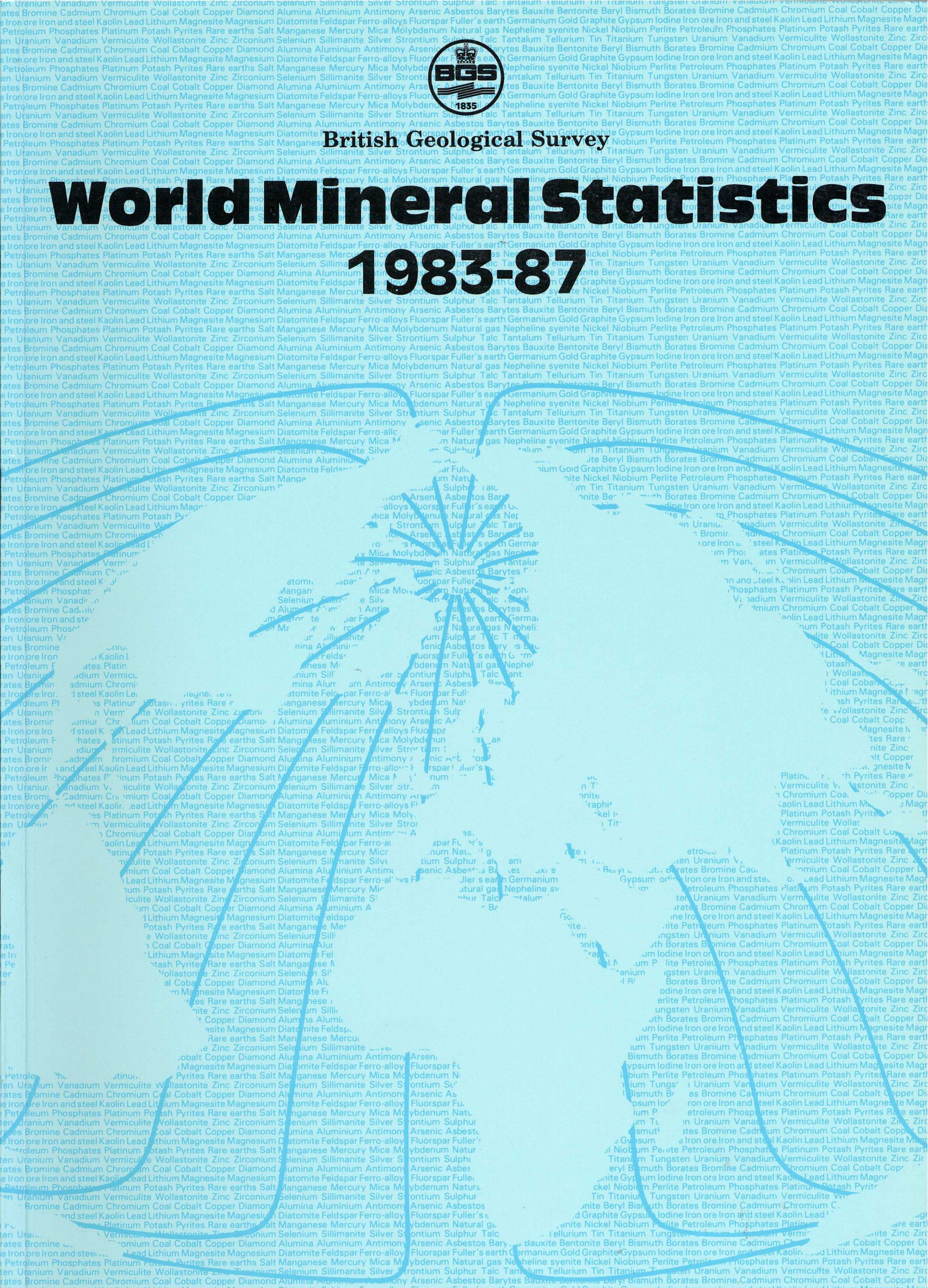




British Geological Survey

World Mineral Statistics

1983-87



BRITISH GEOLOGICAL SURVEY

WORLD MINERAL STATISTICS 1983-87

Production: Exports: Imports

Compiled by G J Lofty, J A Hillier, E M Burton, D C Mitchell, S A Cooke, and
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BRITISH GEOLOGICAL SURVEY

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

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

All communications regarding the content of this publication should be addressed to the Group Manager, Mineral Resources and Applied Geochemistry, British Geological Survey, Keyworth, Nottingham NG12 5GG ☎ Plumtree (060 77) 6111.

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Compilers

Staff of the Mineral Intelligence Programme
British Geological Survey, Keyworth

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PREFACE

This volume is the twelfth in the series *World Mineral Statistics* and is the first to be produced entirely using electronic media.

The first volume in this series was published in 1978 but publication of world-wide mineral industry statistics by the British Geological Survey and its precursors dates back to 1913 in the well-known *Statistical Summary of the Mineral Industry*.

Data on mine and refined metal production are basic indicators of the level of activity in the world industrial economy. The graphs of world production illustrating this volume show clearly that recovery from the trough of the early nineteen-eighties was sustained by most minerals in 1987. There were increases in production of aluminium, copper, iron, nickel, zinc, platinum, silver, phosphate and potash. World coal production continued to increase at a steady 2 per cent as it has done since 1950. Minerals showing decreased production over the 1986–87 period include cobalt, manganese, molybdenum, tungsten and vanadium, reflecting decreased demand from the alloy steels sector. An interesting feature of the trend analyses carried out on the major commodities is that the line of best fit for zinc over the last 37 years is a straight line. The copper graph this year utilises LME settlement values in preference to the New York Market prices. Where possible 1988 metal prices are shown on the graphs but it should be realised that a provisional deflator has been used to arrive at the constant 1980 value.

The paucity of data available from some major trading countries gives rise to problems in the compilation of accurate figures for their trade in mineral materials. Where appropriate, therefore, a reconstruction of either their imports or exports is carried out by searching the official publications of their world-wide trading partners. In this way a high proportion of trade data in particular commodities can generally be traced without breaching confidentiality. A diverse selection of countries is included this year in the Appendix devoted to trade reconstruction. It is hoped to recommence the four-year cycle in the next edition and feature once again the Soviet Union. The Appendix is printed on a coloured background to remind the reader that the figures are derived indirectly from a number of sources. It should be borne in mind that the reconstructed figures are incorporated into the main body of the work where they are shown as estimates.

Over the past two years the compilation and editorial staff of *World Mineral Statistics* have been engaged on the introduction of a relational data-base which has been used to compile the publication. Typesetting for this edition was carried out utilising machine-readable output from the data-base. The development of this system enabled the staff to prepare a supplementary volume embodying the latest available mineral production figures in October 1988, some six months before the publication of the current annual volume which itself is being published this year two months earlier than heretofore. It is our hope that earlier availability of the data will be of benefit to our subscribers.

It may not be generally appreciated that this publication is compiled from a more comprehensive data set maintained by the staff of the Mineral Intelligence Programme of the British Geological Survey. Additional data, such as those for value of minerals produced, for country breakdown of trade, and for trade in minor minerals are available on enquiry. Although data on consumption is not compiled the reader should be aware that, assuming stock changes can be discounted, it is possible to calculate the approximate apparent consumption of many commodities from the data in *World Mineral Statistics*.

In each new volume account is taken of revisions and information received after the publication of the previous issue, so that data for every year are as up-to-date as is practicable. The objective remains to present the latest official information 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 same

field of world mineral statistics. However, such secondary sources have been fully consulted and the co-operation afforded to the British Geological Survey by numerous national and international organisations is gratefully acknowledged.

As concern over the use of nonrenewable resources and the environment of the planet increases, there is a continuing need for factual information, including that on production and movement of minerals throughout the world.

The long and accurate time-series of mineral production data contained in this and preceding editions is a prerequisite for informed discussion on growth rate and demand projections for mineral materials. These are appropriate preoccupations for those concerned with economic geology. Criticisms and suggestions that might help us to meet the changing needs of this specialisation would be welcomed.

F G Larminie, OBE
Director

British Geological Survey
Keyworth
Nottingham NG12 5GG

16 March 1989

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PRODUCTION—PRICE GRAPHS

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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 Programme* 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.

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

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

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

General Although every effort has been made to provide comprehensive coverage of trade statistics the resulting trade compilations depend on the nature of the data available. The

fact that a country is not shown as trading in a particular commodity does not necessarily imply that there is no trade in that item. The commodity may not be separately identified in the available trade statistics or may not be traded in significant quantities.

Where an estimate for a trade statistic has been reconstructed from the imports/exports 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.

Many of the constant commodity prices up to 1986 are taken from *Commodity Trade and Price Trends*, published by the Johns Hopkins University Press for the World Bank, however use has also been made of other sources which are attributed on the relevant graphs. Permission to use these data is gratefully acknowledged.

The initial graphics and trend line analyses of the data were carried out using the MINITAB package. The plots were generated using in-house software modified by Graeme Atkinson of the NERC Computer Services and run on the NCS VAX 8600 computer at BGS, Keyworth.

Trade reconstruction: appendix

In the course of compilation of this publication it has been found necessary to reconstruct data for nations which do not publish trade statistics on all the mineral commodities covered. By extracting the information on imports or exports which is published by trading partners it is possible to reconstruct fairly comprehensive, though possibly conservative, trade data for most of these commodities. These reconstructions are maintained in the files of the Mineral Statistics section.

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 Mineral and Energy Affairs of South Africa; the Indian Bureau of Mines; and the Mines Departments of other countries whose regular statements, yearbooks and other reports are worthy of direct consultation by readers in search of detail.

Specialist commodity organisations which have kindly allowed information to be reproduced include the British Sulphur Corporation, the International Lead and Zinc Study Group, the International Tin Council, the UK Iron and Steel Statistics Bureau, IFA 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*; International Mining, *Yearbook*; Groupe IMETAL, *Annuaire Statistique Minemet*; Metallgesellschaft AG, *Metallstatistik*; 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 35.3147 = cubic feet

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

1 metric ton unit = 10 kilograms

1 flask mercury = 34.5 kilograms

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

Symbols

... figures not available

0 quantity less than half unit shown

— nil

* estimated

BGS British Geological Survey

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

STATISTICAL TABLES

Production of Bauxite

tonnes

Country	1983	1984	1985	1986	1987
France	1 661 000	1 607 000	1 530 000	1 379 000	1 270 000
Greece	2 435 246	2 286 145	2 341 070	2 230 360	2 472 000
Italy	13 118	—	—	—	16 557
Spain	5 208	7 273	2 427	3 000	—
Hungary	2 917 000	2 993 629	2 814 791	3 022 297	3 101 000
Romania	420 000	460 000	460 000	500 000	480 000
Soviet Union (a)	6 300 000*	6 200 000*	6 400 000*	6 275 000*	4 850 000*
Turkey	306 350	131 573	213 752	280 401	249 671
Yugoslavia	3 500 367	3 347 462	3 249 794	3 458 917	3 394 000
Ghana	70 400	48 500	169 500	204 000	195 000
Guinea	11 235 400	12 969 100	11 750 000	12 439 000	16 282 000
Mozambique	—	—	5 037	4 247	5 114
Sierra Leone	785 200	1 041 200	1 184 500	1 242 000	1 391 000
Zimbabwe	23 145	22 726	20 877	24 284	25 000
Jamaica	7 724 983	8 605 000	6 218 900	6 963 892	7 659 895
USA (b)	679 000	856 000	674 000	510 000	576 000
Brazil (c)	4 281 241	5 902 577	5 304 697	6 000 000*	6 566 500
Guyana	2 234 106	3 035 648	2 153 186	2 073 918	2 351 496
Suriname	2 793 000	3 375 000	3 738 000	3 731 000	2 522 000
Venezuela	—	—	—	1 275	245 157
China	2 100 000*	2 300 000*	2 630 000*	2 650 000*	2 750 000*
India	1 929 272	2 035 646	2 267 777	2 662 200	2 778 678
Indonesia	777 869	1 033 087	830 471	649 881	635 309
Malaysia	501 790	680 434	491 904	566 170	482 125
Australia	24 372 291	31 536 913	31 838 898	32 383 773	34 101 721
World total	77 100 000	90 500 000	86 300 000	89 300 000	94 400 000

Notes

(1) In addition to the countries listed, Pakistan produces small amounts of bauxite

(a) Including nepheline concentrates and alunite

(b) Dried bauxite equivalent

(c) Including beneficiated and direct shipping ore

Production of Alumina

Country	1983	1984	1985	1986	1987
United Kingdom	93 100	105 000	109 700	109 940	109 800
France	861 600	900 000	734 200	740 000	712 000
Germany, Federal Republic of	1 346 028	1 417 280	1 367 453	1 249 511	1 017 370
Greece	270 156	317 246	248 366	307 190	518 000
Irish Republic	66 000	675 000	555 400	685 490	777 974
Italy	466 000	625 000	555 319	618 374	700 200
Spain	476 000	485 000	476 000	489 000	524 000
Czechoslovakia	152 456	150 000*	150 000*	153 345	149 917
German Democratic Republic	42 156	43 239	46 695	46 350	50 880
Hungary	835 512	811 000	798 000	856 333	857 612
Romania	512 000	552 000	548 000	555 000	540 000*
Soviet Union	3 200 000*	3 300 000*	3 500 000*	3 500 000*	3 500 000*
Turkey	57 420	75 120	113 304	144 396	95 232
Yugoslavia	1 009 895	1 134 923	1 138 026	1 116 716	1 186 998
Guinea	577 000	537 000	565 000	555 400	530 000
Canada	1 115 626	1 125 644	1 019 000	1 015 000	952 000
Jamaica	1 853 940	1 751 000	1 511 800	1 575 000	1 613 000
USA	3 540 000*	4 160 000*	2 860 000*	2 570 000*	3 555 000*
Brazil	628 900	882 000	1 095 900	1 196 800	1 396 100
Suriname	1 154 000	1 237 000	1 242 000	1 471 000	1 363 000
Venezuela	594 000	1 142 000	1 110 000	1 268 745	1 360 012
China	900 000*	960 000*	1 020 000*	1 060 000*	1 215 000*
India	480 000	569 000	571 000	586 000	650 000*
Japan	1 378 000	1 488 000	1 336 000	986 000	710 600
Australia	7 230 526	8 780 702	8 791 501	9 423 220	10 109 290
World total	28 800 000	33 200 000	31 500 000	32 300 000	34 200 000

Notes

(1) Where possible figures shown are refinery output of calcined alumina. For countries reporting only alumina hydrate production, the Al₂O₃ equivalent weight is given

Aluminium

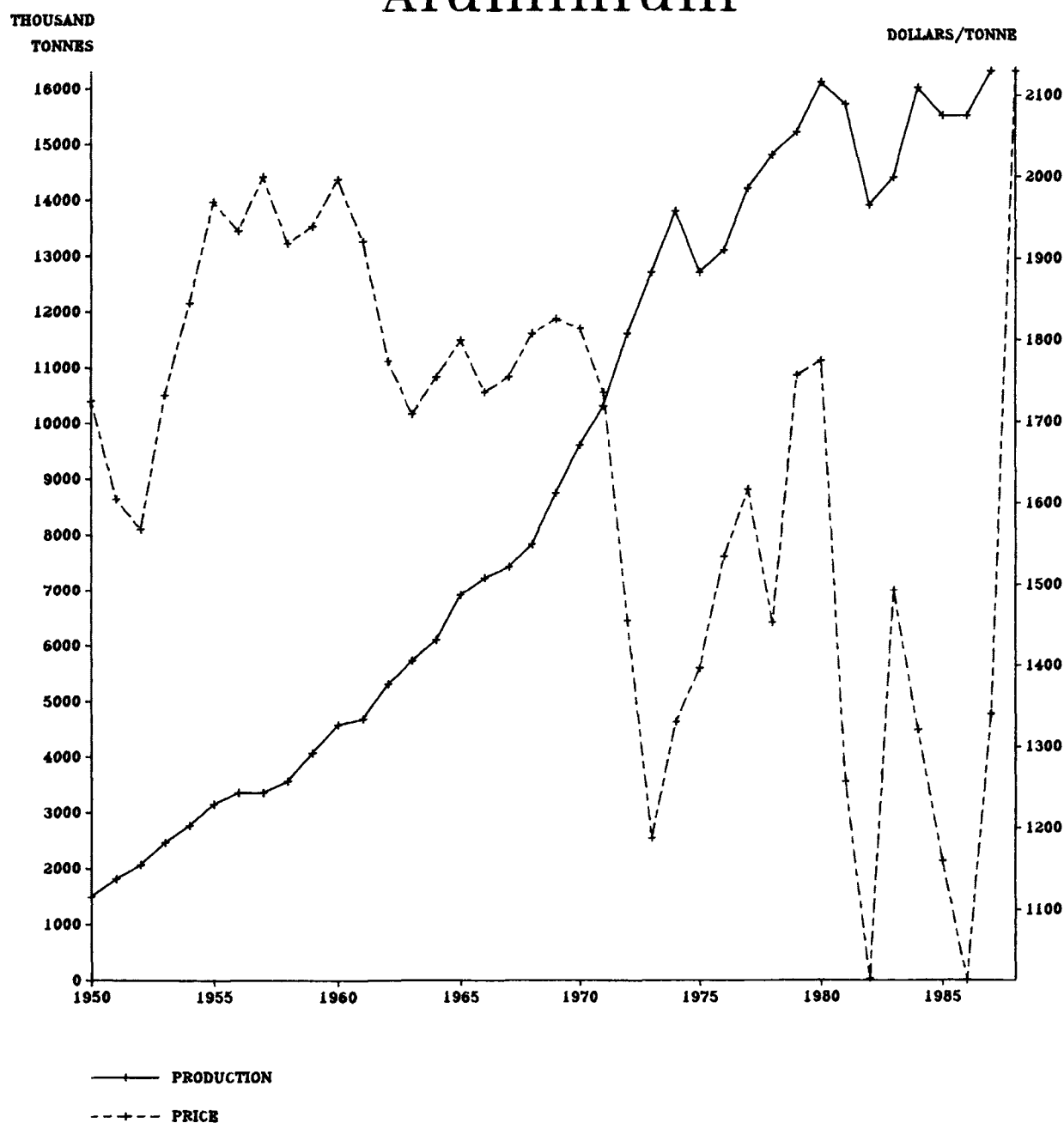


Figure 1 World production of primary aluminium from 1950 to 1987 compared with the yearly average producer price (to 1988) of unalloyed aluminium ingot on the New York Market expressed in constant 1980 US dollars (from 1979, LME price).

Trend-line analysis of the production data indicates a growth rate of approximately 6.5% per annum over 37 years.

Constant commodity prices (to 1986) taken from Commodity Trade and Price Trends published by the Johns Hopkins University Press for the World Bank.

Production of Primary Aluminium

Country	1983	1984	1985	1986	1987
United Kingdom	252 525	287 875	275 373	275 876	294 382
France	360 793	341 604	293 196	321 793	322 900
Germany, Federal Republic of	743 313	777 165	745 373	765 048	737 669
Greece	137 210	138 750	125 222	126 000	126 100
Italy	195 694	230 207	224 120	242 632	232 600
Netherlands	235 351	249 170	250 603	265 768	275 939
Spain	357 500	380 800	370 100	354 700	341 000
Austria	94 200	95 833	94 106	92 453	93 414
Czechoslovakia	36 156	31 635	31 725	33 078	32 366
German Democratic Republic	57 000*	58 000*	60 000*	61 000*	62 000
Hungary	74 039	74 202	73 859	73 877	74 000
Iceland	76 077	80 359	73 403	75 929	83 485
Norway	713 014	765 083	742 686	725 813	724 667
Poland	44 400	46 000	47 000	47 500	47 500
Romania	223 000	244 000	247 000	253 000	260 000
Soviet Union	2 400 000*	2 300 000*	2 300 000*	2 350 000*	2 370 000
Sweden	84 935	79 625	82 783	77 882	79 462
Switzerland	75 974	79 173	72 742	80 259	73 169
Turkey	31 045	36 839	54 150	60 017	41 700
Yugoslavia	258 174	292 306	306 346	309 206	280 633
Cameroon	77 400	74 154	81 600	81 100	71 500
Egypt	154 604	172 201	174 666	176 760	179 200
Ghana	42 500	—	48 500	124 600	150 300
South Africa	161 300	167 400	164 600	169 600	170 600
Canada	1 091 213	1 221 985	1 282 316	1 355 161	1 540 400
Mexico	39 706	43 988	42 744	37 016	60 200
USA	3 353 000	4 099 000	3 500 000	3 037 000	3 343 000
Argentina	136 358	137 839	139 861	150 642	155 107
Brazil	400 744	454 999	549 400	757 375	845 023
Suriname	33 600	22 992	28 785	28 715	1 913
Venezuela	337 207	385 875	403 503	420 660	439 600
Bahrain	171 700	177 300	174 800	178 194	180 344
China	425 000*	450 000*	480 000*	510 000*	540 000*
Dubai	151 170	155 400	153 200	154 838	155 876
India	204 764	267 902	266 496	257 096	253 372
Indonesia	114 766	198 960	216 820	218 772	201 402
Iran	39 200	42 400	43 000	40 000	40 000
Japan	255 900	286 728	226 547	140 187	40 633
Korea, Dem. P.R. of	10 000*	10 000*	10 000*	10 000*	10 000*
Korea, Republic of	12 629	18 252	17 695	18 643	21 654
Australia	478 190	757 798	851 286	881 910	1 003 947
New Zealand	218 610	242 851	240 835	236 332	252 000
World total	14 400 000	16 000 000	15 600 000	15 600 000	16 200 000

Exports of Bauxite, Alumina and Aluminium

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Bauxite	1 100	2 556	2 286	1 221	2 148
Alumina	8 272	11 756	7 546	8 793	8 031
Alumina hydrate	29 656	32 219	37 575	38 213	34 335
Unwrought	71 197	59 371	65 342	50 409	69 108
Unwrought alloys	61 189	68 189	63 782	66 348	64 447
Scrap	78 865	88 523	90 803	89 886	87 372
Belgium-Luxembourg					
Bauxite	1 699	1 702	1 992	2 873	2 416
Alumina	757	732	1 353	1 237	1 102
Unwrought	7 100	4 834	8 942	9 134	8 278
Unwrought alloys	9 909	5 443	14 094	15 727	19 277
Scrap	46 757	51 395	46 950	51 888	60 186
Denmark					
Bauxite	414	3 089	2 042	—	1
Unwrought	27	45	37	10	73
Unwrought alloys	8 958	9 688	12 094	10 213	12 581
Scrap	15 002	15 747	16 659	20 545	25 186
France					
Bauxite	68 651	245 208	200 733	116 060	187 433
Alumina	178 490	157 999	200 445	113 046	93 274
Alumina hydrate	91 241	73 794	97 304	81 280	101 990
Unwrought	67 557	68 008	38 838	59 515	41 026
Unwrought alloys	93 161	78 396	76 531	83 760	78 249
Scrap	90 365	88 858	90 938	99 522	109 203
Germany, Federal Republic of					
Bauxite	43 934	44 633	42 212	25 979	33 385
Alumina	331 964	443 836	435 349	324 858	312 760
Alumina hydrate	210 476	260 485	233 705	248 489	252 435
Unwrought	80 873	69 381	66 050	71 378	91 826
Unwrought alloys	240 272	224 808	215 644	230 370	241 764
Scrap	77 723	88 175	89 691	104 453	134 983
Greece					
Bauxite	1 410 511	1 238 428	1 332 536	1 133 487	1 370 000
Alumina	110 500	208 500	187 400	135 565	345 700
Unwrought (a)	55 086	48 451	43 198	45 855	71 800
Scrap	886	1 254	1 115	317	1 362
Irish Republic					
Alumina	31 667	654 077	571 986	669 362	741 487
Unwrought (a)	2 537	1 099	585	1 478	1 475
Scrap	4 246	4 123	5 190	8 093	8 468
Italy					
Bauxite	5 053	12 287	7 273	4 502	21 141
Alumina	160 984	300 468	265 282	308 006	561 315
Alumina hydrate	13 246	24 657	18 139	30 354	29 509
Unwrought	10 495	8 379	17 013	9 611	11 298
Unwrought alloys	30 795	23 842	26 783	24 696	40 338
Scrap	5 721	3 871	5 816	4 240	6 049
Netherlands					
Bauxite	3 490	5 509	5 063	3 983	9 283
Alumina	51 825	64 974	59 124	46 404	61 934
Alumina hydrate	58	65	51	89	105
Unwrought	302 356	136 920	149 398	144 277	156 306
Unwrought alloys	130 925	142 100	147 369	156 983	158 083
Scrap	80 201	93 258	87 062	96 045	105 385
Portugal					
Scrap	6 920	5 158	3 970	3 899	5 659
Spain					
Alumina	2 611	20 725	16 525	42 743	159 787
Unwrought	101 284	152 772	135 623	86 118	34 436
Unwrought alloys	64 642	78 470	72 760	60 268	72 043
Austria					
Unwrought	30 153	28 817	31 072	31 317	39 447
Scrap	59 547	29 843	33 248	43 387	63 587
Bulgaria					
Unwrought (a) (f)	6 100*	5 000*	4 000*	4 100*	3 000*
Scrap (f)	4 100*	2 800*	3 100*	5 100*	2 800*

Exports of Bauxite, Alumina and Aluminium

tonnes

Country	1983	1984	1985	1986	1987
Czechoslovakia					
Unwrought (a) (f)	19 500*	18 200*	21 100*	15 300*	11 200 [†]
Finland					
Unwrought (a)	10 679	13 575	16 171	16 974	24 286
German Democratic Republic					
Unwrought (a) (f)	23 400*	30 400*	23 000*	28 300*	28 700 [†]
Scrap (f)	12 600*	6 600*	9 200*	7 400*	6 000 [†]
Hungary					
Bauxite	431 033	430 587	382 335	461 473	437 987
Alumina	658 672	643 993	593 758	664 845	665 226
Alumina hydrate	6 200	6 928	5 594	4 200	2 729
Unwrought	57 822	71 294	50 528	61 200	63 354
Scrap	6 498	8 226	6 928	7 002	8 748
Iceland					
Unwrought (a)	106 904	79 928	70 600	77 490	89 081
Norway					
Alumina	12	220	915	12 642	17 764
Unwrought	330 131	322 038	307 311	298 122	326 307
Unwrought alloys	307 208	316 637	336 479	348 417	431 308
Scrap	27 517	27 138	28 725	31 126	38 156
Poland					
Unwrought (a)	2 812	3 166	2 980	3 023	2 595
Romania					
Unwrought	121 600	122 400	139 100	...	...
Soviet Union					
Unwrought (a) (f)	494 800*	488 600*	459 500*	471 500*	436 000 [†]
Scrap (f)	11 600*	15 900*	21 500*	43 300*	57 300 [†]
Sweden					
Bauxite	5	—	541	—	20
Alumina	632	310	513	8 226	676
Unwrought	2 392	1 901	1 452	4 345	8 056
Unwrought alloys	36 772	36 297	40 635	35 008	35 509
Scrap	5 053	3 171	8 758	13 459	11 259
Switzerland					
Alumina	239	288	1 445	423	459
Unwrought & scrap	56 825	53 895	49 570	54 583	60 991
Turkey					
Bauxite	57 332	46 845	22 675	57 325	104 525
Alumina	...	16 845	22 648	23 900	17 746
Yugoslavia					
Bauxite	552 051	651 893	795 476	765 127	584 714
Alumina	509 758	402 588	414 521	561 153	389 531
Alumina hydrate	9 209	17 048	26 118	21 137	29 231
Unwrought	134 976	135 727	128 828	121 516	128 610
Unwrought alloys	8 658	6 311	13 871	20 711	28 613
Scrap	1 674	295	265	1 420	1 702
Cameroon					
Unwrought & scrap	52 515	52 739	50 834	53 000	47 400
Egypt					
Unwrought & scrap	5 126	1 506	...	24	...
Ghana					
Bauxite	82 000	44 000	124 000	226 000	226 000
Unwrought (a)	90 161	44 200	20 600	104 400	140 000
Guinea					
Bauxite	10 700 000	11 600 000	8 600 000	11 600 000	(f) 13 200 000*
Alumina	500 000	500 000	500 000	500 000	...
Sierra Leone					
Bauxite	523 705	998 306	718 797	1 550 608	...
South Africa					
Unwrought (a)	106 108	83 032	92 621	94 695	93 800
Scrap (f)	3 100*	4 200*	8 800*	7 700*	2 600 [†]
Canada					
Alumina (b)	46 001	51 360	52 794	45 434	45 624
Unwrought	925 449	833 026	1 051 007	1 163 875	1 171 887
Scrap	81 425	106 574	114 674	125 018	127 181
Cuba					
Scrap (e)	4 455	4 085	4 551	4 100	3 778

Exports of Bauxite, Alumina and Aluminium

tonnes

Country	1983	1984	1985	1986	1987
Jamaica					
Bauxite	3 120 123	4 559 013	2 325 359	2 939 593	3 711 396
Alumina	1 904 270	1 720 660	1 620 338	1 580 462	1 557 008
Mexico					
Scrap	1 613	3 710	2 484	5 313	...
USA					
Bauxite	80 086	113 113	74 246	99 161	203 711
of which: Re-exports	5 980	30 879	18 152	30 056	2 214
Alumina	583 669	635 909	299 911	475 360	1 108 975
Alumina hydrate	12 426	20 244	25 890	18 925	29 004
Unwrought	333 112	225 523	306 893	158 964	249 563
Unwrought alloys	27 839	34 505	40 982	52 125	35 345
Scrap	262 592	258 725	376 136	347 946	369 745
Argentina					
Unwrought	53 831	53 052	98 065	74 000	...
Brazil					
Bauxite	3 988 633	4 246 914	3 317 341	3 059 736	2 813 587
Alumina	7 102	43 213	94 214	41 994	...
Unwrought (a)	116 326	147 923	179 130	323 703	430 894
Guyana					
Bauxite, dried	732 633	1 114 940	...	...	...
Bauxite, calcined	339 717	543 685	...	...	...
Alumina	13 492	—	...	...	...
Suriname					
Bauxite	449 000	1 031 000	1 132 000	897 000	340 900
Alumina	1 143 000	1 072 000	1 265 000	1 343 000	1 342 100
Unwrought	29 000	29 000	28 000	29 000	3 200
Venezuela					
Alumina	88 433	371 372	454 881	508 971	516 969
Unwrought	298 256	224 800	382 921	277 877	302 515
Bahrain					
Unwrought (a)	191 705	156 548	126 773	182 342	122 551
China					
Bauxite (f)	346 800*	579 800*	629 200*	629 500*	712 500*
Alumina (f)	14 600*	13 900*	12 500*	3 200*	8 400*
Unwrought (a) (f)	15 200*	700*	5 400*	500*	56 200*
Dubai					
Unwrought (a)	...	140 403	148 650	148 841	...
Scrap	5 890	9 986	3 168	3 635	...
Hong Kong					
Bauxite (h)	18 110	17 748	16 566	19 987	25 971
Alumina (h)	105	500	61 572	678	788
Alumina hydrate (h)	2 418	113	2 589	3	405
Unwrought (h)	25 150	22 648	48 903	26 085	36 181
Scrap	19 179	19 447	18 423	22 081	27 656
India (c)					
Bauxite	118 867	61 547	36 436	...	...
Alumina	39 642	49 915	42 788	...	...
Indonesia					
Bauxite	786 311	944 332	631 763	525 811	583 900
Unwrought	90 577	135 017	238 708	174 048	163 337
Japan					
Alumina	481 669	488 032	372 317	282 714	101 057
Alumina hydrate	87 530	85 040	109 219	101 759	96 789
Unwrought	500	646	528	971	854
Unwrought alloys	1 179	1 637	1 711	1 050	1 073
Scrap	637	2 259	2 317	1 914	8 707
Jordan					
Scrap	1 765	4 304	3 245	3 240	3 133
Korea, Dem. P. R. of					
Unwrought (a) (f)	...	200*	8 700*	11 400*	7 000*
Malaysia					
Bauxite	489 931	522 049	362 100	412 400	199 000
Scrap	6 139	6 366	7 115	...	6 548

Exports of Bauxite, Alumina and Aluminium

Country	1983	1984	1985	1986	1987
Singapore					
Alumina	1 476	1 216	17 665	119 180	31 102
of which: Re-exports	1 466	1 211	17 650	118 947	30 090
Unwrought	13 454	7 078	7 634	6 444	13 107
of which: Re-exports	12 048	5 300	6 274	5 886	11 193
Scrap	8 789	9 963	10 707	12 434	15 770
Taiwan					
Alumina	3 427	3 564	4 734	6 384	3 721
Unwrought	2 638	3 128	5 830	12 504	17 254
Scrap	1 563	1 195	2 661	3 096	7 969
Australia					
Bauxite	4 100 000*	4 900 000*	4 800 000*	4 260 000*	4 430 000*
Alumina	6 377 931	6 905 001	7 169 102	7 687 099	8 299 277
Unwrought (a)	234 562	419 063	563 716	579 528	710 425
Scrap	25 383	12 715	18 320	45 700	42 583
New Zealand (d)					
Unwrought (a)	162 613	211 191	228 044	207 761	211 521
Scrap	3 399	3 264	2 963	3 681	5 659

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) Imports into the Netherlands

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

(h) Re-exports

Imports of Bauxite, Alumina and Aluminium

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Bauxite, uncalcined	241 391	298 486	174 778	185 719	292 340
Bauxite, calcined	79 059	126 886	156 255	170 511	137 050
Alumina	481 114	653 026	563 359	546 330	609 630
Alumina hydrate	7 768	8 928	9 434	12 714	19 549
Unwrought	66 645	64 690	48 783	62 435	65 257
Unwrought alloys	96 992	107 453	98 332	119 731	110 566
Scrap	10 896	6 749	4 818	7 811	12 621
Belgium-Luxembourg					
Bauxite	34 802	40 536	36 650	29 130	26 534
Alumina	8 347	9 757	8 769	8 824	8 029
Alumina hydrate	18 251	18 432	19 129	20 066	28 842
Unwrought	205 986	220 564	223 568	231 442	238 168
Unwrought alloys	83 008	91 033	84 300	75 979	77 346
Scrap	53 086	57 981	62 708	71 291	90 872
Denmark					
Bauxite	18	18	723	554	1 024
Alumina	996	773	737	411	1 606
Alumina hydrate	3 004	3 512	3 666	4 173	3 350
Unwrought	1 189	610	732	1 172	872
Unwrought alloys	23 528	29 112	27 644	33 108	26 961
Scrap	3 294	4 302	9 234	5 321	7 162
France					
Bauxite	1 078 856	981 080	1 002 750	909 241	894 330
Alumina	75 660	30 957	118 012	103 056	121 762
Alumina hydrate	15 456	19 042	20 913	21 592	24 030
Unwrought	252 132	224 499	222 789	217 803	186 102
Unwrought alloys	142 509	140 458	172 920	210 252	221 011
Scrap	60 016	66 541	53 273	58 818	70 181
Germany, Federal Republic of					
Bauxite	3 156 141	4 055 547	4 033 965	3 658 891	2 879 377
Alumina	486 393	698 385	661 435	717 930	857 845
Alumina hydrate	2 084	3 482	3 303	3 768	7 201
Unwrought	345 497	447 685	460 651	492 912	448 670
Unwrought alloys	246 643	275 088	260 967	290 751	285 363
Scrap	192 452	208 892	202 881	215 152	205 285
Greece					
Bauxite	789	5 689	1 406	102	5 616
Alumina	263	362	149	300	179
Alumina hydrate	98	136	182	205	80
Unwrought (a)	2 121	6 473	3 644	7 180	13 500
Irish Republic					
Bauxite	562 997	1 126 985	1 322 262	1 079 908	1 440 106
Alumina	13 026	3 148	4 684	4 414	4 234
Unwrought (a)	2 002	3 065	2 597	3 789	2 252
Italy					
Bauxite	1 181 847	1 281 290	1 277 110	1 395 994	1 380 836
Alumina	253 675	199 595	224 977	298 607	266 522
Alumina hydrate	51 916	72 223	66 368	78 294	69 951
Unwrought	129 076	177 123	196 627	214 678	215 962
Unwrought alloys	125 456	114 697	123 249	133 012	160 962
Scrap	108 017	133 257	148 473	182 088	159 707
Netherlands					
Bauxite	135 623	130 784	162 384	162 760	141 702
Alumina	504 045	565 750	557 748	600 988	612 071
Alumina hydrate	27 344	32 355	31 368	40 597	35 066
Unwrought	244 837	93 184	98 604	105 830	97 818
Unwrought alloys	39 800	39 801	36 606	45 301	47 718
Scrap	48 280	57 473	67 179	76 325	81 662
Portugal					
Bauxite	3 411	1 400	8 374	2 282	1 793
Alumina	6 506	6 372	6 280	8 195	7 969
Unwrought	(a) 42 975	5 697	12 220	13 664	(a) 43 459
Unwrought alloys	...	20 413	21 878	26 239	...

Imports of Bauxite, Alumina and Aluminium

Country	1983	1984	1985	1986	1987
Spain					
Bauxite	1 464 593	1 812 156	1 589 476	1 431 284	1 663 191
Alumina	21 181	23 037	25 222	22 296	27 295
Unwrought	8 194	8 710	7 138	14 410	5 623
Unwrought alloys	4 197	1 872	3 518	7 363	7 772
Scrap	10 142	6 036	9 133	19 129	16 103
Austria					
Bauxite	27 762	39 174	46 342	36 889	32 661
Alumina	210 953	242 993	295 374	275 911	282 983
Alumina hydrate	6 847	7 673	8 141	7 483	8 227
Unwrought	52 156	74 677	78 148	93 413	81 133
Scrap	68 354	47 516	53 109	61 863	54 621
Bulgaria					
Unwrought (a) (f)	14 800*	17 900*	20 800*	14 800*	12 900*
Czechoslovakia					
Bauxite	469 000	349 000	356 000	399 000	453 000
Alumina (f)	23 300*	28 100*	24 800*	25 400*	30 500*
Unwrought (a)	88 000	90 000	80 000	78 000	76 000
Finland					
Bauxite	4 152	2 564	3 368	1 687	5 633
Alumina	727	868	1 173	1 285	1 372
Alumina hydrate	19 888	26 500	28 244	28 863	32 186
Unwrought	23 642	18 307	16 814	18 564	18 825
Unwrought alloys	2 628	2 414	3 524	3 037	4 697
Scrap	22 608	16 289	33 317	46 177	57 677
German Democratic Republic					
Bauxite	103 700	170 600	208 400	178 100	141 600
Alumina (f)	101 200*	103 800*	97 400*	100 200*	100 900*
Unwrought (a) (f)	51 100*	55 000*	42 600*	34 000*	30 500*
Hungary					
Unwrought	163 000	163 320	165 294	205 007	189 961
Iceland					
Alumina	144 482	147 508	197 129	138 028	142 335
Norway					
Bauxite	4 480	5 420	5 590	5 871	5 792
Alumina	1 400 162	1 448 516	1 445 268	1 458 718	1 604 669
Alumina hydrate	33 447	43 055	33 788	36 931	40 467
Unwrought	1 570	4 162	6 902	3 374	19 444
Unwrought alloys	9 664	27 349	27 780	31 743	37 702
Scrap	1 724	2 874	2 127	3 211	1 417
Poland					
Bauxite	34 400	31 011	37 862	49 311	52 248
Alumina	210 434	226 221	206 591	225 216	221 042
Unwrought	83 465	91 481	86 391	88 207	88 631
Romania					
Bauxite (f)	534 600*	669 200*	685 200*	610 300*	551 300*
Alumina (f)	13 700*	20 500*	41 200*	42 200*	18 400*
Soviet Union					
Bauxite (f)	3 689 800*	4 433 600*	4 827 600*	5 008 600*	4 800 500*
Alumina (f)	916 700*	806 200*	752 900*	1 167 000*	987 900*
Sweden					
Bauxite	45 459	61 749	48 280	50 056	46 425
Alumina	145 390	174 059	180 328	127 453	184 283
Alumina hydrate	57 345	77 114	62 405	60 130	86 615
Unwrought	31 274	24 553	26 557	33 639	21 725
Unwrought alloys	18 397	23 990	19 729	20 652	21 399
Scrap	2 807	2 081	1 515	1 621	2 526
Switzerland					
Bauxite	1 254	2 370	44	512	2 625
Alumina	149 241	162 234	146 751	160 374	156 382
Unwrought & scrap	57 751	63 189	78 745	88 274	90 239

Imports of Bauxite, Alumina and Aluminium

tonnes

Country	1983	1984	1985	1986	1987
Turkey					
Bauxite	1 025	7 676	19 408	43 366	40 461
Alumina	258	210	628	1 004	1 499
Unwrought	59 953	68 493	59 154	38 355	89 638
Yugoslavia					
Bauxite	158 762	185 797	162 968	184 697	132 797
Alumina	101 362	113 226	118 366	151 460	118 165
Unwrought	37 189	33 624	38 561	31 486	32 478
Unwrought alloys	349	434	755	492	119
Algeria					
Alumina	1 233	789	372	795	...
Unwrought (a)	3 414	6 810	5 797	6 636	...
Cameroon					
Alumina	154 207	151 640	149 601	...	...
Ghana					
Alumina	66 784	...	...	...	...
Kenya					
Alumina	1 504	2 756	2 445	2 943	1 984
Morocco					
Bauxite	2 000	3 200	3 220	4 000	4 575
Alumina	2 793	2 036	2 149	2 081	2 885
Unwrought (a)	1 520	1 081	1 017	1 645	1 139
Nigeria					
Unwrought (a)	...	2 933	6 557	1 234	...
South Africa					
Bauxite	17 196	20 038	21 068	10 804	...
Alumina	357 892	313 863	350 615	307 253	...
Scrap	6 070	657	766	...	...
Tanzania					
Unwrought (a)	900	994	—	254	3 909
Tunisia					
Alumina	23 235	24 138	20 642	26 859	21 285
Canada					
Bauxite	2 329 910	2 451 499	2 074 171	2 112 874	2 019 119
Alumina	1 063 181	1 349 191	1 543 980	1 724 569	2 068 390
Unwrought	30 581	44 566	59 739	64 459	53 479
Scrap	54 666	61 782	53 376	69 945	56 959
Costa Rica					
Unwrought (a)	2 575	2 513	2 005	1 544	...
Mexico					
Bauxite	26 658	54 313	46 659	35 081	40 264
Alumina	121 148	155 295	90 393	...	...
Alumina hydrate	33 668	32 763	17 979	...	...
Unwrought & scrap (a)	24 960	66 769	76 700	48 400	38 065
Panama					
Unwrought (a)	500	934	1 308	1 366	1 989
USA					
Bauxite, crude dried	7 903 178	10 436 104	7 257 819	6 854 063	9 819 080
Bauxite, calcined	208 998	232 127	340 590	303 783	338 590
Alumina	3 904 559	4 295 151	3 834 490	3 613 263	4 078 048
Unwrought	396 895	453 315	432 690	766 220	706 200
Unwrought alloys	345 606	427 693	435 940	580 110	539 385
Scrap	88 473	137 673	127 473	162 276	188 614
Argentina					
Bauxite	23 791	25 187	23 665	25 739	...
Alumina	202 293	312 663	296 763	345 794	...
Alumina hydrate	12 200	9 930	6 528	11 044	...
Brazil					
Bauxite	5 020	11 159	8 801	1 020	2 998
Alumina	202 824	183 724	136 637	285 470	393 438
Unwrought	849	1 248	200	106	(a) 2 309
Unwrought alloys	2 109	3 335	2 418	1 308	...
Scrap	4 127	210	684	3 119	4 931

Imports of Bauxite, Alumina and Aluminium

tonnes

Country	1983	1984	1985	1986	1987
Colombia					
Bauxite	5 050	3 537	8 090	5 071	...
Alumina	2 947	4 957	4 103	4 151	...
Unwrought (a)	17 967	17 977	11 641	21 290	...
Ecuador					
Unwrought	3 334	3 420	5 023	5 144	4 773
Peru					
Bauxite	6 527	5 923	900	283	1 874
Alumina	571	1 765	1 862	1 302	1 636
Unwrought	3 304	3 356	2 941	5 290	5 082
Uruguay					
Bauxite	3 250	3 350	4 170	3 951	8 455
Alumina	505	1 291	617	1 202	1 102
Unwrought	937	1 494	1 614	1 991	2 693
Venezuela					
Bauxite	1 719 178	2 522 214	2 404 199	2 855 125	3 023 945
Alumina	269 262	6 424	6 478	5 068	6 832
Alumina hydrate	856	1 182	964	1 290	2 249
Unwrought	342	149	114	3 725	1 816
Abu Dhabi					
Scrap	2 863	2 533	2 099	2 418	5 017
Bahrain					
Alumina	298 246	363 599	335 006	332 417	346 191
China					
Alumina	(f) 73 600*	(f) 70 000*	(f) 81 000*	(f) 107 800*	322 149
Unwrought (a)	283 756	252 736	487 862	266 241	148 130
Dubai					
Alumina	...	283 630	326 904	294 626	...
Hong Kong					
Bauxite	17 504	23 630	18 773	20 526	25 815
Alumina	10	167	31 022	—	474
Alumina hydrate	2 298	184	1 796	57	469
Unwrought	55 796	35 565	76 071	46 950	70 480
Scrap	1 083	1 107	888	1 301	3 072
India (c)					
Unwrought (a)	15 600	66 000	41 651	64 200	56 000*
Indonesia					
Alumina	117 947	22 427	118 320	251 225	226 509
Alumina hydrate	64 469	376 396	107 544	52 271	36 499
Unwrought	20 067	17 183	11 987	9 551	12 086
Iran (e)					
Alumina	135 292	102 313	...	...	...
Unwrought	8 185	38 417	13 000	13 600	9 500
Israel					
Alumina (f)	1 300*	1 500*	1 400*	1 700*	1 800*
Unwrought (b)	14 365	12 841	13 848	15 899	18 180
Japan					
Bauxite	3 579 739	3 861 875	3 518 991	2 307 459	1 872 020
Alumina	34 529	141 583	41 732	63 489	26 984
Alumina hydrate	680	1 268	2 273	2 564	14 791
Unwrought	1 309 192	1 058 938	1 273 187	1 076 353	1 435 037
Unwrought alloys	294 540	288 879	302 315	289 662	400 253
Scrap	302 025	243 250	361 053	358 813	430 642
Jordan					
Alumina	—	9 148	4 536	455	11 529
Unwrought	2 385	2 658	5 330	4 536	5 319
Korea, Dem. P.R. of					
Alumina (f)	20 400*	24 100*	28 200*	11 500*	7 600*
Unwrought (a) (f)	2 600*	600*	1 600*	3 300*	150*
Korea, Republic of					
Bauxite	6 095	9 305	9 177	15 571	30 359
Alumina	26 254	37 273	34 923	36 008	38 603
Alumina hydrate	43 428	40 466	42 564	57 119	68 406
Unwrought	298 895	112 599	124 457	159 860	480 535
Unwrought alloys	34 902	30 629	75 932	24 652	32 955
Scrap	6 089	5 069	5 563	8 799	43 240
Malaysia					
Alumina	5 663	7 074	5 438	12 300	12 030
Unwrought	20 840	13 922	8 759	10 576	11 724
Unwrought alloys	21 070	17 773	12 994	15 873	19 812
Scrap	748	618	1 272	1 339	849

Imports of Bauxite, Alumina and Aluminium

tonnes

Country	1983	1984	1985	1986	1987
Pakistan (d)					
Alumina	1 678	1 454	1 853	2 586	2 491
Unwrought	3 059	1 691	6 674	5 250	8 921
Scrap	14 426	14 276	13 388	16 421	26 688
Philippines					
Bauxite	3 119	3 953	5 005	5 379	933
Alumina	1 998	2 766	3 532	5 380	8 257
Unwrought (a)	14 843	6 614	4 881	6 271	10 808
Saudi Arabia					
Bauxite	142 686	163 647	244 096	162 837	77 602
Unwrought	14 447	13 818	9 316	14 300	18 625
Singapore					
Alumina	968	921	38 403	52 877	12 093
Alumina hydrate	8 637	8 418	10 299	50 260	63 131
Unwrought	18 829	10 767	14 435	15 653	40 628
Scrap	639	796	771	845	1 525
Syria					
Alumina	3 196	236	555	52	...
Unwrought & scrap	5 746	2 522	3 747	1 077	...
Taiwan					
Bauxite	36 805	55 241	19 518	47 261	36 235
Alumina	3 744	5 268	5 744	2 219	4 888
Alumina hydrate	1 308	1 921	1 936	3 506	7 215
Unwrought	139 145	99 923	147 204	155 956	195 095
Scrap	25 766	6 483	6 237	13 055	23 211
Thailand					
Bauxite	3 557	11 652	7 506	11 491	21 714
Alumina	1 762	1 473	2 051	3 258	7 842
Alumina hydrate	9 646	9 251	11 296	14 347	12 117
Unwrought	60 569	43 825	39 972	42 206	43 804
Unwrought alloys	4 337	5 415	4 666	5 606	9 932
Australia					
Bauxite	4 859	1 423	6 128	3 800	10 107
Alumina	3 824	4 730	5 050	4 966	5 639
Unwrought (a)	5 225	709	1 079	754	1 060
Scrap	2 711	2 646	3 105	1 931	1 587
New Zealand (d)					
Alumina	335 757	505 892	463 273	475 486	472 601
Unwrought (a)	6 000	5 202	719	534	1 565

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

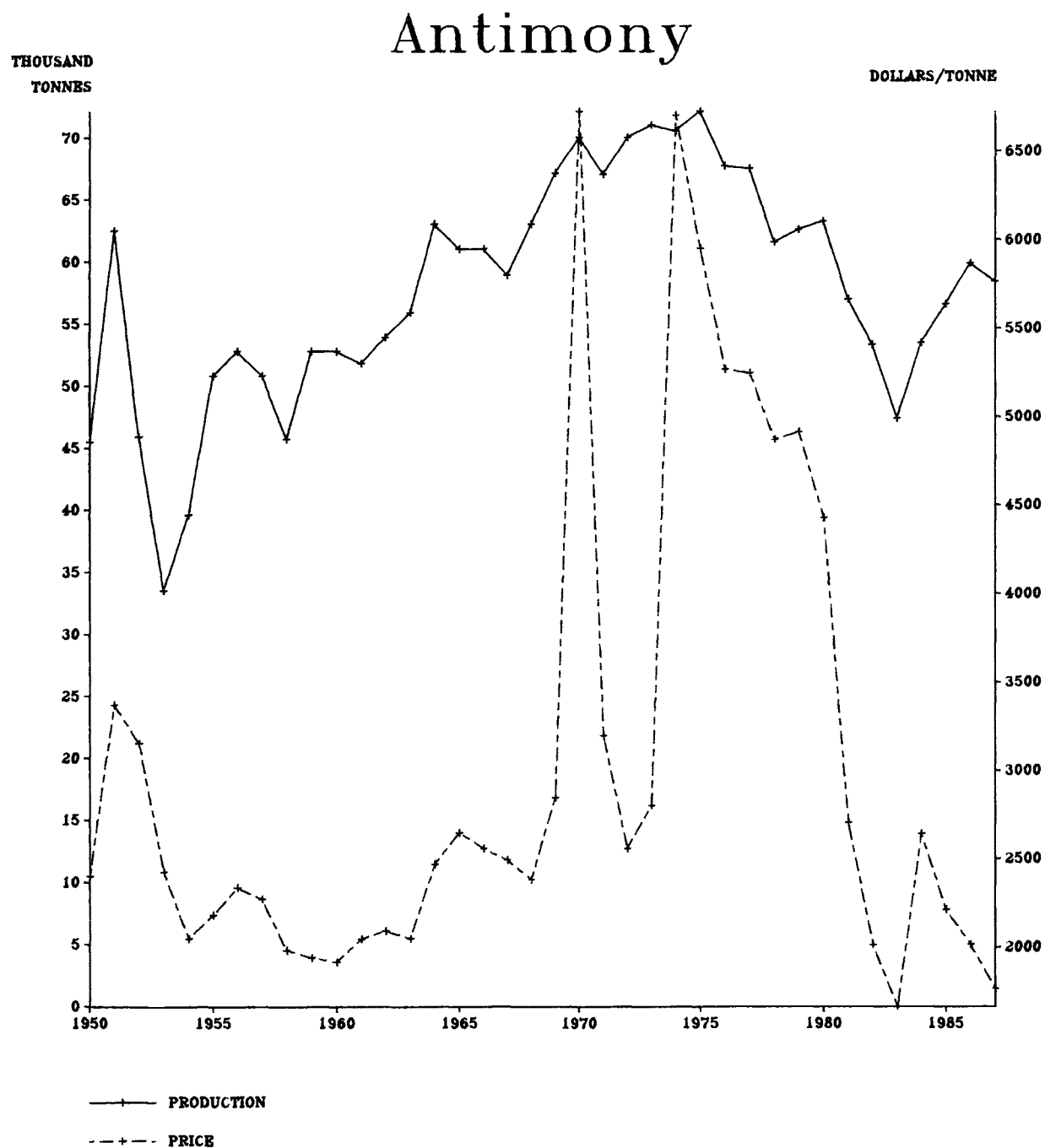


Figure 2 World mine production of antimony from 1950 to 1987 compared with the annual average New York price of antimony expressed in constant 1980 US dollars (from 1981, NY market price).

