germany, Poland and Soviet Union are also believed to produce strontium minerals

(a) May contain unbeneficiated material

(b) Years ended 20 March following that stated

Production of Tellurium Metal

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|------------|------|------|------|------|------|
| Canada (a) | 47 | 9 | 21 | 18 | 24 |
| USA | * 70 | * 50 | * 70 | * 70 | ... |
| Peru | 21 | 21 | 21 | 21 | 22 |
| Japan | 56 | 69 | 62 | 63 | * 65 |
| Fiji | * 23 | * 11 | — | — | — |

Note: In addition to the countries listed, Australia, Belgium, Federal Republic of Germany and Soviet Union are also believed to produce tellurium metal

(a) Includes production of secondary metal

Mine Production of Uranium

tonnes (metal content)

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--|--------|--------|--------|--------|--------|
| France | 3 332 | 2 845 | 2 554 | 2 872 | 3 299 |
| Germany, Federal Republic of | 29 | 41 | 36 | 34 | * 35 |
| Portugal | 102 | 68 | 91 | 100 | 103 |
| Spain | 162 | 167 | 151 | 154 | 170 |
| Gabon | 1 100 | 1 034 | 1 023 | 970 | 1 007 |
| Namibia | 3 831 | 4 036 | 3 970 | 3 777 | 3 713 |
| Niger | 3 615 | 4 132 | 4 367 | 4 257 | 2 906 |
| South Africa | 4 780 | 6 186 | 6 135 | 5 794 | 6 045 |
| Canada | 6 530 | 6 739 | 7 507 | 7 643 | 6 758 |
| USA | 14 400 | 16 800 | 14 800 | 10 330 | 8 138 |
| Argentina | 745 | 242 | 187 | 572 | 114 |
| Brazil | — | — | 5 | 243 | * 250 |
| India | * 150 | * 150 | * 150 | * 150 | * 150 |
| Australia | 706 | 1 561 | 2 922 | 4 422 | 3 211 |
| World total | 39 500 | 44 000 | 43 900 | 41 300 | 35 900 |
| World total (U ₃ O ₈ equivalent) | 46 600 | 51 900 | 51 800 | 48 800 | 42 400 |

Note: In addition to the countries listed, China, Czechoslovakia, Israel and Soviet Union are also believed to produce uranium

Production of Vermiculite

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|--------------|---------|----------|----------|----------|----------|
| Egypt | 700 | 725 | 725 | 280 | * 300 |
| Kenya | 2 261 | 2 558 | 2 353 | 1 556 | 876 |
| South Africa | 191 573 | 185 699 | 190 601 | 182 641 | 153 034 |
| USA (a) | 314 000 | 306 000 | 290 000 | 287 000 | 256 000 |
| Argentina | 5 877 | 9 907 | 3 227 | 3 354 | 3 400 |
| Brazil (b) | 7 382 | 12 181 | 14 307 | 14 059 | 9 877 |
| India | 3 109 | 3 678 | 3 477 | 2 089 | 2 410 |
| Japan | 15 400 | * 17 000 | * 17 000 | * 17 000 | * 17 000 |

Note: In addition to the countries listed, Malawi is also believed to produce vermiculite

(a) Sold or used by producers

(b) Includes beneficiated and directly shipped material

Production of Wollastonite

tonnes

| Country | 1979 | 1980 | 1981 | 1982 | 1983 |
|---------|----------|----------|----------|----------|----------|
| Finland | 10 576 | 8 782 | 13 690 | 14 962 | 15 402 |
| Kenya | 200 | — | — | — | ... |
| Mexico | 11 892 | 20 905 | 14 602 | 15 599 | ... |
| USA | * 63 000 | * 76 000 | * 87 000 | * 86 000 | * 83 000 |
| India | 3 794 | 5 790 | 15 915 | 20 724 | 16 557 |

Note: In addition to the countries listed, Japan, Namibia and Turkey are also believed to produce wollastonite

Typeset for the British Geological Survey by
The Electronic Village, London W4 4PH

Printed in England for Her Majesty's Stationery Office by
Commercial Colour Press, London E7.

Dd 737395 c.15 5/85