Constant commodity prices derived from those quoted by American Metal Market and Metals Week using the CPI for the USA taken from International Financial Statistics Yearbook (1988).

Antimony
tonnes (metal content)

Mine Production of Antimony

Country	1983	1984	1985	1986	1987
France	111	—	—	—	—
Italy	—	234	495	286	91
Spain	489	583	248	45	—
Austria	705	565	550	558	399
Czechoslovakia	900*	1 000*	782	782	931
Soviet Union	6 500*	6 500*	6 500*	6 000*	6 000*
Turkey	1 170	1 729	1 909	2 752	2 200*
Yugoslavia	950	945	1 088	859	834
Morocco	470	941	735	584	440
South Africa	6 310	7 440	7 390	6 816	6 300
Zimbabwe	74	256	194	175	153
Canada	385	554	1 075	3 805	3 706
Guatemala	—	96	1 239	1 839	1 881
Honduras	—	111	87	50*	27
Mexico	2 519	3 064	4 266	3 337	2 839
USA (c)	760	505	250*	250*	250*
Bolivia	9 951	9 281	8 925	10 243	10 635
Peru (a)	713	672	594	670*	650*
China	13 000*	15 000*	17 000*	18 000*	20 000*
Malaysia	134	17	26	129	22
Pakistan	—	6	24	—	45
Thailand	1 741	2 874	1 809	1 486	596
Australia (b)	538	1 149	1 458	1 131	1 231
World total	47 400	53 500	56 600	59 800	59 200

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) Including Sb content of antimonial lead plus Sb content of ores for export
(b) Including Sb content of lead and zinc concentrates
(c) Excluding Sb content of antimonial lead

Antimony

Exports of Antimony

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Metal	75	84	27	98	59
Oxide (a)	3 800*	3 900*	3 600*	3 600*	4 300*
Belgium-Luxembourg					
Oxide (a)	2 400*	3 100*	3 200*	3 300*	3 100*
France					
Ore	26	54	209	19	58
Metal	66	55	125	91	45
Oxide	5 233	5 931	5 360	4 630	6 018
Germany, Federal Republic of					
Metal	17	118	104	53	57
Oxide	571	755	592	747	803
Italy					
Ore	27	126	582	30	—
Metal	50	33	1	24	4
Oxide	617	650	362	115	79
Netherlands					
Metal	13	6	59	7	—
Oxide	226	134	243	220	453
Spain					
Metal	401	465	240	43	5
Austria					
Ore	4	4	5	5	3
Sulphide (b)	49	14	46	53	4
Soviet Union					
Oxide (a)	500*	700*	400*	300*	200*
Turkey					
Ore	330	1 975	1 860	2 190	...
Metal	...	336	274	447	...
Yugoslavia					
Metal	110	—	—	—	10
Morocco					
Ore	1 105	2 152	1 766	1 384	1 016
South Africa					
Ore (c)	2 904	4 596	1 452	957	...
Oxide	(a) 3 500*	7 363	(a) 3 200*	(a) 5 400*	(a) 4 100*
Zimbabwe					
Ore	137	419	170	—	—
Guatemala					
Ores & concentrates	—	111	1 130	...	...
Mexico					
Ores & concentrates	2 624	3 805	3 291	...	...
Metal	183	115	185	...	...
USA					
Metal	289	484	328	626	816
Oxide	401	574	973	638	854
Bolivia					
Ore	13 677	16 102	11 500*	18 813	17 351
Metal	1 644	200	400*	578	1 029
Oxide	2 991	797	500*	900	870
Peru					
Ores & concentrates (a)	570*	650*	160*	400*	250*
Metal (a)	510*	140*	220*	50*	...

Exports of Antimony

Antimony
tonnes

Country	1983	1984	1985	1986	1987
China					
Ores & concentrates (a)	2 600*	7 900*	14 400*	12 100*	12 200*
Metal	12 216	17 321	15 988	21 567	29 573
Oxide (a)	2 700*	7 800*	5 400*	6 800*	7 300*
Sulphide (a)	70*	130*	20*	490*	100*
Thailand					
Ore	3 037	5 491	5 417	2 774	3 627
Australia					
Ores & concentrates	1 695	3 158	2 834	1 549	1 427

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

(b) Believed to be crude liquated sulphide

(c) Sb content

Antimony

Imports of Antimony

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Ore (c)	10 000*	5 800*	5 800*	...	...
Metal	617	296	559	454	389
Oxide	737	976	1 043	1 320	1 416
Belgium-Luxembourg					
Ore	4 265	6 097	5 851	5 188	6 086
Metal	541	201	215	385	878
Oxide	272	646	776	792	786
Denmark					
Metal	53	15	1	0	0
Oxide	36	45	32	68	72
France					
Ore	10 273	11 255	12 074	11 783	14 886
Metal	593	568	431	377	2 821
Oxide	437	504	662	640	735
Germany, Federal Republic of					
Ore	1 705	2 131	1 630	1 845	319
Metal	371	582	782	977	1 399
Oxide	5 167	5 536	4 806	4 581	4 792
Greece					
Metal	30	12	71	13	...
Italy					
Metal	177	223	247	222	155
Oxide	560	780	893	1 163	1 669
Netherlands					
Metal	34	35	99	64	45
Oxide	1 053	1 131	1 115	1 125	1 652
Portugal					
Metal	53	32	33	28	...
Spain					
Ore	348	436	587	630	684
Metal	30	23	41	177	235
Oxide	279	321	200	273	411
Austria					
Ore	—	36	182	678	970
Metal	32	31	80	84	63
Oxide	212	140	173	261	163
Sulphide	0	3	25	35	27
Finland					
Metal	2	6	6	8	49
German Democratic Republic					
Oxide (b)	200*	200*	100*	100*	50*
Norway					
Metal	13	71	22	26	55
Sweden					
Metal	15	2	23	13	12
Switzerland					
Metal	60	34	27	62	90
Yugoslavia					
Ores & concentrates	717	1 345	2 401	2 732	2 907
Algeria					
Metal	0	104	—	55	...
Canada					
Oxide	1 001	1 143	1 189	1 278	1 526
USA					
Ore	5 719	8 973	12 933	9 861	10 332
Liquated	43	65	151	523	93
Metal	1 828	4 096	4 889	7 583	9 011
Oxide	9 620	16 224	9 666	12 266	12 378
Argentina					
Ore	438	527	202	483	...

Imports of Antimony

Country	1983	1984	1985	1986	1987
Brazil					
Ore	494	34	398	817	768
Metal	650	260	484	854	1 010
Oxide	162	37	49	30	44
Sulphide	10	17	13	21	...
Venezuela					
Metal	38	118	102	116	134
India (a)					
Metal	...	...	1 089	...	...
Oxide	...	...	123	...	...
Japan					
Ores & concentrates	6 272	6 987	5 091	6 400	5 886
Metal	3 487	5 118	4 269	3 985	4 743
Oxide	1 796	2 467	2 672	3 609	4 368
Sulphide	115	228	56	126	69
Korea, Republic of					
Ores & concentrates	956	1 250	883	4 655	5 266
Metal	149	251	58	298	725
Oxide	311	354	337	644	616
Malaysia					
Metal	16	36	60	69	99
Pakistan (d)					
Metal	35	15	32	75	66
Taiwan					
Metal	—	—	99	77	618
Oxide	—	—	380	765	1 079
Thailand					
Ores & concentrates	776	1 645	3 700	3 002	4 284
Metal	157	27	20	12	10
Australia					
Metal	26	41	90	211	130

(a) Years ended 31 March following that stated

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

(c) BGS estimates

(d) Years ended 30 June of that stated

Arsenic

Production of White Arsenic

tonnes

Country	1983	1984	1985	1986	1987
France	4 700	3 800	9 400	10 000*	9 000*
Germany, Federal Republic of	360*	360*	360*	360*	360*
Portugal	163	144	204	197	218
Soviet Union	7 900*	8 000*	8 100*	8 100*	8 100*
Sweden	9 000*	10 000*	10 000*	10 000*	10 000*
Namibia (a)	1 126	2 504	2 471	2 208	1 864
Canada	5 500*	8 000*	8 400*	5 100*	5 000*
Mexico (b)	4 557	5 496	6 312	7 016	6 979
USA	7 300	6 800	2 200	—	—
Bolivia	123	151	311	84	132
Chile	—	3 500*	4 000*	6 000*	5 000*
Peru	1 009	1 090	1 257	1 210	1 200*
Japan	300*	500*	500*	500*	500*
Korea, Republic of	560	...	...	...	100*

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

Country	1983	1984	1985	1986	1987
United Kingdom					
White arsenic	146	2	91	131	342
Metallic arsenic (a)	44	57	54	204	87
Belgium-Luxembourg					
Metallic arsenic (a)	46	92	53	53	78
France					
White arsenic	3 246	7 225	10 223	—	—
Metallic arsenic	27	128	80	186	250
Germany, Federal Republic of					
White arsenic	451	151	304	216	284
Metallic arsenic (a)	14	13	17	16	11
Italy					
White arsenic	3	2	24	16	5
Netherlands					
Metallic arsenic (a)	39	177	89	44	56
Portugal					
White arsenic	64	26	150	139	76
Namibia					
White arsenic	1 126	2 504	2 471	2 208	1 864
Mexico					
White arsenic	2 653	3 287	3 399	...	...
Bolivia					
White arsenic	56	125	311	241	132
China					
White arsenic (b)	500*	400*	400*	400*	800*
Metallic arsenic (b)	130*	100*	140*	360*	180*
Hong Kong					
White arsenic (c)	51	21	66	308	441
Korea, Republic of					
White arsenic	114	187	307	41	268

Notes

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

(a) May include some tellurium

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

(c) Re-exports

Arsenic

Imports of Arsenic

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
White arsenic	4 393	5 744	5 766	4 298	3 804
Metallic arsenic (a)	120	160	156	153	152
Belgium-Luxembourg					
White arsenic	20	7	3	0	...
Metallic arsenic (a)	100	123	83	79	194
Denmark					
White arsenic	5	15	15	10	29
France					
White arsenic	131	31	50	125	1 635
Metallic arsenic	99	135	91	258	104
Germany, Federal Republic of					
White arsenic	339	344	290	253	195
Metallic arsenic (a)	74	89	74	103	111
Greece					
White arsenic	33	73	74	51	14
Italy					
White arsenic	455	551	416	494	564
Metallic arsenic (a)	32	33	59	65	92
Netherlands					
Metallic arsenic (a)	63	164	96	37	58
Spain					
White arsenic	133	100	118	182	280
Metallic arsenic	18	28	13	12	20
Finland					
White arsenic (d)	1 165	1 183	1 022	1 604	1 373
Sweden					
Metallic arsenic	730	3 036	0	0	—
Switzerland					
White arsenic (d)	22	4	31	1	1
Turkey					
White arsenic	...	96	160	103	...
Yugoslavia					
White arsenic	73	115	120	148	112
Metallic arsenic	18	42	60	53	50
Morocco					
White arsenic	10	18	11	2	...
South Africa					
White arsenic (d)	90	0	—	...	...
Metallic arsenic	9	22	15	...	...
USA					
White arsenic	10 186	13 985	16 473	25 730	27 988
Metallic arsenic	244	304	407	394	...
Argentina					
White arsenic	5	177	71	228	...
Brazil					
White arsenic	376	246	281	656	...
Metallic arsenic	2	3	2	2	...
Colombia					
White arsenic	12	14	47	0	...
Uruguay					
White arsenic	38	40	21	39	35
Hong Kong					
White arsenic	61	238	99	116	375
India (b)					
White arsenic	...	...	495	...	...
Metallic arsenic	...	...	43	...	...
Indonesia					
White arsenic	29	44	57	101	84
Japan					
White arsenic	272	199	144	161	325

Imports of Arsenic

Arsenic
tonnes

Country	1983	1984	1985	1986	1987
Malaysia					
White arsenic	612	615	1 083	554	1 368
Philippines					
White arsenic (d)	157	118	14	16	52
Taiwan					
White arsenic	274	411	368	563	646
Thailand					
White arsenic (d)	139	97	61	79	134
Australia					
White arsenic	510	...	...	...	...
New Zealand (c)					
White arsenic (d)	1 568	1 938	2 091	2 101	930

Notes

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

(a) May include some tellurium

(b) Years ended 31 March following that stated

(c) Years ended 30 June of that stated

(d) Includes pentoxide and/or arsenic acid

Asbestos

Production of Asbestos

tonnes

Country	1983	1984	1985	1986	1987
Greece	31 811	45 376	46 811	48 000*	48 000*
Italy	132 000	147 272	136 006	115 208	100 834
Bulgaria	700	500	400	300	300*
Czechoslovakia	325	...	...	247	194
Soviet Union	2 500 000*	2 500 000*	2 500 000*	2 400 000*	2 400 000*
Turkey	22 590	29 934	29 039	30 981	10 097
Yugoslavia	9 663	9 441	6 918	8 596	10 964
Egypt	245	325*	325*	300*	208
Mozambique	—	146	55	—	—
South Africa					
Amosite	40 656	33 237	37 856	36 009	26 026
Crocidolite	117 416	88 884	64 731	63 203	20 682
Chrysotile	93 016	75 414	92 318	91 001	101 722
Swaziland					
Chrysotile	28 287	25 832	25 130	24 475	25 925
Zimbabwe					
Chrysotile	153 000	165 300	173 500	163 600	193 300
Canada					
Chrysotile	857 504	836 654	750 190	662 381	660 784
USA (a)	69 906	57 422	57 457	51 437	50 600
Argentina	1 240	1 093	1 244	1 697	332
Brazil	158 855	134 788	165 446	205 806	230 000
Colombia	7 032	9 982	12 435	12 916	13 272
China	160 000*	135 000*	150 000*	150 000*	150 000*
Cyprus					
Chrysotile	17 288	7 429	16 360	13 011	18 070
India					
Amphibole	23 420	26 338	29 450	26 713	27 019
Indonesia	25 000*	25 000*	25 000*	25 000*	25 000*
Japan					
Chrysotile	4 000*	4 000*	4 000*	4 000*	4 000*
Korea, Republic of	12 506	8 062	4 703	2 983	2 518
Taiwan	2 819	1 355	625	—	—
Australia					
Chrysotile	3 909	—	—	—	—
World total	4 500 000	4 400 000	4 300 000	4 100 000	4 100 000

Notes

(1) 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

Country	1983	1984	1985	1986	1987
United Kingdom	1 282	964	308	432	463
Belgium-Luxembourg	568	349	254	660	141
France	3 195	921	979	438	391
Germany, Federal Republic of	34 260	14 927	3 064	777	1 219
Greece	9 396	34 740	29 387	44 468	...
Italy	61 164	57 660	66 244	44 459	51 541
Netherlands	243	217	50	177	238
Spain	198	517	189	194	23
Hungary	4 800*	3 200*	...	...	(a) 1 000*
Soviet Union (a)	289 200*	277 900*	306 800*	256 700*	247 500*
Sweden	135	—	—	0	17
Switzerland	389	35	5	15	15
Yugoslavia	2 147	2 214	2 018	1 526	1 179
South Africa	213 989	190 754	175 929	157 541	154 061
Swaziland	31 176	24 673	24 675	25 191	27 929
Zimbabwe	161 088	155 385	158 633	167 970	195 828
Canada					
Crude	931	45	44	127	1 696
Fibre	384 068	430 496	395 205	375 948	353 339
Shorts	368 912	366 207	326 311	341 628	293 808
USA	54 632	39 922	45 656	47 282	60 092
Brazil	11 750	19 716	23 248	32 550	...
China (a)	4 200*	2 800*	1 700*	1 000*	1 600*
Cyprus	13 631	8 216	16 948	11 781	22 340
Japan	677	431	292	163	121
Singapore	8 692	6 715	7 117	4 276	848
of which: Re-exports	1 250	487	1 025	4 276	848
Australia	4 460	22	—	—	—

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

Imports of Unmanufactured Asbestos

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom	45 145	41 556	37 639	26 766	23 865
Belgium-Luxembourg	35 332	34 882	25 138	25 017	27 357
Denmark	16 585	13 536	10 362	10 269	4 381
France	76 265	70 170	63 873	65 067	70 205
Germany, Federal Republic of	188 857	74 432	63 172	64 944	55 411
Greece	7 531	3 954	4 653	1 271	964
Irish Republic	4 729	5 687	5 243	5 546	5 045
Italy	41 619	41 421	47 952	47 896	48 864
Netherlands	5 751	8 357	5 625	7 087	8 718
Portugal	14 047	8 126	9 932	9 208	14 243
Spain	54 523	47 471	38 022	43 873	45 652
Albania (d)	2 000*	1 700*	1 500*	1 500*	1 200*
Austria	26 076	22 654	21 595	15 148	17 749
Bulgaria	26 079	21 452	35 472	24 406	...
Czechoslovakia	41 681	45 335	46 783	46 203	46 879
Finland	2 561	3 157	2 479	2 165	962
German Democratic Republic	47 000	53 800	54 600	55 700	53 200
Hungary	37 603	35 097	33 596	31 059	28 440
Poland	71 260	69 361	81 690	81 038	71 983
Romania (d)	1 400*	2 800*	4 700*	4 100*	3 400*
Sweden	1 000	1 000	1 042	1 069	937
Switzerland	12 211	4 772	5 058	3 923	5 778
Turkey	20 575	21 872	25 544	34 112	33 341
Yugoslavia	45 651	45 468	54 373	44 212	45 600
Algeria	27 181	23 503	31 752	11 125	...
Burundi	28	150	422	...	...
Egypt	13 998	15 258	13 090	1 949	...
Ethiopia	1 006	...	353	3	...
Ghana	235	...	...	...	...
Kenya	747	811	766	387	478
Morocco	6 590	4 702	1 110	4 991	1 885
Mozambique	1 632	767	3	890	...
Nigeria	...	37 439	10 778	8 640	...
Senegal	1 042	613	708	341	742
South Africa	12 781	20 913	11 528	11 289	...
Tunisia	3 728	6 075	5 852	9 207	7 057
Zaire	340	153	200*	...	...
Canada	454	326	374	325	238
Costa Rica	382	326	3	7	11
Cuba (f)	1 794	1 428	1 658	2 374	1 212
El Salvador	3 955	1 989	1 769	...	...
Guatemala	681	679	1 101	1 105	...
Honduras	1 522	1 902	1 202	...	...
Mexico	32 862	53 567	54 790	28 332	38 450
Nicaragua	2 441	622	3 676	...	...
Panama	450	150	225	303	164
USA					
Amosite	609	715	121	—	—
Crocidolite	6 177	5 656	4 795	1 988	1 692
Chrysotile	177 016	194 949	130 212	102 418	88 821
Other unmanufactured	12 584	8 643	7 301	3 948	3 828
Argentina	14 153	15 022	5 864	12 701	...
Brazil	7 771	3 791	2 591	3 658	4 134
Chile	5 403	7 347	8 387	(d) 7 700*	(d) 7 700*
Colombia	13 170	11 970	14 185	16 155	...
Ecuador	6 630	7 891	5 031	5 682	3 743
Peru	3 934	3 216	3 242	6 083	9 922
Uruguay	1 423	688	596	1 003	1 193
Venezuela	4 734	8 013	4 669	9 519	15 560

Imports of Unmanufactured Asbestos

Country	1983	1984	1985	1986	1987
Burma (e)	8	10	1 348	...	...
China (d)	900*	1 400*	1 700*	300*	1 000*
Cyprus	375	297	462	224	3
Dubai	5 342	912	6 624	4 768	...
India (e)	...	...	78 075	...	...
Indonesia	15 095	10 964	8 149	11 185	12 205
Iran (a)	47 186	41 064	...	...	...
Israel (c)	6 316	3 932	3 621	4 158	5 111
Japan	237 413	239 747	261 648	255 732	277 238
Korea, Republic of	113 305	59 693	57 143	68 017	77 595
Kuwait	3 356	1 299	...	...	...
Malaysia	25 375	23 146	19 064	16 947	20 153
Pakistan (b)	3 468	3 172	2 028	3 685	5 606
Philippines	2 385	1 663	1 190	1 151	1 911
Saudi Arabia	8 801	6 660	4 547	4 457	1 810
Singapore	10 215	9 951	6 078	3 987	2 194
Sri Lanka	7 110	5 057	8 590	5 586	8 156
Syria	4 849	2 449	5 928	2 486	...
Taiwan	37 939	31 764	24 519	39 735	36 469
Thailand	55 967	66 545	71 516	49 663	71 407
Australia	10 113	14 432	12 194	9 245	3 536
New Zealand (b)	2 959	1 907	1 304	1 553	154

(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

(f) Exports from Canada

Barytes

Production of Barytes

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom	36 000	63 000	107 344	86 754	77 000
Belgium	39 900*	39 000*	40 000*	40 000*	40 000*
France	137 000	139 000	121 000	116 000	...
Germany, Federal Republic of	163 965	166 568	171 269	201 565	173 356
Greece	90 187	24 822	3 283	2 227	4 800
Irish Republic	199 000	220 000	213 800	127 500	70 000
Italy	139 090	107 128	127 226	112 540	112 549
Portugal	637	318	1 094	120	660
Spain	52 410	68 919	67 572	49 000	25 000*
Czechoslovakia	61 000*	60 000*	60 000*	60 000*	60 000*
Finland	3 400	8 704	6 969	8 690	11 000
German Democratic Republic	35 000*	35 000*	34 000*	34 000*	34 000*
Poland	89 900	90 600	91 215	97 993	59 300
Romania	78 000*	75 000*	75 000*	75 000*	75 000*
Soviet Union	520 000*	530 000*	540 000*	540 000*	540 000*
Turkey	78 974	198 031	220 497	330 758	291 913
Yugoslavia	35 025	41 098	35 488	42 789	19 270
Algeria	110 000*	88 000*	60 000	60 000*	60 000*
Egypt	3 185	3 206	2 010	3 385	4 530
Kenya	300	210	407	34	50
Morocco	288 414	561 321	463 380	179 881	126 820
South Africa	6 683	4 467	4 387	8 653	8 617
Tunisia	23 200	12 100	2 200	14 400	18 000
Zimbabwe	980	700	400	298	191
Canada	45 465	64 197	71 049	40 335	42 000
Guatemala	886	215	3 703	750	...
Mexico	357 043	426 095	467 693	321 186	401 336
USA (b)	684 000	703 000	670 000	269 000	312 000*
Argentina	61 094	44 170	55 753	58 617	29 300
Bolivia	516	984	1 282	129	1 337
Brazil (d)	96 274	139 554	100 235	140 000*	110 000*
Chile	114 595	21 722	54 494	53 121	2 056
Colombia	3 839	3 340	5 050	4 198	4 200*
Peru	111 117	46 323	21 661	30 000*	45 000*
Afghanistan (c)	1 800*	1 800*	1 800*	1 800*	1 800*
Burma (a)	9 990	11 000*	8 148	17 273	...
China	1 000 000*	1 000 000*	1 000 000*	820 000*	900 000*
India	325 045	445 011	574 767	336 858	211 726
Iran (c)	85 000*	90 000*	90 000*	90 000*	90 000*
Japan	69 242	65 863	75 844	53 547	30 379
Korea, Republic of	552	2 729	2 785	3 768	2 942
Malaysia	21 434	23 421	23 394	22 506	38 935
Pakistan	28 240	26 369	29 932	39 047	7 219
Philippines	1 201	581	—	—	...
Thailand	187 437	174 918	230 970	142 232	33 370
Australia	11 752	19 511	22 423	5 819	10 363
World total	5 400 000	5 800 000	6 000 000	4 600 000	4 200 000

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) Including beneficiated and directly shipped material

Exports of Barytes

Country	1983	1984	1985	1986	1987
United Kingdom	10 462	14 997	17 108	6 720	8 214
Belgium-Luxembourg	30 948	33 912	86 620	55 378	64 985
France	109 752	131 394	95 170	98 185	82 962
Germany, Federal Republic of	37 839	46 028	55 989	39 947	32 180
Greece	5 400	16 000	14 000	22 109	40
Irish Republic	227 148	224 555	198 933	121 585	77 707
Italy	46 571	9 510	27 136	3 992	1 741
Netherlands	68 162	59 067	64 442	42 091	62 765
Spain	61 507	51 833	58 957	41 892	22 346
Bulgaria	133 037	130 726	129 095	138 188	...
Czechoslovakia (b)	2 000*	2 000*	2 000*	1 500*	500*
German Democratic Republic (b)	500*	1 600*	700*	200*	...
Norway	166	3 515	8 801	10 053	22 613
Romania (b)	200*	700*	200*	400*	...
Turkey	162 408	215 981	191 934	193 667	231 026
Yugoslavia	17 680	20 256	19 790	37 095	9 277
Algeria	4 000	—	2 500	1 000	...
Ivory Coast	500	1 057	931	...	...
Morocco	372 319	570 973	487 982	257 381	254 463
Tunisia	...	6 112	3 000	—	4 822
Canada	795	1 247	1 677	6 621	6 052
Mexico	160 621	54 043	34 675	29 792	65 939
Trinidad and Tobago	3 757	—	—	—	—
USA	20 743	1 398	5 414	12 502	14 005
Bolivia	556	1 073	1 365	239	1 445
Brazil	6 300	12 717	7 303	6 000	...
Chile	53 457	82 383	68 828	26 843	...
Peru	(b) 121 300*	43 291	(b) 78 900*	(b) 56 800*	(b) 14 500*
China	792 285	951 432	946 976	531 195	813 800
Hong Kong (c)	886	262	16	120	2 396
India (a)	120 580	347 317	374 927	...	...
Indonesia	5 807	762	3 591	—	1 716
Malaysia	8 802	10 250	8 155	...	7 171
Singapore	15 821	11 303	32 431	12 939	12 870
of which: Re-exports	15 095	6 423	11 975	11 485	10 878
Thailand	205 443	205 557	213 870	79 680	47 704
Australia	820	1 683	2 022	1 240	381

Notes

(1) 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 31 March following that stated

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

(c) Re-exports

Barytes

Imports of Barytes

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom	138 226	158 473	120 346	90 386	112 042
Belgium-Luxembourg	7 250	8 165	8 193	8 439	7 084
Denmark	23 726	11 096	1 914	14 556	17 379
France	18 543	30 855	43 660	35 552	34 620
Germany, Federal Republic of	141 022	209 420	221 614	198 558	188 872
Greece	3 420	40	2 590	5 175	1 234
Irish Republic	366	423	391	875	2 652
Italy	14 424	11 787	19 388	24 615	42 985
Netherlands	148 833	88 490	94 843	62 341	88 147
Portugal	1 335	564	1 282	1 466	1 428
Spain	514	392	259	1 237	7 243
Austria	9 278	11 325	5 034	9 067	3 112
Finland	1 613	1 419	1 721	1 769	1 883
Hungary	17 459	13 179	11 663	10 184	12 333
Norway	90 574	107 994	124 048	116 489	111 194
Poland	22 814	...	(b) 5 000*	(b) 5 500*	...
Romania (b)	56 100*	47 600*	45 100*	64 500*	...
Soviet Union (b)	127 100*	160 100*	175 000*	173 100*	148 800*
Sweden	4 991	5 321	5 606	6 858	6 489
Switzerland	1 393	1 294	1 348	885	985
Yugoslavia	150	380	270	2 365	327
Algeria	4	150	674	50	...
Cameroon	6 466	29 151	8 114	...	...
Gabon	6 552	936	8 125	2 716	...
Ivory Coast	2 411	6 604	6 952	...	...
South Africa	2 384	3 495	1 464	...	...
Tunisia	136	139	154	90	20
Canada	29 952	17 685	26 589	10 525	4 573
Mexico	90 251	34	14	110	72
Trinidad and Tobago	35 811	12 147	19 809	19 081	18 027
USA	1 267 645	1 611 351	1 929 663	695 778	544 000*
Argentina	708	1 043	1 403	259	...
Colombia	7 903	47	9 019	10 847	...
Venezuela	62 266	69 362	85 807	102 679	35 970
Abu Dhabi	38 318	5 566	27 522	6 367	12 983
Dubai	22 294	25 126	2 722	3 592	...
Hong Kong	1 252	378	227	425	3 060
Indonesia	74 316	60 457	67 536	57 959	15 364
Japan	46 568	41 681	50 356	30 962	68 996
Korea, Republic of	469	949	1 113	1 436	3 241
Malaysia	9 409	12 429	12 725	10 437	15 992
Philippines	341	44	1 247	43	2 257
Saudi Arabia	73 459	4 124	12 680	475	664
Singapore	21 554	11 428	18 116	14 382	12 766
Syria	3 918	2 979	8 525	3 072	...
Taiwan	2 867	7 914	4 131	6 636	1 586
Australia	1 166	1 282	1 770	2 306	1 181
New Zealand (a)	1 898	4 623	6 014	3 337	2 029

Notes

(1) 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	1983	1984	1985	1986	1987
United Kingdom					
Fuller's earth (a)	192 000	202 000	216 000	202 033	213 055
France					
Bentonite	3 088	12 200	14 900	10 000*	8 000*
Germany, Federal Republic of					
Bentonite	...	154 000	169 000	179 000	167 000
Fuller's earth	766 000	674 000	701 000	680 000	677 000
Greece					
Bentonite	688 941	778 722	1 054 234	1 317 825	1 250 000*
Italy					
Bentonite	296 816	308 823	299 272	305 622	313 094
Fuller's earth	20 500	30 000	30 400	30 960	30 660
Spain					
Bentonite	82 550	72 582	90 239	114 972	...
Attapulgite	41 654	43 907	59 697	67 820	...
Sepiolite	306 630	283 985	267 393	369 351	...
Hungary					
Bentonite	79 807	64 158	59 853	79 888	98 331
Poland					
Bentonite	71 300	75 500	85 200	94 200	88 600
Romania					
Bentonite	177 000*	180 000*	180 000*	185 000*	185 000*
Turkey					
Bentonite	21 916	21 970	42 040	62 367	85 548
Yugoslavia					
Bentonite	142 503	132 887	148 752	141 726	154 288
Algeria					
Bentonite	30 000*	24 500	25 000*	30 000*	30 000*
Fuller's earth	5 000*	3 500	3 500*	3 500*	3 500*
Egypt					
Bentonite	2 512	3 353	3 785	5 129	3 978
Morocco					
Bentonite	4 095	1 825	2 876	3 834	2 948
Fuller's earth (f)	27 385	34 358	24 425	35 100	46 271
Mozambique					
Bentonite	250	414	361	1 112	936
Senegal					
Attapulgite	98 950	115 498	88 017	77 108	111 048
South Africa					
Bentonite	39 529	41 849	43 472	48 265	48 953
Attapulgite	4 425	4 843	5 885	10 125	6 026
Fuller's earth	312	—	—	—	—
Canada					
Bentonite	67 500*	66 639	65 129	72 026	88 347
Guatemala					
Bentonite	5 885	680	2 727	3 836	26 600
Mexico					
Bentonite	226 140	267 348	267 695	136 478	150 000*
Fuller's earth	41 574	45 697	58 000	52 200	50 000*
USA					
Bentonite (c)	2 618 925	3 118 847	2 898 710	2 551 950	2 545 772
Fuller's earth (c)	1 734 205	1 722 876	1 868 149	1 732 703	1 865 890
Argentina					
Bentonite	135 569	125 703	147 065	146 191	108 595
Fuller's earth	6 741	3 611	1 743	2 000*	2 000*

Production of Bentonite and Fuller's Earth

tonnes

Country	1983	1984	1985	1986	1987
Brazil					
Bentonite	128 691	201 025	236 368	206 021	210 000 ^f
Peru					
Bentonite	15 110	12 971	2 017	33 080	30 000 ^f
Burma (d)					
Bentonite	812	710	851	406	...
Cyprus	31 950	32 400	52 000	55 000	79 600
India					
Bentonite	95 069	131 000	161 000	105 000	...
Fuller's earth	35 047	20 435	23 000	85 000	...
Iran					
Bentonite	14 000	35 000	27 000	27 000*	27 000 ^f
Israel					
Bentonite (e)	6 838	5 898	6 000*	6 000*	6 000 ^f
Japan					
Bentonite	440 923	415 974	461 530	408 864	415 806
Korea, Republic of					
Bentonite	13 700	14 400	13 200	16 800	...
Pakistan					
Bentonite	1 069	1 740	1 611	1 362	2 537
Fuller's earth	17 483	19 139	10 647	15 228	17 945
Philippines					
Bentonite	670	38 249	25 026	1 800	759
Australia					
Bentonite	30 026	39 172	29 070	39 933	30 392
Fuller's earth	15 000*	15 000*	15 000*	15 000*	15 000 ^f
New Zealand					
Bentonite	1 958	6 418	7 400	3 140	—
World total Bentonite	5 630 000	6 390 000	6 620 000	6 390 000	6 400 000
World total Fuller's earth (b)	3 310 000	3 220 000	3 370 000	3 380 000	3 560 000

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
- (2) Calcium bentonite can be converted to sodium bentonite by a sodium-exchange process
- (3) In some countries, such as the United Kingdom, calcium bentonite is known as fuller's earth, a term which is also used to refer to attapulgite, a mineralogically distinct clay mineral but exhibiting similar properties
- (4) In addition to the countries listed, Austria, Bulgaria, China, 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) Smectite

Exports of Bentonite and Fuller's Earth

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Bentonite	19 169	22 195	40 256	33 695	35 605
Fuller's earth	13 957	16 619	23 111	22 577	24 824
Belgium-Luxembourg					
Bentonite	6 192	1 488	2 041	280	86
Fuller's earth	953	659	482	661	82
France					
Bentonite	10 404	7 676	8 296	8 019	7 418
Fuller's earth	10 669	12 033	5 459	2 546	2 507
Germany, Federal Republic of					
Bentonite	31 488	33 552	34 444	33 063	31 097
Fuller's earth	6 361	3 348	4 854	5 301	5 093
Greece					
Bentonite	322 920	380 246	453 714	460 875	489 861
Italy					
Bentonite	40 982	38 144	28 063	20 780	24 155
Netherlands					
Bentonite	22 238	23 916	30 572	30 405	28 045
Fuller's earth	5 528	9 074	301	575	991
Spain					
Bentonite	32 346	24 236	29 045	33 258	36 914
Fuller's earth	2 646	2 670	2 817	3 336	2 702
Bulgaria					
Bentonite	97 306	101 153	86 757	113 005	...
Hungary					
Bentonite	16 382	12 920	10 338	11 423	10 875
Turkey					
Bentonite	...	7 051	29 325	42 199	...
Yugoslavia					
Bentonite	100	189	292	79	4 799
Morocco					
Fuller's earth (a)	20 737	38 640	32 720	30 495	44 485
Senegal					
Fuller's earth (b)	18 275	7 996	11 224	2 022	8 171
South Africa					
Bentonite	380	915	1 445	1 609	580
Mexico					
Bentonite	570	3 602	7 170	11 488	...
USA					
Bentonite	502 522	510 673	580 659	527 767	489 209
Fuller's earth	92 800	105 039	96 244	109 604	96 991
Argentina					
Bentonite	6 651	6 433	8 665	12 821	6 489
Colombia					
Bentonite	336	—	850	1 350	...

Exports of Bentonite and Fuller's Earth

tonnes

Country	1983	1984	1985	1986	1987
China					
Bentonite (c)	1 100*	1 100*	900*	900*	1 300*
Fuller's earth (c)	2 000*	1 200*	500*	600*	1 000*
India (d)					
Bentonite	21 079	69 237	21 344	...	...
Fuller's earth	199	306	150	...	...
Indonesia					
Bentonite	9 928	5 184	3 009	4 206	25 832
Kuwait					
Bentonite	1 254	3 393	...	...	...
Philippines	—	17 917	34 897	—	—
Singapore					
Bentonite	21 913	21 817	13 823	7 376	11 985
of which: Re-exports	19 710	19 524	11 463	7 376	11 985
Fuller's earth	11 813	7 923	6 335	2 105	960
of which: Re-exports	11 813	7 923	6 321	2 105	960
Taiwan					
Bentonite	36	45	10	257	20

Notes

(1) See notes 1-3 to production table

(2) The figures in this table refer to natural and sodium-exchanged bentonite, and fuller's earth, Standard International Trade Classification (Revision 2) 278.21

(3) Activated bentonite and fuller's earth, Standard International Trade Classification (Revision 2) 598.92(b) are excluded

(4) 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

(d) Years ended 31 March following that stated

Imports of Bentonite and Fuller's Earth

Country	1983	1984	1985	1986	1987
United Kingdom					
Bentonite	45 751	81 051	83 982	102 648	98 133
Fuller's earth	3 976	5 672	2 013	1 437	1 284
Belgium-Luxembourg					
Bentonite	24 828	19 873	20 166	20 007	19 893
Fuller's earth	7 979	9 470	1 520	1 173	800
Denmark					
Bentonite	3 726	3 234	2 669	4 779	5 608
Fuller's earth	983	981	1 129	749	540
France					
Bentonite	89 298	95 069	98 366	88 061	80 776
Fuller's earth	1 909	1 898	1 922	2 978	1 405
Germany, Federal Republic of					
Bentonite	82 442	82 612	114 610	116 903	119 114
Fuller's earth	5 649	4 593	6 905	9 769	10 809
Greece					
Bentonite	617	1 657	358	371	548
Italy					
Bentonite	39 530	48 559	20 731	31 615	39 228
Fuller's earth	1 961	2 718	3 065	2 575	2 143
Netherlands					
Bentonite	70 786	90 934	74 619	85 191	67 407
Fuller's earth	3 144	2 615	3 455	4 882	5 451
Portugal					
Bentonite	24 281	19 131	22 453	21 767	22 919
Fuller's earth	—	152	980	883	416
Spain					
Bentonite	24 206	28 484	30 413	27 460	28 692
Austria					
Bentonite	1 733	1 391	2 432	5 250	6 361
German Democratic Republic					
Bentonite (c)	14 600*	15 100*	12 300*	13 000*	11 700*
Fuller's earth (c)	900*	900*	700*	1 400*	1 700*
Norway					
Bentonite	31 374	38 128	40 600	33 683	28 446
Fuller's earth	278	412	4 131	10 286	12 022
Poland					
Bentonite (c)	16 400*	15 100*	16 900*	27 100*	24 700*
Sweden					
Bentonite	2 903	6 653	6 005	9 228	11 958
Algeria					
Bentonite (b)	37	14	436	1 019	...
Ivory Coast					
Bentonite	364	467	776	...	...
Morocco					
Bentonite	0	682	200	20	547
Senegal					
Bentonite	134	2 104	336	710	1 684
Tunisia					
Bentonite	...	4 844	3 032	4 891	563
Zimbabwe					
Fuller's earth	715	162	(b) 2 896	(b) 2 748	(b) 1 413
Canada					
Bentonite	187 228	337 048	346 013	326 024	318 071
Fuller's earth	536	4 152	4 970	5 438	10 787
Mexico					
Bentonite	406	496	685	973	...
USA					
Bentonite	693	5 322	7 352	2 509	3 664
Fuller's earth	—	7	3 461	75	239
Brazil					
Bentonite	10 279	14 098	12 774	21 185	...
Chile					
Bentonite (c)	7 300*	3 600*	1 000*	3 900*	3 500*
Colombia					
Bentonite	2 325	6 736	15 071	3 700	...

Imports of Bentonite and Fuller's Earth

tonnes

Country	1983	1984	1985	1986	1987
Peru					
Bentonite	762	1 041	893	806	915
Uruguay					
Bentonite	164	108	142	199	417
Venezuela					
Bentonite	20 662	16 332	13 505	25 340	10 897
Indonesia					
Bentonite	24 185	25 542	28 189	23 005	2 157
Fuller's earth	3 867	961	918	529	18
Korea, Republic of					
Bentonite	2 860	3 816	5 062	5 414	3 749
Kuwait					
Bentonite	15 263	30 709	...	...	...
Malaysia					
Bentonite	7 507	20 797	50 833	83 798	56 192
Fuller's earth	12 298	5 474	1 814	803	2 145
Pakistan (a)	901	1 045	283	7 486	1 522
Philippines	4 382	2 048	3 374	1 883	2 322
Singapore					
Bentonite	51 043	35 468	30 132	36 360	9 431
Fuller's earth	11 640	12 531	9 946	5 301	1 467
Taiwan					
Bentonite	9 396	14 040	16 623	18 624	20 051
Thailand					
Bentonite	2 014	4 212	2 914	3 243	5 369
Australia					
Bentonite	17 767	24 419	30 531	24 942	8 654

Notes

(1) See notes 1-3 to production table

(2) The figures in this table refer to natural and sodium-exchanged bentonite, and fuller's earth, Standard International Trade Classification (Revision 2) 278.21

(3) Activated bentonite and fuller's earth, Standard International Trade Classification (Revision 2) 598.92(b) are excluded

(4) 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	1983	1984	1985	1986	1987
France	97	79	70	95	...
Italy	22	26	54	66	44
Romania	80*	80*	80*	80*	75*
Soviet Union	80*	80*	84*	84*	85*
Yugoslavia	45	30	68	21	73
Canada (a)	253	166	201	153	165
Mexico	545	433	925	749	1 012
USA	400*	400*	400*	400*	400*
Bolivia	6	3	159	43	1
Peru (a)	678	650	785	605	413
China	260*	260*	260*	260*	260*
Japan	570	560	640	635*	546
Korea, Republic of	100	126	135	136	145
Australia	700*	700*	700*	700*	700*
World total	3 800	3 600	4 600	4 000	4 000

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

(2) Production for some countries may include bismuth produced from imported ores but it is thought that any resulting duplication is insignificant in the countries shown

(3) In addition to the countries listed, Belgium, Brazil, Bulgaria, German Democratic Republic and Namibia are also believed to produce bismuth

(a) Including Bi content of bullion and concentrates exported

Bismuth

Exports of Bismuth

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Metal	353	418	(a) 370 *	(a) 310*	(a) 460*
France					
Compounds	50	41	62	43	35
Metal	13	12	11	1	39
Germany, Federal Republic of					
Compounds	97	60	39	45	81
Metal	82	427	251	77	146
Italy					
Metal	6	23	40	25	80
Netherlands					
Metal	74	28	12	27	17
Mexico					
Metal	677	496	495	665	1 993
USA					
Metal	139	177	226	45	38
Peru					
Metal	(a) 460*	(a) 310*	326	483	1 002
Japan					
Metal	249	158	230	257	55
Korea, Republic of					
Metal	92	136	139	178	152

Notes

(1) The compounds recorded in this table are bismuth carbonate and/or bismuth nitrate

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

Imports of Bismuth

Country	1983	1984	1985	1986	1987
United Kingdom					
Metal	337	503	402	370	550
France					
Compounds	25	1	1	0	3
Metal	274	232	207	304	327
Germany, Federal Republic of					
Compounds	10	4	9	6	14
Metal	418	350	385	434	688
Italy					
Compounds	58	65	18	18	10
Metal	40	69	88	111	61
Netherlands					
Compounds	3	2	48	1	—
Metal	25	34	46	21	25
Spain					
Metal	90	103	59	82	83
Turkey					
Compounds	...	4	4	4	...
Yugoslavia					
Compounds	...	4	2	4	8
Metal	...	5	18	4	—
Mexico					
Metal	80	632	134	...	...
USA					
Metal	921	980	928	1 228	1 693
Argentina					
Metal	20	25	15	31	...
Brazil					
Compounds (a)	9	4	9	16	...
Metal	46	101	35	72	72
Australia					
Metal	7	14	6	9	16

Notes

(1) The compounds recorded in this table are bismuth carbonate and/or bismuth nitrate

(a) Also includes oxide and chloride

Bromine

Production of Bromine

kilograms

Country	1983	1984	1985	1986	1987
United Kingdom	25 766 000	28 532 000	29 851 000	26 000 000	26 184 000
France	16 000 000*	17 500 000*	20 000 000*	19 000 000*	18 600 000*
Germany, Federal Republic of	3 136 000	3 306 000	3 077 000	2 500 000*	2 500 000*
Italy	500 000*	500 000*	600 000*	450 000*	500 000*
Spain	330 000*	300 000*	350 000*	280 000*	300 000*
Soviet Union	68 000 000*	70 000 000*	70 000 000*	65 000 000*	65 000 000*
USA (a)	168 000 000	175 000 000	145 000 000	141 000 000	152 000 000
India	544 000	246 000	1 089 300	1 229 400	1 181 600
Israel	70 000 000*	90 700 000*	100 000 000*	105 000 000*	105 000 000*
Japan	12 000 000*	12 000 000*	12 000 000*	15 000 000*	15 000 000*
World total	364 300 000	398 100 000	382 000 000	375 500 000	386 300 000

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

Exports of Bromine

kilograms

Country	1983	1984	1985	1986	1987
United Kingdom	1 917 710	2 017 764	1 970 929	2 307 258	2 556 122
Belgium-Luxembourg	2 100	5 000	—	5 000	17 800
Germany, Federal Republic of	12 600	28 300	6 200	3 200	219 200
Italy	9 746	17 947	72 900	86 056	4 900
Netherlands	1 035 000	1 340 000	2 030 000	616 000	686 000
German Democratic Republic (a)	587 000*	718 000*	1 358 000*	1 491 000*	1 826 000*
USA	2 040 000	30 935 000	2 836 000	8 119 000	3 348 000
Israel (a)	17 400 000*	23 800 000*	27 700 000*	25 000 000*	29 200 000*

Notes

(1) 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

Bromine
kilograms

Country	1983	1984	1985	1986	1987
United Kingdom	5 169 751	6 169 089	9 275 204	8 453 307	8 968 048
Belgium-Luxembourg	910 700	1 653 200	1 280 900	1 660 500	1 842 700
Denmark	51 800	74 100	130 000	76 500	104 500
France	4 479 000	5 173 000	6 782 500	4 800 000	5 799 500
Germany, Federal Republic of	4 307 400	5 865 200	7 443 600	7 026 100	6 959 700
Italy	1 273 481	1 736 768	1 614 300	2 612 707	2 140 000
Netherlands	4 053 000	6 933 000	8 007 000	7 627 000	8 267 000
Portugal	300	600	700	0	...
Spain	512 000	284 000	165 000	45 000	59 000
Hungary	597 000	630 000	649 000	655 000	843 000
Turkey	...	353	187	230	...
Yugoslavia	7 000	9 000	2 000	1 000	2 000
Algeria	143	419	8	35	...
Morocco	84	18	276	6	...
South Africa	15 900	18 200	72 700	...	...
USA	104	4 100	5 003	154 926	248 000
Argentina	14 285	8 000	20 000	19 000	...
Brazil	11 670	19 842	14 479	13 000	...
Colombia	110	848	219	626	...
Peru	503	546	200	549	92
Venezuela	...	...	4 481	2 443	5 775
India (a)	...	...	504 675	...	...
Korea, Republic of	162 356	319 040	356 117	228 360	162 856
Pakistan (b)	4 638	15 266	7 133	11 088	2 016
Taiwan	44 968	56 621	14 428	121	796

Notes

(1) 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

(b) Years ended 30 June of that stated

Cadmium



Figure 3 World production of cadmium from 1950 to 1987 compared with the annual average producer price expressed in constant 1980 US dollars.
Constant commodity prices have been derived from Metals Week, as quoted in Metallstatistik (published by Metallgesellschaft, 1988), using the CPI for the USA published in International Financial Statistics Yearbook (1988).

Production of Cadmium

Country	1983	1984	1985	1986	1987
United Kingdom	340	390	370	379	498
Belgium	1 264	1 472	1 252	1 380	1 308
France	513	563	337	431	457
Germany, Federal Republic of	1 094	1 110	1 095	1 218	1 125
Italy	386	520	360	300	320
Netherlands	513	636	594	557	517
Spain	278	290	268	247	297
Austria	46	49	52	52	26
Bulgaria	180*	175*	175*	170*	160*
Finland	616	614	565	522	690
German Democratic Republic	15*	15*	15*	18*	18*
Norway	117	150	150	154	147
Poland	600*	600*	610*	500	500
Romania	60*	60*	55*	55*	50*
Soviet Union	2 750*	2 750*	2 750*	2 700*	2 600*
Turkey	10*	31*	32*	6*	11*
Yugoslavia	48	270	279	259	284
Algeria	32	80	128	124	102
Namibia (a)	51	40	59	61	51
Zaire	308	318	295	364	299
Canada (b)	1 296	1 757	1 696	1 552	1 581
Mexico	847	838	905	1 016	1 135
USA (b)	1 052	1 686	1 603	1 486	1 515
Argentina	21	46	46	47	53
Brazil	189	224	224	233	214
Peru	443	384	427	385	351
China	380*	450*	540*	650*	680*
India	133	143	194	160	214
Japan	2 215	2 400	2 555	2 542	2 374
Korea, Dem. P.R. of	220*	260*	350*	360*	380*
Korea, Republic of	460*	410*	450*	455*	600*
Australia	1 121	1 082	910	909	950
World total	17 600	19 800	19 300	19 300	19 500

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

(b) Including cadmium sponge and/or secondary metal

Cadmium

Exports of Cadmium

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Metal	194	136	104	85	62
Belgium-Luxembourg					
Metal	556	727	804	633	583
Sulphide	44	48	55	60	86
France					
Metal	344	490	275	411	316
Germany, Federal Republic of					
Metal (a)	633	405	296	439	991
Oxide	20	51	38	15	23
Italy	504	147	322	224	221
Netherlands	782	714	615	541	842
Spain	232	184	209	230	230
Austria	51	43	45	55	40
Bulgaria (b)	30*	60*	50*	40*	40*
Finland	536	620	569	567	609
Norway	106	137	143	162	135
Soviet Union	450*	400*	400*	400*	400*
Sweden	58	15	15	46	—
Yugoslavia	25	38	55	23	81
Namibia	51	40	59	61	...
Zaire	333	308	224	...	...
Canada	1 365	1 388	1 477	1 383	1 157
Mexico	278	373	503	545	782
USA	173	135	160	38	270
Peru (b)	300*	220*	100*	150*	100*
China (b)	400*	100*	100*	300*	300*
Japan	910	446	382	452	201
Korea, Republic of					
Metal	397	393	145	104	163
Oxide	—	159	179	465	292
Australia	943	899	670	682	2 343

(a) Including rhenium

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

Imports of Cadmium

Country	1983	1984	1985	1986	1987
United Kingdom	1 100*	820*	878	1 095	1 093
Belgium-Luxembourg					
Metal	1 663	1 189	1 174	1 509	1 586
Sulphide	17	29	27	6	18
Denmark	2	3	3	1	1
France					
Metal	744	921	892	888	1 136
Sulphide	51	61	42	39	58
Germany, Federal Republic of					
Metal	829	757	546	531	511
Oxide	635	571	532	556	660
Sulphide	17	9	9	6	14
Italy					
Metal	135	107	54	105	90
Sulphide	4	8	6	6	3
Netherlands					
Metal	286	112	129	53	115
Sulphide	27	4	2	4	3
Spain	1	31	49	92	87
Austria	3	5	1	2	0
Czechoslovakia	201	303	164	170	146
German Democratic Republic (a)	220*	140*	110*	180*	130*
Soviet Union (a)	300*	300*	300*	100*	100*
Sweden	218	241	260	201	122
USA	2 191	1 898	1 988	3 174	2 701
Brazil					
Metal	157	16	1	3	208
Oxide	94	39	76	121	155
India (b)	...	...	64	...	...

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

(b) Years ended 31 March following that stated

Production of Chromium Ores and Concentrates

tonnes

Country	1983	1984	1985	1986	1987
Greece	20 517	50 364	58 948	60 053	63 500*
Albania	685 000*	720 000*	825 000*	850 000*	830 000*
Finland (b)	245 000	446 400	506 200	612 900	594 100
Soviet Union	2 940 000*	2 940 000*	2 940 000*	3 000 000*	3 000 000*
Turkey (a)	345 610	487 405	588 576	617 652	630 000*
Madagascar	42 920	59 765	126 697	89 300	106 773
South Africa	2 493 724	3 407 151	3 698 679	3 907 473	3 784 402
Sudan	18 557	25 000	16 000	18 000	10 000
Zimbabwe	431 400	476 400	526 500	553 106	570 298
Cuba	33 600	37 900	37 700	50 000	60 000*
Brazil (a)	155 022	255 914	189 504	200 000*	230 000*
India	365 366	441 704	567 056	629 671	623 591
Iran	48 000	59 000	56 000	56 000*	56 000*
Japan	8 396	7 420	11 920	10 642	11 815
Pakistan	4 992	2 745	5 188	8 299	10 181
Philippines (b)	266 909	260 889	272 031	202 214	187 900
Vietnam	16 000*	16 000*	15 000*	15 000*	15 000*
New Caledonia	86 712	87 794	78 820	72 207	61 832
World total	8 200 000	9 800 000	10 500 000	10 950 000	10 800 000

Notes

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

- (a) Including beneficiated and direct shipping ore
(b) Including foundry sand and/or lumpy ore

Exports of Chromium

Country	1983	1984	1985	1986	1987
United Kingdom					
Ores & concentrates	112	27	171	405	217
Metal	3 038	3 889	4 071	3 828	3 733
Belgium-Luxembourg					
Ores & concentrates	8	51	36	0	85
Metal	65	111	301	121	123
France					
Ores & concentrates	1 316	1 069	3 124	951	1 367
Metal	740	1 630	1 615	1 797	1 657
Germany, Federal Republic of					
Ores & concentrates	8 694	8 877	8 909	12 061	11 392
Metal	106	252	197	132	143
Greece					
Ores & concentrates	12 030	8 625	8 830	10 964	8 088
Italy					
Ores & concentrates	680	678	1 544	3 710	2 053
Metal	30	45	139	211	307
Netherlands					
Ores & concentrates	18 603	21 377	27 379	30 070	28 005
Metal	58	117	2	75	6
Albania					
Ores & concentrates (b)	715 000*	787 000*	587 000*	467 000*	412 000*
Austria					
Ores & concentrates	622	349	953	555	—
Finland					
Ores & concentrates	133 952	273 069	177 153	161 387	144 017
Soviet Union					
Ores & concentrates	496 000	442 000	471 000	474 000	521 000
Turkey					
Ores & concentrates	362 668	439 680	478 069	451 384	569 733
Yugoslavia					
Ores & concentrates	12 454	25 848	13 150	7 919	10 589
Madagascar					
Ores & concentrates	66 000*	107 548	115 000*	130 244	83 842
South Africa					
Ores & concentrates	1 244 982	1 096 856	1 739 336	1 133 625	1 442 747
Sudan					
Ores & concentrates	12 000	5 250	2 500	24 000	...
Cuba					
Ores & concentrates	28 897	41 212	41 607	37 826	...
USA					
Ores & concentrates	14 145	53 327	94 788	84 820	5 982
of which: Re-exports	4 137	3 497	3 335	1 322	4 837
Metal	243	243	202	293	379
China					
Ores & concentrates (b)	3 300*	...	...	...	3 000*
Metal (b)	500*	1 100*	500*	1 100*	1 300*
Cyprus					
Ores & concentrates	11 071	—	—	—	—
India (c)					
Ores & concentrates	103 386	238 387	229 729	...	...
Iran (a)					
Ores & concentrates	4 200	2 500	(b) 2 300*	...	...
Japan					
Ores & concentrates	852	718	756	283	309
Philippines					
Ores & concentrates	146 826	244 028	159 435	130 164	105 676
New Caledonia					
Ores & concentrates	80 570	96 657	86 156	61 104	71 164

Notes

(1) 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

(c) Years ended 31 March following that stated

Chromium

Imports of Chromium

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Ores & concentrates	100 475	129 786	137 675	138 572	124 318
Metal	162	185	357	367	504
Belgium-Luxembourg					
Ores & concentrates	3 848	4 223	5 231	3 846	2 581
Metal	284	233	457	536	406
Denmark					
Ores & concentrates	1 532	1 463	1 323	1 473	667
France					
Ores & concentrates	54 509	57 596	25 093	24 610	24 771
Metal	276	290	196	232	253
Germany, Federal Republic of					
Ores & concentrates	247 187	337 907	384 473	275 307	258 912
Metal	921	1 295	1 461	180	1 144
Greece					
Ores & concentrates	18 720	26 815	35 980	65 152	27 354
Irish Republic					
Ores & concentrates	3 275	3 803	11	29	3 010
Italy					
Ores & concentrates	192 212	220 529	229 118	152 169	218 974
Metal	122	244	193	197	223
Netherlands					
Ores & concentrates	20 554	23 802	40 239	38 247	17 229
Metal	132	414	120	67	82
Portugal					
Ores & concentrates	753	859	1 281	1 098	779
Spain					
Ores & concentrates	51 198	114 162	79 042	92 194	76 902
Austria					
Ores & concentrates	40 390	56 814	46 607	47 867	39 282
Czechoslovakia					
Ores & concentrates	185 000	176 000	174 000	188 000	188 000
German Democratic Republic					
Ores & concentrates (b)	51 900	39 800	52 300	49 600	41 000
Hungary					
Ores & concentrates (c)	17 000	17 000	15 000	15 000	13 000
Norway					
Ores & concentrates	8 800	538	110	520	760
Poland					
Ores & concentrates	169 249	150 993	151 093	145 790	190 731
Romania					
Ores & concentrates	(a) 62 400*	(a) 42 300*	101 400	(a) 47 400*	(a) 70 500*
Sweden					
Ores & concentrates	341 154	553 733	376 575	377 786	314 495
Metal	187	282	248	321	216
Yugoslavia					
Ores & concentrates	202 819	273 679	281 066	286 965	225 856
Canada					
Ores & concentrates (b)	12 577	18 836	16 550	23 348	19 797
Mexico					
Ores & concentrates	32 868	52 714	52 711	...	...
USA					
Ores & concentrates	172 990	276 310	375 958	444 753	491 267
Metal	2 707	4 254	3 587	4 069	3 957
Argentina					
Ores & concentrates	14 103	15 862	18 281	15 572	...
Brazil					
Ores & concentrates	5 897	20 674	14 685	10 756	14 380
Chile					
Ores & concentrates	...	6 077	4 506	4 490	...
Peru					
Ores & concentrates	129	1 720	3 427	4 144	2 658
Venezuela					
Ores & concentrates	3 914	11 914	11 307	7 041	20 149

Imports of Chromium

Country	1983	1984	1985	1986	1987
China					
Ores & concentrates	307 479	280 687	364 719	385 156	230 375
Japan					
Ores & concentrates	644 895	823 394	987 240	670 625	674 743
Korea, Dem. P.R. of					
Ores & concentrates (a)	14 000*	17 000*	16 000*	25 000*	24 000*
Korea, Republic of					
Ores & concentrates	3 853	5 027	3 875	3 274	41 147
Philippines					
Ores & concentrates	3 859	24 410	29 947	17	12 000
Taiwan					
Ores & concentrates	1 751	3 514	10 726	19 048	20 899
Thailand					
Ores & concentrates	108	78	1 400	2 755	174
Australia					
Ores & concentrates	970	7 250	3 353	8 523	1 369

Notes

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

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

(b) Cr₂O₃ content

(c) Exports from Soviet Union

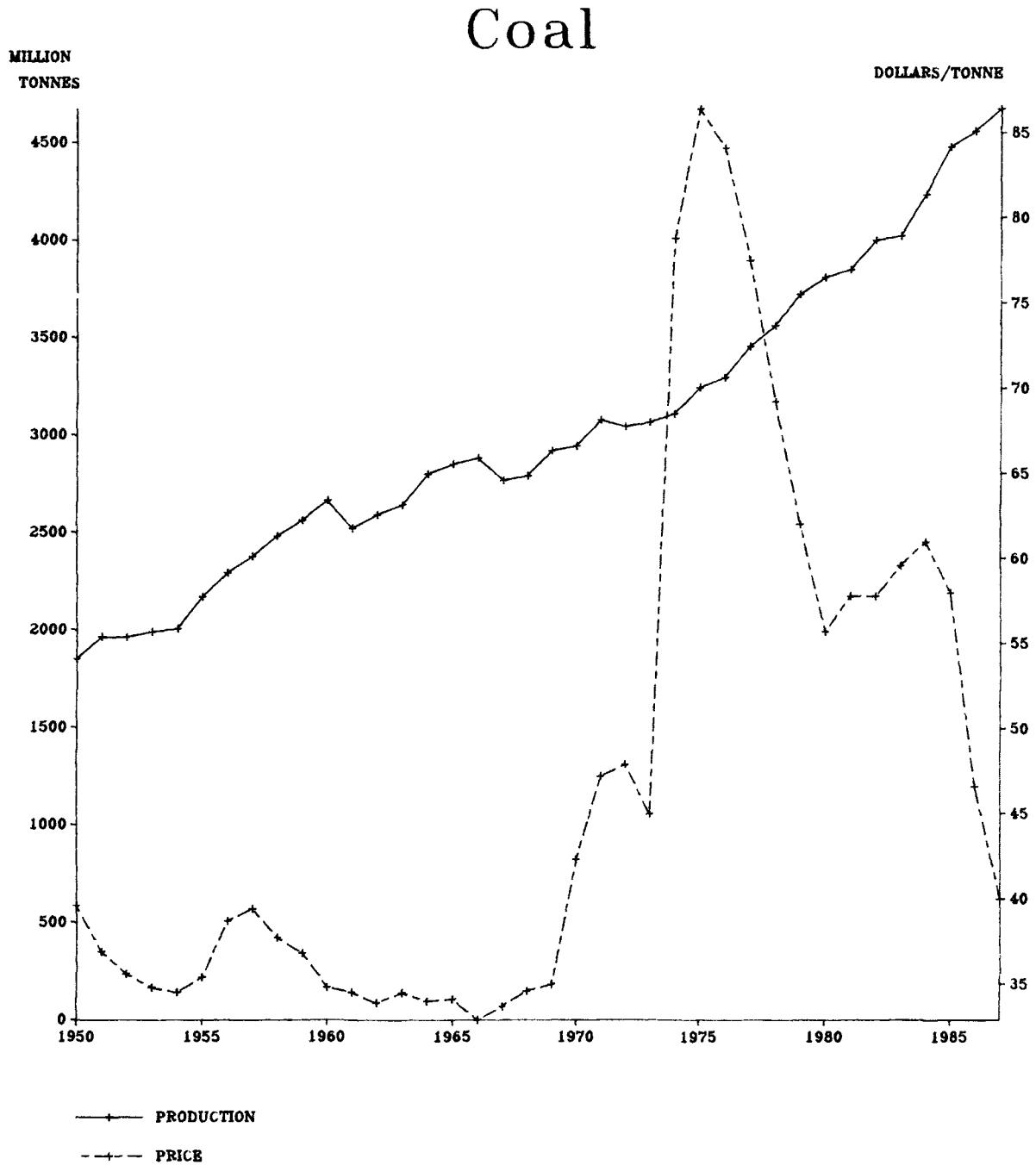


Figure 4 World production of coal from 1950 to 1987 compared with the yearly average export unit value of bituminous coal f.o.b. US ports expressed in constant 1980 US dollars. Trend-line analysis of the production data indicates a growth rate of approximately 2% per annum over 37 years. Constant commodity prices (to 1986) taken from Commodity Trade and Price Trends published by the Johns Hopkins University Press for the World Bank.

Production of Coal

Country	1983	1984	1985	1986	1987
United Kingdom					
Anthracite	2 016 000	1 217 000	2 142 000	1 985 000	2 091 000
Bituminous	117 238 000	49 965 000	91 905 000	106 107 000	102 344 000
Belgium					
Anthracite	187 500	102 250	—	—	—
Bituminous	5 909 928	6 195 313	6 211 471	5 589 208	4 356 000
France					
Anthracite & bituminous	17 021 000	16 594 000	15 124 000	14 394 000	13 488 000
Lignite	2 605 000	2 426 000	1 839 000	2 142 000	2 083 000
Germany, Federal Republic of					
Anthracite & bituminous	82 202 000	79 426 000	82 398 000	80 801 000	76 300 000
Brown coal	124 281 000	126 739 000	120 667 000	114 310 000	108 799 000
Greece					
Lignite	30 705 519	32 467 048	35 875 089	37 000 000	43 100 000
Irish Republic					
Anthracite & semi-bituminous	74 800	70 000	56 700	53 500	45 200
Italy					
Lignite	1 736 643	1 806 103	1 892 436	1 541 218	1 641 745
Portugal					
Anthracite	185 228	194 856	238 414	209 501	260 563
Spain					
Anthracite	5 645 000	5 678 000	5 810 392	5 609 873	5 442 500
Bituminous	10 231 000	9 995 000	10 280 905	10 285 924	9 030 800
Lignite	24 533 916	24 302 928	23 571 958	22 424 718	20 479 900
Albania					
Brown coal & lignite	1 779 000*	2 010 000	2 195 000*	2 200 000*	...
Austria					
Brown coal & lignite	3 041 260	2 927 939	3 081 086	2 968 978	2 785 616
Bulgaria					
Anthracite & bituminous	243 000	223 000	223 000	207 000	205 000
Brown coal & lignite	32 147 000	32 136 000	30 657 000	35 015 000	36 575 000
Czechoslovakia					
Bituminous	26 915 000	26 421 000	26 223 000	25 658 000	25 736 000
Lignite	3 538 000	3 659 000	3 682 000	3 607 000	3 639 000
Brown coal	98 878 000	101 084 000	98 634 000	99 131 000	98 347 000
German Democratic Republic					
Brown coal	277 968 000	296 341 000	312 156 000	311 260 000	308 976 000
Hungary					
Bituminous	2 826 780	2 573 382	2 639 103	2 324 722	2 360 056
Lignite	7 980 067	8 026 000	7 387 123	6 982 645	7 223 032
Brown coal	14 406 136	14 448 203	14 016 288	13 821 330	13 261 262
Norway					
Spitzbergen (d)					
Bituminous	502 000	451 327	507 000	437 089	448 385
Poland					
Bituminous	191 092 000	191 592 000	191 642 000	192 080 000	193 012 000
Brown coal	42 532 000	50 378 000	57 746 000	67 259 000	73 194 000
Romania					
Anthracite & bituminous	10 629 000	10 653 000	10 472 000	11 174 000	...
Lignite	37 357 000	36 319 000	38 513 000	39 400 000	(h) 37 000 000*
Brown coal	773 000	827 000	834 000	858 000	...
Soviet Union					
Anthracite & bituminous	557 800 000	556 500 000	569 000 000	588 000 000	595 000 000*
Lignite	158 300 000	155 800 000	157 000 000	163 000 000	165 000 000*
Turkey					
Bituminous	6 725 000	7 103 413	7 260 013	7 015 292	7 714 298
Lignite	23 847 360	27 199 347	39 437 271	45 469 889	46 155 121
Yugoslavia					
Bituminous	391 607	388 926	400 321	407 203	379 000
Lignite	47 697 002	53 293 000	56 635 336	56 359 304	59 359 000
Brown coal	11 302 692	11 391 663	12 460 541	13 098 668	12 135 000
Botswana	395 087	392 854	437 088	499 423	579 409
Morocco					
Anthracite	751 000	837 500	774 500	775 000	634 200
Mozambique					
Bituminous	58 713	66 855	20 400	3 895	43 319

Coal

Production of Coal

tonnes

Country	1983	1984	1985	1986	1987
Niger	153 603	123 644	150 635	148 111	164 313
Nigeria					
Sub-bituminous	53 574	76 077	139 744	144 411	117 917
South Africa					
Anthracite	2 227 308	3 228 093	4 909 923	4 989 799	5 251 945
Bituminous	143 386 758	159 714 634	168 605 954	171 729 605	171 465 479
Swaziland					
Bituminous	101 652	124 569	166 079	172 199	165 371
Tanzania					
Bituminous	10 000	2 200	6 600	5 164	2 866
Zaire					
Bituminous	111 340	121 213	120 582	119 274	...
Zambia					
Bituminous	452 867	510 584	471 114	557 099	463 072
Zimbabwe					
Bituminous	3 326 000	3 109 000	3 114 000	4 047 000	4 831 000
Canada					
Bituminous	22 556 000	32 062 000	34 195 000	30 538 000	31 690 000
Sub-bituminous	14 464 000	15 422 000	16 871 000	18 225 000	18 190 000
Lignite	7 760 000	9 918 000	9 672 000	8 281 000	9 910 000
Mexico					
Bituminous	8 999 467	9 387 822	9 770 751	10 158 000	...
USA					
Anthracite	3 700 000	3 800 000	4 300 000	3 900 000	...
Bituminous & lignite	705 800 000	809 000 000	797 300 000	803 800 000	(g) 831 800 000*
Argentina					
Bituminous	490 960	509 151	400 232	370 000	380 855
Brazil					
Bituminous & lignite (e)	6 935 478	7 751 732	7 934 784	7 554 000	7 000 000*
Chile					
Bituminous	1 077 831	1 306 785	1 369 763	1 441 016	1 736 152
Colombia					
Bituminous	5 053 200	6 637 000	9 706 000	10 215 000	14 800 000
Peru					
Anthracite	120 000	84 000	80 000	90 000	...
Venezuela					
Bituminous	39 174	50 870	40 379	56 290	62 000
Afghanistan (c)					
Bituminous	165 000*	170 000*	180 000*	190 000*	...
Burma (b)	35 969	43 200*	43 800	46 000	...
China	715 000 000	789 000 000	872 000 000	870 000 000	920 000 000
India					
Bituminous	134 782 000	143 873 000	149 712 000	162 647 000	177 220 000
Lignite	7 310 000	7 681 000	7 849 000	7 991 000	8 311 000
Indonesia					
Anthracite & bituminous	648 241	1 468 154	1 942 135	2 572 340	1 886 974
Iran (c)					
Bituminous	1 026 000	1 241 000	1 252 000	1 262 000	1 100 000*
Japan					
Anthracite & bituminous	16 991 244	16 699 103	16 339 028	16 012 870	13 034 465
Lignite	10 960	8 605	15 491	12 947	12 154
Korea, Dem. P.R. of					
Anthracite	36 500 000*	44 000 000*	55 000 000*	55 000 000*	55 000 000*
Lignite	10 500 000*	12 500 000*	15 000 000*	15 000 000*	14 500 000*
Korea, Republic of					
Anthracite	19 860 800	21 370 300	24 542 700	24 252 700	24 273 100
Mongolia					
Anthracite	408 000	458 000	480 000	500 000	...
Lignite	4 566 000	4 973 000	6 038 000	6 200 000	...

Production of Coal

Country	1983	1984	1985	1986	1987
Pakistan (a)	1 747 000	2 134 916	2 197 853	2 047 142	2 418 875
Philippines					
Bituminous	1 019 594	1 216 388	1 258 872	1 235 503	1 152 342
Taiwan					
Bituminous	2 236 065	2 010 775	1 857 858	1 725 024	1 499 240
Thailand					
Lignite	1 866 083	2 337 226	5 146 150	5 542 247	6 929 212
Vietnam					
Anthracite	6 235 000	4 900 000	5 432 000	6 000 000*	6 100 000*
Australia					
Bituminous	99 828 000	116 018 000	(f) 158 256 000	(f) 170 067 000	(f) 178 399 000
Sub-bituminous	8 998 000	8 288 000	...	...	...
Brown coal	34 191 000	35 166 000	36 985 000	37 604 000	44 877 000
New Zealand					
Bituminous	496 400	582 400	650 500	678 800	(a) (f) 2 401 956
Sub-bituminous	1 752 200	1 709 100	1 668 800	1 767 200	...
Lignite	235 000	235 100	228 500	194 700	...
World total	4 018 000 000	4 231 000 000	4 475 000 000	4 557 000 000	4 656 000 000

Notes

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

(a) Including lignite

(b) Years ended 31 March following that stated

(c) Years ended 20 March following that stated

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

(e) Including beneficiated and directly shipped material

(f) Including sub-bituminous

(g) Including anthracite

(h) Including anthracite, bituminous and brown coal

Coal

Exports of Coal

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Anthracite	517 120	203 240	213 894	352 197	200 905
Other coal	5 822 496	2 237 167	2 343 979	2 396 213	2 140 982
Briquettes	124 555	73 440	98 812	154 710	114 018
Belgium-Luxembourg					
Anthracite	78 985	119 541	69 771	85 903	112 601
Other coal	721 856	1 098 769	1 393 706	1 170 047	836 194
Lignite	258	4 108	17 684	23 137	1 907
Briquettes	17 000	83 967	46 478	13 506	13 900
Denmark					
Coal	3 091	76 750	71 183	53 346	52 004
of which: Re-exports	3 091	76 747	71 155	53 275	50 499
France					
Anthracite	120 732	170 756	82 387	60 545	33 038
Other coal	601 240	721 378	958 307	643 339	718 672
Lignite	3 397	2 409	1 748	2 166	1 574
Briquettes	25 704	49 049	63 923	33 436	90 805
Germany, Federal Republic of					
Coal (b)	10 581 581	10 489 141	8 957 013	7 190 136	6 295 396
Brown coal	214 979	307 022	455 917	441 676	426 669
Briquettes	854 965	1 179 654	1 286 379	952 547	791 281
Irish Republic (b)	4 866	25 196	16 637	12 360	50 122
Italy (b)	5 234	11 703	40 437	5 588	15 587
Netherlands					
Anthracite	185 777	169 639	322 113	215 300	291 512
Other coal	648 451	1 095 189	1 463 254	2 165 804	1 746 868
Briquettes	2 206	3 482	6 562	4 754	2 545
Spain					
Coal (b)	3 773	1 710	4 975	64	75
Briquettes	1 184	1 722	0	1	30
Austria					
Brown coal	9 422	8 180	8 493	5 301	4 295
Czechoslovakia					
Coal	2 928 000	2 672 000	2 676 000	2 539 000	1 999 000
Brown coal	2 679 000	2 644 000	2 832 000	2 814 000	2 281 000
German Democratic Republic					
Briquettes	3 285 000	3 971 000	3 313 000	3 485 000	3 088 000
Hungary					
Brown coal	22 712	17 222	293 978	—	—
Norway	127 492	187 835	235 498	122 726	203 239
Poland					
Coal	35 148 000	42 918 000	36 155 000	34 315 000	30 971 000
Brown coal	200 000	200 000	201 000	1 000	—
Soviet Union					
Coal (c)	20 980 000*	22 674 000*	25 870 000*	29 721 000*	30 188 000*
Brown coal (c)	96 400*	124 100*	141 000*	144 700*	145 800*
Sweden (b)	1 456	22 958	112 014	58 400	104 255
Turkey					
Coal	—	—	2 000	—	—
Lignite	30 000*	1 365	—	1 900	3 350
Yugoslavia					
Lignite	164 371	151 656	243 692	129 763	5 295
Brown coal	231 260	67 434	260 602	279 909	61 927
Morocco					
Anthracite	40 200	65 940	62 433	49 534	20 070
Mozambique	17 300	15 100	26	1 666	...
South Africa					
Anthracite	1 564 416	2 769 760	3 875 564	4 405 577	3 428 881
Other coal	28 566 816	35 390 764	41 033 738	41 080 626	39 156 156
Swaziland	76 161	83 376	101 057	153 664	157 108
Zimbabwe	113 761	174 776	118 844	64 645	57 651
Canada	16 974 376	24 354 988	27 572 325	25 899 685	25 466 258
USA					
Anthracite	720 428	617 249	1 166 752	1 324 594	1 071 346
Other coal	69 750 160	73 294 538	82 881 376	76 219 485	70 439 178
Lignite	114 490	8 087	29 739	37 262	32 771
Briquettes	98 210	101 105	77 182	64 056	88 093

Exports of Coal

Coal
tonnes

Country	1983	1984	1985	1986	1987
Colombia	277 527	720 242	3 129 634	5 083 566	...
China	6 860 000	7 040 000	7 770 000	9 820 000	13 510 000
India (a)	54 984	99 824	190 262	250 000*	...
Indonesia					
Anthracite	251 810	136 420	115 876	57 041	60 530
Other coal	172 648	745 924	964 862	942 405	832 056
Japan	15 274	13 621	4 242	1 167	1 281
Korea, Dem. P. R. of (c)	30 300*	92 600*	387 200*	405 800*	288 600*
Australia	60 504 000	75 856 000	87 902 000	92 022 000	101 979 000
New Zealand (d)	204 452	279 998	392 799	368 972	318 879

Notes

(1) This table excludes bunker shipments

(a) Years ended 31 March following that stated

(b) Including anthracite

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

(d) Years ended 30 June of that stated

Coal

Imports of Coal

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Anthracite	672 254	1 268 607	1 207 002	595 267	573 106
Other coal	3 783 895	7 625 715	11 525 071	9 958 292	9 207 810
Briquettes	97 182	241 639	230 390	109 419	137 107
Belgium-Luxembourg					
Anthracite	1 216 802	1 289 315	1 418 617	1 662 811	1 214 710
Other coal	6 735 525	8 074 165	8 096 674	7 092 103	8 536 441
Brown coal	113 801	205 252	264 131	265 294	255 758
Briquettes	198 677	199 552	295 668	193 246	166 227
Denmark					
Coal	8 822 365	9 807 382	12 715 760	12 153 136	12 054 761
Briquettes	41 926	38 977	47 636	34 226	30 135
France					
Anthracite	1 176 799	1 140 061	1 283 734	1 462 793	991 748
Other coal	18 592 259	19 490 727	17 131 546	15 780 308	12 050 312
Lignite	6 030	8 644	18 293	41 389	38 352
Briquettes	275 495	234 756	253 107	227 510	179 961
Germany, Federal Republic of					
Anthracite	71 048	28 473	32 899	29 722	27 423
Other coal	9 051 123	8 818 429	9 827 923	9 966 747	8 140 454
Brown coal	2 639 788	2 603 590	2 452 321	2 475 185	2 163 504
Briquettes	1 544 170	1 665 396	1 477 124	1 310 697	1 051 426
Greece					
Anthracite	—	35	18	9 295	124
Other coal	527 457	1 110 862	1 549 893	1 823 557	958 749
Irish Republic					
Anthracite	58 364	42 122	86 883	60 248	73 634
Other coal	1 367 947	1 351 802	1 823 653	2 562 144	2 860 951
Briquettes	15 043	23 108	20 462	35 457	7 179
Italy					
Anthracite	110 257	539 867	674 473	883 766	144 267
Other coal	15 665 615	19 637 618	20 124 350	19 209 148	19 844 210
Lignite	44 059	43 597	63 562	5 511	2 732
Briquettes	33 666	53 125	156 526	291 624	135 236
Netherlands					
Anthracite	224 502	240 099	388 001	344 366	322 434
Other coal	7 512 067	9 824 539	11 106 174	11 943 606	12 265 969
Brown coal	88 707	92 739	106 276	112 655	78 400
Briquettes	31 528	57 926	54 889	23 160	18 346
Portugal					
Anthracite	2 912	15 658	97 467	383 714	531 223
Other coal	422 912	474 358	1 371 069	1 508 759	2 015 262
Spain					
Coal	5 908 964	6 994 182	8 417 508	8 714 966	8 879 153
Lignite	3 441	2 311	1 748	2 092	1 566
Briquettes	167 206	477 333	138 169	143 536	70 296
Albania (e)	188 000*	271 000*	275 000*	159 000*	126 000*
Austria					
Anthracite	26 735	51 784	55 084	26 689	28 789
Other coal	2 933 274	3 721 039	3 522 148	3 703 909	4 103 845
Brown coal	363 518	191 121	341 149	206 854	50 416
Briquettes	449 963	466 403	507 387	501 111	465 791
Bulgaria					
Anthracite	1 719 962	1 861 835	2 526 043	1 972 230	...
Other coal	5 366 618	5 338 392	5 527 640	5 321 579	(c) 7 426 000
Czechoslovakia					
Coal	5 028 000	4 565 000	4 686 000	4 896 000	4 235 000
Briquettes	676 000	708 000	736 000	658 000	702 000
Finland					
Anthracite	70 390	74 723	78 971	77 006	62 436
Other coal	4 319 984	3 508 482	5 010 236	5 376 721	5 008 477
Briquettes	13 458	7 998	6 591	5 861	6 237
German Democratic Republic (c)	4 198 000	3 619 000	5 098 000	7 014 000	7 166 000

Imports of Coal

Coal
tonnes

Country	1983	1984	1985	1986	1987
Hungary					
Coal (c)	1 756 113	1 609 833	2 517 775	2 316 774	1 955 028
Briquettes	514 560	589 021	676 275	818 076	707 137
Iceland	37 557	54 822	68 618	73 520	59 919
Malta	52 398	94 401	212 081	184 235	181 275
Norway (a)					
Anthracite	85 685	94 982	97 093	102 349	97 078
Other coal	461 980	673 209	815 964	667 214	629 434
Poland					
Anthracite	21 000	—	—	22 000	...
Other coal	1 021 000	1 031 000	1 060 000	1 150 000	1 092 000
Romania	5 312 800	7 043 400	6 048 500	7 100 000*	...
Soviet Union (e)	10 000 000*	12 834 000*	10 373 000*	11 693 000*	10 000 000*
Sweden					
Anthracite	31 910	18 283	30 437	19 304	23 895
Other coal	3 053 687	3 952 067	4 837 865	4 432 866	3 942 080
Switzerland					
Coal (c)	344 274	543 702	473 541	613 799	521 212
Briquettes	40 872	42 075	45 314	35 560	28 479
Turkey					
Coal	901 674	1 932 653	2 139 261	2 644 583	3 442 858
Lignite	11 831	60 795	173 939	262 155	392 885
Yugoslavia					
Anthracite	213 120	200 967	246 578	210 984	174 089
Other coal	3 791 833	3 411 698	4 033 498	3 812 619	3 818 760
Brown coal	70 444	96 476	115 414	56 821	34 381
Briquettes	78 587	50 422	46 657	129 884	125 821
Algeria	1 170 417	1 499 425	1 138 456	1 009 325	...
Botswana	29 760	27 224	27 076	27 414	...
Egypt	979 584	987 352	1 266 274	1 186 687	...
Ghana	2 000*	2 000*	2 000*	2 000*	...
Kenya	32 217	83 168	96 423	74 707	91 784
Madagascar	27 569	7 318	430	11 988	11 686
Malawi	43 728	41 266	32 850	27 746	...
Morocco	216 805	155 763	420 743	755 041	1 040 745
Mozambique	72 023	3 792	57 790	7 857	...
Tanzania	—	21	20 290	13 099	28 009
Tunisia	20 763	23 880	20 661	12 258	11 951
Zaire	69 300	59 390	60 000*	65 000*	...
Zimbabwe	3 785	35 557	41 169	51 321	47 708
Canada					
Anthracite	205 386	227 781	235 228	342 143	277 913
Other coal	14 509 685	18 824 107	14 781 199	13 026 147	13 872 312
Cuba	75 219	85 271	89 718	83 113	...
Mexico					
Coal	272 869	366 315	582 991	450 000*	...
Lignite	5 372	6 062	6 744	...	...
USA					
Coal	1 152 669	(g) 1 167 252	1 639 449	1 844 023	1 292 578
Briquettes	17 747	...	204 651	181 645	461 732
Argentina	492 088	536 995	763 838	1 091 563	...
Brazil					
Anthracite	32 661	30 038	26 622	34 716	...
Other coal	6 262 363	8 073 572	8 233 640	8 910 793	(c) 10 591 000
Chile	288 681	362 774	370 950	487 616	...
Peru	48 664	51 365	51 364	26 573	26 450
Venezuela	34 954	33 601	46 821	51 980	29 169
Burma	180 000*	175 000*	180 000*	180 000*	...
China	2 130 000	2 430 000	2 310 000	2 470 000	1 940 000
Cyprus	180	51 816	61 748	54 638	151 423
Hong Kong	3 418 316	4 462 239	5 523 189	6 392 528	8 009 570
India (d)	539 000	350 000	2 396 808	2 500 000*	...
Indonesia	932	558	45 833	335 600	2 076 520
Iran (b)	64 612	50 000*	100 000*	150 000*	...

Coal

Imports of Coal

tonnes

Country	1983	1984	1985	1986	1987
Israel	2 136 000	2 669 000	3 063 000	3 084 000	...
Japan					
Anthracite	913 389	1 511 193	1 950 132	1 970 840	1 876 376
Other coal	73 752 601	86 307 274	91 039 940	89 376 192	90 678 010
Lignite	43 315	24 870	31 585	25 415	42 541
Korea, Dem. P.R. of	2 000 000*	2 200 000*	2 500 000*	2 500 000*	...
Korea, Republic of					
Anthracite	805 131	819 231	2 658 937	4 482 657	3 432 671
Other coal	10 150 926	12 193 393	17 131 446	16 436 470	18 385 997
Malaysia					
Anthracite	5 525	7 050	15 722	4 787	42 416
Other coal	361 378	384 679	476 166	375 647	477 427
Pakistan (f)	472 871	499 523	715 569	797 750	832 196
Philippines	70 687	504 825	1 152 634	960 102	469 990
Sri Lanka	28 162	468	1 032	11 160	450
Taiwan	6 510 177	7 684 357	10 270 099	11 003 486	13 381 901
Thailand					
Coal	99 173	145 249	245 646	182 584	254 408
Briquettes	18 408	44 981	37 048	0	0
Australia	19 255	22 064	26 640	1 654	1 562
New Caledonia	96 801	52 186	220 855	202 885	149 691

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

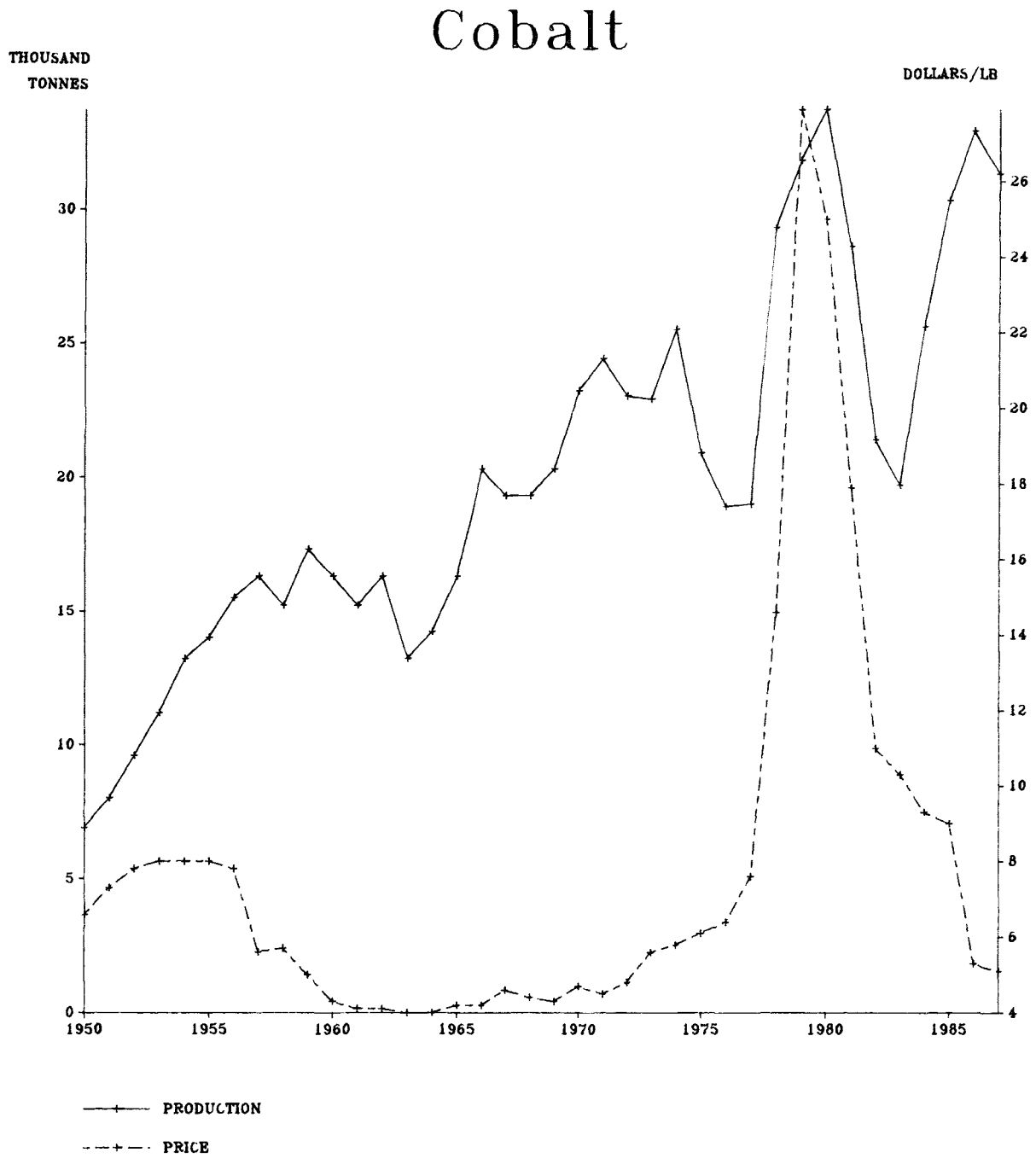


Figure 5 World mine production of cobalt from 1950 to 1987 compared with the annual average producer price expressed in constant 1980 US dollars.

Constant commodity prices to 1983 derived from AFRIMET INDUSSA price, using the CPI for the USA taken from International Financial Statistics Yearbook (1988).

Mine Production of Cobalt

tonnes (metal content)

Country	1983	1984	1985	1986	1987
Albania	450*	600*	600*	650*	600*
Finland	1 157	1 241	1 092	630	190
Soviet Union	2 400*	2 600*	2 700*	2 800*	2 700*
Botswana	223	259	222	162	181
Morocco	—	—	—	—	261
South Africa	400*	500*	500*	650*	720*
Zaire	5 370	9 075	10 677	14 518	11 874
Zambia	2 407	3 472	4 415	4 344	4 479
Zimbabwe	73	77	91	76	111
Canada	1 410	2 123	2 067	2 297	2 490
Cuba	1 621	1 393	1 513	1 578	1 800*
Brazil	70*	70*	70*	100*	150*
China	270*	270*	270*	270*	270*
Philippines	165	64	911	92	—
Australia	2 196	2 125	3 036	2 914	2 715
New Caledonia	1 385	1 750	2 171	1 936	1 758
World total	19 600	25 600	30 300	33 000	30 300

Notes

(1) There is frequently a considerable disparity between the cobalt content of ore raised and cobalt actually recovered

(2) Figures in this table relate where possible to cobalt recovered. The principal exceptions to this are Australia and New Caledonia, the figures for which relate to cobalt in ore raised

Production of Cobalt Metal

tonnes

Country	1983	1984	1985	1986	1987
Belgium (a)	...	...	...	...	...
France	131	116	123	100*	—
Czechoslovakia (b)	...	...	...	...	...
Finland	1 453	2 384	2 230	1 348	497
Norway	879	1 191	1 525	1 526	1 573
Soviet Union	4 500*	4 700*	4 800*	4 900*	4 900*
South Africa (c)	300	500	500	600	700
Zaire	5 370	9 075	10 677	14 518	11 874
Zambia	2 407	3 472	4 415	4 344	4 479
Canada	1 153	1 909	2 054	2 283	2 200
USA	93	—	—	—	—
China	270*	270*	270*	270*	270*
Japan	1 371	905	1 320	1 340	126
World total	17 900	24 500	27 900	31 200	26 600

Notes

(1) 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

(c) Including Co content of cobalt compounds

Cobalt

Exports of Cobalt

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Metal	743	920	754	711	928
Oxides	385	359	430	601	780
Belgium-Luxembourg (a)					
Metal	2 200*	1 800*	1 500*	1 600*	1 000*
Oxides	1 400*	1 400*	1 000*	1 300*	1 400*
France					
Metal	1 133	1 216	964	682	577
Oxides	111	47	9	7	31
Germany, Federal Republic of					
Metal	885	1 270	913	1 589	1 182
Oxides	86	112	87	57	40
Italy	34	81	56	86	82
Netherlands					
Metal	158	47	286	35	39
Oxides	38	60	48	78	123
Spain	29	65	104	63	29
Austria					
Oxides	2	54	31	16	22
Finland					
Metal	1 325	1 077	1 108	925	481
Oxides	159	966	535	522	676
Norway	816	1 270	1 529	1 638	1 613
Sweden	67	58	125	78	76
Morocco					
Ore	1 852	0	—	...	...
Zaire	9 600	13 351	9 298	...	...
Zambia	...	3 329	1 505	743	...
Canada					
Metal	887	1 487	1 552	1 805	1 875
Oxides	192	373	268	374	440
Cuba					
Oxide, sinter & sulphide (b)	1 500*	1 300*	1 300*	1 400*	...
USA					
Metal	787	744	648	845	683
Oxides	348	506	424	358	378
Hong Kong					
Oxides (c)	16	19	29	31	21
Japan					
Oxides	66	74	12	24	21
Korea, Republic of					
Oxides	—	17	31	21	42

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

(b) Co content

(c) Re-exports

Imports of Cobalt

Country	1983	1984	1985	1986	1987
United Kingdom					
Metal	1 918	1 832	1 692	2 387	2 253
Oxides	344	502	377	526	636
Belgium-Luxembourg					
Metal	15	56	13	161	494
Oxides	34	30	35	64	89
Denmark					
Metal	24	27	25	23	22
Oxides	8	10	6	9	30
France					
Metal	1 397	1 574	1 376	1 242	1 142
Oxides	211	314	202	281	389
Germany, Federal Republic of					
Metal	2 008	2 678	2 122	2 848	2 476
Oxides	409	448	441	374	311
Italy					
Metal	328	409	415	612	613
Oxide	161	184	230	235	290
Netherlands					
Metal	240	100	177	66	156
Oxides	246	282	253	280	372
Portugal					
Oxide	7	6	8	15	19
Spain					
Metal	162	119	131	194	208
Oxides	113	84	97	113	140
Austria					
Oxides	5	8	6	11	30
German Democratic Republic (b)	130*	100*	100*	100*	100*
Norway					
Metal	166	(c) 2 290	491	370	1
Oxides	129	11	9	1	1
Sweden					
Metal	233	372	488	437	335
Oxides	6	6	8	10	10
Turkey					
Oxides	60	37	35	54	54
Yugoslavia					
Oxides	25	34	43	33	47
Kenya					
Oxides	27	31	0	0	0
South Africa					
Metal	91	81	177	157	...
Oxides	16	23	17	...	...
Mexico					
Metal	84	117	124	66	58
USA					
Metal	7 194	10 471	7 526	5 291	8 443
Oxide	183	320	111	232	361
Argentina	57	28	25	31	...
Brazil					
Metal	377	282	405	585	508
Oxide	21	5	10	15	26
Venezuela					
Oxides	271	34	24	13	34
Hong Kong					
Oxide	28	23	19	49	20
India (a)	...	...	141	...	...

Cobalt

Imports of Cobalt

tonnes

Country	1983	1984	1985	1986	1987
Indonesia					
Oxides	95	276	33	27	64
Japan					
Metal	2 071	2 588	2 323	3 468	4 775
Oxide	517	411	259	460	432
Korea, Republic of					
Metal	182	139	148	444	276
Oxides	12	21	8	29	56
Malaysia					
Metal	9	48	90	367	168
Oxides	9	115	22	12	8
Taiwan					
Oxides	56	43	23	66	99
Australia					
Metal	27	30	34	29	27
Oxide	28	29	46	33	46

- (a) Years ended 31 March following that stated
(b) BGS estimates, based on known exports from certain countries
(c) Including nickel scrap containing some cobalt

Mine Production of Copper

tonnes (metal content)

Country	1983	1984	1985	1986	1987
United Kingdom	652	657	592	602	750
France	304	310	253	294	163
Germany, Federal Republic of	1 200	1 000	900	800	1 500
Greece	200	300	300	300	1 000*
Italy	1 556	876	127	—	—
Portugal	375	366	252	198	139
Spain	54 818	63 105	60 960	51 300	16 200
Albania	15 000	14 100	15 000	15 000	15 000
Bulgaria	68 000	73 000	78 000	80 000	80 000
Czechoslovakia	9 800	10 200	10 100	8 500*	9 400*
Finland	38 570	34 529	32 186	24 100	17 800
German Democratic Republic	12 000*	12 000*	12 000*	11 000*	11 000*
Norway	22 568	25 042	19 252	29 572	21 984
Poland	402 300	431 000	432 000	435 000*	438 000*
Romania	28 000*	30 000*	30 000*	28 000*	28 000*
Soviet Union	1 020 000*	1 020 000*	1 030 000*	1 030 000*	1 010 000*
Sweden	75 338	90 448	92 205	89 356	90 300
Turkey	24 767	31 075	29 860	26 085	30 000*
Yugoslavia	129 506	137 575	142 479	138 544	130 470
Algeria	200	200	200	200	200
Botswana	20 266	21 517	21 692	21 337	18 933
Congo	100	—	100	700	1 300
Morocco	22 936	21 380	19 678	18 599	13 940
Mozambique	250	261	124	274	151
Namibia	52 100	50 000	42 966	47 111	35 672
South Africa	212 112	206 550	205 052	192 936	197 913
Zaire	504 207	500 220	502 119	502 600	500 000
Zambia	591 300	576 000	510 800	512 858	527 000
Zimbabwe	21 560	22 687	20 700	20 600	19 300
Canada (a)	653 040	721 826	738 637	698 527	794 149
Cuba	2 688	2 701	3 076	3 257	3 500*
Honduras	650*	770*	...	...	528
Mexico	206 062	189 111	178 904	182 000	247 600
USA	1 038 098	1 102 613	1 105 758	1 147 277	1 255 914
Argentina	318	223	391	317	379
Bolivia	1 982	1 610	1 665	338	9
Brazil	32 077	35 212	40 999	40 000	39 200
Chile	1 257 500	1 290 700	1 356 400	1 399 800	1 417 800
Colombia	162	234	—	—	1 400
Peru	322 200	364 732	385 000	386 060	395 500
Burma	4 200	12 000	16 700	8 100	9 000
China	175 000*	180 000*	200 000*	220 000*	260 000*
Cyprus	1 148	1 267	1 065	594	97
India	43 800	47 000	48 000	49 160	54 085
Indonesia	78 608	85 619	88 750	100 490	105 346
Iran	57 600	43 300	40 000*	50 000*	40 000*
Japan	46 045	43 309	43 208	34 928	23 817
Korea, Dem. P.R. of	10 000*	10 000*	10 000*	10 000*	12 000*
Korea, Republic of	389	464	308	215	249

Copper

Mine Production of Copper

tonnes (metal content)

Country	1983	1984	1985	1986	1987
Malaysia	29 136	29 288	30 506	28 301	29 861
Mongolia	95 000	100 000	100 000	120 000	120 000*
Oman	11 300	16 200	17 600	16 700	16 900
Philippines	271 403	233 359	222 189	217 023	215 853
Australia	261 476	235 671	259 765	248 368	232 695
Papua New Guinea	183 191	164 447	175 048	178 593	217 767
World total	8 100 000	8 300 000	8 400 000	8 400 000	8 700 000

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

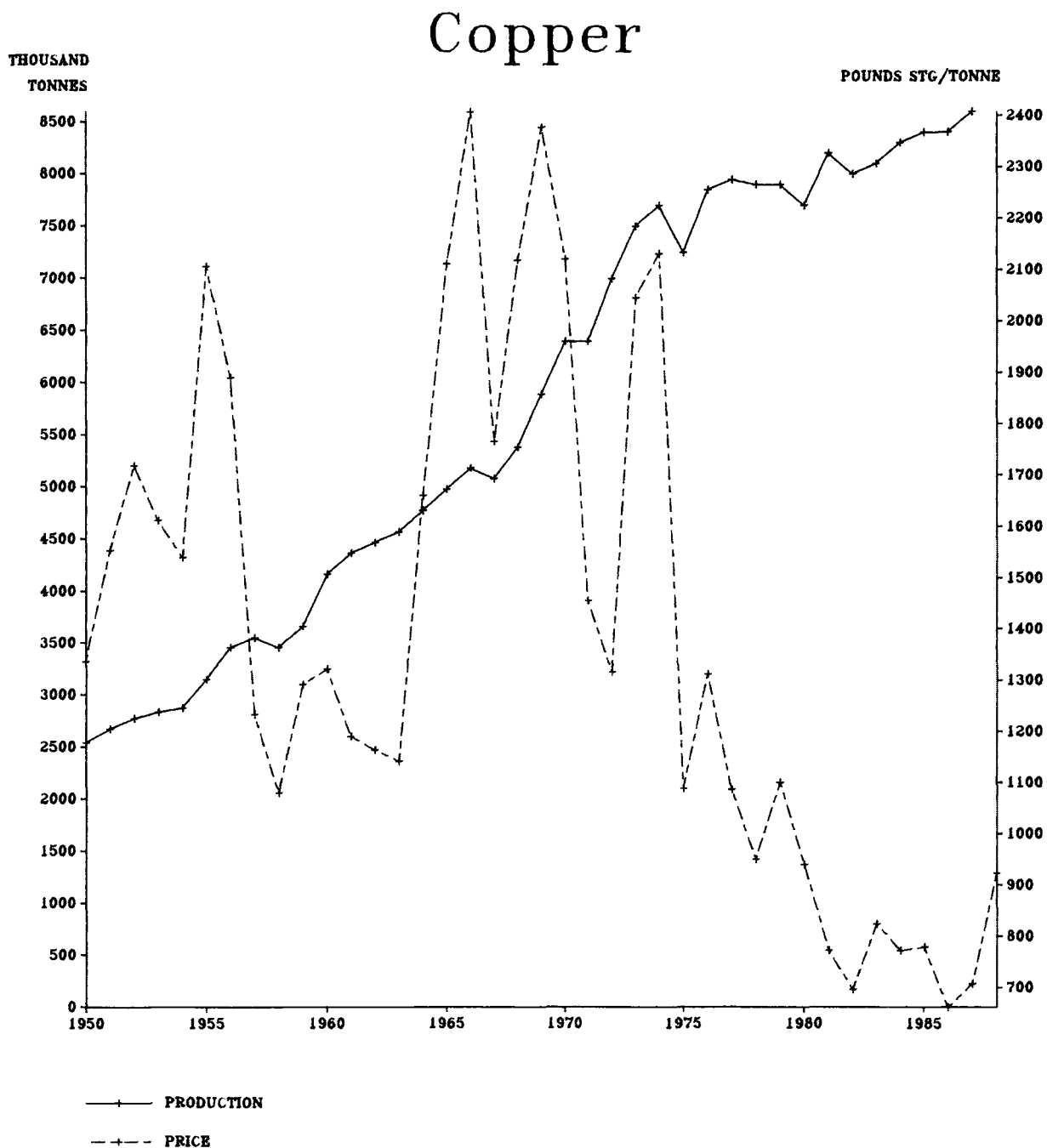


Figure 6 World mine production of copper from 1950 to 1987 compared with the yearly average price (to 1988) of electrolytic wirebars on the London Metal Exchange expressed in constant 1980 pounds sterling.

Constant commodity prices have been derived from LME price using the RPI for UK taken from the Annual Abstract of Statistics (1989) published by HMSO.

Copper

Smelter Production of Copper

tonnes

Country	1983	1984	1985	1986	1987
Belgium	2 800*	500*	900*	900*	100*
Germany, Federal Republic of	159 100	148 800	152 400	161 900	168 900
Portugal	400	1 300	1 000	1 000*	200
Spain	84 000	88 200	88 000	103 500	104 700
Albania	12 000	12 600	13 000	14 000	14 000
Bulgaria	60 000	70 000	70 000	70 000	80 000
Czechoslovakia	33 019	33 000	33 400	31 686	34 415
Finland	74 455	83 266	71 285	84 500	77 400
German Democratic Republic	17 000*	14 000*	14 000*	15 000*	16 000*
Hungary	2 765	3 050	3 318	3 552	3 524
Norway	25 658	36 821	37 828	35 202	29 701
Poland	357 000	365 000	380 000	380 000	400 000
Romania	40 200	38 000	36 000	28 000	28 000
Soviet Union	1 120 000*	1 120 000*	1 140 000*	1 155 000*	1 180 000*
Sweden	78 756	79 775	74 668	83 358	92 909
Turkey	19 113	32 023	33 884	35 466	19 247
Yugoslavia	86 833	84 657	137 073	127 236	103 399
Namibia	54 200	48 600	47 611	50 145	37 653
South Africa	192 300	180 800	168 400	184 000	189 800
Zaire (a)	468 658	465 549	469 420	476 000	472 400
Zambia (a)	562 722	531 945	544 176	514 090	523 200
Zimbabwe	31 200	24 200	24 400	29 600	30 000
Canada	405 723	469 977	489 649	450 200	475 600
Mexico	91 994	80 304	80 649	75 000*	101 400
USA	927 739	1 014 124	940 681	908 087	972 141
Brazil	63 083	61 334	93 880	115 990	146 969
Chile	1 058 900	1 098 300	1 088 500	1 124 100	1 113 500
Peru	295 900	331 136	354 021	313 700	311 100
China	195 000*	220 000*	265 000*	350 000*	350 000*
India	33 992	40 400	33 557	39 291	32 923
Iran	8 500*	47 900*	40 000*	50 000*	40 000*
Japan	1 061 929	928 974	932 560	962 128	980 191
Korea, Dem. P.R. of	30 000*	25 000*	30 000*	30 000*	32 000*
Korea, Republic of	124 000	100 200	112 700	123 200	143 800
Philippines	57 600	109 200	133 826	124 304	125 901
Taiwan	37 900	61 700	60 600	63 800	61 500
Australia	173 619	179 822	167 669	169 622	172 873
World total	8 000 000	8 200 000	8 400 000	8 500 000	8 700 000

Notes

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

(a) Including leach cathodes

Production of Refined Copper

Country	1983	1984	1985	1986	1987
United Kingdom	144 366	136 834	125 426	125 574	122 287
Belgium (a)	431 264	427 707	456 935	457 779	475 906
France	43 865	40 702	43 699	41 294	49 200
Germany, Federal Republic of	420 325	378 998	414 165	421 918	399 917
Italy	31 200	50 300	64 300	65 400	65 000
Portugal	4 561	5 320	4 500	5 300	5 300
Spain	158 600	156 400	151 700	155 075	151 410
Albania	10 000*	11 000*	11 000*	11 500*	12 000*
Austria	33 061	33 255	33 626	32 579	43 070
Bulgaria	68 000	70 000	73 000	74 000	76 000
Czechoslovakia	25 746	26 068	26 414	26 182	27 702
Finland	55 376	57 318	58 766	64 200	59 500
German Democratic Republic	68 000*	69 000*	75 000*	73 000*	76 000*
Hungary	24 040	25 863	23 018	22 097	23 251
Norway	22 705	30 323	31 074	30 459	29 386
Poland	360 100	372 300	387 000	388 000	390 200
Romania	47 000*	45 000*	42 000*	40 000*	35 000*
Soviet Union	1 400 000*	1 380 000*	1 400 000*	1 400 000*	1 430 000*
Sweden	63 357	61 245	57 229	84 500	91 900
Turkey	37 900	51 400	60 600	75 100	75 600
Yugoslavia	123 708	127 611	135 442	140 393	138 867
Egypt	7 642	4 181	4 013	3 671	1 141
South Africa	157 700	148 400	145 500	143 200	146 500
Zaire	227 231	224 774	221 483	217 900	209 498
Zambia	576 100	523 300	479 446	460 437	483 040
Zimbabwe	25 400	22 800	22 500	25 300	23 000
Canada	464 333	504 262	499 626	493 445	491 178
Mexico	86 903	79 806	122 600	81 500	120 400
USA	1 583 800	1 489 500	1 436 300	1 479 400	1 560 845
Argentina	11 500*	11 200*	13 000*	11 000*	13 000*
Brazil	103 003	101 711	142 880	165 990	199 169
Chile	834 200	879 700	884 300	942 500	972 100
Peru	194 669	219 037	227 000	229 200	218 400
China	310 000*	320 000*	340 000*	350 000*	400 000*
India	29 325	33 645	28 948	36 888	30 800
Iran	5 000*	5 000*	12 000*	12 000*	30 000*
Japan	1 091 929	935 156	935 977	943 037	980 349
Korea, Dem. P.R. of	32 000*	35 000*	38 000*	40 000*	40 000*
Korea, Republic of	143 806	150 176	159 242	177 841	157 900
Oman	3 807	15 180	14 323	14 561	15 490
Philippines	38 800	99 200	130 300	137 200	132 120
Taiwan	37 960	48 436	46 734	50 439	46 961
Australia	202 603	197 217	194 339	185 071	207 768
World total	9 700 000	9 600 000	9 800 000	9 900 000	10 300 000

Notes

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

(a) Including alloys

Copper

Exports of Copper

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Ore & matte	817	3 077	3 432	6 376	2 990
Unwrought					
Unrefined	497	303	366	791	90
Refined	16 742	21 220	14 624	14 974	18 595
Alloys	15 564	16 927	16 561	14 147	15 581
Scrap	104 703	101 194	109 108	125 322	123 013
Belgium-Luxembourg					
Ore	674	742	532	573	727
Burnt cupreous pyrites	9 365	4 520	3 935	27	3 672
Unwrought					
Matte, cement & unrefined	11 324	...	...	(i) 232 593	(i) 249 385
Refined	221 244	(i) 210 868	(i) 207 841	10 666	8 913
Alloys	8 338	8 354	10 032	28 288	32 485
Scrap	27 835	32 176	30 411		
Denmark					
Unwrought	51	1 331	521	400	53
Unwrought alloys	1 842	2 512	1 044	1 666	1 674
Scrap	15 709	14 509	15 786	14 199	18 857
France					
Ore	448	293	341	608	409
Matte & cement	2 603	4 812	2 042	1 171	436
Unwrought					
Unrefined	6 619	2 930	7 318	4 045	7 508
Refined	17 589	4 204	7 188	9 220	3 900
Alloys	2 021	3 057	2 404	2 046	1 876
Scrap	126 003	120 467	128 625	121 832	139 508
Germany, Federal Republic of					
Matte & cement	2 569	1 124	627	828	194
Unwrought					
Unrefined	16 988	22 314	18 475	14 018	5 109
Refined	93 169	72 979	72 294	72 945	89 977
Alloys	12 748	15 719	14 798	15 133	11 981
Scrap	67 128	78 064	77 294	70 084	96 068
Irish Republic					
Unwrought	530	903	1 062	825	209
Scrap	8 051	8 897	6 928	6 312	9 783
Italy					
Ore	1 970	8 860	1 685	25	—
Matte & cement	2 890	1 060	1 192	11	751
Unwrought					
Unrefined	217	129	266	395	465
Refined	5 885	10 578	10 834	4 679	3 971
Alloys	7 042	3 110	3 011	3 712	4 994
Scrap	20 305	14 235	14 814	10 927	16 476
Netherlands					
Unwrought	432	534	1 379	602	2 577
Unwrought alloys	6 141	7 001	8 082	5 464	4 793
Scrap	59 055	62 443	73 072	63 208	83 853
Portugal					
Ore	2 990	1 352	—	1	8 211
Unwrought	1 172	3 927	4 187	1 565	...
Scrap	1 001	855	575	1 715	1 354
Spain					
Ore	32 067	50 205	74 975	59 397	47 402
Burnt cupreous pyrites	55 597	13 355	2 210	—	3 274
Matte	1 197	1 418	1 959	3 133	3 778
Unwrought	72 523	67 097	69 447	65 361	42 525
Unwrought alloys	5 176	4 784	3 049	1 101	1 601
Scrap	915	450	569	605	967
Austria					
Unwrought	21 341	15 550	21 113	19 512	18 200
Unwrought alloys	1 687	6 038	5 646	4 816	5 647
Scrap	9 075	15 451	19 525	18 655	16 534
Bulgaria					
Unwrought (f)	...	1 200*	600*	500*	700*

Exports of Copper

Country	1983	1984	1985	1986	1987
Finland					
Ore	14 096	—	—	—	—
Unwrought					
Unrefined	14 987	17 656	8 564	15 676	20 869
Refined	11 670	4 833	8 481	4 867	8 693
Alloys	1 882	1 790	1 714	2 219	2 509
Scrap	1 337	2 126	2 275	1 162	1 650
German Democratic Republic					
Unwrought (f)	12 200*	12 600*	11 200*	14 700*	13 300*
Hungary					
Scrap	1 563	2 090	2 457	1 704	1 528
Norway					
Ore	92 465	72 619	82 851	106 237	115 880
Unwrought					
Unrefined	6 224	5 949	5 949	5 288	705
Refined	20 261	29 379	28 256	29 131	30 137
Alloys	297	56	104	139	23
Scrap	7 730	5 761	5 257	7 316	9 683
Poland					
Unwrought	183 203	179 970	181 948	169 431	161 632
Soviet Union					
Unwrought (f)	66 100*	99 800*	91 500*	92 200*	130 300*
Scrap (f)	14 200*	12 600*	33 900*	27 200*	21 000*
Sweden					
Ore	33 829	71 164	108 609	83 164	72 584
Unwrought					
Unrefined	40 197	37 891	38 623	18 461	13 113
Refined	23 039	22 924	12 209	37 887	40 161
Alloys	3 887	5 226	3 374	2 304	3 400
Scrap	1 963	1 592	3 642	4 866	8 059
Switzerland					
Unwrought					
Refined	1 560	712	2 593	60	3 715
Alloys	5 518	5 256	5 790	5 249	5 202
Scrap	18 886	15 518	13 268	12 244	17 723
Turkey					
Unwrought	18	12	5 717	4 614	6 556
Yugoslavia					
Ore	2 095	6	85 391	15 000	24 500
Unwrought	4 102	2 395	3 392	13 682	19 387
Scrap	6 062	3 201	2 436	1 634	20 828
Algeria					
Ore	1 128	—	—	—	...
Scrap	3 389	1 226	3 228	5 290	...
Botswana					
Matte (b)	20 200	21 400	19 400	17 400	18 800
Ivory Coast					
Matte & scrap	1 338	1 405	1 308	...	...
Morocco					
Ore	69 531	72 174	60 615	61 509	45 717
Matte	3 270	1 363	2 524	1 169	2 235
Scrap	2 539	2 376	2 361	1 934	...
Namibia					
Unwrought	46 800	46 100	49 300	43 400	37 100
Senegal					
Scrap	809	1 079	999	713	612
South Africa					
Ores & concentrates (b)	17 310	25 087	29 999	25 897	27 507
Unwrought	119 037	93 549	98 408	93 534	97 359
Scrap (f)	13 300*	11 000*	17 000*	11 900*	7 600*
Tunisia					
Unwrought & scrap (g)	1 993	2 237	1 655	1 051	2 088
Zaire					
Ores & concentrates	83 200	65 305	59 060	50 000*	45 000*
Unwrought					
Unrefined (e)	231 782	241 567	236 321	275 733	254 329
Refined	218 470	221 669	226 354	222 785	204 867

Copper

Exports of Copper

tonnes

Country	1983	1984	1985	1986	1987
Zambia					
Unwrought, refined	570 453	524 647	471 249	466 346	499 412
Zimbabwe					
Unwrought	24 276	21 539	35 598	21 660	20 912
Canada					
Ores, concentrates & matte (b)	313 796	332 377	320 617	341 392	381 123
Unwrought	298 555	346 017	280 043	306 892	288 811
Scrap	53 469	52 676	62 995	70 753	72 102
Cuba					
Concentrates	2 527	2 553	3 118	2 621	...
Scrap (a)	2 075	2 799	7 450	6 165	7 932
Mexico					
Concentrates (b)	110 757	102 601	102 887	98 600	121 300
Unwrought, unrefined	10 905	14 713	10 565	17 890	24 295
Trinidad and Tobago					
Scrap	455	475	875	691	271
USA					
Ores & concentrates (b)	42 738	61 384	116 390	174 348	124 751
Unwrought					
Unrefined	7 454	8 379	17 984	15 967	12 339
Refined	82 007	92 327	52 819	12 477	9 196
Alloys	7 160	3 912	11 895	3 838	9 787
Scrap	137 761	189 203	281 571	299 667	301 971
Bolivia					
Ore	4 306	2 978	2 200*	1 668	45
Chile					
Ores, concentrates & matte (b)	196 500	178 900	274 100	281 300	277 900
Unwrought					
Unrefined	224 300	210 500	190 000	199 400	139 312
Refined	830 600	830 400	891 900	895 700	952 450
Colombia					
Ore	615	894	300	1 705	...
Peru					
Ore	110 000*	94 297	(f) 99 900*	(f) 155 900*	(f) 197 400*
Unwrought					
Unrefined	92 722	96 823	126 705	94 731	87 033
Refined	161 757	174 664	182 588	193 028	179 795
Burma (j)					
Ores & concentrates	15 000	15 000	20 500	46 003	...
Cyprus					
Cement copper	1 103	3 059	1 692	1 148	304
Dubai					
Scrap	5 285	5 111	4 920	6 025	...
Hong Kong					
Unwrought (k)	144	3 059	4 001	1 630	3 791
Scrap	22 212	22 802	24 444	27 948	39 955
India (j)					
Ores & concentrates	17	18 746	45 350	...	...
Indonesia					
Ores & concentrates	229 053	188 428	204 421	298 584	250 770
Iran (c)					
Ore	3 000	13 019	...	...	...
Israel (h)					
Cement copper	4 795	1 544	—	—	—
Scrap	2 237	1 775	2 115	2 288	1 006
Japan					
Unwrought	182 829	22 414	58 621	85 084	73 067
Scrap	410	176	549	5 163	5 831
Jordan					
Scrap	1 505	655	1 224	1 060	238
of which: Re-exports	645	23	20	457	238
Korea, Republic of					
Unwrought	25 251	2 933	4 035	5 756	3 635
Scrap	2 716	1 517	751	1 180	443

Exports of Copper

Country	1983	1984	1985	1986	1987
Malaysia					
Ore	121 875	125 886	125 767	118 930	122 103
Scrap	8 297	9 685	12 354	...	14 551
Oman					
Unwrought	4 143	13 276	12 725	16 309	15 300
Pakistan (d)					
Scrap	320	18 756	21 671	1 010	181
Philippines					
Ores & concentrates	787 508	450 438	344 201	359 781	361 952
Unwrought	18 112	80 631	129 901	131 218	106 529
Scrap	2 062	9 314	6 979	8 150	8 150
Saudi Arabia					
Unwrought	250	214	889	2 277	3 189
Scrap	14 094	16 268	21 437	19 453	23 961
Singapore					
Unwrought	14	1 564	4 525	7 086	12 499
of which: Re-exports	14	1 562	4 515	6 999	12 403
Scrap	19 507	17 882	21 726	23 757	29 639
Taiwan					
Unwrought	227	300	89	49	664
Scrap	8 095	6 496	7 452	6 187	10 073
Australia					
Ores & concentrates	248 265	202 190	269 898	233 263	149 156
Matte & cement	4 963	3 977	8 000	—	—
Unwrought					
Unrefined	8 413	5 350	40	—	3 502
Refined	77 632	75 452	71 482	66 820	81 580
Alloys	318	455	1 525	1 525	...
Scrap	599	451	318	175	...
New Zealand (d)					
Unwrought	40	266	9	32	1
Scrap	2 003	1 409	1 339	744	1 260
Papua New Guinea					
Ores & concentrates (b)	182 473	167 107	168 712	178 774	216 731

Notes

(1) 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

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

(a) Imports into the Netherlands

(b) Cu content

(c) Years ended 20 March following that stated

(d) Years ended 30 June of that stated

(e) Including leach cathodes

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

(g) Including matte

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

(i) Including matte, cement and unrefined

(j) Years ended 31 March following that stated

(k) Re-exports

Imports of Copper

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Ore & matte	1 000	2 409	1 245	10	68
Unwrought					
Unrefined	82 592	87 422	65 366	79 522	72 642
Refined	200 680	225 864	247 875	263 454	238 756
Alloys	504	1 044	887	1 141	1 331
Scrap	10 025	8 117	13 328	10 540	14 257
Belgium-Luxembourg					
Ore	10 706	2 047	3 315	3 722	912
Burnt cupreous pyrites	1 951	—	1 331	24	—
Unwrought					
Matte, cement & unrefined	194 275	213 954	215 520	239 974	179 036
Refined	141 671	180 884	199 548	215 181	209 646
Alloys	3 338	1 888	6 415	8 940	5 837
Scrap	131 918	115 165	152 481	119 423	147 257
Denmark					
Unwrought	330	148	125	72	50
Unwrought alloys	584	1 626	1 876	1 933	1 892
Scrap	3 141	5 165	4 487	7 172	7 215
France					
Ore	46	356	283	79	93
Burnt cupreous pyrites	661	2 863	4 834	4 564	11 082
Matte & cement	64	—	—	946	20
Unwrought					
Unrefined	14 435	17 667	21 284	22 301	19 025
Refined	338 995	341 562	325 429	334 529	353 543
Alloys	3 836	4 925	4 717	4 832	4 123
Scrap	32 714	31 623	34 412	43 114	43 970
Germany, Federal Republic of					
Ore	496 262	550 531	549 080	581 423	435 670
Burnt cupreous pyrites	25 792	37 889	40 852	45 961	32 289
Matte & cement	11 358	2 724	7 086	8 543	12 064
Unwrought					
Unrefined	68 903	85 517	77 989	69 778	49 038
Refined	403 807	465 575	442 128	447 922	395 982
Alloys	45 363	41 706	41 928	35 958	43 848
Scrap	205 405	211 757	269 855	248 067	248 301
Greece					
Matte & cement	15 582	13 367	9 959	12 486	6 277
Unwrought	19 091	20 216	22 614	28 217	35 500
Unwrought alloys	182	98	167	129	...
Scrap	23	447	0	8	371
Irish Republic					
Unwrought	131	275	246	179	185
Scrap	286	484	380	152	86
Italy					
Unwrought					
Unrefined	2 717	11 085	13 810	5 182	8 176
Refined	297 164	311 854	332 813	349 116	371 763
Alloys	6 828	13 803	16 822	15 648	21 085
Scrap	82 442	112 098	120 860	145 097	134 278
Netherlands					
Unwrought	25 598	23 851	19 669	23 095	24 086
Unwrought alloys	895	1 075	1 613	1 006	1 038
Scrap	38 047	43 123	62 001	57 512	62 487
Portugal					
Ore	1 030	4 365	3 052	0	0
Unwrought	13 947	15 072	13 793	12 146	29 768
Scrap	188	79	109	309	1 545
Spain					
Ore	164 798	146 958	125 318	249 641	346 867
Matte & cement	7 178	8 032	3 126	2 216	226
Unwrought					
Unrefined	17 878	20 869	23 570	18 290	2 301
Refined	19 791	24 621	23 346	31 471	13 597
Alloys	1 151	999	1 277	1 995	3 697
Scrap	32 121	23 296	31 075	29 976	32 943

Imports of Copper

Copper
tonnes

Country	1983	1984	1985	1986	1987
Austria					
Unwrought					
Unrefined	8 467	9 728	9 724	5 021	4 373
Refined	1 293	4 100	2 292	5 777	2 813
Alloys	1 074	1 199	1 299	1 700	1 715
Scrap	27 729	30 616	44 156	31 960	45 299
Bulgaria					
Unwrought (a)	1 700*	2 600*	2 000*	1 000*	2 900*
Czechoslovakia					
Unwrought	66 000	62 000	67 000	65 000	69 000
Finland					
Ore	103 800	120 130	152 619	187 820	236 919
Unwrought					
Refined	18 716	15 104	21 873	15 909	26 714
Alloys	301	178	483	686	524
Scrap	702	463	438	114	2 299
German Democratic Republic					
Ores & concentrates (a)	3 800*	12 200*	10 700*	9 700*	13 900*
Unwrought (a)	49 400*	50 400*	50 900*	51 400*	55 100*
Scrap (a)	25 300*	24 100*	25 800*	24 000*	25 200*
Hungary					
Unwrought (c)	31 785	30 112	28 129	36 600	41 953
Scrap	6 678	7 958	6 051	6 041	4 286
Norway					
Matte	6 367	3 604	2 488	584	27
Unwrought	468	656	330	290	133
Unwrought alloys	1 162	1 386	2 387	2 791	2 498
Scrap	71	92	526	56	309
Poland					
Unwrought	—	17 138	19 991	18 211	18 846
Romania					
Unwrought (a)	23 700*	17 500*	10 700*	10 400*	3 900*
Soviet Union					
Ore (a)	2 000*	2 000*	11 000*	4 000*	...
Unwrought	7 000*	7 000*	7 000*	9 000*	10 000*
Sweden					
Ore	90 133	48 058	88 957	37 710	56 037
Matte & cement	8 020	4 642	4 963	7 012	5 219
Unwrought	71 046	60 636	57 857	57 149	46 551
Unwrought alloys	4 394	4 566	3 417	5 086	4 968
Scrap	22 473	18 076	19 706	10 559	19 951
Switzerland					
Unwrought					
Refined	8 370	8 928	11 637	13 707	7 594
Alloys	674	1 020	1 403	1 512	1 148
Scrap	2 201	3 290	6 845	6 263	4 064
Turkey					
Ore	16 202	23 292	33 168	42 614	150
Unwrought	26 110	24 460	35 452	54 346	73 109
Scrap	928	324	619	3	223
Yugoslavia					
Unwrought	18 715	24 457	33 032	19 519	20 929
Unwrought alloys	8 129	7 366	6 217	4 383	553
Scrap	401	441	947	206	403
Algeria					
Unwrought	724	1 059	480	1 158	...
Egypt					
Unwrought (b)	626	2 098	6	1 750	...
Morocco					
Unwrought	724	774	664	605	676
South Africa					
Unwrought	884	967	665	...	...
Unwrought alloys	94	73	56	...	...
Scrap	166	312	877	6 930	...

Copper

Imports of Copper

tonnes

Country	1983	1984	1985	1986	1987
Canada					
Ores & concentrates (d)	24 231	36 225	76 136	70 673	50 510
Unwrought	24 559	25 562	19 128	20 894	16 584
Unwrought alloys	9 837	12 367	11 424	13 283	16 795
Scrap	71 542	76 335	85 200	65 768	69 322
Cuba					
Unwrought	4 328	4 637	8 380	6 445	...
Mexico					
Unwrought & scrap	19 918	34 754	89 916	...	...
USA					
Ores & concentrates (d)	89 272	13 246	3 957	4 722	4 712
Matte (d)	3 974	2 100*	3 906	668	6 869
Unwrought					
Unrefined (d)	80 419	60 683	28 504	47 445	45 218
Refined	482 983	504 369	381 088	491 690	505 283
Alloys	6 762	22 544	12 989	16 781	15 084
Scrap	65 091	55 012	55 227	111 626	65 990
Argentina					
Unwrought, refined	31 205	40 008	28 046	48 188	...
Brazil					
Ores & concentrates	89 159	87 553	164 015	261 304	340 529
Unwrought					
Unrefined	2 250	13 068	17 314	10 072	11 191
Refined	54 187	93 852	60 037	100 826	114 189
Scrap	441	854	3 227	8 884	19 346
Colombia					
Unwrought	3 270	2 643	2 401	711	...
Venezuela					
Unwrought					
Refined	2 249	5 281	6 402	11 274	24 681
Alloys	...	...	221	910	1 152
China					
Ores & concentrates	(a) 92 700*	(a) 150 100*	(a) 196 100*	(a) 235 700*	199 572
Unwrought	485 863	254 045	355 649	171 106	75 490
Scrap (a)	14 100*	21 600*	18 900*	15 200*	18 000*
Hong Kong					
Unwrought	748	5 789	5 391	2 356	9 577
Scrap	2 896	7 394	9 148	6 784	12 732
India (e)					
Unwrought	61 300	48 600	83 680	74 258	76 857
Scrap	17 413	9 513	29 021	13 691	8 500*
Indonesia					
Unwrought	16 678	17 535	16 065	17 903	32 430
Unwrought alloys	289	268	231	391	289
Iran (f)					
Unwrought	7 553	1 386	...	...	...
Scrap	565	740	...	...	...
Israel					
Unwrought (a)	400*	1 300*	300*	700*	700*
Japan					
Ores & concentrates	3 135 228	2 930 184	3 009 571	3 036 896	2 981 054
Matte & cement	4 394	1 311	132	33	21
Unwrought	246 276	535 860	390 634	300 215	375 944
Unwrought alloys	244	2 245	2 517	2 819	4 481
Scrap	57 486	92 595	81 660	79 467	97 841
Korea, Republic of					
Ore	371 278	347 665	355 210	389 143	553 628
Matte & cement	15 865	25 911	33 127	18 897	9 941
Unwrought	37 675	53 966	60 275	99 682	120 011
Scrap	42 787	32 364	32 592	74 949	215 933
Malaysia					
Unwrought	17 959	18 308	20 745	8 827	19 027

Imports of Copper

Copper
tonnes

Country	1983	1984	1985	1986	1987
Philippines					
Unwrought	5 714	151	5	8	544
Saudi Arabia					
Unwrought	101	—	4 105	14 381	17 406
Singapore					
Unwrought	255	876	2 250	5 660	12 775
Scrap	4 020	3 436	3 587	7 401	7 873
Taiwan					
Ores & concentrates	134 083	212 923	160 931	179 704	153 155
Unwrought	64 006	91 134	47 665	109 475	166 902
Scrap	30 441	34 017	28 401	42 507	49 693
Thailand					
Unwrought	10 778	15 835	19 223	20 228	27 303
Scrap	235	83	49	10	530
Australia					
Unwrought	4 457	25	48	275	570
Scrap	1 200	1 174	1 161	1 247	...
New Zealand (g)					
Unwrought	1 883	2 490	3 427	1 627	1 481

Notes

(1) 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

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

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

(b) Including matte and scrap

(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

Diamond

Production of Diamond

carats

Country	1983	1984	1985	1986	1987
Soviet Union	10 700 000*	10 700 000*	10 800 000*	10 800 000*	12 000 000*
Angola	1 006 520	923 669	717 028	266 100	190 000*
Botswana	10 897 000	12 904 000	12 608 000	13 138 000	13 225 344
Central African Republic	295 357	337 150	353 481	358 514	413 093
Ghana	339 300	345 800	636 000	559 200	442 000
Guinea	40 470	48 300	87 800	187 960	195 000
Liberia (a)	329 924	238 877	137 572	242 152	294 996
Namibia	969 400	931 300	909 500	1 009 600	1 037 241
Sierra Leone	368 598	107 359	101 191	62 453	35 213
South Africa	10 311 778	10 120 712	10 205 936	10 226 963	9 050 855
Swaziland	—	16 837	21 128	39 144	40 000*
Tanzania	215 000	277 000	255 736	173 972	121 500
Zaire	11 982 000	18 459 000	19 975 000	23 233 000	19 425 000
Brazil	311 589	800 927	450 000*	625 000*	645 000*
Guyana	12 362	7 496	11 868	9 379	7 469
Venezuela	278 915	272 922	215 272	233 503	250 000*
China	1 000 000*	1 000 000*	1 000 000*	1 000 000*	1 000 000*
India	14 286	15 887	16 271	16 116	18 915
Indonesia	27 000*	27 000*	27 000*	27 000*	30 000*
Australia	6 200 227	5 692 193	7 070 062	29 232 453	30 331 701
World total	55 300 000	63 200 000	65 200 000	91 400 000	88 800 000

Notes

(1) This table does not show production of synthetic diamond

(a) Exports

Exports of Diamond

Country	1983	1984	1985	1986	1987
United Kingdom					
Industrial	3 494 914	2 298 780	6 463 161	7 835 713	9 811 635
Other	29 006 530	30 547 167	32 308 258	37 187 999	43 516 160
Belgium-Luxembourg					
Rough	33 888 227	36 745 317	44 561 153	55 514 230	61 175 323
Cut	3 349 982	3 561 441	3 932 737	3 889 064	4 297 277
Industrial	9 468 688	11 793 810	9 761 317	10 908 673	12 297 579
France					
Rough	264	2 171	79 648	3 878	6 675
Cut	98 034	46 788	75 929	24 083	45 342
Industrial	148 930	358 172	270 584	248 381	184 013
Dust	304 565	351 830	661 550	896 390	773 915
Germany, Federal Republic of					
Industrial	314 850	431 591	452 399	236 063	321 105
Other	120 698	128 435	127 319	174 259	173 268
Irish Republic					
Industrial	—	115 000	685 000	—	—
Italy					
Industrial	9 300	4 208	49 029	1 108	5 083
Other	900 663	1 230	1 954	2 341	250
Netherlands					
Rough	100 716	184 830	170 555	249 931	417 832
Cut	219 956	237 351	202 676	142 686	97 536
Industrial	480 787	661 750	762 316	1 183 953	1 023 087
Portugal	65 539	60 489	66 708	19 678	...
Spain					
Industrial	£632 000	£652 000	£794 000	£39 000	£27 000
Other	£266 000	£333 000	£2 706 000	£160 000	£310 000
Austria					
Industrial	...	95 000	20 000	5 000	240 000
Other	25 000	20 000	10 000	25 000	5 000
Malta	£3 105 000	£3 025 000	£2 697 000	£2 312 000	£2 189 000
Soviet Union (e)	364 300*	618 200*	687 200*	1 033 000*	1 093 700*
Sweden					
Industrial	£199 000	£56 000	£57 000	£33 000	£47 000
Other	£3 335 000	£2 904 000	£1 948 000	£1 243 000	£1 736 000
Central African Republic					
Gem	219 200	226 400	238 800	246 606	300 679
Industrial	63 300	100 000	104 100	685	—
Ghana					
Industrial	605 000	323 000	642 000	561 000	397 000
Ivory Coast	13 132	23 159	5 000	13 581	...
Kenya	1 720	17 640	95 000	17 500	25 000
Liberia	329 924	238 877	137 572	242 152	294 996
Sierra Leone					
Industrial	124 202	183 129	129 805	136 905	...
Other	174 973	291 481	91 046	168 377	...
South Africa (c)					
Rough	£641 800 000	£558 899 000	£614 699 000	...	...
Cut	£96 391 000	£132 224 000	£137 541 000	...	...
Industrial	£5 376 000	£4 516 000	£9 098 000	...	...
Tanzania	...	299 245	285 710	194 635	120 390
Tunisia					
Industrial	...	125 000	155 000	265 000	255 000
Other	...	370 000	445 000	780 000	655 000
Zaire	11 713 000	18 465 000	20 159 000	23 300 000	19 650 000
Canada					
Cut (f)	36 894	56 798	55 134	49 414	47 669
Industrial (f)	299 340	102 636	342 232	539 194	187 413
Dust	77 850	271 131	1 211 990	648 844	1 748 415
of which: Re-exports	74 850	269 340	1 211 490	647 138	1 738 250

Diamond

Exports of Diamond

carats

Country	1983	1984	1985	1986	1987
USA					
Rough	2 001 703	1 739 936	1 807 846	1 800 589	1 684 400
of which: Re-exports	2 001 703	1 737 804	1 805 471	1 797 509	1 684 200
Cut	486 846	532 574	572 452	726 420	845 868
of which: Re-exports	162 473	149 544	134 407	168 441	258 671
Industrial	3 184 601	3 301 116	3 291 223	3 563 727	2 539 863
of which: Re-exports	1 932 607	2 441 922	1 734 890	1 894 607	1 538 122
Dust (b)	42 311 999	47 992 891	51 592 844	51 162 598	56 791 746
of which: Re-exports	1 240 924	779 447	1 867 827	4 323 607	1 789 198
Brazil	1 805	20 830	1 625	...	...
Venezuela					
Rough	...	...	190 000	190 000	—
China					
Industrial (e)	3 800*	88 900*	66 700*	158 800*	95 100*
Other (e)	17 500*	40 500*	276 900*	159 600*	234 400*
Hong Kong	392 855	405 509	697 648	858 030	883 666
of which: Re-exports	387 548	399 582	695 023	855 556	878 732
India (d)					
Gem	£763 602 000	£742 327 000	£857 219 000	...	...
Israel (a)					
Cut	2 565 000	2 633 000	3 139 000	3 827 000	4 376 000
Japan					
Industrial	22 639	29 369	4 694	89 188	89 000
Other	583	2 173	1 192	15 513	9 267
Korea, Republic of	£340 000	£467 000	£860 000	£1 133 000	£356 000
Malaysia					
Cut	£2 100 000	£5 003 000	£6 277 000	...	£15 386 000
Other	£481 000	£22 000	£1 158 000	...	£702 000
Singapore					
Rough	£9 000	£595 000	—	£21 000	£57 000
of which: Re-exports	£9 000	£539 000	—	—	£57 000
Cut	£4 908 000	£12 932 000	£11 668 000	£5 800 000	£11 676 000
of which: Re-exports	£3 945 000	£10 943 000	£11 332 000	£5 314 000	£11 234 000
Industrial	£360 000	£938 000	£342 000	£180 000	£134 000
of which: Re-exports	£263 000	£901 000	£166 000	£180 000	£104 000
Sri Lanka					
Industrial	—	—	5 554	331 715	—
Other	—	14 426	279 811	348 915	316 288
Taiwan					
Industrial	1 615 000	180 000	9 800 000	12 440 000	32 060 000
Other	8 380 000	27 990 000	6 600 000	12 340 000	29 660 000
Thailand	49 447	123 814	99 952	133 692	228 251
Australia					
Gem	3 015 385	2 682 585	2 670 546	1 563 129	25 333
Industrial	1 046 103	903 480	561 451	1 813 194	145 437

Notes

(1) Carats have been used as the unit in this table except where the only obtainable figure is the value. In these cases the national currency figure has been converted to £ sterling. (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) BGS estimates, based on known imports into certain countries

(f) Re-exports

Imports of Diamond

Country	1983	1984	1985	1986	1987
United Kingdom	£1 398 637 051	£1 438 041 669	£1 376 511 719	£1 711 289 733	£1 624 878 505
Belgium-Luxembourg					
Rough	31 731 755	37 746 620	42 855 082	55 831 368	66 204 960
Cut	2 576 938	2 698 445	2 662 239	3 508 531	3 543 728
Industrial	14 148 153	16 534 385	18 750 532	18 232 730	18 592 351
France					
Rough	89 677	949 325	23 950	15 025	15 173
Cut	469 559	297 018	236 638	300 679	372 972
Industrial	489 081	479 777	1 347 679	253 252	280 955
Dust	4 334 170	4 663 900	5 284 730	5 598 255	5 863 980
Germany, Federal Republic of					
Rough	24 967	9 678	20 405	11 325	9 224
Cut	509 479	461 321	401 563	479 011	563 920
Industrial	939 371	1 082 628	1 166 858	1 180 203	1 155 651
Greece					
Industrial	17 776	27 280	33 875	29 413	...
Other	2 341	190 352	9 370	19 202	...
Irish Republic					
Industrial	1 015 000	5 000	3 015 000	2 930 000	110 000
Italy					
Industrial	114 613	179 458	187 880	153 921	169 003
Other	171 443	193 540	219 958	222 140	231 400
Netherlands					
Rough	373 147	394 046	456 201	332 423	485 550
Cut	130 338	201 484	205 906	161 756	135 534
Industrial	237 469	545 383	567 090	1 130 572	1 325 000
Portugal	530 834	143 244	154 911	155 718	...
Spain					
Rough	£121 000	£120 000	£99 000	£28 000	£70 000
Industrial	£855 000	£829 000	£1 399 000	£939 000	£949 000
Other	£17 657 000	£11 059 000	£19 647 000	£4 234 000	£5 317 000
Austria					
Industrial	15 000	65 000	55 000	50 000	10 000
Other	75 000	40 000	80 000	80 000	110 000
Bulgaria (a)	86 700*	87 300*	179 200*	138 500*	25 200*
Czechoslovakia (a)	30 200*	103 500*	52 900*	55 600*	180 200*
Finland					
Industrial	10 000	10 000	15 000	425 000	15 000
Other	15 000	15 000	35 000	30 000	640 000
German Democratic Republic (a)	...	35 100*	25 700*	68 900*	39 300*
Hungary					
Industrial	23 819	18 926	21 474	30 386	29 149
Malta					
Rough	£3 245 000	£3 734 000	£2 487 000	£2 892 000	£2 094 000
Cut	£100	—	—	£100	—
Industrial	£344 000	£4 000	£73 000	£225 000	£4 000
Norway	45 000	40 000	100 000	260 000	95 000
Romania (a)	435 900*	521 500*	387 200*	376 700*	614 100*
Sweden					
Industrial	£425 800	£478 000	£577 000	£414 000	£347 000
Other	£9 836 000	£9 564 000	£7 167 000	£5 193 000	£7 344 000
Turkey					
Industrial	60 000	100 000	260 000	270 000	...
Other	735 000	—	115 000	75 000	...
Yugoslavia					
Industrial	£314 000	£773 000	£756 000	£762 000	£461 000
Dust	£510 000	£742 000	£796 000	£862 000	£1 169 000
Other	£118 000	£238 000	£238 000	£192 000	£228 000
Algeria					
Industrial	£487 000	£229 000	£311 000	£235 000	...
Kenya					
Rough & cut	—	30 000	...	...	...
South Africa					
Rough	83 500	208 500	230 500	258 000	...
Cut	15 000	17 500	37 000	20 000	...
Industrial	1 547 000	278 500	359 000	1 450 000	...

Diamond

Imports of Diamond

carats

Country	1983	1984	1985	1986	1987
Tunisia					
Industrial	...	200 000	270 000	35 000	5 000
Other	...	385 000	665 000	720 000	625 000
Zambia					
Industrial	...	3 045 000	6 250 000	2 040 000	...
Canada					
Cut	275 711	263 143	297 961	296 740	273 018
Industrial	1 168 149	1 382 677	1 360 396	1 733 857	3 348 200
Dust	1 577 841	2 378 496	2 647 489	4 128 282	2 457 987
Costa Rica					
Industrial	160 000	330 000	330 000	160 000	210 000
El Salvador					
Industrial	70 000	235 000	...	...	...
Honduras					
Industrial	805 000	...	...	...	...
Panama					
Industrial	100 000	755 000	25 000	—	—
USA					
Rough	1 008 851	1 240 982	1 042 183	1 288 018	1 369 360
Cut	5 238 650	2 606 491	7 108 435	7 884 765	7 752 033
Industrial	6 078 997	8 241 025	9 334 533	8 947 358	3 833 816
Bort	45 604	219 295	390 389	251 608	326 548
Dust	3 975 219	6 827 639	6 753 549	7 260 957	12 677 384
Argentina					
Industrial	15 000	360 000	135 000	115 000	...
Dust	360 220	...	500 000	455 000	...
Brazil					
Rough	750	—	—	...	...
Cut	1 925	225	260	...	...
Industrial	105 675	48 575	88 730	...	...
Dust	2 918 510	3 001 360	3 355 145	...	...
Venezuela					
Industrial	...	...	1 190 000	415 000	725 000
Abu Dhabi	50 000	40 000	1 175 000	30 000	110 000
China					
Industrial	358 123	502 298	551 052	759 872	106 098
Other (a)	19 400*	65 600*	68 900*	123 700*	321 200*
Cyprus	£675 000	£1 088 000	£984 000	£847 000	£1 053 000
Dubai					
Industrial	...	115 000	...	...	...
Other	...	49 685	26 295	16 440	...
Hong Kong					
Rough	118 739	87 054	90 611	105 825	99 698
Cut	1 167 524	1 248 658	1 343 518	1 984 785	2 472 936
Industrial	20 190	148 748	234 076	427 305	355 698
India (d)					
Rough	...	...	39 808 594	...	...
Industrial	...	...	715 000	...	...
Israel					
Rough (c)	5 693 000	6 438 000	8 123 000	9 717 000	10 757 000
Cut (c)	296 000	401 000	444 000	478 000	601 000
Industrial (c)	3 565 000	4 325 000	5 779 000	6 778 000	8 529 000
Japan					
Rough	17 108	29 605	18 129	151 272	23 431
Cut	906 574	1 042 415	1 177 040	1 571 921	2 356 713
Industrial	793 890	681 713	721 704	737 530	519 349
Dust	987 205	1 399 120	1 267 595	1 305 535	1 541 830
Korea, Republic of					
Cut	£123 000	£171 000	£767 000	£959 000	£435 000
Industrial	£532 000	£721 000	£682 000	£772 000	£1 083 000
Dust	135 000	387 210	62 900	106 335	96 590
Other	£161 000	£452 000	£951 000	£521 000	£193 000

Imports of Diamond

Diamond

carats

Country	1983	1984	1985	1986	1987
Malaysia					
Rough	£402 000	£918 000	£222 000	£7 351 000	£13 335 000
Cut	£3 637 000	£16 401 000	£18 770 000	£9 037 000	£6 945 000
Industrial	£325 000	£19 000	£36 000	£17 000	£44 000
Philippines					
Industrial	33 117	150 867	178 802	1 067 311	226 862
Qatar	30 890	5 090	...	125	...
Saudi Arabia					
Industrial	110 000	55 000	40 000	6 090 000	2 340 000
Other	585 000	77 000	90 000	60 000	305 000
Singapore					
Rough	£312 000	£996 000	£101 000	£136 000	£62 000
Cut	£40 868 000	£32 703 000	£23 437 000	£27 022 000	£30 724 000
Industrial	£741 000	£1 409 000	£1 174 000	£439 000	£223 000
Sri Lanka					
Industrial	—	47	3 704	251 980	81 169
Other	173	61 595	168 737	303 194	329 633
Taiwan					
Industrial	8 380 000	535 000	620 000	1 580 000	5 085 000
Dust	4 615 000	3 930 000	7 075 000	4 455 000	7 085 000
Other	1 515 000	80 000	105 000	1 250 000	25 000
Thailand					
Rough	251 233	963 131	318 261	511 943	612 143
Cut	279 492	214 962	134 235	259 998	443 824
Industrial	1 400	13 261	12 965	7 255	6 927
Australia					
Gem	71 981	96 966	114 185	112 121	113 639
Industrial	1 120 405	1 471 714	1 787 148	2 249 893	2 749 365
New Zealand (b)					
Industrial	£72 000	£93 000	£251 000	£220 000	£182 000
Other	£2 111 000	£2 639 000	£2 380 000	£2 434 000	£4 670 000

Notes

(1) Carats have been used as the unit in this table except where the only obtainable figure is the value. In these cases the national currency figure has been converted to £ sterling

(2) See explanatory notes at the front of the volume regarding currency conversion

(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	1983	1984	1985	1986	1987
United Kingdom	300*	200*	200*	300*	350*
Denmark (a)					
Diatomite	3 518	...	...	...	...
Moler (d)	(e) 70 672	(e) 63 745	(e) 72 029	92 975	94 995
France (b)	221 300	247 400	269 900	260 000*	250 000*
Germany, Federal Republic of	44 200	49 000	48 400	49 500	47 200
Italy	25 000*	28 000*	30 000*	27 000*	28 000*
Portugal	1 870	1 600	1 600	2 120	2 880
Spain (b)	55 638	73 013	96 251	128 000	100 000*
Iceland	25 502	27 265	29 388	22 897	23 345
Romania	290 000*	300 000*	290 000*	300 000*	280 000*
Soviet Union	235 000*	240 000*	245 000*	250 000*	255 000*
Turkey	9 600	6 540	3 000*	3 000*	3 000*
Yugoslavia	12 270	7 249	7 927	10 749	5 458
Algeria	4 500*	1 800*	2 700*	3 600*	3 600*
Kenya	1 570	1 512	1 420	1 450	616
South Africa	1 088	258	947	1 800	194
Canada	1 955	4 100	2 632	5 000*	5 000*
Costa Rica	450*	450*	—	—	—
Mexico	43 967	44 634	45 781	43 633	45 000*
USA (c)	562 000	569 000	576 000	570 000	597 000
Argentina	10 981	5 227	9 929	14 362	10 000*
Brazil (f)	8 678	7 721	12 731	15 000*	18 000*
Chile	741	1 712	2 317	2 684	3 290
Colombia	600*	600*	600*	600*	600*
Peru	13 698	7 471	14 854	15 000*	15 000*
Korea, Republic of	55 968	48 496	53 613	54 841	64 783
Thailand	425	471	410	204	177
Australia	7 921	6 430	7 587	9 048	10 263
World total	1 700 000	1 750 000	1 830 000	1 890 000	1 870 000

Notes

(1) 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) Including beneficiated and directly shipped material

Exports of Diatomite

Country	1983	1984	1985	1986	1987
United Kingdom	309	611	177	521	484
Denmark					
Diatomite	65 509	67 960	73 113	74 267	77 890
Moler bricks	20 736	25 535	19 956	19 125	15 794
France	26 984	31 655	32 337	31 730	31 740
Germany, Federal Republic of	2 660	2 021	1 510	1 247	1 409
Italy	3 240	3 003	4 114	3 014	2 942
Netherlands	1 066	876	1 796	486	831
Spain	3 268	2 233	3 250	4 087	7 780
Austria	1 137	2 425	2 471	2 203	2 653
Czechoslovakia (a)	2 400*	3 100*	4 200*	4 800*	4 900*
Hungary (a)	3 000*	3 200*	2 800*	5 000*	1 800*
Iceland	24 508	26 486	27 123	23 423	23 214
Sweden	694	71	611	46	95
Switzerland	86	32	40	50	60
Turkey	15	363	62	4	2 693
Yugoslavia	—	394	1 504	655	369
Kenya	382	298	208	428	419
Mexico	3 116	4 081	4 469	...	...
USA	132 426	115 282	108 944	119 298	126 394
Hong Kong (b)	26	22	254	442	624
Japan	1 322	2 200	2 599	1 506	1 400
Singapore (b)	795	366	202	115	223
Taiwan	95	226	60	34	731

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

(b) Re-exports

Imports of Diatomite

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom	17 601	20 881	23 915	26 412	25 689
Belgium-Luxembourg	6 400	8 008	8 463	8 304	13 252
Denmark	7 966	6 110	5 526	5 575	5 669
France	9 816	8 638	7 212	5 756	10 567
Germany, Federal Republic of	36 791	37 363	39 162	38 856	39 326
Greece	744	1 888	1 693	2 145	1 407
Irish Republic	453	329	364	146	224
Italy	5 347	4 669	5 044	8 916	5 883
Netherlands	16 150	24 376	64 815	77 143	22 034
Portugal	3 763	4 000	4 172	3 807	4 252
Spain	2 607	2 579	2 704	3 338	3 173
Austria	11 395	11 142	12 931	14 721	13 049
Czechoslovakia (b)	2 500*	2 500*	2 900*	1 900*	1 200*
Finland	4 312	4 295	4 739	5 506	4 910
German Democratic Republic (b)	1 600*	1 500*	1 100*	1 600*	1 700*
Norway	1 578	1 640	2 177	1 986	2 020
Poland (b)	1 300*	700*	2 200*	1 500*	2 300*
Romania (b)	900*	800*	1 000*	1 100*	400*
Sweden	3 148	2 566	2 826	2 318	2 884
Switzerland	10 209	6 244	6 920	6 303	6 308
Turkey	73	142	81	147	147
Yugoslavia	617	543	1 144	1 187	1 150
Algeria	67	12	277	79	...
Cameroon	...	300*	300*	400*	600*
Gabon	171	375	348	384	...
Ivory Coast	173	132	129	...	...
Kenya	19	171	1	0	0
Morocco	107	247	53	98	126
South Africa	5 849	5 333	6 039	4 399	...
Tunisia	133	144	189	167	436
Zaire	248	100	900*	...	...
Zambia	...	367	139	277	...
Zimbabwe	146	99	451	437	291
Canada	23 298	23 891	24 226	26 338	24 482
Costa Rica	342	212	271	64	267
Dominican Republic	735	586	648	785	...
El Salvador	544	445	366	...	...
Guatemala	714	427	416	184	...
Honduras	305	398	502	...	...
Mexico	368	190	101	...	...
Nicaragua	644	631	187	...	...
Panama	222	306	314	433	575
USA	314	307	4 491	710	6 029
Argentina	1 466	2 811	2 032	2 300	...
Brazil	2 217	1 302	1 401	1 310	1 750
Colombia	630	561	1 005	1 585	...
Ecuador	700	595	449	501	688
Peru	1 076	1 838	842	1 460	2 631
Venezuela	7 150	4 837	9 670	4 656	14 664
Cyprus	115	176	156	203	186
Hong Kong	484	562	602	984	1 227
Indonesia	1 188	1 075	637	769	1 323
Iran (c)	980	1 304	...	...	...
Israel (b)	700*	600*	1 000*	800*	700*
Japan	10 280	3 985	3 164	3 901	5 006
Malaysia	971	715	489	788	688
Pakistan (a)	464	17 575	198	254	194

Imports of Diatomite

Country	1983	1984	1985	1986	1987
Philippines	1 093	474	148	408	795
Saudi Arabia	10 518	6 871	4 252	2 586	698
Singapore	1 031	1 146	866	963	1 139
Sri Lanka	29	3 419	15	83	60
Taiwan	3 143	4 692	3 544	4 296	4 623
Thailand	60	98	36	153	373
Australia	9 884	11 115	12 479	10 637	12 004
Fiji	87	104	58	67	...
New Zealand (a)	1 197	1 370	1 067	1 353	1 870

(a) Years ended 30 June of that stated

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

(c) Years ended 20 March following that stated

Production of Feldspar

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom	5 279	5 901	5 934	7 304	5 692
France	175 200	208 900	171 500	274 000	216 000
Germany, Federal Republic of	256 200	286 200	261 400	246 500	310 400
Italy	942 000	1 030 000	1 116 375	1 141 542	1 173 663
Portugal	33 509	29 003	29 011	33 740	40 729
Spain (c)	116 137	136 943	136 190	129 000	140 000*
Austria	1 063	2 554	13 570	2 850	4 692
Finland	53 226	64 733	174 219	47 049	51 632
Norway (d)	57 960	67 820	80 095	87 257	67 000*
Poland	47 600	46 300	60 100	57 200	57 600
Romania	85 000*	85 000*	86 000*	86 000*	82 000*
Soviet Union	330 000*	330 000*	340 000*	340 000*	340 000*
Sweden (e)	52 913	49 833	41 720	35 160	40 000*
Turkey	9 212	10 000*	20 000*	12 180	30 336
Yugoslavia	41 372	34 824	49 480	48 000	45 000*
Egypt	6 091	5 879	19 073	18 020	15 963
Kenya	700	682	879	—	—
Morocco	1 000*	1 000*	1 000*	1 000*	1 000*
Mozambique	317	185	67	—	—
Nigeria	1 000*	1 000*	1 000*	803	535
South Africa	45 114	39 018	33 012	52 762	66 513
Zambia	226	184	185	214	45
Zimbabwe	1 645	1 399	2 300	2 027	2 962
Guatemala	6 000	4 986	5 582	5 446	7 669
Mexico	117 518	84 791	100 000*	100 000*	85 019
USA (e)	644 000	644 000	635 000	667 000	653 000
Argentina	20 065	17 948	27 066	24 087	29 282
Brazil	64 041	84 033	99 053	100 000*	...
Chile	3 356	3 026	2 565	2 275	687
Colombia	31 400	32 766	34 348	35 722	33 760
Ecuador	1 200	2 084	3 405	1 710	4 315
Peru	2 509	3 225	—	—	—
Uruguay	1 129	1 950	1 541	1 632	3 016
Venezuela	37 398	40 497	42 440	34 929	43 000
Burma (a)	6 106	6 218	2 861	1 916	3 000*
Hong Kong	5 275	23 101	26 777	35 208	22 853
India	47 289	42 859	44 303	48 264	49 663
Iran (b)	24 000	33 000	32 000	32 000*	32 000*
Japan	451 478	511 493	526 502	483 948	480 584
Korea, Republic of	109 896	127 057	145 414	130 895	180 269
Pakistan	5 953	5 486	5 633	11 575	6 675
Philippines	6 524	11 486	5 866	6 661	6 500*
Sri Lanka	2 609	3 155	2 878	7 270	7 442
Taiwan	11 866	15 452	11 055	26 290	28 116
Thailand	47 908	74 404	104 586	115 163	168 881
Australia	4 244	3 898	6 704	10 006	11 499
World total	3 900 000	4 200 000	4 500 000	4 500 000	4 600 000

Notes

(1) In addition to the countries listed, China, Czechoslovakia and Namibia 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

Country	1983	1984	1985	1986	1987
United Kingdom	452	456	316	357	450
France	54 455	59 566	53 004	46 847	62 775
Germany, Federal Republic of	17 465	16 570	20 312	26 313	27 329
Italy	36 431	35 469	39 139	29 413	29 632
Netherlands	1 124	2 179	1 421	1 114	1 364
Portugal (a)	4 480	1 240	1 895	7 267	22 706
Spain (a)	659	3 482	4 739	2 578	3 382
Finland (a)	35 498	35 299	35 209	40 301	32 964
Norway	71 040	81 026	86 708	74 185	74 953
Sweden (a)	24 690	30 950	21 803	22 273	16 047
Switzerland (a)	97	169	159	153	95
Turkey	5 045	1 034	2 911	17 050	18 174
Yugoslavia	3 311	3 793	6 722	2 228	3 026
South Africa	459	620	—	913	3 475
Guatemala (c)	3 123	3 542	3 041	2 731	...
USA (a)	8 494	9 144	8 435	11 596	8 773
Brazil	4 000	2 000	5 000	10 000	...
China (a) (b) (c)	29 000*	40 900*	35 400*	52 300*	89 100*
Hong Kong (c)	17 039	36 957	38 571	50 555	77 515
of which: Re-exports	16 970	24 257	28 721	28 165	51 805
India (d)	14 569	37 689	16 781	...	...
Japan	28 886	31 770	27 646	32 822	31 281
Korea, Republic of	31 679	22 988	22 746	16 759	19 258
Singapore (a)	4 894	4 938	4 314	3 585	1 597
of which: Re-exports	4 894	4 928	4 306	3 585	1 597
Thailand	12 621	16 982	35 198	46 064	96 644

(a) May include some leucite and nepheline

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

(c) Including some fluorspar

(d) Years ended 31 March following that stated

Imports of Feldspar

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom	55 737	54 335	55 879	59 337	53 985
Belgium-Luxembourg	21 895	24 778	17 806	18 372	19 853
Denmark	3 873	5 678	6 558	4 932	3 837
France	19 353	19 846	23 497	23 627	28 330
Germany, Federal Republic of	54 355	51 164	46 213	55 193	62 299
Greece	2 217	2 229	1 529	4 446	...
Irish Republic (a) (c)	6 333	6 425	7 612	8 119	3 668
Italy	10 319	13 117	12 453	7 019	10 917
Netherlands	12 931	21 609	20 167	19 749	14 425
Portugal	295	277	253	322	424
Spain (a)	15 035	18 067	18 403	19 829	32 607
Austria (a)	4 301	4 485	4 474	4 466	4 716
German Democratic Republic (a) (b)	16 700*	18 700*	22 700*	10 600*	8 900*
Hungary	—	350	337	352	625
Norway	132	125	231	187	82
Poland	...	9 944	10 034	11 630	...
Sweden (a)	12 465	11 419	11 860	13 392	12 431
Switzerland (a)	7 571	11 890	17 301	11 691	14 994
Yugoslavia	906	769	910	490	1 676
Algeria (a)	3 642	2 255	3 407	3 000	...
Egypt (a) (c)	1 398	2 648	990	8 331	...
Morocco (a)	1 505	1 798	749	358	1 022
Tunisia	1 537	2 329	1 934	1 561	1 462
Costa Rica (c)	2 235	2 623	2 229	2 954	3 667
Mexico	884	794	408	610	...
Panama (c)	1 100	865	712	3 398	209
USA	58	23	864	1 136	4 384
Venezuela	545	1 267	837	981	1 841
Hong Kong (c)	16 267	21 842	23 989	37 396	69 976
Indonesia (a)	7 230	13 522	6 872	12 504	14 193
Israel (a) (b)	300*	200*	100*	3 200*	400*
Japan (a)	7 915	9 611	7 802	6 766	17 977
Jordan (a) (c)	903	2 251	640	928	805
Korea, Republic of	13	37	804	771	1 905
Malaysia (a) (c)	16 572	16 145	24 247	20 867	25 846
Philippines (a) (c)	2 474	2 667	1 633	1 535	6 516
Saudi Arabia (a) (c)	1 336	1 663	890	275	560
Singapore (a)	7 856	7 812	5 992	4 413	1 613
Syria (a) (c)	1 027	4 006	878	1 879	...
Taiwan (a) (c)	99 169	110 482	140 593	158 131	224 733
Thailand (a)	1 499	1 054	1 196	531	2 910
Australia (a)	1 385	18 424	1 643	...	...
New Zealand (a) (c) (d)	1 119	1 385	1 139	832	758

(a) May include some leucite and nepheline

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

(c) Including some fluorspar

(d) Years ended 30 June of that stated

Production of Fluorspar

Country	1983	1984	1985	1986	1987
United Kingdom	131 300	137 000	167 390	133 420	120 000
France	193 650	232 050	224 000	198 000	171 000
Germany, Federal Republic of	80 700	83 300	83 100	88 800	85 200
Greece	275	83	35	150	...
Italy	177 670	188 263	152 212	145 537	136 900
Spain	232 334	295 666	305 609	282 460	255 000*
Czechoslovakia	96 000*	96 000*	95 000*	95 000*	95 000*
German Democratic Republic	100 000*	100 000*	100 000*	100 000*	90 000*
Romania	20 000*	20 000*	20 000*	20 000*	18 000*
Soviet Union	540 000*	550 000*	560 000*	560 000*	560 000*
Sweden	2 042	3 454	3 169	265	200
Turkey	2 000*	2 258	9 804	1 604	2 000*
Egypt	342	118	60	80	502
Kenya	59 084	46 578	57 949	50 851	60 190
Morocco	60 300	65 900	74 350	83 000	78 500
South Africa	267 602	319 206	349 207	333 885	316 606
Tunisia	38 600	44 500	42 200	36 300	43 300
Mexico	604 781	699 429	730 447	766 822	817 635
USA	55 000*	65 000*	60 000*	71 000*	64 000*
Argentina	28 985	23 157	30 612	39 076	54 600
Brazil (a)	70 629	75 711	83 102	85 280	90 300*
China	525 000*	650 000*	750 000*	750 000*	750 000*
India	22 616	21 928	20 270	18 574	18 457
Korea, Dem. P.R. of	40 000*	40 000*	40 000*	40 000*	40 000*
Korea, Republic of	6 361	4 672	705	243	250*
Mongolia	708 000	747 000	787 000	790 000	798 000*
Pakistan	335	703	3 175	4 353	3 528
Thailand	206 648	287 379	298 899	167 909	102 398
World total	4 300 000	4 800 000	5 000 000	4 900 000	4 800 000

Notes

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

(a) Including beneficiated and directly shipped material

Fluorspar

Exports of Fluorspar

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom	12 034	8 200	7 504	5 137	4 732
Belgium-Luxembourg	3 524	1 902	237	20	—
France	47 356	60 928	56 187	45 701	47 045
Germany, Federal Republic of	12 920	16 518	15 833	13 100	20 463
Italy	60 994	70 801	44 786	11 743	37 732
Netherlands	135	290	224	408	461
Spain	162 450	151 313	148 978	174 148	90 970
German Democratic Republic (b)	48 100*	46 500*	41 800*	43 000*	33 600*
Sweden	4 794	1 847	4 939	557	1 458
Kenya	48 893	52 180	60 726	41 132	45 681
Morocco	56 434	74 200	64 245	79 944	89 835
South Africa	246 462	343 432	283 023	288 070	281 427
Tunisia	...	3 150	7 250	6 100	8 536
Mexico	437 591	707 634	564 622	440 294	441 054
USA	8 689	11 128	9 060	14 730	2 679
China	523 029	634 481	734 182	700 130	775 848
Japan (a)	458	327	157	157	245
Korea, Republic of	—	513	—	—	—
Thailand	183 002	230 407	199 640	137 619	114 542

(a) May include some leucite and nepheline

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

Imports of Fluorspar

Country	1983	1984	1985	1986	1987
United Kingdom	10 759	20 000*	18 000*	(b) 28 200*	(b) 17 900*
Belgium-Luxembourg	7 744	8 310	7 773	7 662	10 643
Denmark	517	586	499	486	491
France	1 535	15 425	13 151	12 990	14 554
Germany, Federal Republic of	176 124	194 558	233 280	208 860	190 138
Greece	6 024	4 986	9 642	11 720	13 839
Irish Republic (a) (c)	6 333	6 425	7 612	8 119	3 668
Italy	88 099	97 836	91 645	82 274	67 317
Netherlands	18 684	18 330	27 152	23 148	30 330
Portugal	2 248	1 860	571	437	2 616
Albania (b)	1 100*	300*	700*	1 000*	1 000*
Austria	11 895	14 416	13 090	12 356	13 919
Bulgaria (b)	200*	800*	850*	200*	300*
Finland	4 406	6 455	8 605	6 382	8 260
Hungary	6 305	8 034	7 715	6 481	5 912
Norway	39 084	43 925	47 089	47 021	46 804
Poland	...	20 779	20 561	23 907	...
Romania (b)	7 500*	4 800*	12 600*	4 200*	4 800*
Soviet Union (b)	88 300*	117 500*	105 000*	48 900*	...
Sweden	6 476	11 932	9 929	10 648	10 956
Turkey	23	21	636	100	...
Yugoslavia	8 052	6 751	9 298	9 223	8 280
Algeria	14	1 187	1 049	1 900	...
Egypt (a) (c)	1 398	2 648	990	8 331	...
Tunisia	—	—	—	6 629	2 840
Canada	141 928	166 709	111 726	164 114	134 567
Costa Rica (c)	2 235	2 623	2 229	2 954	3 667
Panama (c)	1 100	865	712	3 398	209
USA	397 580	650 432	552 576	483 208	542 319
Chile (b)	3 000*	3 000*	3 000*	3 000*	...
Peru	1 170	329	240	2 268	279
Venezuela	155	329	649	302	1 203
Hong Kong (c)	16 267	21 842	23 989	37 396	69 976
India (e)	...	...	8 807	...	...
Japan	435 383	513 284	570 656	527 236	527 545
Jordan (a) (c)	903	2 551	640	928	805
Korea, Republic of	19 200	29 947	46 093	28 598	61 752
Malaysia (a) (c)	10 911	12 105	20 673	13 399	16 799
Philippines (a) (c)	2 474	2 667	1 633	1 535	6 516
Saudi Arabia (a) (c)	1 336	1 663	890	275	560
Syria (a) (c)	1 027	4 006	878	1 879	...
Taiwan (a) (c)	99 169	110 482	140 593	158 131	224 733
Thailand	1 783	703	983	392	754
Australia	12 676	25 885	26 192	23 640	13 374
New Zealand (a) (c) (d)	1 119	1 385	1 139	832	758

(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 31 March following that stated

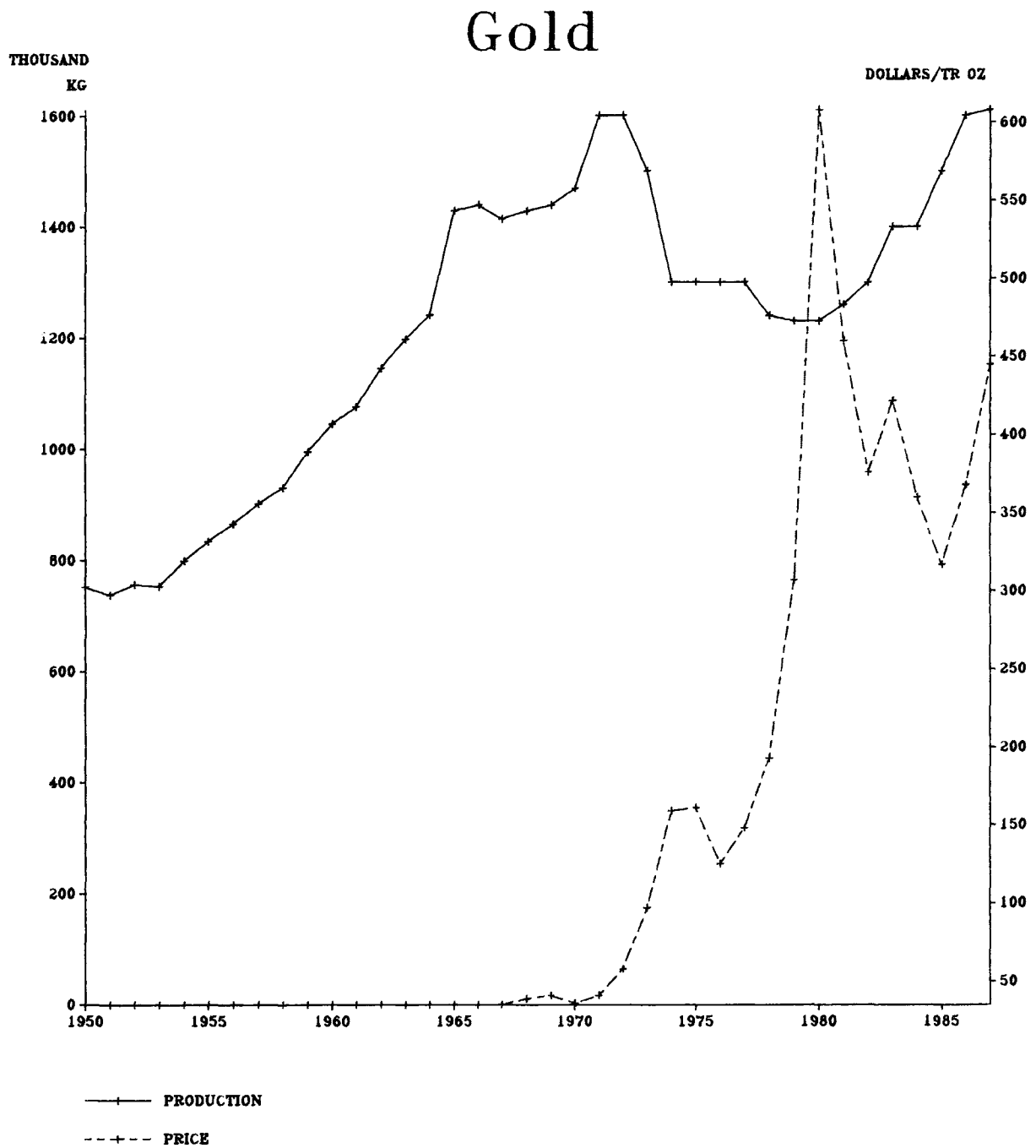


Figure 7 World mine production of gold from 1950 to 1987 compared with the actual price expressed in US dollars per troy ounce (London).
Prices taken from International Financial Statistics Yearbook (1988) published by the International Monetary Fund.

Mine Production of Gold

kilograms (metal content)

Country	1983	1984	1985	1986	1987
France	2 744	2 407	2 380	2 360	2 260
Germany, Federal Republic of	60*	50*	60*	60*	60*
Portugal	199	193	229	303	323
Spain	5 434	8 097	10 254	4 005	5 028
Finland	872	1 046	996	1 172	1 776
Hungary	1 000*	600*	600*	600*	600*
Romania	2 000*	2 000*	2 000*	2 000*	2 000*
Soviet Union	312 000	300 000	271 000	275 000*	275 000*
Sweden	3 369	4 408	4 710	4 332	3 800
Yugoslavia (d)	4 238	3 892	4 460	4 498	5 348
Botswana	11	18	13	25	32
Burkina Faso	—	700*	1 600*	1 900*	2 700*
Burundi	11	35	25	...	...
Cameroon	8	8*	8*	8	...
Central African Republic	95	236	249	220	224
Congo	8	3	13	9	...
Ethiopia (b)	463	662	918	923	642
Gabon	37	41	49	55	70
Ghana	8 601	8 923	9 311	8 950	10 228
Kenya	3	14	11	73	14
Liberia (a)	449	328	147	610	657
Mali	400	500	500	500*	700*
Namibia	296	196	194	184	172
Rwanda	39	8	8	6	8
Sierra Leone	370*	570*	591	370	373
South Africa	679 665	681 930	672 944	640 026	600 229
Sudan	40	30	52	53	700
Tanzania	24	39	55	85	201
Zaire	6 001	3 644	2 289	2 752	3 651
Zambia (c)	316	379	246	58	350
Zimbabwe	14 101	14 877	14 691	14 853	14 693
Canada	73 512	83 446	87 561	102 899	115 818
Costa Rica (e)	775	595	1 073	362	336
Dominican Republic	11 012	10 522	10 219	8 879	7 664
Honduras	67	87	156	155*	131
Mexico	6 930	7 058	7 524	7 795	7 988
Nicaragua	1 444	1 100*	787	892	984
USA	62 287	64 840	75 497	116 118	154 475
Argentina	767	688	882	944	982
Bolivia	1 531	1 270	561	763	2 806
Brazil	53 684	37 218	29 673	24 124	35 800
Chile	17 759	16 829	17 240	17 947	17 035
Colombia	13 642	22 727	35 533	39 788	26 546
Ecuador	1 200	1 800	2 400	9 870	9 400
French Guiana	250	315	407	326	520
Guyana	143	328	321	436	666
Peru	5 242	5 829	6 621	8 846	5 592
Venezuela	1 033	1 741	2 214	2 576	3 861
China	57 000*	59 000*	65 000*	68 000*	71 500*
India	2 156	1 988	1 850	1 931	1 864
Indonesia	2 262	2 279	2 508	3 301	3 649
Japan	3 139	3 220	5 309	10 280	8 590
Korea, Dem. P.R. of	5 000*	5 000*	5 000*	5 000*	5 000*
Korea, Republic of (d)	2 242	2 462	2 403	4 649	7 600
Malaysia	2 628	2 788	2 768	2 749	3 516
Philippines	25 397	25 727	33 063	35 430	34 081
Taiwan (d)	1 629	1 176	953	910	536

Gold

Mine Production of Gold

kilograms (metal content)

Country	1983	1984	1985	1986	1987
Australia	30 591	40 309	58 521	75 079	110 696
Fiji	1 246	1 676	1 888	2 856	2 866
New Zealand	301	672	886	1 265	1 148
Papua New Guinea	18 320	18 573	31 025	36 733	35 996
Solomon Islands	35*	80	29	98	74
World total	1 446 000	1 457 000	1 490 000	1 557 000	1 610 000

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.

(2) Small operations in Brazil are believed to produce substantial amounts of gold

(3) In addition to the countries listed, Bulgaria, Burma, Czechoslovakia, German Democratic Republic, Norway and Thailand are also believed to produce gold

(a) Exports

(b) Years ended 6 July of that stated

(c) Contained in blister copper, refinery muds and electrolytic copper

(d) Metal production

(e) Central Bank purchases

Exports of Gold

Gold
kilograms

Country	1983	1984	1985	1986	1987
United Kingdom					
Metal					
Refined	721 618	523 297	425 395	474 642	367 532
Other	3 319	4 631	4 990	6 239	6 102
Waste & scrap	940	30 962	25 392	2 954	3 747
Belgium-Luxembourg					
Metal	24 400	22 967	28 003	18 762	16 279
Waste & scrap	£17 656 000	£6 481 000	£3 001 000	£3 378 000	£3 455 000
Denmark					
Waste & scrap	10 014	12 204	11 072	8 045	40 855
of which: Re-exports	3 018	4 964	3 825	3 835	4 084
France					
Metal	11 858	24 135	19 536	24 911	25 419
Waste & scrap	54 702	37 667	124 186	122 384	78 400
Germany, Federal Republic of					
Metal	37 660	48 901	46 541	65 608	33 925
Waste & scrap	17 303	10 818	49 836	15 892	30 727
Irish Republic					
Metal	£826 000	£936 000	£642 000	£646 000	£35 000
Waste & scrap	£291 000	£459 000	£608 000	£650 000	£1 046 000
Italy					
Metal	1 671	3 063	5 169	2 774	30 561
Netherlands					
Metal	4 840	3 059	1 935	1 331	2 556
Waste & scrap	75 000	42 000	20 000	35 000	9 000
Spain					
Metal	40 001	3 876	1 845	3 793	1 404
Austria					
Metal	625	435	510	542	528
Finland					
Metal	659	809	757	892	1 367
Norway					
Metal	412	433	273	318	726
Waste & scrap	1 429	316	318	155	145
Soviet Union					
Metal (c)	26 000*	21 000*	28 800*	64 400*	35 800*
Sweden					
Metal	3 000	4 000	5 000	7 000	8 000
Waste & scrap	9 000	7 000	13 000	24 000	49 000
Switzerland					
Metal	557 808	889 793	929 893	921 911	671 605
Ghana					
Metal	8 621	8 880	8 966	8 359	10 092
Liberia					
Metal	449	328	147	610	657
Namibia					
Metal	296	196	194	184	...
Sierra Leone					
Metal	52	83	80	193	...
South Africa					
Metal	£6 045 000 000	£6 037 000 000	£5 399 000 000	£5 210 000 000	£5 265 000 000
Zaire					
Metal	5 200	2 498	1 687	1 008	3 385
Zimbabwe					
Metal	13 281	10 843	12 115	21 642	18 052
Canada					
Ores & concentrates (b)	6 146	5 815	6 035	7 302	8 604
Metal	78 783	124 483	113 230	165 632	69 876
Dominican Republic					
Metal (d)	52 322	48 079	59 387	51 064	45 000*
Nicaragua					
Metal	1 222	...	...	...	...
USA					
Ore (b)	404	103	76	221	1 395
Metal					
Unrefined	2 177	2 255	2 984	14 898	20 446
Refined	61 148	111 418	92 662	359 817	78 838
Other	2 051	2 212	37 062	2 374	3 886
Waste & scrap	37 266	44 289	31 566	30 657	28 199

Gold

Exports of Gold

kilograms

Country	1983	1984	1985	1986	1987
Bolivia					
Ores & concentrates (b)	44	405	513	248	1 226
Metal	—	506	20	362	1 370
Chile					
Metal	5 863	7 516	8 552	8 205	...
Colombia					
Ore	141 698	199 000	174 200	215 000	...
Peru					
Metal	5 189	5 469	5 465	662	66
Hong Kong					
Metal (a)	35 671	1 499	2 117	47 959	15 815
Waste & scrap (a)	508	675	1 304	5 068	2 337
Japan					
Metal	8 128	6 341	4 463	5 827	11 525
Jordan					
Metal (a)	1 333	3	939	1 809	4 630
Korea, Dem. P. R. of					
Metal (c)	7 300*	10 800*	7 300*	4 800*	7 700*
Malaysia					
Metal	909	1 667	814	...	999
Philippines					
Ores & concentrates (b)	11 413	9 190	10 338	12 273	6 596
Singapore					
Metal	—	3 459	1 981	4 129	4 555
Waste & scrap	—	919	759	1 280	1 749
Taiwan					
Waste & scrap	—	17 860	21 446	19 462	197
Australia					
Ores, concentrates & unrefined metal (b)	2 872	1 156	1 921	2 796	1 403
Refined metal	17 743	30 461	47 958	55 889	84 999
Fiji					
Metal	1 237	1 650	1 863	2 899	...
Papua New Guinea					
Metal	18 320	18 573	31 025	36 733	35 996

Notes

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

(a) Re-exports

(b) Au content

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

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

Imports of Gold

Gold
kilograms

Country	1983	1984	1985	1986	1987
United Kingdom					
Ores & concentrates	334	11 544	852	1 930	2 879
Metal					
Unrefined	18 323	3 450	4 786	9 654	19 751
Refined	509 162	436 670	347 880	487 986	354 971
Other	6 193	8 455	19 228	28 075	33 060
Waste & scrap	108 517	175 111	162 774	161 604	205 586
Belgium-Luxembourg					
Metal	240 784	61 809	65 353	53 012	45 014
Waste & scrap	£1 065 000	£1 694 000	£1 903 000	£1 805 000	£1 463 000
Denmark					
Metal	687	763	824	1 128	1 054
Waste & scrap	45	439	634	597	8 211
France					
Metal	56 211	92 973	31 426	51 030	91 694
Waste & scrap	2 269	1 242	1 604	27 107	1 400
Germany, Federal Republic of					
Metal	61 113	73 145	83 125	100 310	78 855
Waste & scrap	176 898	97 997	176 469	187 094	158 364
Greece					
Metal	1 992	1 530	2 572	2 643	...
Irish Republic					
Metal	£3 582 000	£2 697 000	£4 138 000	£4 128 000	£4 021 000
Italy					
Metal	151 015	202 487	231 954	217 097	200 593
Netherlands					
Metal	6 947	4 711	5 869	5 040	3 621
Waste & scrap	2 000	3 000	6 000	10 000	7 000
Portugal					
Metal	105	188	228	649	5 033
Spain					
Metal	1 212	248	1 723	3 769	5 932
Waste & scrap	33 400	35 603	...	2 000	25
Austria					
Metal	4 419	3 275	3 345	4 522	3 105
Finland					
Metal	1 019	910	892	756	745
Malta					
Metal	162	1 913	1 263	2 355	3 424
Norway					
Metal	621	582	632	753	554
Waste & scrap	547	2	15	61	175
Sweden					
Metal	£5 382 000	£3 771 000	£4 639 000	£8 364 000	£12 589 000
Waste & scrap	£282 000	£231 000	£202 000	£295 000	£511 000
Switzerland					
Metal	753 593	766 297	883 081	1 195 002	909 709
Algeria					
Metal	4 520	2 254	2 751	16	...
South Africa					
Metal	267	3 410	420	...	...
Waste & scrap	11	1 685	—	...	...
Tunisia					
Metal	...	449	387	290	115
Bermuda					
Metal	780	847	1 704	...	160
Canada					
Ores & concentrates (c)	951	553	475	704	1 060
Metal	65 467	67 873	95 872	115 148	59 940
USA					
Ore (c)	8 819	7 446	2 489	2 288	1 939
Metal					
Unrefined (a)	23 582	52 033	56 969	59 731	43 067
Refined	111 950	195 827	197 853	429 252	75 367

Gold

Imports of Gold

kilograms

Country	1983	1984	1985	1986	1987
Brazil					
Metal	1 109	55	78	43	...
Ecuador					
Metal	377	10	...	...	...
Brunei					
Metal	84	113	429	...	...
Cyprus					
Metal	843	1 102	1 307	1 480	1 555
Hong Kong					
Metal	30 173	165 427	162 627	51 259	157 268
Indonesia					
Metal	450	1 500	340	20	—
Iran (d)					
Metal	296	70	...	...	...
Israel					
Metal	£57 694 000	£94 371 000	£104 853 000	£104 863 000	£100 356 000
Japan					
Metal	104 418	191 984	196 815	607 830	239 217
Waste & scrap	5 449	1 329	1 011	1 666	1 821
Jordan					
Metal	1 074	25 168	13 664	3 647	1 042
Korea, Republic of					
Metal	1 786	1 954	11 545	5 895	24 467
Macao					
Metal	247	876	2 600	17	93
Malaysia					
Metal	2 779	7 366	7 721	7 507	6 324
Philippines					
Metal	71	309	267	298	103
Saudi Arabia					
Metal	22 960	18 675	18 140	3 458	13 534
Singapore					
Metal	—	4 433	3 295	3 878	4 850
Taiwan					
Metal	33 844	52 165	34 496	27 565	87 575
Thailand					
Metal	4 535	2 379	4 360	4 063	6 648
Australia					
Metal	3 161	3 527	7 972	7 184	7 420
New Zealand (b)					
Metal	553	1 062	1 745	549	141

Notes

(1) 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) Years ended 30 June of that stated

(c) Au content

(d) Years ended 20 March following that stated

Production of Graphite

Country	1983	1984	1985	1986	1987
Germany, Federal Republic of (b)	12 000	12 400	12 800	13 200	9 900
Italy	2 299	—	—	—	—
Austria (a)	40 418	43 789	30 764	36 167	39 391
Czechoslovakia	26 666	27 000*	15 000*	13 686	12 763
Norway	8 063	10 067	2 684	—	—
Romania	12 600*	12 400*	12 000*	12 000*	12 000*
Soviet Union	80 000*	80 000*	82 000*	83 000*	83 500*
Turkey	4 805	...	...	3 586	11 760
Madagascar	13 496	14 155	14 700	16 188	13 569
Zimbabwe	19 862	12 334	10 450	15 004	13 530
Mexico	44 327	41 529	35 378	37 780	37 946
Brazil (d)	27 636	32 680	43 664	47 000	...
Burma (c)	272	234	200*	722	500*
China	185 000*	185 000*	185 000*	185 000*	185 000*
India	42 778	39 106	33 586	40 483	26 864
Korea, Dem. P.R. of	25 000*	25 000*	25 000*	25 000*	25 000*
Korea, Republic of	33 266	58 563	71 479	97 218	107 345
Sri Lanka	5 768	5 768	7 472	7 453	6 718
World total	584 000	605 000	587 000	633 000	633 000

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) Including beneficiated and directly shipped material

Graphite

Exports of Graphite

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom	3 123	3 862	2 563	3 739	3 184
Belgium-Luxembourg	2 746	3 254	74	62	8
France	891	555	808	497	566
Germany, Federal Republic of	9 978	12 210	11 522	9 844	10 287
Italy	2 787	5 481	445	244	342
Netherlands	152	253	89	87	514
Austria	11 405	11 552	11 826	10 284	8 330
Czechoslovakia (a)	3 000*	2 800*	3 100*	2 800*	2 500*
Norway	7 311	8 888	6 161	954	56
Sweden	13	117	128	5	4
Madagascar	11 685	14 527	16 125	13 707	11 141
Zimbabwe	9 720	11 989	15 440	14 700	12 503
Mexico	19 420	21 323	19 298	...	...
USA	8 729	6 667	9 240	13 089	11 700
Brazil	5 578	5 082	8 725	9 213	...
China (a)	55 200*	78 800*	71 800*	80 400*	86 000*
Hong Kong (c)	53	856	508	3 036	3 781
India (b)	1 187	1 871	1 043	...	...
Japan	2 515	2 927	2 553	2 666	2 019
Korea, Dem. P. R. of (a)	2 200*	11 000*	5 800*	4 600*	6 500*
Korea, Republic of	32 694	39 864	48 353	30 969	56 827
Sri Lanka	4 223	7 215	9 170	9 824	10 388
Taiwan	100	237	188	204	178

Notes

(1) This table excludes synthetic graphite

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

(b) Years ended 31 March following that stated

(c) Re-exports

Imports of Graphite

Country	1983	1984	1985	1986	1987
United Kingdom	28 352	19 540	23 460	23 101	19 729
Belgium-Luxembourg	963	992	827	951	824
Denmark	1 225	1 414	1 316	1 388	1 068
France	3 662	4 578	5 277	5 572	5 864
Germany, Federal Republic of	28 869	31 983	33 998	37 793	30 504
Greece	333	272	765	791	618
Italy	4 104	6 280	5 955	6 867	7 465
Netherlands	564	954	636	1 204	1 726
Portugal	146	95	123	148	541
Spain	1 905	2 004	2 519	3 993	4 692
Austria	3 738	7 134	3 280	4 966	2 083
Bulgaria (d)	400*	2 000*	2 000*	1 400*	1 700*
Czechoslovakia (d)	500*	300*	300*	400*	300*
Finland	263	37	84	82	115
German Democratic Republic	6 359	5 712	6 634	5 289	4 947
Hungary	1 722	1 549	993	1 302	2 270
Norway	496	573	495	441	233
Poland	6 688	7 445	6 082	3 929	...
Sweden	401	675	743	570	789
Switzerland	112	141	108	237	187
Turkey	334	474	555	440	509
Yugoslavia	2 996	2 220	2 267	2 234	2 415
Algeria	263	481	632	161	...
Egypt	227	921	518	165	...
Mauritius	1 046	390	1 030	714	...
South Africa	2 129	4 122	3 834	2 751	...
USA	39 540	52 840	47 842	38 817	43 335
Argentina	312	301	183	391	...
Venezuela	594	701	927	681	1 014
Hong Kong	494	1 545	1 499	3 685	4 104
India (c)	...	...	620	...	...
Indonesia	161	98	150	968	704
Iran (a)	611	526	...	...	...
Japan	54 195	85 009	78 857	58 645	94 268
Korea, Republic of	443	1 260	1 084	3 180	3 784
Malaysia	834	1 183	908	510	734
Pakistan (b)	1 418	1 777	1 566	845	2 630
Philippines	141	199	73	122	365
Singapore	455	1 125	427	407	314
Taiwan	10 957	6 574	8 428	8 513	8 390
Thailand	733	532	722	827	1 138
Australia	795	979	1 199	1 460	2 069
New Zealand (b)	67	113	36	108	121

Notes

(1) This table excludes synthetic graphite

(a) Years ended 20 March following that stated

(b) Years ended 30 June of that stated

(c) Years ended 31 March following that stated

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

Gypsum

Production of Gypsum

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Gypsum	2 916 000	3 082 000	3 130 000	3 363 000	(a) 3 500 000*
Anhydrite	51 000	56 000	59 000	53 000	...
France					
Gypsum	5 557 000	5 820 000	5 286 000	5 259 000	5 409 000
Anhydrite	834 500	909 681	935 075	...	...
Germany, Federal Republic of					
Gypsum	1 919 500	1 756 700	1 396 400	1 482 600	1 397 300
Anhydrite	620 000	560 000	607 000	505 000	413 000
Greece	645 431	582 741	467 794	650 000*	650 000*
Irish Republic	352 400	325 000	304 100	288 700	284 200
Italy	1 388 187	1 003 677	1 281 328	1 219 823	1 200 000*
Luxembourg	400*	400*	400*	400*	400*
Portugal	249 092	227 708	241 893	265 301	270 000*
Spain	5 620 395	5 365 795	5 524 511	5 500 000*	5 500 000*
Austria					
Gypsum	611 224	600 094	569 671	586 432	578 614
Anhydrite	139 697	140 023	124 322	115 317	86 437
Bulgaria	385 000	393 000	388 000	390 000*	390 000*
Czechoslovakia (a)	848 000	842 000	771 600	743 100	770 800
German Democratic Republic (d)	296 932	302 300	311 700	304 500	299 300
Poland (d)	217 000	250 000	235 900	264 000	260 900
Romania	1 630 000*	1 650 000*	1 620 000*	1 600 000*	1 600 000*
Soviet Union	4 900 000*	4 900 000*	4 900 000*	5 000 000*	5 000 000*
Switzerland	180 000*	220 000*	220 000*	200 000*	210 000*
Turkey	75 572	53 080	78 058	128 051	301 743
Yugoslavia	623 000	607 000	600 000	595 000	553 000
Algeria	250 000*	250 000*	250 000*	275 000*	275 000*
Angola	20 000*	20 000*	20 000*	18 000	22 000
Egypt (f)	721 000	810 000	841 000	905 688	1 088 472
Ethiopia	4 500*	4 200*	4 000*	4 000*	1 000*
Kenya	1 350	320	74 078	11 060	38 819
Libya	180 000	180 000*	180 000*	180 000*	180 000*
Mauritania	—	800	5 470	12 642	19 402
South Africa	518 353	535 286	458 399	404 205	349 079
Sudan	8 000	8 000	6 400	50 000	8 500
Tanzania	6 800	7 600	14 411	14 144	24 648
Tunisia	50 000*	55 000*	60 000*	65 000*	75 000*
Canada (a)	7 644 442	8 380 079	8 704 386	9 000 000*	9 000 000*
Cuba	130 000*	130 000*	130 000*	130 000*	130 000*
Dominican Republic	146 723	200 000*	310 000	132 000	59 777
Guatemala	21 623	10 998	16 888	30 608	51 495
Honduras	22 000*	22 000*	22 000*	22 000*	22 000*
Jamaica	108 000	180 200	179 000	117 000	176 300
Mexico	2 958 085	2 945 222	2 366 019	2 625 178	2 457 810
Nicaragua	11 350	10 000*	8 310	8 000*	7 299
USA	11 688 000	12 990 000	13 076 000	13 973 000	14 163 000
Argentina	578 188	566 943	460 816	462 195	561 073
Brazil (e)	428 099	420 978	529 613	700 000*	750 000*
Chile	66 337	167 477	195 911	192 847	234 471
Colombia	238 071	260 408	250 038	295 042	356 180
Ecuador	3 000*	3 000*	1 348	7 393	30 640
Paraguay	4 000	6 000	2 500	2 800	3 100
Peru	77 143	66 722	28 640	30 000*	...
Uruguay	151 882	74 091	118 334	114 162	142 629
Venezuela	206 469	142 386	188 754	250 226	240 000

Production of Gypsum

Country	1983	1984	1985	1986	1987
Afghanistan	3 000*	3 000*	3 000*	3 000*	3 000*
Burma (b)	21 507	39 200	39 000	23 064	25 000*
China	4 300 000*	4 800 000*	5 000 000*	6 500 000*	7 200 000*
Cyprus	32 000	22 100	16 100	30 000	45 700
India	988 025	1 257 756	1 289 307	1 640 443	1 733 720
Iran (c)	8 637 000	9 666 000	8 384 000	8 400 000*	8 400 000*
Iraq	170 000*	300 000*	300 000*	300 000*	350 000*
Israel	42 000	46 000	45 000*	45 000*	45 000*
Jordan	41 848	111 524	91 965	70 083	114 560
Laos	70 000	82 000	110 000*	98 000	110 000*
Lebanon	5 000*	5 000*	3 000*	3 000*	3 000*
Mongolia	32 000*	32 000*	32 000*	32 000*	32 000*
Pakistan (a)	310 578	368 554	409 550	373 096	449 013
Philippines	500	600	300	13 080	13 233
Saudi Arabia	143 524	152 869	155 482	140 736	134 976
Syria	78 750	79 580	106 250	110 000*	110 000*
Taiwan	3 022	1 882	2 199	2 447	1 378
Thailand	760 361	1 110 660	1 273 459	1 665 557	3 030 919
Vietnam	25 000*	25 000*	25 000*	25 000*	25 000*
Yemen Arab Republic	23 138	24 295	25 000	53 000	150 000
Australia	1 509 800	1 931 205	1 744 470	1 671 001	1 580 331
World total	73 500 000	78 200 000	76 600 000	80 600 000	83 700 000

(a) Including anhydrite

(b) Years ended 31 March following that stated

(c) Years ended 20 March following that stated

(d) Calcined

(e) Including beneficiated and directly shipped material

(f) Years ended 30 June of that stated

Gypsum

Exports of Gypsum

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Crude	4 018	2 721	4 295	2 569	1 951
Calcined	17 693	13 927	12 060	14 852	10 195
Belgium-Luxembourg					
Crude	69 301	51 816	40 453	17 077	37 366
Calcined	67 627	58 291	76 460	77 128	94 073
Denmark					
Crude & calcined	690	1 855	2 001	3 134	3 886
of which: Re-exports	80	177	1 471	2 858	3 189
France					
Crude	785 054	918 172	1 061 618	1 083 869	941 296
Calcined	262 936	270 505	232 434	225 556	228 274
Germany, Federal Republic of					
Crude	167 261	131 915	120 921	115 991	188 384
Calcined	142 545	133 486	153 666	163 929	189 072
Greece	38 951	392	61	24	...
Irish Republic					
Crude	2 192	831	1 439	1 387	5 557
Calcined	38 983	50 708	61 184	54 809	46 359
Italy					
Crude	897	3 133	4 054	7 378	8 488
Calcined	11 269	11 174	12 718	6 425	4 799
Netherlands					
Crude	26 932	24 520	36 231	35 874	97 978
Calcined	1 877	2 371	5 922	17 788	11 945
Spain					
Crude & calcined	1 935 217	2 274 742	2 192 552	2 486 269	2 595 372
Austria					
Crude	105 715	99 577	84 167	64 024	64 217
Calcined	84 748	92 227	57 293	55 271	53 062
German Democratic Republic					
Calcined	84 863	88 663	105 498	97 812	83 596
Norway					
Crude	—	2 341	—	—	—
Poland	38 000*	66 163	50 596	(a) 4 000*	...
Romania (a)	15 100*	16 900*	18 500*	12 300*	12 700*
Soviet Union (a)	23 400*	19 800*	23 400*	13 700*	18 300*
Sweden					
Crude & calcined	789	496	377	409	326
Switzerland					
Crude & calcined	14 027	13 847	11 970	15 143	18 972
Turkey					
Crude & calcined	2 649	854	3 657	5 539	1 280
Yugoslavia	119	2 269	8 826	10 556	9 125
Kenya	1 839	702	812	1 623	72
Morocco					
Crude	106 020	124 750	140 350	183 770	...
Calcined	3 378	2 356	4 506	2 636	...
South Africa	3 003	2 184	1 599	663	...
Zimbabwe					
Crude	...	1 038	2 149	1 380	6 000
Canada					
Crude	5 187 032	6 229 110	5 879 660	5 942 849	5 723 359
Dominican Republic	52 754	4 097	13 243	25 000*	59 777
Guatemala	10 792	13 281	9 091	16 141	...
Jamaica	57 730	170 553	160 548	100 143	117 577
Mexico	3 656 886	3 911 840	1 942 256	2 337 518	2 183 696
Nicaragua	1 314	632	...	...	...
USA					
Crude	4 237	5 284	4 085	13 155	3 417
Calcined	101 976	113 491	70 835	127 758	111 899
Argentina	3 759	5 012	8 676	10 065	...
Venezuela	...	17 918	8 750	—	—

Exports of Gypsum

Country	1983	1984	1985	1986	1987
China (a)	12 600*	10 100*	12 200*	19 300*	30 500*
Cyprus					
Crude	—	2 045	4 449	10 659	11 749
Calcined	4 932	4 883	1 342	1 565	4 158
Dubai					
Crude & calcined	2 226	1 176	...	...	...
Hong Kong (c)	6 738	1 677	7 307	4 709	4 960
India (b)	519	18 565	3 449	...	...
Japan					
Crude	4 483	4 137	689	694	866
Calcined	5 556	5 521	5 453	4 143	4 166
Korea, Republic of					
Crude	85	96	34	34	12
Calcined	59 074	24 130	19 000	35	70
Philippines					
Crude	—	—	—	5 250	61 227
Saudi Arabia					
Crude & calcined	39 976	29 517	16 085	14 414	18 593
Singapore					
Crude & calcined	1 784	2 316	2 666	2 739	5 040
of which: Re-exports	1 649	2 076	2 563	2 543	4 656
Syria	30 565	181	11 563	76 713	...
Taiwan	734	228	553	726	741
Thailand					
Crude	484 755	771 194	892 243	1 226 606	1 147 271
Calcined	6 372	8 514	14 025	90 766	324 888
Australia					
Crude & calcined	803 144	732 221	520 761	428 584	200 230

Notes

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

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

(b) Years ended 31 March following that stated

(c) Re-exports

Gypsum

Imports of Gypsum

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Crude	37 357	30 566	52 042	34 148	88 461
Calcined	48 225	56 521	57 213	52 043	55 645
Belgium-Luxembourg					
Crude	203 107	267 177	265 187	345 419	436 366
Calcined	161 155	153 351	136 607	162 542	148 755
Denmark					
Crude	196 319	206 835	150 825	199 781	248 719
Calcined	77 382	11 912	8 000	9 026	10 357
France					
Crude	24 812	17 626	27 818	60 572	120 361
Calcined	8 534	8 195	11 401	30 177	38 764
Germany, Federal Republic of					
Crude	623 347	686 562	775 736	760 252	698 306
Calcined	135 146	136 688	101 124	94 389	86 260
Greece					
Crude	73	98	111	125	164
Calcined	739	698	803	1 298	648
Irish Republic					
Crude	1 488	1 454	1 487	3 832	4 896
Calcined	3 424	3 653	3 160	7 124	3 348
Italy					
Crude	132	187	254	777	4 875
Calcined	11 463	9 283	13 189	14 692	11 782
Netherlands					
Crude	279 596	280 379	269 597	251 780	316 316
Calcined	93 586	137 184	156 792	202 425	192 993
Portugal					
Crude	33 280	36 478	38 022	47 619	47 895
Calcined	771	945	1 241	1 566	5 647
Spain					
Crude & calcined	753	879	1 000	704	1 107
Austria					
Crude	2 499	5 344	6 117	6 471	5 160
Calcined	6 418	5 908	5 709	6 279	7 222
Czechoslovakia	21 000	24 000	26 000	23 000	20 000
Finland					
Crude	173 302	175 509	166 283	183 044	218 806
Calcined	2 960	2 820	2 748	2 729	3 374
Hungary					
Calcined	79 940	87 973	82 133	77 830	69 686
Iceland	8 183	5 174	7 124	4 555	6 683
Norway					
Crude	128 265	172 412	146 742	146 727	130 280
Calcined	14 445	6 798	56 812	64 591	100 525
Sweden					
Crude	251 654	293 204	286 282	284 810	406 680
Calcined	5 478	5 820	6 163	6 858	11 532
Switzerland					
Crude	32 989	30 580	31 898	30 456	132 730
Ground & calcined	34 535	35 825	38 198	38 751	48 379
Algeria					
Crude & calcined	110	3	181	1 927	...
Cameroon					
Crude & calcined	35 892	6 368	19 940	...	...
Canary Islands	2	12 500	17 600	29 901	60 652
Egypt	622	...	2 591	...	...
Gabon					
Crude & calcined	8 668	564	1 466	808	...
Ghana	2 138	...	...	...	...
Ivory Coast					
Crude	35 902	27 664	26 888	...	...
Calcined	4 071	2 568	4 014	...	...

Imports of Gypsum

Country	1983	1984	1985	1986	1987
Kenya	25 997	15 698	1 832	2 140	2 148
Liberia					
Crude & calcined	...	...	5 234	439	5 049
Melilla	496	282	456	377	142
Mozambique					
Crude & calcined	20 040	72	0	12	...
Reunion					
Crude & calcined	12 018	6 786	7 730	10 151	11 660
Senegal					
Crude	18 910	23 592	22 264	14 210	8 574
Calcined	86	314	611	500	1 160
South Africa					
Crude & calcined	9 523	8 609	7 331	6 407	...
Tunisia					
Crude & calcined	300	680	848	520	478
Zaire					
Crude & calcined	9 557	463	...	...	...
Zimbabwe	1 619	2 293	1 796	765	31
Bahamas	1 389	699	2 230	930	...
Canada					
Crude	100 939	131 809	121 803	221 647	217 624
Calcined	24 728	21 427	24 632	21 307	25 898
Costa Rica					
Crude	9 464	17 761	23 622	(c) 20 574	(c) 15 317
Calcined	571	930	1 064	...	...
El Salvador					
Crude	10 443	12 658	8 534	...	...
Calcined	152	321	207	...	...
Guadeloupe	17 133	...	9 967	10 690	10 918
Martinique	6 787	...	8 257	9 749	12 459
Mexico					
Crude	1 731	7 338	6 300	...	...
Calcined	4 165	5 492	5 070	...	...
Panama	18 172	15 961	9 011	9 756	9 532
Trinidad and Tobago					
Crude & calcined	6 640	2 048	3 410	10 973	6 815
USA					
Crude	7 285 451	8 078 000	9 001 399	8 671 930	8 815 115
Ground & calcined	4 297	10 000	1 961	22 011	1 814
Colombia	40 522	26 544	62 047	65 043	...
Ecuador	10 282	54 139	16 307	16 700	31 874
Paraguay					
Crude & calcined	612	4 308	6 003	8 858	...
Uruguay					
Crude & ground	699	874	1 340	960	1 225
Venezuela	35 140	25 565	90 702	76 289	50 785
Abu Dhabi	555	963	1 380	1 212	2 947
Bahrain	18 477	2 429	13 186	180 473	2 891
Hong Kong	77 842	89 364	103 210	110 865	124 717
Indonesia	356 155	384 301	304 939	197 521	122 373
Israel (a)	1 200*	1 000*	1 100*	2 100*	1 800*
Japan					
Crude	201 326	255 426	304 834	775 279	1 468 129
Calcined	825	827	860	1 070	2 693
Jordan	3 182	2 383	2 015	1 248	2 701
Korea, Republic of	218 722	222 204	151 864	227 812	198 680
Kuwait	54 921	33 214	...	...	...
Macao	12 032	6 685	14 584	19 060	28 162
Malaysia					
Crude & calcined	137 754	170 782	185 990	152 529	137 416
Oman	6 422	10 788	20 992	33 206	...

Gypsum

Imports of Gypsum

tonnes

Country	1983	1984	1985	1986	1987
Philippines					
Crude	74 739	68 289	127 351	145 945	122 681
Calcined	4 749	3 577	3 276	5 007	5 222
Saudi Arabia	96 788	111 172	107 639	66 335	21 367
Singapore					
Crude & calcined	149 291	141 613	97 845	56 130	77 647
Sri Lanka	14 998	7 037	15 108	12 446	23 621
Taiwan					
Crude	180 328	260 406	333 373	322 403	155 631
Calcined	168 896	72 290	78 465	78 715	30 215
Thailand					
Crude & calcined	662	570	655	933	22 231
Australia	1 555	1 146	1 246	2 343	2 011
Fiji	3 056	5 040	40	3 028	...
New Caledonia					
Crude & calcined	830	1 839	1 734	4 076	4 227
New Zealand (b)					
Crude	102 488	130 006	140 277	139 083	136 846
Calcined	470	394	334	309	218

Notes

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

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

(b) Years ended 30 June of that stated

(c) Including calcined

Production of Iodine

Iodine
kilograms

Country	1983	1984	1985	1986	1987
Soviet Union	2 000 000*	2 000 000*	2 000 000*	2 000 000*	2 000 000*
USA	900 000*	800 000*	800 000*	700 000*	...
Chile	2 792 500	2 661 000	3 020 000	3 076 000	3 000 000*
China	450 000*	450 000*	450 000*	450 000*	450 000*
Indonesia	25 297	24 970	13 416	5 790	8 227
Japan	7 273 000	7 302 000	7 251 000	7 389 000	7 014 000
World total	13 400 000	13 200 000	13 500 000	13 600 000	13 200 000

Exports of Iodine

kilograms

Country	1983	1984	1985	1986	1987
United Kingdom	96 046	96 738	224 044	197 053	145 488
Belgium-Luxembourg	171 100	123 300	66 400	26 000	21 100
Denmark	1 600	6 500	33 600	133 600	144 400
France	48 000	52 000	60 900	98 000	74 400
Germany, Federal Republic of	49 500	74 400	63 800	47 100	71 500
Italy	1 154	3 050	1 800	14 300	3 600
Netherlands	34 000	17 000	14 000	12 000	6 000
Portugal	100	200	1 200	...	...
Spain	200	1 228	750	6 000	5 362
Chile	3 265 000	2 856 000	3 016 000	3 042 000	3 099 750
Indonesia	2 000	28 000	2 000	—	—
Japan (a)	6 281 747	5 229 939	6 605 257	6 640 532	6 091 360
Taiwan	1 500	1 700	2 379	1 400	3 350

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

Iodine

Imports of Iodine

kilograms

Country	1983	1984	1985	1986	1987
United Kingdom	2 043 114	2 069 652	1 329 097	1 546 232	1 665 688
Belgium-Luxembourg	226 200	194 200	179 500	103 800	129 300
Denmark	2 400	4 400	4 200	6 200	26 700
France	1 122 000	880 000	893 800	866 500	1 142 700
Germany, Federal Republic of	1 190 200	961 300	1 879 500	1 703 600	1 087 800
Greece	1 000	1 000	1 000	2 000	1 000
Italy	213 170	293 957	538 300	557 320	726 700
Netherlands	322 000	367 000	458 000	376 000	355 000
Portugal	20 200	10 800	20 500	15 800	...
Spain	168 000	189 021	215 010	227 638	335 000
Hungary	48 600	35 000	44 500	26 600	47 500
Turkey	...	5 503	4 006	5 766	...
Yugoslavia	73 000	53 000	85 000	51 000	5 000
Algeria	1 532	3 358	2 072	2 623	...
Morocco	359	695	512	666	...
Tunisia	...	2 014	2 780	1 443	—
Canada	193 000	275 000	426 000	397 000	89 000
Dominican Republic	2 369	3 905	507	1 343	...
USA	2 840 530	2 298 400	2 441 066	2 576 068	2 722 000
Argentina	10 251	15 600	19 000	20 000	...
Brazil	147 002	222 540	260 544	253 000	...
Colombia	5 373	8 247	13 164	17 502	...
Ecuador	2 380	6 508	1 740	2 750	4 000
Peru	1 077	1 679	800	2 845	1 530
Uruguay	500	1 100	500	1 200	10 900
Venezuela	...	...	8 631	9 611	24 364
India (a)	...	...	347 031	...	...
Indonesia	54 491	11 486	35 963	13 449	16 397
Korea, Republic of	10 901	15 536	13 464	14 451	13 213
Pakistan (b)	7 741	11 153	16 533	15 358	12 284
Taiwan	11 844	18 739	34 814	22 811	33 241
Thailand	1 569	2 895	2 803	3 022	5 429
Australia (b)	33 446	24 306	19 460	...	...

(a) Years ended 31 March following that stated

(b) Years ended 30 June of that stated



Figure 8 World production of iron ore from 1950 to 1987 compared from 1965 with the yearly average price of 61.5% Brazilian ore c.i.f. German ports expressed in constant 1980 US dollars (prior to 1965, Liberian ore).
Constant commodity prices derived from those quoted in International Financial Statistics Yearbook (1988), using the CPI for the USA from the same source.

Production of Iron Ore

Country	1983	1984	1985	1986	1987
United Kingdom	384 000	379 300	274 400	289 000	262 700
France	15 967 000	15 029 000	14 459 000	12 436 000	11 200 000
Germany, Federal Republic of (f)	976 000	977 000	1 034 000	717 000	247 000
Italy	67 700	273 700	...	...	...
Portugal (f)	35 500	36 000	73 210	54 700	27 458
Spain	7 939 654	7 981 174	6 462 977	6 089 400	4 700 000*
Albania (b)	850 000	1 082 000	1 130 000*	1 150 000*	1 200 000*
Austria	3 540 000	3 600 000	3 270 000	3 120 000	3 050 000
Bulgaria	1 803 000	2 063 000	1 985 000	2 179 000	1 857 000
Czechoslovakia	1 903 000	1 869 000	1 859 000	1 784 000	1 798 000
Finland	865 715	1 099 920	898 810	643 000	648 000
German Democratic Republic	40 000	36 000	—	—	—
Hungary	441 000	383 000	311 000	—	—
Norway	3 545 477	3 837 042	3 496 570	3 618 239	3 139 661
Poland	10 000	10 900	11 300	8 800	6 300
Romania	1 987 000	1 916 000	2 287 000	2 431 000	2 400 000*
Soviet Union	245 200 000	247 104 000	248 000 000	250 000 000	251 000 000
Sweden	13 696 000	17 806 000	20 525 000	20 529 000	19 707 000
Turkey	3 629 563	4 049 425	3 994 534	5 248 789	3 843 259
Yugoslavia	5 018 284	5 411 448	5 478 154	6 618 122	5 983 000
Algeria	3 684 000	3 664 000	3 376 000	3 359 000	3 380 000
Egypt	2 065 057	1 887 974	2 121 717	1 998 813	2 047 578
Liberia	15 599 000	14 857 000	14 369 000	14 233 000	13 210 000
Mauritania	7 402 000	9 105 320	9 200 000	10 859 000	9 008 000
Morocco	173 010	162 967	180 028	195 600	279 378
South Africa (c)	16 604 923	24 646 695	24 414 154	24 482 538	21 995 510
Tunisia	314 000	309 623	309 338	310 000	291 000
Zimbabwe	924 000	925 000	1 098 000	1 115 000	1 328 393
Canada (g)	32 958 678	39 929 907	39 501 601	36 166 884	37 702 000
Mexico	8 039 900	8 317 200	7 819 900	7 298 000	7 523 000
USA	38 165 000	52 092 000	49 533 000	39 448 000	47 647 000
Argentina	608 557	571 414	638 894	809 525	567 047
Brazil (a)	88 715 604	112 057 012	128 174 116	128 800 000	131 600 000*
Chile	5 973 672	7 115 792	6 509 986	7 008 975	6 690 168
Colombia	456 000	443 840	438 746	508 082	614 546
Peru	4 308 151	3 978 749	4 881 324	5 025 998	5 100 018
Venezuela	9 297 000	13 055 000	14 754 000	17 396 000	17 782 000
China	113 660 000*	121 900 000*	131 500 000*	142 480 000*	157 000 000*
India	38 672 000	41 943 000	44 186 000	51 610 000	49 411 000
Indonesia (d)	124 903	82 967	130 930	153 271	193 986
Iran (e)	1 665 000	2 711 000	2 799 000	2 800 000*	2 800 000*
Japan	295 503	323 375	336 025	289 731	263 367
Korea, Dem. P.R. of	8 000 000*	8 000 000*	8 000 000*	8 500 000*	8 500 000*
Korea, Republic of	655 300	625 200	668 100	582 300	469 500
Malaysia	113 700	193 827	181 660	207 963	161 287
Philippines	2 645	—	—	14 978	...
Thailand	40 304	60 670	93 800	37 330	97 026
Australia	71 037 299	89 046 000	97 447 113	94 014 818	101 747 638
New Zealand (d)	2 203 380	2 417 113	2 536 462	2 601 345	2 294 370
World total	780 000 000	875 000 000	911 000 000	919 000 000	941 000 000

Notes

(1) In addition to the countries listed, Cuba and Vietnam are also believed to produce iron ore

(a) Including beneficiated and direct shipping ore

(b) Nickeliferous iron ore

(c) Including by-product magnetite

(d) Including iron sand

(e) Years ended 20 March following that stated

(f) Including manganiferous iron ore

(g) Including shipments of by-product iron ore

Iron Ore

Exports of Iron Ore

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom	965	343	5 710	1 008	1 225
Belgium-Luxembourg					
Iron ore	1 433	302	15 263	1 057	2 771
Burnt pyrites	50 696	50 314	149 816	149 601	190 202
Denmark	11 565	6 647	6 834	4 870	2 541
France	5 030 858	4 752 054	4 627 846	4 168 509	3 739 520
Germany, Federal Republic of					
Iron ore	9 190	3 732	2 576	4 591	5 808
Burnt pyrites	38 932	32 478	16 930	16 581	19 028
Italy					
Iron ore	87	678	35	2 520	382
Burnt pyrites	28 679	45 045	22 873	43 209	45 296
Netherlands (b)	13 850	45 392	55 203	47 741	105 180
Spain					
Iron ore	1 579 639	1 973 178	2 128 443	1 790 541	1 991 261
Burnt pyrites	569	1 126	1 862	4 889	20 303
Norway					
Iron ore	2 945 494	3 083 237	2 577 892	2 532 249	2 530 392
Burnt pyrites	142 899	136 340	107 445	33 109	28 230
Soviet Union	42 805 000	45 922 000	43 880 000	46 948 000	45 433 000
Sweden					
Iron ore	14 191 000	17 600 000	18 371 000	17 219 000	16 762 000
Yugoslavia					
Burnt pyrites	61 195	45 740	59 727	29 143	67 714
Algeria	1 398 182	974 452	450	48 000	...
Liberia	15 703 974	16 870 127	12 965 737	14 383 060	13 510 130
Mauritania	7 402 000	9 526 400	9 333 000	8 929 000	...
Morocco					
Burnt pyrites	139 637	116 538	161 673	119 701	...
Sierra Leone	67 328	422 199	—	—	...
South Africa	7 811 402	11 869 778	10 226 420	8 850 166	8 802 068
Canada	25 527 958	30 737 477	32 259 299	31 030 016	29 679 324
USA (b)	3 841 931	5 073 164	5 114 168	4 553 414	5 094 233
Bolivia	11 025	6 600*	—	10 586	—
Brazil	74 199 952	90 294 409	94 217 889	91 134 817	97 289 000
Chile	4 594 000	5 230 000	4 824 000	4 650 488	5 384 000
Peru	4 193 795	4 088 737	5 224 003	4 209 247	4 428 859
Venezuela	6 245 000	8 456 000	9 032 000	10 027 000	11 698 000
India (c)	22 070 543	25 525 972	30 149 478	32 225 000	...
Malaysia	31 075	16 636	13 134	34 797	1 849
Philippines					
Iron ore	3 284 801	4 050 631	4 034 354	3 603 981	4 016 908
Burnt pyrites	15 408	13 709	11 751	7 917	10 408
Australia	74 039 327	85 480 485	86 914 280	79 677 812	78 257 560
New Zealand (a)	2 355 001	2 067 668	2 227 140	2 408 027	1 790 950

(a) Years ended 30 June of that stated

(b) Including burnt pyrites

(c) Years ended 31 March following that stated

Imports of Iron Ore

Iron Ore

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Iron ore	13 164 214	14 138 152	15 404 459	14 557 610	18 027 959
Burnt pyrites	230 660	295 647	250 183	249 267	168 170
Belgium-Luxembourg					
Iron ore	17 519 395	19 701 313	18 996 516	18 056 269	18 385 542
Burnt pyrites	38 721	55 160	1 574 252	52 264	59 736
Denmark					
Iron ore	62 855	1 330	1 662	3 391	7 657
Burnt pyrites	13 977	20 348	19 710	28 981	28 690
France					
Iron ore	12 552 833	16 088 410	16 294 196	16 190 547	15 055 528
Burnt pyrites	82 404	70 196	44 487	47 390	61 120
Germany, Federal Republic of					
Iron ore	35 497 187	42 568 169	45 007 234	41 632 480	39 583 086
Burnt pyrites	62 426	51 184	35 550	31 966	34 424
Italy (a)	13 799 673	19 243 947	18 294 000	17 600 602	16 522 832
Netherlands (a)	4 979 959	7 238 702	8 508 191	7 066 463	7 049 135
Portugal	470 415	147 431	683 298	542 935	764 084
Spain	4 202 269	4 220 470	5 023 218	4 286 832	5 766 867
Albania (d)	172 900*	71 100*	3 000*	3 700*	...
Austria					
Iron ore	2 390 940	3 889 886	3 684 492	3 201 141	3 310 712
Burnt pyrites	20 882	10 411	19 860	12 776	27 441
Bulgaria	2 312 519	2 286 333	2 214 834	2 248 384	2 308 000
Czechoslovakia	11 683 000	11 108 000	11 268 000	11 264 000	10 366 000
Finland	1 299 321	1 856 315	1 755 577	1 986 999	2 261 376
German Democratic Republic (b)	1 842 000	1 971 000	2 681 000	2 598 000	2 525 000
Hungary	3 966 804	4 169 685	2 381 513	3 414 036	3 403 301
Iceland	12 531	15 647	23 000	24 862	17 163
Norway	225 640	39 813	230 175	17 715	20 637
Poland	13 787 000	17 110 000	16 973 000	16 644 000	17 116 000
Romania	14 477 000	14 963 000	15 207 000	16 417 000	...
Sweden	19 000	38 000	68 000	68 000	70 000
Switzerland (a)	8 016	10 049	6 418	11 240	8 860
Turkey	1 329 494	1 655 668	1 724 869	2 525 965	1 520 633
Yugoslavia	1 567 500	1 566 357	2 179 583	1 346 968	1 081 456
Kenya	15	14 500	16 250	—	16
Nigeria (a)	...	15 225	371 845	340 758	...
Tunisia	11 061	—	12 532	70 689	63 066
Canada	4 013 109	4 946 893	5 800 193	5 367 245	5 212 743
Mexico	160	131	2 137	208 615	44 872
Trinidad and Tobago	246 596	199 755	318 284	400 061	614 986
USA (a)	13 541 778	17 435 339	16 221 626	17 017 575	16 867 561
Argentina	1 903 509	2 213 022	2 454 801	3 182 519	3 300 000
Abu Dhabi	30 419	0	—	37 073	21 000
China	3 924 101	5 957 437	10 046 592	13 715 719	10 868 426
Dubai	26 499	24 000	12 000	14 650	...
Indonesia					
Iron ore	127 999	198 460	132 850	754	90
Burnt pyrites	60 450	1 268 438	1 188 126	1 668 893	961 471
Japan	(c) 109 180 816	125 372 449	124 512 701	115 233 834	112 034 416
Korea, Republic of					
Iron ore	10 121 155	10 287 389	12 418 239	11 941 199	18 011 094
Burnt pyrites	49 394	131	—	—	9 831
Malaysia	27 650	414 284	830 524	1 026 495	819 111
Pakistan (e)	765 091	924 405	1 188 443	1 311 662	1 217 042
Philippines	2 277 767	3 615 003	3 388 907	2 746 302	3 482 571

Iron Ore

Imports of Iron Ore

tonnes

Country	1983	1984	1985	1986	1987
Qatar	...	619 371	...	722 454	...
Saudi Arabia	294 657	1 044 173	324 637	1 384 625	1 479 835
Singapore	13 013	7 441	12 581	10 167	1 140
Taiwan					
Iron ore	4 956 581	5 199 177	4 896 129	5 358 016	6 140 854
Burnt pyrites	13 757	15 151	11 360	9 460	3
Australia	52 096	52 101	24 221	59 174	42 156

(a) Including burnt pyrites

(b) Fe content of concentrates

(c) Including manganiferous iron ore

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

(e) Years ended 30 June of that stated

Production of Pig Iron

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom	9 477 000	9 487 100	10 381 400	9 685 500	12 017 400
Belgium	8 034 000	8 968 000	8 720 000	8 048 000	8 243 000
France	13 500 000	14 706 000	15 072 000	13 709 000	13 400 000
Germany, Federal Republic of	26 352 000	29 737 000	31 143 000	28 593 000	28 116 000
Greece	138 000	138 000	140 000*	160 000*	160 000*
Italy	10 313 210	11 631 973	12 062 547	11 916 398	10 400 000*
Luxembourg	2 316 300	2 767 930	2 753 800	2 649 700	2 305 100
Netherlands	3 747 400	4 925 600	4 818 700	4 628 200	4 574 700
Portugal	365 796	382 361	423 301	429 000	431 000
Spain	5 667 252	5 319 000	5 457 000	4 865 000	4 800 000*
Austria	3 320 260	3 745 315	3 703 992	3 348 600	3 450 714
Bulgaria	1 626 878	1 583 155	1 713 240	1 606 287	1 656 000
Czechoslovakia	9 466 000	9 561 000	9 562 000	9 573 000	9 788 000
Finland	1 898 458	2 033 700	1 891 000	1 978 000	2 063 326
German Democratic Republic	2 206 800	2 356 700	2 578 200	2 737 600	2 754 500
Hungary	2 047 000	2 097 000	2 095 152	2 054 347	2 109 000
Norway	565 392	545 972	596 031	560 743	364 468
Poland	9 635 000	9 893 000	9 707 000	10 478 000	10 476 000
Romania	8 190 000	9 557 000	9 212 000	9 329 000	9 300 000*
Soviet Union	110 453 000	110 893 000	109 977 000	113 840 000	114 000 000
Sweden	2 194 737	2 420 166	2 609 793	2 627 553	2 419 000
Switzerland	10 000	54 000	66 000	79 000	80 000*
Turkey	2 952 754	3 014 847	3 371 025	3 926 128	4 437 873
Yugoslavia	2 844 681	2 855 000	3 120 000	3 063 000	2 867 000
Algeria	1 113 000	800 000	800 000	800 000*	1 100 000*
Egypt	171 077	144 106	103 306	112 705	146 764
South Africa	4 998 000	5 254 800	6 574 200	6 800 000*	6 700 000*
Tunisia	141 200	143 500	138 600	144 600	161 700
Zimbabwe	583 963	379 721	674 219	643 735	640 000*
Canada	8 566 621	9 643 260	9 665 427	9 248 530	9 500 000*
Mexico	5 033 903	5 373 731	5 095 305	5 157 540	5 182 500
Trinidad and Tobago	302 300	239 000	243 200	337 200	441 200
USA	44 243 000	47 138 000	45 326 000	39 872 000	43 851 000
Argentina	1 862 482	1 799 438	2 298 744	2 559 500	2 879 100
Brazil	13 199 122	17 468 949	19 256 593	20 555 073	21 137 513
Chile	539 459	593 501	579 820	591 208	615 500
Colombia	241 356	269 789	246 171	319 797	323 400
Peru	139 656	66 030	206 883	271 912	251 800
Venezuela	2 587 129	2 815 724	3 073 941	3 430 915	3 581 100
China	37 380 000	40 010 000	43 840 000	49 940 000	53 900 000
India	9 158 000	9 292 000	9 722 000	10 566 000	10 893 000
Iran (a)	240 000	250 000	250 000	250 000	250 000*
Japan	72 936 000	80 403 000	80 569 000	74 651 000	73 418 000
Korea, Dem. P.R. of	5 500 000*	5 750 000*	5 800 000*	5 800 000*	5 800 000*
Korea, Republic of	8 024 441	8 763 494	8 832 718	9 016 679	10 868 949
Pakistan	473 604	563 600	803 147	895 437	903 000
Taiwan	183 625	213 483	225 730	197 536	87 180
Australia	5 045 000	5 329 000	5 607 000	5 889 000	5 569 000
World total	460 000 000	491 400 000	501 100 000	497 900 000	508 400 000

Notes

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

(a) Years ended 20 March following that stated



Figure 9 Production of steel ingots and castings in the non-communist world from 1950 to 1987 compared with the yearly average price of Bessemer bars delivered Oberhausen expressed in constant 1980 US dollars.
Constant commodity prices (to 1986) taken from Commodity Trade and Price Trends published by the Johns Hopkins University Press for the World Bank.

Production of Steel Ingots and Castings

Country	1983	1984	1985	1986	1987
United Kingdom	14 986 000	15 121 000	15 722 000	14 725 000	17 413 700
Belgium	10 157 031	11 303 381	10 687 000	9 767 551	9 786 422
Denmark	493 000	548 000	528 000	632 000	606 000
France	17 582 000	19 000 000	18 808 000	17 865 000	17 700 000
Germany, Federal Republic of	35 729 000	39 787 000	40 908 000	37 533 000	36 577 000
Greece	868 000	898 000	985 000	1 010 000	908 000
Irish Republic	140 000*	168 000*	200 000*	208 000*	...
Italy	21 810 787	24 061 187	23 897 592	22 881 951	22 800 000
Luxembourg	3 293 760	3 987 440	3 945 275	3 705 300	3 301 860
Netherlands	4 477 300	5 738 700	5 517 300	5 283 000	5 082 100
Portugal	673 967	671 105	703 777	717 000	732 000
Spain	13 711 656	13 379 000	14 032 000	11 906 000	11 900 000*
Austria	4 410 907	4 869 841	4 660 426	4 291 895	4 301 165
Bulgaria	2 831 000	2 878 412	2 944 000	2 965 248	3 044 190
Czechoslovakia	15 024 000	14 831 000	15 036 000	15 112 000	15 415 600
Finland	2 415 931	2 632 000	2 518 000	2 586 200	2 669 409
German Democratic Republic	7 218 800	7 573 300	7 852 800	7 967 200	8 242 700
Hungary	3 616 000	3 750 000	3 646 000	3 713 000	3 622 000
Norway	895 019	919 685	964 868	836 747	837 159
Poland	16 235 900	16 532 600	16 126 000	17 144 000	17 145 000
Romania	12 593 000	14 437 000	13 795 000	14 276 000	13 800 000
Soviet Union	152 514 000	154 238 000	155 000 000	161 000 000	162 000 000
Sweden	4 116 000	4 657 000	4 840 000	4 710 000	4 703 000
Switzerland	835 000	978 000	987 000	1 075 000	...
Turkey	2 478 875	2 753 392	3 080 301	3 596 153	7 043 736
Yugoslavia	4 134 919	4 233 973	4 480 021	4 519 331	4 367 000
Algeria	892 000	755 000	800 000	800 000*	...
Egypt	123 996	124 273	145 123	126 693	...
Nigeria	182 000	187 000	321 000	200 000	230 000*
South Africa	7 248 000	7 509 000	8 444 000	8 895 000	8 800 000*
Tunisia	162 800	166 200	160 300	181 400	188 200
Zimbabwe	646 463	423 443	730 841	679 989	...
Canada	12 832 477	14 699 204	14 630 738	14 081 405	14 737 000
Cuba	352 100	325 300	401 400	411 500	410 000*
Mexico	6 977 796	7 559 975	7 367 532	7 174 568	7 514 800
Trinidad and Tobago	209 600	198 900	166 900	327 000	375 600
USA	76 761 000	83 940 000	80 067 000	74 032 000	78 900 000*
Argentina	2 942 807	2 646 546	2 942 094	3 235 211	3 659 000
Brazil	14 671 428	18 385 724	20 455 694	21 233 346	22 227 502
Chile	593 200	662 800	654 500	671 000	689 800
Colombia	482 264	507 264	530 442	631 989	696 800
Peru	298 979	336 828	397 148	486 201	488 200
Uruguay	45 674	40 763	38 964	30 987	30 200
Venezuela	2 319 000	2 777 415	3 055 028	3 401 254	3 735 400
Bangladesh (b)	47 401	73 387	101 419	95 514	82 081
China	40 020 000	43 470 000	46 790 000	51 900 000	56 020 000
Hong Kong	120 000*	120 000*	120 000*	120 000*	120 000*
India	10 364 000	10 084 000	10 613 000	11 332 000	11 984 000
Indonesia	800 000	1 000 000	1 200 000	1 500 000	1 453 000
Iran	1 200 000*	1 200 000*	1 900 000*	1 900 000*	2 300 000*
Israel	83 000	92 000	100 000*	110 000*	...
Japan	97 179 000	105 586 000	105 279 000	98 275 000	98 513 000
Jordan	148 196	112 502	136 266	140 000*	...
Korea, Dem. P.R. of	6 100 000*	6 500 000*	8 400 000*	9 190 000*	9 500 000*
Korea, Republic of	11 227 146	12 734 820	13 591 136	14 501 548	16 780 000
Malaysia	241 057	350 000	550 000	750 000*	...
Pakistan	550 000*	610 000*	720 092	752 000	828 000
Philippines	200 000	250 000	250 000*	250 000*	...
Qatar	469 000	478 000	533 000	507 000	...
Saudi Arabia	275 000	842 000	1 106 000	1 100 000*	...
Singapore	305 000	362 000	365 000	390 000	...
Syria	80 000*	70 000*	70 000*	70 000*	70 000*
Taiwan	5 031 000	5 010 000	5 088 000	5 545 000	5 949 000
Thailand	243 900	380 971	380 000	400 000*	534 172
Vietnam	48 000	53 000	57 500	62 000	...

Production of Steel Ingots and Castings

tonnes

Country	1983	1984	1985	1986	1987
Australia (a)	5 657 000	6 303 000	6 578 000	6 703 000	6 125 000
New Zealand	233 413	273 840	227 925	291 063	300 000*
World total	662 000 000	707 000 000	717 000 000	713 000 000	733 000 000

Notes

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

(a) Including recovery from scrap

(b) Years ended 30 June of that stated

Production of Ferro-alloys

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Ferro-manganese	82 800	75 200	76 900	99 500	92 400
Belgium					
Ferro-manganese	87 000*	95 000*	90 000*	87 000*	...
France					
Blast furnace ferro-alloys					
Spiegeleisen & ferro-manganese	270 331	329 447	333 998	273 602	295 821
Electric furnace ferro-alloys (h)					
Ferro-chrome & ferro-silico-chrome	19 829	18 636	1 007	161	...
Ferro-silico-manganese	32 710	34 886	22 596	16 723	...
Ferro-silicon (i)	192 762	206 348	197 114	195 913	...
Ferro-titanium & Fe-W, Fe-Mo, Fe-V (a)	4 223	5 476	5 159	2 414	...
Other ferro-alloys	102 257	116 201	95 060	84 752	...
Silicon metal	64 500	70 500	71 300	71 557	...
Germany, Federal Republic of					
Blast furnace ferro-alloys					
Spiegeleisen & ferro-manganese (g)	174 000	308 000	205 000	256 000	196 000
Electric furnace ferro-alloys					
Ferro-chrome	38 000*	70 000*	72 000*	68 000*	...
Ferro-manganese & ferro-silico-manganese	17 000*	25 000*	31 000*	30 000*	...
Ferro-silicon	31 000*	60 000*	60 000*	57 000*	...
Other ferro-alloys	33 000*	65 000*	61 000*	57 000*	...
Greece					
Electric furnace ferro-alloys					
Ferro-chrome	18 000	32 974	34 436	35 000*	...
Ferro-nickel	50 000*	53 000*	63 800*	40 000*	...
Italy					
Blast furnace ferro-alloys					
Spiegeleisen	494	935	1 001	1 151	...
Ferro-manganese	49 200	34 815	50 111	48 002	...
Silicon pig iron (j)	580	342	686	968	...
Electric furnace ferro-alloys					
Ferro-chrome	45 414	49 942	57 654	55 939	...
Ferro-manganese	12 647	15 651	17 166	11 653	...
Ferro-silico-manganese	37 244	72 779	64 858	66 083	...
Ferro-molybdenum	...	1 422	1 564	—	—
Ferro-silicon	51 913	71 157	74 616	62 799	...
Ferro-titanium & ferro-silico-titanium	1 876	2 158	2 291	2 508	...
Ferro-vanadium	...	79	8	—	—
Calcium silicide	5 778	9 075	11 999	11 514	...
Silicon metal	11 737	22 812	17 812	18 904	16 500
Portugal					
Electric furnace ferro-alloys					
Ferro-manganese	40 000*	46 500*	48 000*	20 000*	(f) 27 500*
Ferro-silico-manganese	18 500*	24 000*	25 000*	10 000*	...
Ferro-silicon	8 550	9 000*	9 000*	5 000*	...
Ferro-tungsten	176	183	150	24	...
Silicon metal	9 800	10 500*	11 000*	7 000*	...
Spain					
Electric furnace ferro-alloys					
Ferro-chrome	9 348	14 000*	17 000*	17 000*	...
Ferro-manganese	114 456	85 000*	86 000*	86 000*	...
Ferro-silico-manganese	73 224	70 000*	70 000*	70 000*	...
Ferro-silicon	50 460	60 000*	61 000*	61 000*	...
Other ferro-alloys	5 000	1 000*	4 000*	4 000*	...
Silicon metal	1 500	12 400	12 100	11 000	11 800
Albania					
Electric furnace ferro-alloys					
Ferro-chrome	35 000*	40 000*	43 000*	45 000*	50 000*
Austria					
Electric furnace ferro-alloys	14 000	13 000	14 000	14 000*	14 000*

Production of Ferro-alloys

tonnes

Country	1983	1984	1985	1986	1987
Bulgaria					
Electric furnace ferro-alloys					
Ferro-manganese & ferro-silico-manganese	30 000*	22 000*	30 000*	32 000*	...
Ferro-silicon	17 000*	15 000*	14 000*	15 000*	...
Other ferro-alloys	1 000*	1 000*	1 000*	1 000*	...
Czechoslovakia					
Electric furnace ferro-alloys					
Ferro-chrome	29 135	23 500	25 178	28 231	29 018
Ferro-manganese	62 549	(f) 87 000*	62 358	57 593	59 252
Ferro-silico-manganese	40 000*	...	31 000*	34 000*	...
Ferro-silicon	19 507	28 000*	20 765	21 090	21 030
Other ferro-alloys	9 000*	8 500*	9 000*	8 000*	...
Silicon metal	4 500*	4 000*	4 500*	5 000*	...
Finland					
Electric furnace ferro-alloys					
Ferro-chrome	58 698	58 644	133 350	133 676	143 273
Other ferro-alloys	23 259	52 000	52 500	53 000	52 500
German Democratic Republic					
Electric furnace ferro-alloys					
Ferro-chrome	17 250*	19 500*	19 500*	22 000*	...
Ferro-manganese & ferro-silico-manganese	63 000*	64 000*	63 000*	68 000*	...
Ferro-silicon	24 000*	24 000*	23 000*	26 000*	...
Other ferro-alloys	18 250*	16 250*	15 400*	15 400*	...
Silicon metal	3 600*	3 600*	3 600*	3 600*	...
Hungary					
Electric furnace ferro-alloys					
Ferro-silicon	9 458	10 297	10 578	10 237	9 342
Silicon metal	2 000*	2 000*	2 000*	2 000*	2 000*
Other ferro-alloys	2 000*	2 000*	2 000*	2 000*	2 000*
Iceland					
Electric furnace ferro-alloys					
Ferro-silicon	49 446	58 443	60 328	66 787	60 184
Norway					
Electric furnace ferro-alloys					
Ferro-chrome & ferro-silico-chrome	4 400*	—	—	—	—
Ferro-manganese	283 492	285 169	267 670	195 257	191 992
Ferro-silico-manganese	194 784	280 953	256 457	233 490	237 277
Ferro-silicon	368 817	437 164	397 776	335 041	336 168
Other ferro-alloys	4 600*	—	—	—	—
Silicon metal	76 856	89 398	105 552	86 838	77 910
Poland					
Blast furnace ferro-alloys					
Spiegeleisen	4 500	4 000	1 900	1 700	2 500
Ferro-manganese	81 400	87 900	99 400	95 500	95 300
Electric furnace ferro-alloys					
Ferro-chrome	48 500*	48 000*	49 000*	49 000*	...
Ferro-manganese & ferro-silico-manganese	48 000*	48 000*	49 000*	49 000*	...
Ferro-silicon	51 500*	51 000*	52 000*	51 000*	...
Other ferro-alloys	17 000*	17 000*	16 500*	16 500*	...
Silicon metal	10 000*	10 000*	10 500*	10 500*	...
Romania					
Electric furnace ferro-alloys					
Ferro-chrome	42 000*	45 000*	44 000*	44 000*	...
Ferro-manganese	80 000*	87 000*	80 000*	82 000*	...
Ferro-silico-manganese	38 000*	41 000*	39 000*	40 000*	...
Ferro-silicon	48 000*	52 000*	50 000*	51 000*	...
Silicon metal	3 800*	4 100*	4 500*	4 500*	...

Production of Ferro-alloys

tonnes

Country	1983	1984	1985	1986	1987
Soviet Union					
Blast furnace ferro-alloys					
Spiegeleisen	50 000*	50 000*	50 000*	50 000*	...
Ferro-manganese	550 000*	550 000*	550 000*	550 000*	...
Electric furnace ferro-alloys					
Ferro-chrome	415 000*	420 000*	420 000*	425 000*	...
Ferro-silico-chrome	12 000*	12 000*	12 000*	13 000*	...
Ferro-manganese	500 000*	600 000*	675 000*	700 000*	...
Ferro-silico-manganese	170 000*	180 000*	190 000*	200 000*	...
Ferro-silicon	720 000*	750 000*	750 000*	800 000*	...
Other ferro-alloys	230 000*	230 000*	230 000*	240 000*	...
Silicon metal	60 000*	60 000*	60 000*	65 000*	...
Sweden					
Electric furnace ferro-alloys					
Ferro-chrome	119 491	134 028	135 701	126 388	111 815
Ferro-silico-chrome	18 377	30 633	26 243	17 027	...
Ferro-molybdenum	641	229	143	16	...
Ferro-silicon	19 406	23 278	26 564	20 103	19 949
Ferro-tungsten	121	...	...	...	...
Silicon metal	20 340	20 206	19 775	19 156	21 145
Switzerland					
Electric furnace ferro-alloys					
Ferro-silicon	2 000*	3 000*	3 000*	3 000*	...
Silicon metal	2 000*	2 000*	2 000*	2 000*	...
Turkey					
Electric furnace ferro-alloys					
Ferro-chrome	30 175	48 081	48 000*	50 000*	...
Ferro-silicon	4 500	6 902	7 000*	7 000*	...
Yugoslavia					
Electric furnace ferro-alloys					
Ferro-chrome	63 807	75 441	73 308	66 022	56 276
Ferro-silico-chrome	5 998	8 147	7 199	7 513	6 240
Ferro-manganese	39 677	47 375	35 775	39 230	38 041
Ferro-silico-manganese	26 254	37 214	43 374	41 330	42 528
Ferro-nickel	3 000*	6 087	9 248	8 647	9 556
Ferro-silicon	78 014	94 075	91 702	99 625	98 843
Other ferro-alloys	4 198	4 484	5 539	6 715	8 071
Silicon metal	26 256	28 428	33 094	31 312	31 915
Egypt					
Electric furnace ferro-alloys					
Ferro-silicon	6 000*	7 500*	7 500*	7 221	7 702
South Africa					
Ferro-chrome	690 507	889 203	852 338	(1) 875 181	(1) 948 046
Ferro-silico-chrome	2 839	4 987	4 651	...	...
Ferro-manganese	166 591	236 930	331 302	337 213	315 110
Ferro-silico-manganese	107 211	143 981	237 864	273 000*	...
Ferro-silicon	49 622	89 414	75 126	83 256	82 519
Other ferro-alloys	800*	3 000*	548	626	...
Silicon metal	27 332	34 775	35 830	34 954	34 046
Zimbabwe					
Electric furnace ferro-alloys					
Ferro-chrome	148 178	170 259	183 928	187 454	...
Ferro-silico-chrome	27 542	30 878	29 707	52 298	...
Ferro-manganese	2 085	1 891	1 953	8 029	...
Canada					
Electric furnace ferro-alloys					
Ferro-manganese	107 000*	116 000*	118 000*	126 000*	...
Ferro-silicon	85 000*	80 000*	84 000*	88 000*	...
Silicon metal	25 000*	25 000*	25 000*	26 000*	...
Dominican Republic					
Electric furnace ferro-alloys					
Ferro-nickel	52 278	63 966	66 828	57 565	...

Production of Ferro-alloys

tonnes

Country	1983	1984	1985	1986	1987
Mexico					
Electric furnace ferro-alloys					
Ferro-chrome	2 518	6 862	6 254	2 670	...
Ferro-silico-magnesium	1 128	1 736	2 373	1 308	...
Ferro-manganese	140 304	160 879	153 733	156 359	...
Ferro-silico-manganese	41 935	41 662	39 277	60 532	...
Ferro-silicon	24 307	22 504	27 638	17 650	...
Other ferro-alloys	84	286	294	102	...
USA					
Ferro-chrome	18 078	(e) (l) 86 545	(e) (l) 99 394	(e) (l) 95 624	(e) (l) 106 716
Ferro-silico-chrome	(e) 14 942	...	...	...	...
Ferro-manganese	77 954	(d) (f) 155 246	(d) (f) 139 298	(d) (f) 106 474	...
Ferro-silico-manganese	...	...	...	...	...
Ferro-phosphorus	68 032	82 660	56 211	52 750	...
Ferro-silicon	284 958	444 856	400 679	307 936	360 000*
Other ferro-alloys (b)	128 854	89 820	81 165	65 416	...
Silicon metal	110 577	127 792	109 738	112 394	135 000*
Argentina					
Electric furnace ferro-alloys					
Ferro-manganese	28 724	28 016	23 663	19 782	...
Ferro-silico-manganese	13 523	13 336	7 493	12 977	...
Ferro-silicon	12 296	16 884	18 790	22 979	...
Other ferro-alloys	4 005	5 217	4 892	5 272	...
Brazil					
Electric furnace ferro-alloys					
Ferro-calcium-silicon	7 400	17 755	22 179	23 715	25 673
Ferro-chrome	77 326	125 125	127 288	109 392	105 394
Ferro-silico-chrome	5 526	7 628	8 875	9 512	8 079
Ferro-silico-magnesium	10 711	15 429	14 876	13 053	17 575
Ferro-manganese	103 271	106 459	134 835	164 093	155 252
Ferro-silico-manganese	178 266	185 631	180 271	177 568	188 022
Ferro-molybdenum	126	437	509	511	422
Ferro-nickel	30 012	33 661	33 467	34 296	35 496
Ferro-niobium	9 665	16 522	17 676	17 391	10 880
Ferro-phosphorus	1 211	926	1 310	1 496	1 784
Ferro-silicon	151 030	151 101	181 784	217 715	231 159
Ferro-titanium	166	551	1 372	755	80
Ferro-vanadium	102	456	905	439	88
Other ferro-alloys	313	494	639	1 025	521
Silicon metal	20 602	26 783	29 477	37 077	39 982
Chile					
Electric furnace ferro-alloys					
Ferro-manganese	5 209	4 757	6 516	6 225	...
Ferro-silico-manganese	—	—	754	1 465	...
Ferro-molybdenum	1 712	2 211	671	1 397	1 300*
Ferro-silicon	4 885	6 365	4 501	3 732	...
Colombia					
Ferro-nickel	30 900	37 500	25 500	45 500	...
Venezuela					
Ferro-manganese	2 000*	—	—	—	...
Ferro-silico-manganese	9 000*	16 600	24 109	28 573	...
Ferro-silicon	46 636	40 900	60 583	50 743	...
China					
Ferro-chrome	120 000*	120 000*	120 000*	120 000*	120 000*
Ferro-manganese	490 000*	490 000*	490 000*	490 000*	490 000*
Ferro-silicon	195 000*	195 000*	195 000*	195 000*	195 000*
Other ferro-alloys	75 000*	75 000*	75 000*	75 000*	75 000*
Silicon metal	20 000*	20 000*	20 000*	20 000*	20 000*
India					
Electric furnace ferro-alloys					
Ferro-chrome	34 911	26 280	31 961	43 106	46 839
Ferro-silico-chrome	1 675	4 096	12 215	9 493	12 321
Ferro-manganese	152 951	158 314	166 042	179 910	173 259
Ferro-silico-manganese	10 946	4 673	13 544	24 782	37 504
Ferro-silicon	52 448	52 931	43 513	50 096	50 747
Other ferro-alloys	271	284	461	617	528
Silicon metal	—	1 082	—	642	1 445

Production of Ferro-alloys

tonnes

Country	1983	1984	1985	1986	1987
Indonesia					
Electric furnace ferro-alloys					
Ferro-nickel	20 708	22 774	23 789	22 554	1 680
Japan					
Electric furnace ferro-alloys					
Ferro-calcium-silicon	2 357	1 724	2 496	2 005	1 419
Ferro-chrome	304 053	323 930	349 496	286 925	272 298
Ferro-manganese	389 381	485 008	441 703	359 044	332 286
Ferro-silico-manganese	222 204	233 061	216 916	148 429	91 896
Ferro-molybdenum	3 104	3 299	3 143	1 894	2 032
Ferro-nickel	180 826	217 053	227 043	200 311	203 143
Ferro-niobium	530	1 031	1 072	862	714
Ferro-silicon	157 939	153 386	150 167	107 236	73 706
Ferro-tungsten	200	144	114	122	96
Ferro-vanadium	2 821	3 733	3 353	2 867	2 639
Other ferro-alloys	2 159	2 727	2 575	2 015	1 384
Korea, Dem. P.R. of					
Ferro-manganese	70 000*	70 000*	70 000*	70 000*	70 000*
Ferro-silicon	30 000*	30 000*	30 000*	30 000*	30 000*
Other ferro-alloys	20 000*	20 000*	20 000*	20 000*	20 000*
Korea, Republic of					
Electric furnace ferro-alloys					
Ferro-manganese	52 896	58 600	61 396	53 721	...
Ferro-silicon	32 489	35 300	34 840	30 939	...
Other ferro-alloys	43 824	50 215	54 879	66 499	...
Philippines					
Electric furnace ferro-alloys					
Ferro-chrome	26 901	48 049	50 818	55 000*	...
Ferro-silicon	20 000*	18 500*	20 000*	20 000*	...
Taiwan					
Electric furnace ferro-alloys					
Ferro-manganese	21 763	19 803	18 508	20 040	17 026
Ferro-silico-manganese	18 509	23 082	22 688	20 932	18 944
Ferro-silicon	18 304	23 714	17 272	14 007	7 058
Australia (c)					
Electric furnace ferro-alloys					
Ferro-manganese	53 463	70 883	69 000	61 000	51 000
Ferro-silico-manganese (k)	19 810	31 795	27 000	23 000	43 000
Ferro-silicon	18 669	18 313	18 700	19 000	18 000
New Caledonia					
Electric furnace ferro-alloys					
Ferro-nickel	86 868	116 632	138 614	130 492	108 170

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

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

(c) Years ended 30 November of that stated

(d) Including manganese metal

(e) Including other chromium alloys and chromium metal

(f) Including ferro-silico-manganese

(g) Including ferro-silicon

(h) Including alumino-thermic ferro-alloys

(i) 50% Si

(j) 10-12% Si

(k) 60% Mn

(l) Including ferro-silico-chrome

Exports of Iron, Steel and Ferro-alloys

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Pig iron	45 936	33 798	43 768	19 983	30 992
Sponge & powder	348	451	471	750	990
Ferro-aluminium, Fe-Si-Al & Fe-Si-Mn-Al	2 736	1 717	2 066	2 512	3 567
Ferro-chrome	2 609	642	2 421	525	953
Ferro-silico-chrome	93	45	—	—	14
Ferro-manganese	14 039	687	17 556	12 749	13 990
Ferro-silico-manganese	233	1 027	127	146	419
Ferro-molybdenum	1 876	3 561	4 274	5 172	4 298
Ferro-nickel	—	5	28	11	0
Ferro-niobium & ferro-niobium-tantalum	49	51	38	32	147
Ferro-silicon	1 699	1 223	2 016	3 301	2 547
Ferro-titanium & ferro-silico-titanium	4 864	4 965	7 059	7 277	8 390
Ferro-tungsten & ferro-silico-tungsten	130	192	167	86	11
Ferro-vanadium	164	163	241	158	146
Other ferro-alloys	1 893	2 646	2 685	2 919	3 645
Ingots, blooms, billets	573 939	480 382	741 919	1 070 498	1 664 869
Scrap (a)	3 793 721	4 317 011	4 535 868	3 816 871	3 306 215
Belgium-Luxembourg					
Pig iron	2 419	3 479	4 254	5 756	10 629
Spiegeleisen	10	119	1 727	1 426	68
Sponge & powder	526	882	798	1 108	972
Ferro-aluminium, Fe-Si-Al & Fe-Si-Mn-Al	733	423	628	260	33
Ferro-chrome	3 909	2 913	1 338	876	2 118
Ferro-manganese	13 892	23 741	20 556	17 370	21 297
Ferro-silico-manganese, Fe-Mo & Fe-V	15 947	17 740	17 282	16 545	27 267
Ferro-silicon	2 627	877	368	900	4 370
Ferro-titanium & ferro-silico-titanium	984	1 289	1 424	945	834
Ferro-tungsten & ferro-silico-tungsten	0	165	184	91	6
Other ferro-alloys	1 259	891	1 354	1 426	1 484
Ingots, blooms, billets	575 747	732 514	594 958	626 130	751 506
Scrap	681 748	773 706	736 458	658 309	704 546
Denmark					
Ingots, blooms, billets	2 778	11 624	9 001	5 842	2 531
Scrap	174 934	234 279	269 573	182 773	224 017
France					
Pig iron	135 620	192 206	232 638	10 880	54 081
Spiegeleisen	952	233	835	919	189
Sponge & powder	927	350	313	193	252
Ferro-aluminium, Fe-Si-Al & Fe-Si-Mn-Al	1 712	2 241	841	553	386
Ferro-chrome	516	1 452	333	9 344	16 714
Ferro-silico-chrome	898	121	346	2	9
Ferro-silico-magnesium	6 271	8 263	7 155	7 324	9 362
Ferro-manganese	282 508	314 111	238 967	29 316	21 076
Ferro-silico-manganese	6 530	21 551	18 352	21 860	14 829
Ferro-molybdenum	1 022	1 333	1 162	990	2 388
Ferro-nickel	48 464	56 408	55 671	33 280	6 352
Ferro-silicon	86 022	82 294	75 915	67 533	54 389
Ferro-titanium & ferro-silico-titanium	648	659	542	313	312
Ferro-tungsten & ferro-silico-tungsten	15	230	46	—	49
Ferro-vanadium	415	1 249	1 296	706	170
Ferro-silico-zirconium	3 408	3 368	2 672	1 822	1 938
Other ferro-alloys	23 850	29 239	25 251	22 241	21 905
Ingots, blooms, billets	454 720	853 918	1 000 173	771 978	855 406
Scrap	3 227 103	4 104 316	3 962 164	3 161 685	3 228 820

Exports of Iron, Steel and Ferro-alloys

Country	1983	1984	1985	1986	1987
Germany, Federal Republic of					
Pig iron	461 808	531 875	677 864	500 459	499 016
Spiegeleisen	1 280	98	182	1 970	99
Sponge & powder	72 531	40 189	35 848	33 962	37 888
Ferro-chrome	55 902	61 218	58 445	39 721	54 345
Ferro-silico-chrome	3 179	4 184	3 021	5 056	4 346
Ferro-manganese	48 197	96 692	66 108	69 208	67 426
Ferro-silico-manganese	5 134	4 380	3 682	4 002	3 715
Ferro-molybdenum	1 025	819	503	345	196
Ferro-nickel	274	1 034	2 023	797	226
Ferro-niobium	351	521	490	515	484
Ferro-silicon	59 052	79 569	69 445	65 658	64 482
Ferro-titanium & ferro-silico-titanium	263	340	463	396	636
Ferro-tungsten & ferro-silico-tungsten	238	222	16	25	78
Ferro-vanadium	2 329	1 440	2 245	2 463	3 020
Other ferro-alloys	8 596	11 297	10 832	10 330	8 259
Ingots, blooms, billets	1 068 748	1 798 815	1 963 995	1 569 902	1 350 840
Scrap	3 172 613	3 445 580	3 623 925	3 674 154	4 521 210
Greece					
Ferro-chrome	11 966	29 410	23 070	43 315	47 000
Ferro-nickel	33 583	77 150	89 542	67 113	63 700*
Irish Republic					
Scrap	21 279	42 973	50 045	40 751	26 249
Italy					
Pig iron	22 109	10 144	21 547	60 506	17 285
Sponge & powder	4 013	2 638	2 403	982	889
Ferro-chrome & ferro-silico-chrome	24 005	20 189	24 592	24 442	19 505
Ferro-silico-magnesium	1 326	3 137	3 513	3 743	1 944
Ferro-manganese	1 411	319	303	334	3 606
Ferro-silico-manganese	5 383	11 561	2 677	5 197	9 856
Ferro-molybdenum	96	762	1 119	38	21
Ferro-silicon	6 965	14 004	16 783	11 306	10 122
Ferro-titanium & ferro-silico-titanium	1 520	1 732	1 656	1 435	2 253
Ferro-vanadium	4	47	179	18	74
Other ferro-alloys	2 309	3 905	2 426	3 817	4 737
Ingots, blooms, billets	318 500	330 034	350 443	261 791	95 047
Scrap	18 476	19 492	10 028	7 274	15 701
Netherlands					
Pig iron	12 045	7 999	17 945	17 966	9 806
Sponge & powder	298	484	75	37	502
Ferro-chrome	3 308	4 087	1 714	14 881	7 159
Ferro-manganese	74	562	154	103	1 125
Ferro-silico-manganese	—	115	—	285	279
Ferro-molybdenum	145	83	289	532	224
Ferro-nickel	650	8	92	13	—
Ferro-silicon	5 176	13	230	2 730	1 224
Ferro-titanium & ferro-silico-titanium	0	132	875	2 297	2 294
Ferro-vanadium	33	—	1	—	—
Other ferro-alloys	200	71	167	384	325
Ingots, blooms, billets	856 475	1 315 698	1 285 172	1 335 080	1 352 641
Scrap	1 521 860	1 683 958	1 834 659	1 991 940	2 225 779
Portugal					
Pig iron	1 229	229	15	20	80
Ferro-manganese	9 918	46 123	14 087	21 404	9 562
Ferro-silico-manganese	59 820	38 512	50 978	43 957	(c) ...
Ferro-silicon	18 951	6 177	6 876	5 252	12
Ferro-tungsten	168	193	164	28	(c) ...
Other ferro-alloys	1 220	—	—	—	2 655
Scrap	9 710	9 177	16 687	10 645	6 595

Exports of Iron, Steel and Ferro-alloys

tonnes

Country	1983	1984	1985	1986	1987
Spain					
Pig iron	5 605	927	30 125	31 460	742
Ferro-aluminium, Fe-Si-Al & Fe-Si-Mn-Al	811	480	252	123	515
Ferro-chrome	4 332	14 538	15 939	9 907	13 949
Ferro-manganese	15 842	24 579	26 781	22 083	13 103
Ferro-silico-manganese	5 569	5 257	7 074	7 076	7 132
Ferro-molybdenum	638	956	2 079	2 388	2 027
Ferro-silicon	3 442	8 233	5 980	3 620	4 579
Ferro-titanium & ferro-silico-titanium	30	6	29	249	0
Other ferro-alloys	23	651	1 239	1 189	1 284
Ingots, blooms, billets	623 465	549 563	1 079 805	570 874	650 790
Scrap	230	4 180	1 304	1 628	15 790
Albania					
Ferro-chrome (f)	25 900*	26 400*	8 500*	37 600*	24 000*
Austria					
Pig iron	26	64	1 074	502	157
Ferro-alloys	12 771	12 669	12 264	12 857	13 322
Ingots & blooms	15 792	39 499	38 293	10 026	13 870
Scrap	12 642	20 910	32 191	22 305	92 200
Bulgaria					
Pig iron	38 179	262 521	78 870	52 307	69 000
Ferro-alloys	23 000	15 000	12 000	12 000	15 000
Ingots, blooms, billets	138 234	261 683	288 320	375 345	...
Scrap	38 000	48 000	38 000	4 000	35 000
Czechoslovakia					
Ferro-chrome (f)	5 600*	3 900*	2 800*	700*	400*
Ferro-manganese (f)	15 700*	12 500*	15 400*	18 900*	14 900*
Other ferro-alloys (f)	4 100*	4 900*	6 500*	4 800*	4 900*
Blooms	270 000	437 000	468 000	533 000	610 000
Scrap (f)	124 400*	185 600*	140 200*	101 500*	90 800*
Finland					
Pig iron	57	717	1	44	—
Ferro-chrome & ferro-silico-chrome	18 483	7 677	56 311	90 199	89 530
Ingots, blooms, billets	118 775	(f) 102 000*	(f) 111 300*	(f) 123 800*	(f) 161 600*
Scrap	107	9 466	9 646	359	252
German Democratic Republic					
Pig iron (f)	8 600*	5 000*	...	...	8 300*
Ferro-silicon (f)	10 200*	7 300*	5 900*	7 600*	5 300*
Other ferro-alloys (f)	1 800*	400*	400*	1 500*	1 300*
Ingots, blooms, billets (f)	397 200*	336 200*	535 100*	590 000*	795 100*
Scrap (f)	13 700*	17 500*	24 100*	24 600*	34 400*
Hungary					
Pig iron	4 810	20 922	—	—	—
Ingots, blooms, billets	608	24 296	46 180	22 798	3 893
Scrap	49 761	79 152	26 912	6 382	106 850
Iceland					
Ferro-silicon	49 238	57 252	56 845	64 990	71 656
Scrap	10 268	9 784	6 237	2 527	7 668
Malta					
Scrap	7 252	12 744	11 798	5 427	10 566
Norway					
Pig iron	43 456	27 832	32 120	22 718	13 663
Ferro-chrome	6 632	601	—	—	4
Ferro-silico-chrome	732	349	—	—	—
Ferro-manganese	198 288	204 540	180 018	162 265	176 850
Ferro-silico-manganese	172 893	217 817	220 087	202 090	215 810
Ferro-silicon	347 911	427 489	376 486	339 711	334 761
Other ferro-alloys	12 078	10 842	11 273	11 515	11 125
Ingots, blooms, billets	233 956	199 137	143 727	40 906	122 281
Scrap	35 430	21 326	9 300	7 704	11 897
Poland					
Ingots, blooms, billets	154 000	160 000	82 000	108 000	163 000
Scrap	146 138	176 150	79 993	73 883	96 980
Romania					
Pig iron & ferro-alloys	2 900*	17 000*	8 000*	6 000*	...
Ingots, blooms, billets (f)	19 500*	22 900*	13 700*	12 700*	6 100*

Exports of Iron, Steel and Ferro-alloys

tonnes

Country	1983	1984	1985	1986	1987
Soviet Union					
Pig iron	(f) 4 153 800*	(f) 4 130 700*	(f) 4 476 400*	5 517 000	5 963 000
Ferro-alloys	(f) 700 000*	(f) 750 000*	(f) 760 000*	770 000	756 000
Ingots, blooms, billets (f)	1 553 000*	1 531 100*	1 649 100*	1 769 800*	1 444 800*
Scrap	3 369 905	3 407 062	3 315 424	4 087 898	3 900 000
Sweden					
Pig iron	26 285	3 048	6 994	8 548	3 345
Sponge & powder	103 986	110 707	100 841	104 867	117 315
Ferro-chrome	105 736	95 793	103 161	85 276	78 862
Ferro-silico-chrome	362	2 279	2 226	2 073	3 774
Ferro-manganese	668	673	1 227	2 009	488
Ferro-silico-manganese	1	11	65	464	233
Ferro-molybdenum	737	193	102	58	18
Ferro-niobium	42	48	13	13	23
Ferro-silicon	18 990	20 564	21 434	11 480	12 507
Ferro-titanium	305	389	123	34	81
Ferro-tungsten	107	94	20	35	—
Ferro-vanadium	53	15	6	21	16
Other ferro-alloys	26	388	189	163	113
Ingots, blooms, billets	237 485	458 304	638 736	554 951	402 238
Scrap	20 317	21 667	21 643	28 585	44 426
Switzerland					
Pig iron	501	659	227	406	211
Sponge & powder	444	558	574	590	574
Ferro-silicon	119	140	115	133	84
Other ferro-alloys	676	207	201	158	163
Ingots, blooms, billets	9 260	9 038	4 228	26 101	26 292
Scrap	149 484	106 296	100 135	60 949	87 361
Turkey					
Pig iron	16 052	60 169	500	137 348	121 762
Ferro-chrome	32 803	53 350	53 396	45 460	...
Ingots, blooms, billets	65 727	185 725	532 734	726 953	637 372
Scrap	...	3 348	4 132	4 797	5 169
Yugoslavia					
Pig iron	3 258	118	14 486	8 461	35 236
Ferro-chrome	53 864	58 029	52 752	46 404	36 657
Ferro-manganese	10 946	12 109	7 650	5 883	9 542
Ferro-silico-manganese	16 620	28 645	35 860	29 168	38 561
Ferro-silicon	46 783	59 095	52 706	58 357	69 697
Other ferro-alloys	1 290	3 818	7 266	6 537	13 195
Ingots, blooms, billets	11 015	48 541	60 365	63 326	137 188
Scrap	70 384	141 732	173 419	157 542	365 935
Algeria					
Pig iron	212 615	279 684	48 631	64 365	...
Scrap	55 388	82 881	84 458	148 415	...
Ivory Coast					
Scrap	26 477	24 931	25 286	...	...
Morocco					
Scrap	65 512	91 900	80 689	52 087	...
Senegal					
Scrap	12 685	7 478	13 900	11 211	7 116
South Africa					
Pig iron (f)	75 600*	122 400*	407 700*	629 400*	388 500*
Ferro-chrome	769 115	855 588	758 617	877 971	820 872
Ferro-manganese	306 538	334 559	458 165	502 247	450 000*
Ferro-silicon	29 593	42 822	41 016	40 069	37 462
Other ferro-alloys	32 860	39 486	29 222	30 666	...
Ingots, blooms, billets (f)	198 600*	147 700*	388 400*	492 800*	663 900*
Scrap (f)	46 400*	46 800*	67 200*	145 800*	70 400*
Sudan					
Scrap	50	50	949	3 510	...

Exports of Iron, Steel and Ferro-alloys

tonnes

Country	1983	1984	1985	1986	1987
Tunisia					
Scrap	11	790	2 614	1 457	244
Zimbabwe					
Pig iron	144	250	28	605	7 807
Ferro-chrome	228 395	185 908	162 108	186 397	210 636
Ferro-silico-chrome	18 316	23 577	23 376	25 041	31 329
Ingots, blooms, billets	214 370	184 134	243 528	158 547	300 000*
Scrap	4 799	10 049	49 600	6 101	8 915
Canada					
Pig iron	348 278	393 893	574 132	519 606	448 251
Sponge	36 974	45 715	36 395	37 000	52 104
Ferro-manganese	4 160	9 202	43 584	45 132	23 103
Ferro-silicon	45 728	35 299	33 224	45 953	28 316
Other ferro-alloys	5 188	5 202	4 614	11 889	10 046
of which: Re-exports	1 006	151	1 060	764	145
Ingots, blooms, billets	579 096	249 086	77 137	233 428	104 756
Scrap	866 932	763 574	952 376	921 367	1 086 832
Dominican Republic					
Ferro-nickel	53 825	62 361	67 893	53 903	...
Mexico					
Ferro-alloys	73 696	57 496	60 521	42 465	39 643
Scrap	5 123	15 445	16 699	...	...
Trinidad and Tobago					
Sponge	42 253	64 482	61 324	53 211	70 345
USA					
Pig iron	6 441	54 645	33 475	45 795	50 642
Sponge & powder	13 005	13 487	9 822	10 586	15 469
Ferro-chrome & ferro-silico-chrome	6 111	15 217	10 506	6 674	6 166
Ferro-manganese	7 832	6 470	6 871	3 956	2 686
Ferro-silico-manganese	5 864	4 902	2 832	1 787	746
Ferro-molybdenum	78	295	601	172	75
Ferro-phosphorus	24 435	35 928	44 801	34 833	31 508
Ferro-silicon	12 565	26 661	11 801	10 345	13 880
Ferro-vanadium	705	425	423	445	442
Other ferro-alloys	5 318	25 080	14 048	9 329	17 643
Ingots, blooms, billets	107 451	72 700	85 010	54 187	67 190
Scrap (a)	6 844 187	8 643 090	9 032 434	10 619 159	9 408 258
Argentina					
Ingots, blooms, billets	2 995	1 743	295 089	369 795	...
Brazil					
Pig iron	1 801 472	2 474 329	2 479 622	2 367 010	2 045 208
Ferro-chrome	38 048	53 880	60 285	20 121	14 980
Ferro-manganese	49 511	21 302	33 594	45 508	50 049
Ferro-nickel	15 494	11 175	9 871	4 694	2 208
Ferro-niobium	9 256	13 771	14 324	12 331	11 069
Fe-silico-spiegeleisen & silico-manganese	123 708	100 388	65 327	70 300	55 208
Ferro-silicon	111 846	89 874	127 371	129 262	176 349
Other ferro-alloys	7 761	13 552	11 695	10 179	...
Ingots, blooms, billets	429 601	1 374 833	2 434 504	2 459 002	3 420 357
Chile					
Ferro-alloys	7 150	6 227	3 676	5 463	...
Ingots, blooms, billets	112 010	49 696	61 935	66 144	...
Colombia					
Ferro-nickel	26 959	33 720	28 303	32 211	...
Venezuela					
Sponge & powder	381 088	373 931	267 103	259 921	216 212
Ferro-silicon	67 130	32 264	56 067	58 173	45 459
Ingots, blooms, billets	72 577	70 533	200 478	98 250	217 146
Bahrain					
Scrap	7 450	25 831	37 029	32 852	49 983
Brunei					
Scrap	8 640	11 329	8 139	...	...

Exports of Iron, Steel and Ferro-alloys

Country	1983	1984	1985	1986	1987
China					
Pig iron (f)	68 500*	3 300*	2 000*	5 700*	316 900*
Ferro-silicon (f)	17 500*	3 900*	1 500*	33 800*	178 000*
Other ferro-alloys (f)	6 300*	18 300*	5 100*	20 300*	69 400*
Ingots, blooms, billets (f)	12 200*	1 500*	400*	100*	900*
Scrap (f)	36 700*	23 500*	18 500*	3 000*	114 500*
Cyprus					
Scrap (b)	8 300	13 223	14 288	13 309	4 543
Dubai					
Scrap	9 764	30 986	53 219	56 714	...
Hong Kong					
Pig iron (b)	4 398	67	1 977	71	97
Ferro-manganese (b)	102	5 430	500	496	1 540
Ferro-silicon (b)	610	—	—	3 483	30 135
Other ferro-alloys (b)	162	114	563	1 662	6 524
Ingots, blooms, billets (b)	24 217	41 574	41 920	24 842	13 174
Scrap	329 556	300 067	319 137	275 389	345 259
India (d)					
Pig iron	695	1 476	221	...	...
Ferro-manganese	—	1 950	5 330	...	...
Scrap	57 615	52 449	64 182	...	...
Indonesia					
Sponge & powder	119 941	69 557	86 542	96 392	75 117
Israel					
Scrap (f)	4 100*	8 600*	4 900*	4 600*	3 400*
Japan					
Pig iron	332 386	276 749	1 066 307	1 055 582	28 598
Sponge & powder	4 150	6 798	9 318	9 166	11 520
Ferro-chrome	5 429	2 095	5 468	3 433	4 883
Ferro-manganese	22 202	22 822	25 988	6 857	19 122
Ferro-silico-manganese	107	93	170	16	—
Ferro-nickel	13 369	4 365	4 475	7 100	1 885
Ferro-silicon	1 135	1 199	913	1 091	1 345
Ferro-vanadium	168	122	10	94	67
Other ferro-alloys	1 479	2 276	2 067	3 152	4 718
Ingots, blooms, billets	129 722	136 026	323 693	221 429	250 411
Scrap	115 822	146 473	165 636	461 048	377 397
Korea, Dem. P. R. of					
Pig iron (f)	101 000*	136 700*	143 100*	103 600*	96 800*
Ingots, blooms, billets (f)	17 300*	28 300*	6 700*	8 200*	17 300*
Korea, Republic of					
Pig iron	9 671	10 110	74	1 021	2 017
Ferro-manganese	701	338	30	5	5
Ferro-silico-manganese	1 241	350	—	—	—
Other ferro-alloys	3 212	3 106	1 057	3 051	114
Ingots, blooms, billets	551 689	440 171	373 788	167 788	193 060
Scrap	284 597	135 288	74 006	71 525	42 157
Kuwait					
Scrap	69 571	123 332	...	...	...
Malaysia					
Sponge & powder	328	4 933	286 369	...	605 817
Scrap	12 724	20 180	21 530	...	44 419
Pakistan (e)					
Pig iron	136 478	391 999	58 258	119 911	235 058
Scrap	771	46 417	1 628	20 844	660
Philippines					
Ferro-silicon	22 827	20 856	22 428	10 079	10 225
Other ferro-alloys	28 656	45 414	50 379	55 971	50 821
Scrap	1 014	844	952	850	1 313
Saudi Arabia					
Scrap	62 228	89 836	129 743	122 511	69 381

Exports of Iron, Steel and Ferro-alloys

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Country	1983	1984	1985	1986	1987
Singapore					
Pig iron	6 514	6 580	3 263	1 100	652
of which: Re-exports	6 485	6 557	3 227	1 095	641
Ferro-alloys	601	607	1 126	549	1 119
of which: Re-exports	587	603	1 072	549	1 119
Ingots & blooms	4 362	4 752	8 621	5 014	24 169
of which: Re-exports	3 549	3 783	3 790	3 326	11 705
Scrap	119 468	108 948	166 636	90 776	155 625
Sri Lanka					
Scrap	4 200	11 000	3 535	40 988	30 941
Taiwan					
Pig iron	2 890	562	1 011	3 371	1 511
Ferro-manganese	785	191	111	60	100
Ferro-silicon	515	2 211	861	458	208
Other ferro-alloys	5 022	3 450	1 717	917	1 451
Ingots, blooms, billets	250 617	107 725	104 780	31 406	50 714
Scrap	279 854	202 414	388 225	280 941	97 755
Thailand					
Scrap	1 712	3 548	3 575	5 701	4 925
Australia					
Pig iron	468 621	70 665	26 185	26 236	164 939
Ferro-manganese	28 722	19 155	20 089	43 863	47 500
Other ferro-alloys	22 025	27 341	19 479	41 549	37 524
Ingots, blooms, billets	383 663	293 622	582 854	495 738	522 596
Scrap	493 257	410 396	485 223	557 129	...
Fiji					
Scrap	857	1 810	717	743	...
of which: Re-exports	429	648	359	311	...
New Caledonia					
Ferro-nickel	91 600	123 100	142 000	130 400	121 400
New Zealand (e)					
Ingots, blooms, billets	36 176	42 380	38 781	66 576	84 294
Scrap	2 206	3 113	3 061	2 612	3 308

Notes

(1) 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) Re-exports
- (c) Included with 'other ferro-alloys'
- (d) Years ended 31 March following that stated
- (e) Years ended 30 June of that stated
- (f) BGS estimates, based on known imports into certain countries

Imports of Iron, Steel and Ferro-alloys

Country	1983	1984	1985	1986	1987
United Kingdom					
Pig iron	91 188	86 804	101 216	118 121	105 419
Sponge & powder	13 054	13 975	13 620	13 122	17 158
Ferro-chrome	86 660	68 086	77 082	95 627	110 089
Ferro-silico-chrome	437	—	1 063	21	4
Ferro-manganese	99 436	37 625	44 553	53 492	36 954
Ferro-silico-manganese	28 934	28 062	29 401	30 471	20 978
Ferro-molybdenum	383	403	374	276	724
Ferro-nickel	9 187	16 437	17 270	21 454	22 307
Ferro-niobium	459	731	864	575	559
Ferro-silicon	69 735	81 754	84 669	66 170	77 548
Ferro-titanium & ferro-silico-titanium	494	992	799	955	727
Ferro-tungsten & ferro-silico-tungsten	23	41	86	83	114
Ferro-vanadium	636	827	655	519	666
Other ferro-alloys	11 795	10 663	9 576	10 439	13 424
Ingots, blooms, billets	239 418	273 399	250 382	242 711	200 523
Scrap (a)	11 231	33 809	51 020	44 839	72 635
Belgium-Luxembourg					
Pig iron	46 835	94 478	113 020	121 731	132 428
Spiegeleisen	686	579	1 171	1 532	425
Sponge & powder	1 545	2 733	1 914	1 631	1 859
Ferro-aluminium, Fe-Si-Al & Fe-Si-Mn-Al	1 238	892	464	404	540
Ferro-chrome	35 337	44 974	49 686	45 552	41 663
Ferro-silico-chrome	1 909	3 189	3 157	2 253	2 774
Ferro-manganese	53 479	52 460	56 037	47 342	59 331
Ferro-silico-manganese	21 326	35 439	30 594	40 049	47 411
Ferro-molybdenum	312	298	591	709	906
Ferro-nickel	6 407	6 322	7 239	5 243	3 818
Ferro-silicon	33 056	29 170	30 947	28 639	31 098
Ferro-titanium & ferro-silico-titanium	437	494	608	510	509
Ferro-vanadium	172	226	120	112	62
Other ferro-alloys	5 854	2 783	3 303	3 534	3 916
Ingots, blooms, billets	376 975	629 469	548 315	446 328	557 653
Scrap	1 045 214	1 672 749	1 489 540	1 221 785	1 583 802
Denmark					
Pig iron	29 275	35 777	58 763	75 989	77 687
Sponge & powder	592	4 031	1 169	1 375	887
Ferro-aluminium, Fe-Si-Al & Fe-Si-Mn-Al	158	1 035	811	254	533
Ferro-chrome & ferro-silico-chrome	840	249	144	85	73
Ferro-manganese	1 968	2 707	2 024	1 618	1 285
Ferro-silico-manganese	2 911	3 540	4 002	6 247	4 678
Ferro-molybdenum	18	14	17	5	9
Ferro-silicon	3 250	3 140	2 774	3 165	2 998
Other ferro-alloys	104	132	160	194	214
Ingots, blooms, billets	3 153	8 781	81 510	6 707	14 187
Scrap	67 523	131 692	47 735	121 242	89 288

Imports of Iron, Steel and Ferro-alloys

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Country	1983	1984	1985	1986	1987
France					
Pig iron	364 216	413 009	479 635	370 163	385 666
Spiegeleisen	1 094	340	366	1 973	142
Sponge & powder	71 650	11 298	11 528	11 200	12 494
Ferro-aluminium, Fe-Si-Al & Fe-Si-Mn-Al	177	14	270	343	685
Ferro-chrome	113 135	154 506	160 073	168 118	195 855
Ferro-silico-chrome	1 030	849	493	500	1 639
Ferro-silico-magnesium	206	665	858	1 731	2 185
Ferro-manganese	22 722	40 990	35 479	64 310	59 384
Ferro-silico-manganese	27 144	41 018	39 064	58 888	53 571
Ferro-molybdenum	1 445	1 367	1 514	1 565	2 421
Ferro-nickel	76 983	93 980	107 069	79 875	41 838
Ferro-silicon	26 420	35 238	38 524	34 761	45 943
Ferro-titanium & ferro-silico-titanium	894	1 458	1 578	2 065	2 782
Ferro-tungsten & ferro-silico-tungsten	208	335	454	325	644
Ferro-vanadium	408	625	760	1 037	919
Other ferro-alloys	1 152	2 670	3 098	1 871	1 730
Ingots, blooms, billets	677 192	805 794	645 678	673 186	626 380
Scrap	307 305	407 253	461 415	354 205	518 955
Germany, Federal Republic of					
Pig iron	180 874	213 032	218 013	271 986	263 039
Spiegeleisen	—	—	89	1 109	491
Sponge & powder	19 374	21 239	19 280	21 124	25 438
Ferro-aluminium, Fe-Si-Al & Fe-Si-Mn-Al	148	502	190	153	579
Ferro-chrome	297 662	244 644	287 300	273 340	326 987
Ferro-silico-chrome	5 753	12 520	17 793	16 545	14 048
Ferro-manganese	98 242	87 111	129 855	106 140	98 155
Ferro-silico-manganese	115 360	122 635	123 253	111 817	114 860
Ferro-molybdenum	4 583	5 401	5 795	5 962	5 954
Ferro-nickel	73 107	99 327	101 491	88 157	62 913
Ferro-niobium	2 405	3 363	2 947	3 055	2 401
Ferro-silicon	195 001	241 656	220 079	213 950	198 127
Ferro-titanium & ferro-silico-titanium	3 085	3 533	3 717	4 510	4 603
Ferro-tungsten & ferro-silico-tungsten	147	532	819	691	645
Ferro-vanadium	1 682	2 644	2 754	2 032	1 772
Other ferro-alloys	5 756	5 755	8 531	7 346	8 940
Ingots, blooms, billets	839 718	1 068 611	1 327 219	1 315 906	1 449 815
Scrap	1 300 364	1 766 682	1 619 550	1 383 917	1 195 750
Greece					
Pig iron	16 531	6 561	8 074	19 761	...
Ferro-manganese	1 686	2 751	6 114	5 343	...
Ferro-silico-manganese	4 271	5 924	6 642	6 525	...
Ferro-silicon	1 738	2 812	2 807	3 901	...
Other ferro-alloys	436	322	473	452	...
Ingots, blooms, billets	708 785	538 751	437 262	417 482	...
Scrap	520 377	327 572	313 312	455 302	652 478
Irish Republic					
Pig iron	263	600	574	1 046	558
Ferro-alloys	2 186	2 188	2 662	2 984	3 469
Ingots, blooms, billets	369	557	780	467	6 817
Scrap	70 309	87 580	135 912	121 979	148 594

Imports of Iron, Steel and Ferro-alloys

Country	1983	1984	1985	1986	1987
Italy					
Pig iron	270 644	310 388	265 842	398 276	451 190
Spiegeleisen	615	2 777	485	197	713
Sponge & powder	34 544	75 591	46 786	27 318	103 428
Ferro-aluminium, Fe-Si-Al & Fe-Si-Mn-Al	1 799	1 844	1 129	1 218	1 465
Ferro-chrome	66 973	106 703	97 833	99 031	93 267
Ferro-silico-chrome	1 273	518	1 114	1 826	1 706
Ferro-silico-magnesium	1 107	1 242	1 357	2 201	2 646
Ferro-manganese	64 719	115 780	81 824	90 052	89 408
Ferro-silico-manganese	24 914	27 968	27 008	23 545	28 627
Ferro-molybdenum	1 307	1 248	1 500	2 403	2 376
Ferro-nickel	13 375	16 134	22 085	21 719	21 329
Ferro-niobium	1 622	2 348	1 912	1 290	1 155
Ferro-silicon	46 135	65 506	48 133	55 361	59 002
Ferro-titanium & ferro-silico-titanium	408	1 064	780	737	830
Ferro-tungsten & ferro-silico-tungsten	71	97	95	147	264
Ferro-vanadium	753	816	916	1 121	827
Other ferro-alloys	690	1 593	1 280	1 299	2 096
Ingots, blooms, billets	515 606	533 576	1 090 573	1 265 566	1 222 883
Scrap	4 446 092	5 487 097	5 777 199	4 746 375	4 911 165
Netherlands					
Pig iron	29 601	44 078	41 628	49 702	48 433
Sponge & powder	2 832	3 562	2 322	1 792	2 872
Ferro-aluminium, Fe-Si-Al & Fe-Si-Mn-Al	87	82	144	213	325
Ferro-chrome	3 406	5 523	2 798	16 083	7 988
Ferro-silico-chrome	66	57	61	95	56
Ferro-manganese	12 065	26 629	22 664	17 046	14 274
Ferro-silico-manganese	3 758	6 656	5 737	6 486	6 987
Ferro-molybdenum	147	122	502	563	278
Ferro-nickel	1 148	890	86	254	67
Ferro-silicon	8 683	5 203	5 063	7 972	4 847
Ferro-titanium & ferro-silico-titanium	72	241	977	2 369	2 425
Ferro-tungsten & ferro-silico-tungsten	17	1	72	117	190
Ferro-vanadium	80	75	72	81	54
Other ferro-alloys	602	541	770	884	918
Ingots, blooms, billets	185 512	220 102	156 445	118 474	100 037
Scrap	363 764	479 712	586 431	849 807	1 014 012
Portugal					
Pig iron	8 858	7 421	6 919	7 630	16 146
Ferro-chrome	100	356	424	271	254
Ferro-manganese	105	94	187	183	463
Ferro-silico-manganese	10	8	1 397	29	14
Ferro-silicon	205	643	364	991	3 088
Other ferro-alloys	155	131	228	416	524
Ingots, blooms, billets	46 968	11 099	2 219	4 426	3 479
Scrap	106 203	120 120	104 781	104 453	119 384
Spain					
Pig iron	100 513	54 530	86 818	140 230	114 700
Sponge & powder	116 341	81 010	88 045	62 981	47 262
Ferro-aluminium & ferro-silico-aluminium	37	315	129	19	12
Ferro-chrome	35 606	52 294	46 615	71 371	80 627
Ferro-silico-chrome	1 679	2 368	1 691	1 620	2 080
Ferro-manganese	1 893	1 045	1 259	6 635	14 129
Ferro-silico-manganese	2 000	1 601	1 516	11 392	14 535
Ferro-molybdenum	110	67	162	108	197
Ferro-nickel	6 028	8 690	7 908	24 850	24 632
Ferro-silicon	2 684	2 750	5 299	11 975	11 089
Ferro-titanium & ferro-silico-titanium	172	159	75	200	227
Ferro-tungsten & ferro-silico-tungsten	21	17	27	47	62
Ferro-vanadium	112	79	168	418	206
Other ferro-alloys	3 095	2 699	3 080	10 155	2 375
Ingots, blooms, billets	51 946	130 402	162 161	408 032	145 783
Scrap	4 538 232	5 020 310	6 146 278	4 341 976	4 284 658

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1983	1984	1985	1986	1987
Albania					
Ferro-alloys (g)	1 300*	1 600*	2 300*	2 900*	2 300*
Austria					
Pig iron	32 630	43 839	47 179	35 479	33 157
Sponge & powder	3 903	5 403	5 204	5 372	6 036
Ferro-chrome	18 524	25 904	20 677	19 373	17 823
Ferro-manganese	22 710	25 430	22 779	18 945	18 777
Ferro-molybdenum	67	63	109	175	189
Ferro-nickel	3 337	4 580	3 305	2 602	2 770
Ferro-niobium & ferro-niobium-tantalum	271	292	299	318	268
Ferro-silicon	13 670	14 726	16 215	16 966	14 085
Ferro-titanium	491	479	766	704	455
Ferro-tungsten	6	253	106	176	444
Ferro-vanadium	174	33	129	105	69
Other ferro-alloys	4 477	8 409	10 142	8 874	8 622
Ingots & blooms	59 246	72 248	75 936	163 273	100 163
Scrap	218 822	363 084	239 048	115 029	68 523
Bulgaria					
Pig iron	407 482	664 573	404 296	425 398	469 000
Ferro-chrome	8 920	9 171	8 830	8 940	(d) ...
Ferro-manganese	3 148	3 363	3 397	3 169	4 000
Ferro-silicon	10 450	8 534	10 031	9 375	(d) ...
Other ferro-alloys	3 425	5 062	5 578	5 323	25 000
Ingots, blooms, billets	570 000*	451 000*	392 000*	257 000*	310 000*
Czechoslovakia					
Pig iron	780 000	745 000	869 000	808 000	717 000
Ferro-chrome & ferro-silico-chrome (g)	1 200*	1 200*	3 200*	1 000*	1 700*
Ferro-titanium & ferro-silico-titanium (g)	1 300*	800*	1 200*	700*	800*
Other ferro-alloys (g)	118 600*	101 300*	119 700*	118 900*	115 400*
Ingots, blooms, billets	22 000	154 000	318 000	165 000	113 000
Scrap (g)	156 400*	84 300*	43 900*	43 200*	19 700*
Finland					
Pig iron	9 589	6 729	15 317	14 382	12 982
Sponge & powder	1 090	880	953	499	327
Ferro-chrome & ferro-silico-chrome	1 387	6 339	1 443	1 446	1 944
Ferro-manganese	3 779	5 825	4 293	4 496	4 355
Ferro-silico-manganese	15 776	17 291	21 690	13 988	22 515
Ferro-molybdenum	163	345	692	490	624
Ferro-silicon	7 442	10 198	7 138	7 660	9 994
Ferro-titanium	173	248	399	275	487
Ferro-vanadium	55	84	105	217	205
Other ferro-alloys	12 255	21 342	18 152	15 512	31 100
Ingots, blooms, billets	7 174	6 891	10 689	5 650	30 197
Scrap	37 293	32 516	113 350	63 336	54 853
German Democratic Republic					
Pig iron	834 800	863 900	1 090 500	1 145 800	1 339 600
Ferro-manganese	58 000	62 000	75 000	74 000	73 000
Other ferro-alloys	10 000	16 000	13 000	6 000	11 000
Ingots, blooms, billets	282 000	172 000	111 000	107 000	131 000
Scrap	672 000	1 035 000	886 000	986 000	903 000
Hungary					
Pig iron	293 562	279 461	272 413	254 297	261 512
Ferro-chrome	9 098	8 801	10 390	11 183	13 393
Ferro-manganese	39 980	37 794	44 951	42 250	36 292
Ferro-molybdenum	407	255	261	315	436
Ferro-silicon	6 654	6 373	6 742	7 424	6 871
Other ferro-alloys	13 186	12 564	14 799	14 697	14 170
Ingots, blooms, billets	—	5 602	—	—	999
Scrap	28 347	20 084	14 000	8 330	14 307
Malta					
Ingots, blooms, billets	6 755	7 804	6 044	6 342	5 275

Imports of Iron, Steel and Ferro-alloys

Country	1983	1984	1985	1986	1987
Norway					
Pig iron	5 641	5 859	5 458	4 693	3 460
Spiegeleisen	777	170	842	88	0
Sponge & powder	906	243	305	749	785
Ferro-chrome	167	477	840	830	652
Ferro-silicon	5 261	553	1 512	995	630
Other ferro-alloys	261	255	473	565	5 835
Ingots, blooms, billets	5 593	826	5 708	5 320	3 072
Scrap	15 140	12 888	10 831	6 145	32 528
Poland					
Pig iron & ferro-alloys	1 232 283	1 271 515	1 411 338	1 477 696	1 420 314
Ingots, blooms, billets	166 000	19 000	13 000	16 000	16 000
Scrap	3 668	5 543	3 786	3 444	5 116
Romania					
Pig iron	212 800	165 000	117 400	100 000	...
Ferro-alloys	148 700	152 000	151 800	162 000	...
Ingots, blooms, billets	391 000	218 000	281 000	309 000	...
Soviet Union					
Pig iron	...	(g) 64 200*	...	30 426	29 574
Sponge & powder (g)	5 600*	4 000*	3 400*	1 900*	100*
Ferro-alloys	(g) 3 500*	(g) 4 200*	(g) 4 200*	29 163	29 726
Sweden					
Pig iron	38 042	38 593	46 791	56 967	51 193
Sponge & powder	842	375	900	1 178	1 678
Ferro-chrome	36 007	47 653	52 098	43 258	50 593
Ferro-silico-chrome	1 344	1 450	1 645	100	2 611
Ferro-manganese	28 744	31 588	28 402	26 464	25 963
Ferro-silico-manganese	12 085	12 241	15 696	17 559	11 926
Ferro-molybdenum	1 091	1 624	1 377	1 388	1 431
Ferro-nickel	12 875	22 056	7 485	13 403	14 049
Ferro-niobium	253	280	212	213	291
Ferro-silicon	23 757	27 834	21 341	17 400	22 515
Ferro-titanium	1 226	1 308	1 059	1 442	1 475
Ferro-tungsten	44	301	639	326	372
Ferro-vanadium	733	955	1 057	1 120	1 105
Other ferro-alloys	727	982	745	1 539	1 227
Ingots, blooms, billets	100 276	79 643	35 008	48 909	136 936
Scrap	450 132	840 314	884 807	704 779	789 422
Switzerland					
Pig iron	72 248	71 123	63 011	42 237	34 282
Sponge & powder	4 295	5 113	3 785	4 858	4 478
Ferro-aluminium	338	286	301	377	557
Ferro-silicon	5 954	8 049	7 219	7 963	6 814
Other ferro-alloys	12 854	17 269	15 003	15 156	14 648
Ingots, blooms, billets	63 226	93 993	80 443	51 123	14 451
Scrap	146 802	272 801	239 933	323 815	136 487
Turkey					
Pig iron	66 937	42 831	139 226	116 372	127 185
Sponge & powder	1 082	1 179	50 916	1 115	...
Ferro-manganese	20 905	25 619	25 647	21 007	41 707
Ferro-silicon	12 636	11 379	12 099	14 487	27 035
Other ferro-alloys	9 004	15 300	20 477	27 170	29 339
Ingots, blooms, billets	705 911	1 210 309	1 659 318	920 934	1 553 828
Scrap	1 073 575	1 038 108	1 147 623	1 798 755	2 831 299
Yugoslavia					
Pig iron	61 323	64 129	53 314	63 325	25 381
Sponge & powder	2 188	2 124	1 982	1 985	1 999
Ferro-chrome	917	763	1 840	1 172	232
Ferro-manganese	2 482	1 754	1 563	1 714	1 078
Ferro-molybdenum	600	1 022	697	989	656
Ferro-phosphorus	120	567	704	482	682
Ferro-silicon	2 084	1 657	1 074	838	1 268
Ferro-tungsten	162	64	96	114	197
Ferro-vanadium	354	250	267	406	332
Other ferro-alloys	2 090	1 785	1 851	2 682	880
Ingots, blooms, billets	472 994	488 202	438 612	573 493	435 382
Scrap	738 095	781 453	728 581	650 918	688 997

Imports of Iron, Steel and Ferro-alloys

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Country	1983	1984	1985	1986	1987
Algeria					
Pig iron	12 328	25 833	17 975	22 478	...
Ferro-chrome	551	516	691	320	...
Ferro-manganese	919	8 572	1 024	4 495	...
Ferro-silico-manganese	870	122	218	179	...
Ferro-phosphorus	347	85	29	4	...
Ferro-silicon	3 902	7 118	8 711	4 029	...
Ferro-vanadium	150	50	50	—	...
Other ferro-alloys	264	457	1 975	291	...
Ingots, blooms, billets	27 352	2 721	14 398	10 166	...
Egypt					
Pig iron	43 004	129	48 451	20 783	...
Ferro-alloys	3 364	5 700	11 138	5 464	...
Ingots & billets	821	16 397	66 307	93 930	...
Scrap	2 140	1 133	2 197	1 539	...
Ethiopia					
Ingots, blooms, billets	4 739	1 789	5 049	6	34
Scrap	462	640	1 296	—	356
Ivory Coast					
Ingots, blooms, billets	1 005	269	530	...	...
Kenya					
Pig iron & ferro-alloys	348	1 024	524	401	441
Ingots & blooms	9 587	24 714	19 578	39 158	48 039
Scrap	33	2 432	45	6 108	4 684
Liberia					
Pig iron	12 996	4 843	8 190	1 951	2 967
Mauritius					
Pig iron & ingots	10 869	...	...	...	15 064
Morocco					
Pig iron	2 147	2 764	1 146	911	2 042
Ferro-chrome	99	68	55	31	...
Ferro-manganese	206	133	125	127	132
Ferro-silico-manganese	30	20	5	5	21
Ferro-silicon	176	126	210	128	192
Ingots, blooms, billets	26 108	177 746	299 517	231 273	289 084
Scrap	2 298	896	2 167	3 266	2 000
Nigeria					
Pig iron	...	367	92	167	...
Ferro-manganese	...	841	2 986	4 501	...
Other ferro-alloys	...	1 912	7 403	685	...
Ingots & blooms	...	51 988	191 567	92 176	...
South Africa					
Pig iron	323	240	83	50	...
Sponge & powder	2 182	1 926	1 275	2 314	...
Ferro-chrome	8 088	5 630	5 080	3 585	...
Ferro-silicon	932	511	32	—	...
Other ferro-alloys	1 251	2 556	2 819	2 998	...
Ingots & blooms	50 299	45 513	23 094	995	...
Scrap	7 274	55 548	7 302	...	...
Sudan					
Ingots, blooms, billets	7 967	794	10 223	12 738	...
Tanzania					
Pig iron & ferro-alloys	1 325	1 667	1 722	...	487
Ingots & blooms	2 861	1 647	1 144	4 149	3 697
Tunisia					
Pig iron	...	1 753	1 552	553	1 376
Ferro-alloys	1 141	1 524	726	1 734	871
Ingots, blooms, billets	14 916	15 292	37 696	38 415	39 386
Scrap	...	—	2 695	538	1 753
Zaire					
Ferro-alloys	471	251	...	...	...
Zimbabwe					
Ferro-manganese	1 892	893	1 168	1 720	137
Ferro-silicon	1 838	1 933	1 957	1 392	867
Other ferro-alloys	1 597	323	235	112	138

Imports of Iron, Steel and Ferro-alloys

Country	1983	1984	1985	1986	1987
Canada					
Pig iron	4 856	5 269	10 080	11 814	9 794
Sponge & powder	6 614	8 152	7 317	6 637	7 060
Ferro-chrome	32 565	33 078	28 266	39 038	44 118
Ferro-manganese & spiegeleisen	18 263	29 797	27 481	20 283	39 606
Fe-silico-manganese & silico-spiegeleisen	416	6 823	6 601	6 773	13 301
Ferro-silicon	13 090	24 763	12 048	13 552	12 367
Ferro-vanadium	172	245	192	165	208
Other ferro-alloys	7 059	11 801	50 121	14 128	15 092
Ingots, blooms, billets	37 161	184 186	144 672	254 633	725 656
Scrap	665 853	1 131 023	881 570	747 194	775 830
Costa Rica					
Ingots, blooms, billets	25 593	45 933	44 332	43 928	...
Cuba					
Pig iron	182 213	222 611	237 984	284 210	...
Scrap (i)	97 445	96 515	99 185	88 755	55 699
Dominican Republic					
Ingots, blooms, billets	51 388	39 212	9 869	10 342	...
Scrap	1 232	50 372	11 049	36 969	...
El Salvador					
Ingots, blooms, billets	2 000	15 655	10 394	12 918	...
Scrap	186	4 662	31	...	...
Guatemala					
Ingots, blooms, billets	12 461	22 144	25 416	12 966	...
Honduras					
Ingots, blooms, billets	4 773	5 516	6 022	1 000	...
Jamaica					
Ingots, blooms, billets	7 553	3 596	1 332	853	16 468
Mexico					
Pig iron	2 234	7 190	16 746	...	...
Sponge & powder	1 678	1 944	2 810	...	...
Ferro-alloys	1 531	7 603	4 877	4 521	6 565
Ingots, blooms, billets	71 060	258 356	163 076	102 140	...
Scrap	616 692	631 182	645 025	456 000	...
Nicaragua					
Ingots, blooms, billets	25 517	4 022	24 540	25 768	...
Panama					
Ingots, blooms, billets	13 330	13 213	16 091	12 495	24 564
USA					
Pig iron	220 549	639 706	317 421	269 189	323 585
Spiegeleisen	142	199	245	193	190
Sponge & powder	122 761	159 113	93 928	88 527	56 239
Ferro-chrome	243 717	386 287	299 340	351 522	295 314
Ferro-silico-chrome	1 305	7 205	3 574	5 896	7 580
Ferro-manganese	308 391	371 320	328 232	352 072	333 549
Ferro-silico-manganese	126 343	125 640	150 335	177 419	173 652
Ferro-molybdenum	473	946	689	789	1 730
Ferro-nickel	38 753	39 052	33 138	36 713	41 184
Ferro-niobium	1 772	3 031	3 279	2 395	2 000*
Ferro-silicon	144 353	130 318	139 028	204 288	209 554
Ferro-titanium & ferro-silico-titanium	798	525	438	618	...
Ferro-tungsten & ferro-silico-tungsten	60	357	118	244	400
Ferro-vanadium	767	1 315	1 144	678	383
Ferro-zirconium	570	689	703	456	...
Ingots, blooms, billets	746 144	1 375 079	1 206 120	1 955 161	2 093 260
Scrap	578 672	518 919	547 648	643 627	764 757

Imports of Iron, Steel and Ferro-alloys

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Country	1983	1984	1985	1986	1987
Argentina					
Pig iron	205 482	176 771	31 871	—	...
Ferro-chrome	2 813	3 567	1 885	2 170	...
Ferro-manganese	805	543	2 272	1 302	...
Ferro-molybdenum	114	7	3	2	...
Ferro-silicon	—	112	79	190	...
Ferro-titanium	60	33	12	24	...
Other ferro-alloys	891	698	442	149	...
Blooms & billets	85 658	265 950	81 658	...	...
Scrap	7 220	1 530	645	1 067	...
Brazil					
Sponge & powder	4 736	4 226	29 339	2 061	1 789
Ferro-chrome	292	197	196	750	1 337
Other ferro-alloys	228	128	3 112	367	304
Ingots, blooms, billets	48	—	11	463 999	422 306
Scrap	0	30 506	103 997	490 596	138 331
Chile					
Scrap (g)	25 600*	23 300*	20 800*	11 200*	5 200*
Colombia					
Ferro-chrome	184	261	298	554	...
Ferro-manganese	2 332	8 009	4 848	5 866	...
Ferro-silico-manganese	405	1 331	1 469	1 224	...
Ferro-silicon	2 181	1 732	1 943	2 209	...
Other ferro-alloys	332	379	532	613	...
Ingots, blooms, billets	11 872	18 748	5 370	11 620	...
Scrap	46 199	43 587	58 093	90 021	...
Ecuador					
Ingots, blooms, billets	119 336	109 655	156 568	140 386	121 167
Peru					
Ferro-chrome	127	402	470	480	454
Ferro-manganese	3 241	1 596	1 361	1 962	1 869
Ferro-silico-manganese	—	1 460	462	812	1 896
Ferro-silicon	1 194	705	753	880	402
Scrap	166	26 675	58 873	64 396	90 151
Suriname					
Ferro-alloys	6 796	9 020	6 051	3 024	5 907
Ingots, blooms, billets	2 716	2 907	1 956	2 212	1 793
Scrap	6 246	9 105	4 623	3 360	8 197
Uruguay					
Ferro-alloys	472	843	634	817	644
Ingots, blooms, billets	948	6 800	450	12 520	19 507
Venezuela					
Sponge & powder	380	20 868	33 685	53 871	128 066
Ferro-manganese	20 430	38 818	37 953	35 416	41 028
Ferro-silico-manganese	3	3	2 667	3	—
Other ferro-alloys	931	998	1 366	2 046	2 864
Ingots, blooms, billets	3 424	3 059	1 597	4 342	30 977
Scrap	18 581	362 944	495 936	539 226	277 273
Bahrain					
Blooms & billets	57 892	60 411	52 011	34 903	30 468
China					
Pig iron	(g) 728 700*	(g) 1 145 100*	(g) 2 560 700*	(g) 2 515 100*	1 472 680
Ferro-alloys (g)	20 900*	18 900*	7 600*	1 200*	...
Ingots, blooms, billets	260 469	658 159	1 979 454	1 612 340	364 781
Scrap (g)	1 300*	273 300*	497 400*	649 500*	431 600*
Cyprus					
Pig iron	1 334	356	1 740	1 519	502
Hong Kong					
Pig iron	12 028	5 635	4 471	3 768	6 961
Ferro-manganese	563	6 326	1 848	1 998	2 442
Ferro-silicon	1 259	1 067	1 690	4 677	34 911
Other ferro-alloys	1 240	1 547	1 670	3 220	7 770
Ingots, blooms, billets	72 371	147 722	128 827	173 778	127 032
Scrap	26 883	27 748	20 093	33 669	43 600

Imports of Iron, Steel and Ferro-alloys

Country	1983	1984	1985	1986	1987
India (e)					
Pig iron	204 000	200 000	21 587	200 000*	...
Ferro-chrome & ferro-silico-chrome	...	...	11 390	...	...
Ferro-manganese & ferro-silico-manganese	...	...	962	...	...
Ferro-nickel	...	...	23 324	...	...
Ferro-silicon	...	...	300	...	...
Other ferro-alloys	...	...	1 432	...	...
Ingots, blooms, billets	...	...	120 298	...	...
Scrap	804 000	800 000	1 331 719	1 000 000*	...
Indonesia					
Pig iron	86 605	94 910	79 795	72 239	18 287
Ferro-manganese	7 437	20 727	13 465	15 696	13 647
Ferro-silicon	8 444	7 769	9 650	3 847	3 933
Other ferro-alloys	1 471	2 170	1 651	5 621	12 759
Ingots, blooms, billets	157 487	118 883	42 286	92 912	206 872
Scrap	257 890	243 121	190 903	475 559	461 513
Iran (f)					
Pig iron	30 597	173	...	...	...
Ferro-alloys	8 592	3 836	...	...	...
Ingots, blooms, billets	458 718	252 352	...	...	...
Israel					
Pig iron (g)	1 500*	1 000*	800*	400*	100*
Ferro-alloys (g)	650*	1 400*	1 600*	1 000*	1 000*
Ingots, blooms, billets (b)	76 675	126 081	50 101	68 920	81 899
Scrap (g)	13 900*	2 100*	2 100*	4 800*	6 000*
Japan					
Pig iron	951 571	777 318	604 462	920 870	1 301 780
Sponge & powder	48 448	44 869	142 151	46 091	137 217
Ferro-chrome	297 533	395 381	317 595	372 513	427 711
Ferro-silico-chrome	5 379	8 665	10 026	10 356	7 166
Ferro-manganese	15 832	14 102	5 878	7 125	27 425
Ferro-silico-manganese	115 533	114 082	121 600	176 821	150 740
Ferro-molybdenum	460	591	988	1 065	1 018
Ferro-nickel	36 750	44 754	46 155	38 700	29 935
Ferro-niobium	1 778	2 050	2 869	1 925	1 779
Ferro-silicon	273 907	338 646	306 830	350 069	387 454
Ferro-tungsten	192	268	100	160	368
Ferro-vanadium	741	566	457	366	186
Other ferro-alloys	5 287	8 870	7 413	9 485	10 201
Ingots, blooms, billets	105 001	232 911	353 195	335 399	437 507
Scrap	3 905 649	4 017 591	3 253 534	3 223 714	2 358 164
Jordan					
Pig iron	12 961	241	16 005	21 399	16 647
Ingots, blooms, billets	181 996	145 510	94 281	173 742	131 856
Scrap	4 978	2 551	2 073	1 810	3 797
Korea, Dem. P.R. of					
Ferro-manganese (g)	13 300*	13 300*	7 500*	800*	6 700*
Other ferro-alloys (g)	9 200*	7 800*	8 600*	11 500*	18 200*
Korea, Republic of					
Pig iron	104 976	203 169	99 452	386 108	672 919
Sponge & powder	2 338	3 090	19 282	4 083	5 837
Ferro-chrome	4 390	6 222	7 529	10 431	13 752
Ferro-manganese	9 004	4 084	1 818	1 124	4 409
Ferro-molybdenum	168	202	313	582	541
Ferro-nickel	120	820	780	725	364
Ferro-silicon	4 745	5 899	9 094	15 834	43 395
Ferro-vanadium	105	81	228	262	319
Other ferro-alloys	2 089	4 126	2 987	3 857	4 878
Ingots & blooms	88 724	99 779	75 812	393 137	927 978
Scrap	1 895 975	2 080 765	2 395 299	3 115 164	3 518 698
Malaysia					
Pig iron	13 021	5 701	3 128	1 313	2 976
Ferro-manganese	3 965	8 764	6 578	5 927	5 193
Ferro-silicon	2 257	3 389	2 408	4 088	2 345
Other ferro-alloys	929	1 133	1 312	4 282	5 416
Ingots, blooms, billets	560 949	550 324	350 369	46 575	129 454
Scrap	49 791	48 361	33 507	4 218	221 707

Imports of Iron, Steel and Ferro-alloys

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Country	1983	1984	1985	1986	1987
Pakistan (h)					
Ferro-manganese	4 526	4 927	4 616	6 896	9 650
Ferro-silicon	13 566	7 716	5 053	4 084	5 007
Other ferro-alloys	863	21 003	13 211	1 265	85 520
Scrap	115 702	136 908	92 524	168 286	255 039
Philippines					
Pig iron	3	90	—	21 989	69 810
Ferro-manganese	3 315	894	591	1 431	2 297
Ferro-silicon	499	3	14	108	554
Other ferro-alloys	736	449	53	184	563
Ingots, blooms, billets	558 790	280 712	219 868	281 008	466 537
Scrap	142	1 568	751	85 243	108 994
Qatar					
Scrap	11 900	6 954	...	8 060	...
Saudi Arabia					
Pig iron	256 990	103 153	98 862	17 998	7 927
Sponge & powder	90 703	342	231	369	—
Ferro-alloys	140	192	30 967	—	153
Ingots, blooms, billets	99 422	20 463	51 895	28 732	6 180
Scrap	—	552	637	1 052	36 263
Singapore					
Pig iron	55 536	7 559	41 503	53 909	72 285
Sponge & powder	647	547	3 981	4 781	467
Ferro-manganese	287	1 101	6 186	3 183	1 960
Ferro-silicon	986	1 319	1 940	2 718	3 958
Other ferro-alloys	3 440	8 334	1 542	4 898	5 627
Ingots & blooms	210 160	113 806	161 503	240 236	169 840
Scrap	94 511	78 646	65 402	209 091	126 698
Sri Lanka					
Ingots, blooms, billets	6 342	6 397	8 049	20 291	41 888
Syria					
Pig iron	4 513	5 797	3 826	3 601	...
Ingots, blooms, billets	43 687	72 604	39 340	60 660	...
Scrap	6 451	1 778	35 658	18 369	...
Taiwan					
Pig iron	218 323	211 151	170 484	303 244	629 122
Sponge & powder	2 441	2 932	3 613	10 636	8 278
Ferro-chrome	5 613	9 261	10 186	29 886	15 904
Ferro-manganese	856	975	3 593	8 936	18 865
Ferro-silicon	3 498	3 096	1 768	11 894	19 406
Other ferro-alloys	674	2 435	612	824	887
Ingots, blooms, billets	127 290	238 682	233 934	454 773	966 982
Scrap	735 515	577 658	694 665	1 225 472	943 592
Thailand					
Pig iron	14 510	13 641	11 707	6 971	38 655
Sponge & powder	1 973	1 658	6 153	9 046	4 567
Ferro-manganese	4 017	3 386	4 015	2 980	3 586
Ferro-silico-manganese	731	1 186	1 644	2 265	1 321
Ferro-silicon	3 538	3 606	3 967	3 525	4 870
Other ferro-alloys	2 377	1 682	1 516	712	558
Ingots, blooms, billets	36 118	14 581	43 760	55	47 247
Scrap	641 288	494 354	657 950	555 114	903 323

Imports of Iron, Steel and Ferro-alloys

Country	1983	1984	1985	1986	1987
Australia					
Ferro-chrome	5 438	15 000	12 930	16 387	11 734
Ferro-manganese (c)	1 318	2 989	6 060	6 734	3 925
Ferro-silico-manganese	336	774	940	392	1 000
Ferro-molybdenum	115	168	132	108	271
Ferro-nickel	807	864	1 129	945	1 085
Ferro-silicon	7 174	9 461	13 890	11 469	12 897
Other ferro-alloys (c)	1 300	1 282	1 600	1 480	1 311
Ingots & billets	802	5 934	25 821	24 729	122 794
Scrap (h)	348	226	618	...	...
Fiji					
Ingots, blooms, billets	9 335	12 909	9 227	10 813	...
New Zealand (h)					
Pig iron	356	259	308	577	117
Ferro-manganese	1 185	665	248	434	1 260
Other ferro-alloys	2 526	2 475	3 877	3 617	3 278
Ingots, blooms, billets	4 402	4 312	3 743	558	44
Scrap	3 538	2 391	3 147	5 120	3 366

Notes

(1) 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) Exports from the Soviet Union

Kaolin

Production of Kaolin

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom (a)	2 485 535	2 809 882	2 870 034	2 912 607	3 058 821
Belgium	60 000	69 000	37 000	40 000	38 000
Denmark	10 000*	14 000*	15 000*	10 404	9 304
France	289 200	306 600	313 300	356 000	309 000
Germany, Federal Republic of (g)	361 000	370 000	342 000	477 000	553 000
Greece	60 749	92 407	89 833	141 210	150 000*
Italy	51 450	52 604	59 856	35 132	125 773
Portugal	101 594	104 388	80 097	70 567	66 736
Spain (c)	255 112	319 273	413 719	375 000	380 000*
Austria	83 560	91 669	93 889	97 136	91 537
Bulgaria	242 000	256 000	257 000	265 000	263 000*
Czechoslovakia (h)	539 000	540 000	548 000	546 000	551 000
German Democratic Republic	200 000*	175 000*	175 000*	165 000*	150 000*
Hungary (c)	45 000	47 172	35 523	35 869	38 468
Poland	54 200	52 900	55 200	55 500	60 300
Romania	410 000*	410 000*	410 000*	410 000*	400 000*
Soviet Union	2 600 000*	2 800 000*	2 900 000*	3 000 000*	3 000 000*
Sweden (h) (i)	305	196	106	60	..
Turkey	35 496	60 882	69 870	91 893	124 706
Yugoslavia	208 254	201 782	243 826	214 561	218 851
Algeria	17 000*	8 000	13 000	14 200	14 000*
Burundi	4 053	1 990	4 360	5 113	5 500*
Egypt (d)	100 176	141 000	108 000	127 800	125 256
Ethiopia	9 000*	9 000*	9 000*	9 000*	5 500*
Kenya	650	295	1 851	560	40
Madagascar	4	5	2 500*	2 500*	1 427
Nigeria	604	114	—	169	187
South Africa	130 806	136 160	128 899	126 129	151 730
Tanzania	1 600	1 700	1 636	2 270	1 446
Zimbabwe	470	1 350	1 104	901	780
Mexico	162 000	130 296	282 337	200 000*	200 000*
USA (e)	6 534 184	7 214 541	7 069 984	7 755 961	8 007 911
Argentina	145 098	90 545	73 802	117 378	100 128
Brazil (b)	501 706	596 688	655 205	650 000*	700 000*
Chile	40 812	48 608	48 537	42 170	43 846
Colombia (h)	27 944	30 635	34 216	38 231	..
Ecuador	3 449	2 634	7 271	3 036	11 017
Paraguay	45 000	50 000	60 000	60 000	72 000
Peru	586	1 000*	210	6 000	5 000
Venezuela	11 250	12 540	18 660	11 467	15 000*
Bangladesh (d)	2 269	2 613	4 178	2 695	12 272
China	500 000*	500 000*	500 000*	500 000*	500 000*
Hong Kong	834	70	9 602	850	—
India (j)	119 235	101 166	118 227	100 647	93 720
Indonesia	59 628	83 414	106 869	124 937	113 836
Iran	100 000*	100 000*	100 000*	100 000*	100 000*
Israel	26 844	27 000*	27 000*	27 000*	27 000*
Japan	173 480	153 551	145 870	131 563	112 477
Jordan	10 517	26 453	15 848	15 697	11 336
Korea, Republic of	637 000	671 000	612 000	791 000	547 000
Malaysia	57 432	72 472	82 576	85 052	96 882
Pakistan	23 412	10 383	6 644	37 056	32 208
Philippines	10 990	8 618	10 843	16 784	..
Sri Lanka	7 976	7 390	6 346	6 260	6 769
Taiwan	102 895	79 411	76 605	63 228	67 525
Thailand	36 350	58 616	106 704	132 155	206 568

Production of Kaolin

Country	1983	1984	1985	1986	1987
Australia (c) (f)	115 526	218 885	165 827	185 617	176 958
New Zealand	23 917	25 098	24 471	28 464	25 548
World total	17 800 000	19 400 000	19 600 000	20 800 000	21 200 000

Notes

(1) In addition to the countries listed, Lebanon and Vietnam are also believed to produce kaolin

- (a) Sales
- (b) Including beneficiated and directly shipped material
- (c) Including 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) Beneficiated; excludes directly used natural kaolin

Kaolin

Exports of Kaolin

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom	2 131 469	2 559 668	2 574 959	2 523 713	2 600 398
Belgium-Luxembourg	25 079	31 728	38 642	37 002	41 019
Denmark	639	686	602	688	648
France	143 859	147 872	136 225	172 114	168 309
Germany, Federal Republic of	96 395	91 955	104 303	117 216	134 928
Greece	13 922	18 576	15 341	27 585	...
Italy	19 986	33 918	50 304	23 117	29 833
Netherlands	108 861	106 473	119 020	132 208	143 393
Portugal	508	517	906	1 140	2 594
Spain	54 363	108 994	109 218	127 840	160 924
Austria	35 664	49 853	45 193	52 029	48 860
Bulgaria	24 016	29 648	44 782	60 975	...
Czechoslovakia	390 000	389 000	386 000	383 000	391 000
German Democratic Republic	111 417	147 848	148 704	137 876	126 578
Hungary	6 115	6 603	8 098	7 443	6 904
Soviet Union (a)	40 600*	43 800*	46 600*	31 200*	31 300*
Sweden	160	5 505	4 466	1 558	2 807
Turkey	...	16 901	17 796	11 895	...
South Africa	979	638	1 297	1 566	682
Mexico	235	2 117	2 527	...	...
USA	1 214 153	1 286 750	1 251 539	1 436 563	1 838 498
Brazil	181 555	195 830	196 402	207 848	...
China (a)	25 700*	58 800*	50 800*	78 700*	190 200*
Hong Kong	2 997	10 275	10 655	73 866	176 647
of which: Re-exports	2 122	9 670	9 453	72 366	170 796
India (b)	5 663	5 306	8 329	...	...
Indonesia	3 796	10 920	34 908	44 807	76 405
Japan	4 439	4 476	2 824	9 318	6 151
Jordan	—	7 126	—	—	—
Korea, Republic of	51 092	67 702	60 331	55 819	49 296
Malaysia	29 636	38 132	36 756	46 913	47 905
Thailand	111	36	1 103	3 601	4 718

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

(b) Years ended 31 March following that stated

Imports of Kaolin

Country	1983	1984	1985	1986	1987
United Kingdom	4 287	4 187	4 202	4 678	7 654
Belgium-Luxembourg	247 264	275 863	297 481	310 426	369 848
Denmark	37 703	38 169	36 182	29 749	28 311
France	325 242	360 501	310 456	309 698	340 115
Germany, Federal Republic of	863 565	910 816	871 793	893 504	919 567
Greece	37 919	43 762	41 181	52 864	...
Italy	597 990	603 297	635 996	617 589	684 532
Netherlands	460 289	453 660	454 237	460 099	471 362
Portugal	7 765	8 249	8 976	15 728	17 261
Spain	164 424	187 548	188 449	177 728	195 495
Austria	95 035	102 598	95 401	86 699	99 744
Bulgaria (c)	2 000*	1 300*	9 400*	4 000*	3 300*
Czechoslovakia (c)	7 100*	7 300*	8 100*	7 700*	7 300*
Finland	429 672	518 724	571 391	627 611	792 504
German Democratic Republic	4 600	3 100	1 400	5 000	4 600
Hungary	40 232	60 843	59 451	63 278	59 564
Norway	67 224	75 477	79 528	75 743	76 492
Poland	137 918	123 782	145 961	160 181	...
Romania (c)	20 700*	25 500*	25 600*	33 000*	24 900*
Sweden	336 310	403 377	419 400	386 682	442 104
Turkey	...	5 922	7 401	5 442	...
Yugoslavia	81 076	83 307	83 136	93 096	91 789
Algeria (d)	8 015	13 445	15 961	4 722	...
Ivory Coast	108	114	139	...	...
Morocco	7 228	9 908	7 853	8 032	5 456
Tunisia	...	7 975	8 974	14 007	34 539
Zimbabwe (e)	...	...	2 896	2 748	1 413
Canada	249 834	253 076	271 468	333 272	417 405
Mexico	64 146	84 162	91 219	...	...
USA	6 757	9 669	8 515	9 374	9 548
Argentina	24 769	24 731	15 449	24 448	...
Brazil	1 976	1 369	1 281	841	...
Colombia	6 197	9 197	9 339	6 036	...
Ecuador	1 372	2 544	2 643	4 925	3 149
Peru	2 154	3 374	2 184	2 135	2 237
Uruguay	1 086	2 848	2 539	2 792	5 009
Venezuela	6 612	21 938	21 017	16 770	29 958
Bangladesh (b)	5 003	7 269	5 158	5 398	5 880
Hong Kong	13 234	42 503	38 827	82 336	197 422
Indonesia	20 347	29 956	22 207	19 460	27 597
Iran (a)	15 622	14 666	...	...	...
Israel (c)	13 500*	30 900*	14 200*	12 700*	13 400*
Japan	549 763	684 405	706 745	678 359	763 079
Korea, Republic of	36 258	36 032	41 979	53 079	103 665
Malaysia	2 024	4 168	2 666	1 233	2 004
Pakistan (b)	5 385	5 136	4 569	5 712	7 102
Philippines	9 098	6 115	7 401	8 687	15 024
Saudi Arabia	3 937	4 570	3 094	2 122	2 364
Taiwan	58 509	82 337	80 129	120 134	156 723
Thailand	2 661	2 668	4 320	19 429	14 400
Australia	9 401	7 310	2 437	4 461	...
New Zealand (b)	974	210	5 659	6 675	6 543

(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

(e) Including fuller's earth

Lead

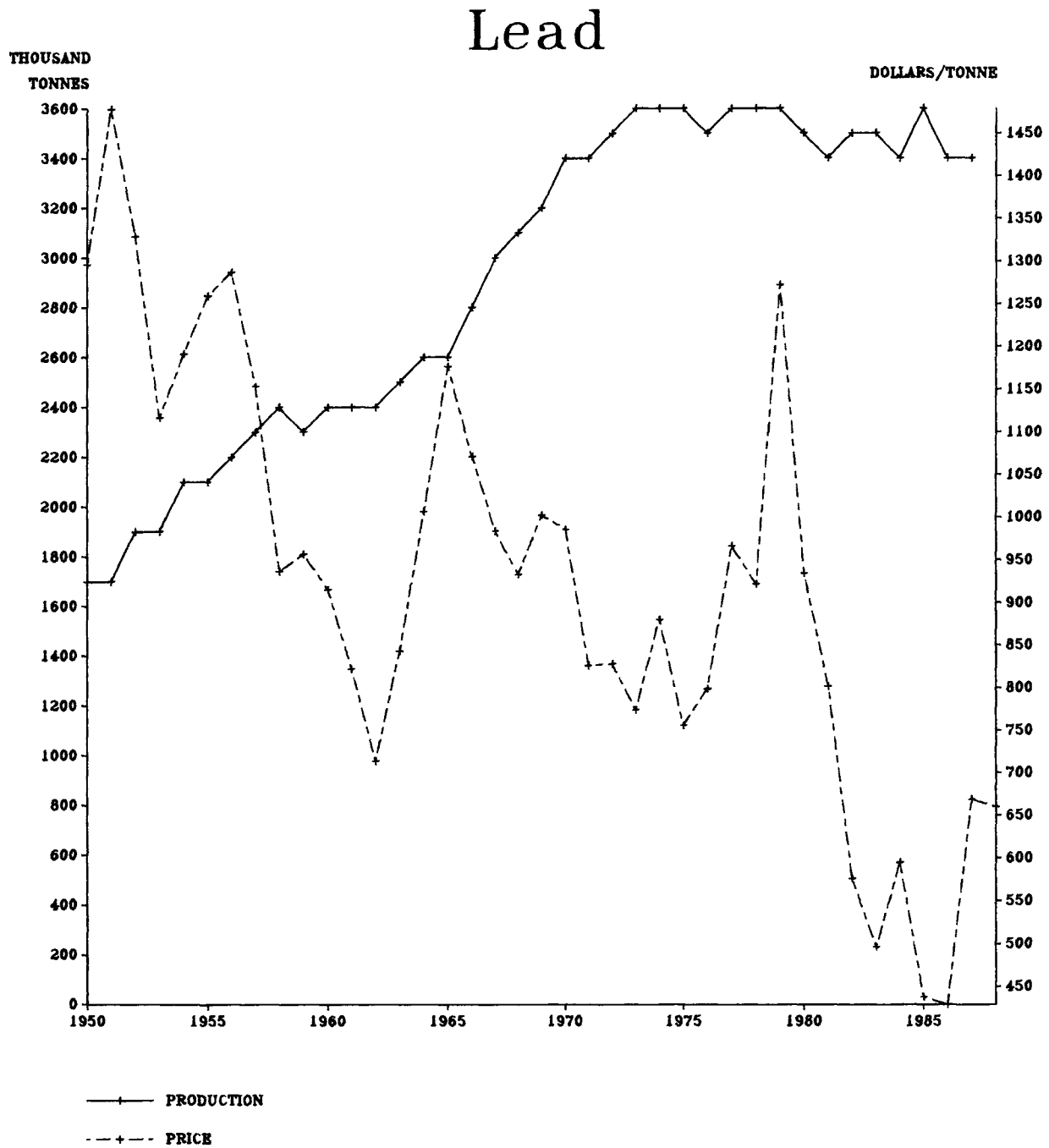


Figure 10 World mine production of lead from 1950 to 1987 compared with the yearly average domestic producer price (to 1988) of pig on the New York Market expressed in constant 1980 US dollars.
Constant commodity prices (to 1986) taken from Commodity Trade and Price Trends published by the Johns Hopkins University Press for the World Bank.

Mine Production of Lead

tonnes (metal content)

Country	1983	1984	1985	1986	1987
United Kingdom	3 797	2 431	3 994	648	691
France	2 377	2 647	2 488	2 478	2 600
Germany, Federal Republic of (a)	23 500	21 000	20 500	16 700	24 500
Greece	20 090	22 154	19 752	20 873	20 600
Irish Republic	34 000	37 200	34 600	36 400	33 800
Italy	23 500	21 500	15 622	11 119	12 202
Spain	82 032	96 726	85 636	79 600	83 200
Austria	5 750	5 574	7 500	5 699	6 437
Bulgaria	95 000	95 000	97 000	97 000	95 000*
Czechoslovakia	2 652	3 100	2 718	2 944	2 849
Finland	2 651	2 956	2 927	1 980	2 400
Greenland	21 600	17 800	17 800	17 000	21 000
Hungary	671	587	575	174	—
Norway	4 309	3 967	3 597	3 366	2 814
Poland	47 000	52 800	51 300	42 500	48 800
Romania	28 500*	30 000*	34 300*	36 300*	30 400*
Soviet Union	560 000*	570 000*	580 000*	520 000*	510 000*
Sweden	85 762	87 297	82 421	95 652	90 400
Turkey	9 087	15 786	9 790	9 626	13 000
Yugoslavia	114 385	113 648	115 115	116 944	106 670
Algeria	3 000	3 600	3 800	3 500	3 500
Congo	4 000	2 500	2 500	1 000	—
Morocco	97 157	100 558	107 072	77 152	75 185
Namibia	33 800	42 600	48 600	37 100	29 500
Nigeria	260*	200*	260*	100*	...
South Africa	87 533	94 764	98 424	97 778	93 642
Tunisia	4 900	4 100	2 500	1 900	2 100
Zambia	25 695	20 310	15 062	15 375	12 380
Canada	251 383	311 391	307 400	349 281	413 449
Honduras	19 291	20 544	21 250	11 400	4 573
Mexico	167 405	183 314	206 732	182 672	177 161
USA	465 600	334 500	424 200	353 100	318 300
Argentina	31 684	28 542	28 582	26 868	26 069
Bolivia	11 838	7 448	6 242	3 121	9 118
Brazil	18 821	18 775	16 997	13 614	13 000
Chile	1 679	4 284	2 473	1 501	829
Colombia	154	51	82	101	158
Peru (a)	205 100	198 400	200 600	194 378	192 000
Burma	8 900	8 300	7 623	6 600	7 200
China	200 000*	210 000*	220 000*	226 800	236 700
India	19 900	18 600	26 000	25 000	29 000
Iran (b)	18 500	19 900	21 600	20 000	20 000
Japan	46 994	48 110	49 716	34 998	28 024
Korea, Dem. P.R. of	95 000*	90 000*	80 000*	85 000*	90 000*
Korea, Republic of	12 225	10 837	9 698	11 863	13 998
Thailand	30 663	24 306	28 672	38 369	34 286
Australia	480 626	440 620	497 954	447 673	489 150
World total	3 500 000	3 400 000	3 600 000	3 400 000	3 400 000

(a) Recoverable

(b) Years ended 20 March following that stated

Production of Refined Lead

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom	322 196	338 374	327 197	328 630	346 954
Belgium (a)	134 152	127 711	114 293	98 313	108 030
Denmark (b)	10 052	13 128	4 503	500*	445
France	198 388	205 701	223 637	230 403	248 400
Germany, Federal Republic of	352 500	357 200	356 400	366 600	340 400
Greece	—	11 600	13 700	19 300	2 700
Irish Republic	8 000*	9 000	10 000	10 000	10 000
Italy	131 829	146 458	140 055	132 374	168 300
Netherlands	25 600	33 600	37 300	35 700	39 900
Portugal	6 000	6 000	7 000	6 000	6 500
Spain	144 700	147 600	156 100	124 900	122 700
Austria	18 241	20 066	19 696	18 807	22 841
Bulgaria	116 000*	114 000*	116 000*	113 700*	111 500*
Czechoslovakia	21 030	21 134	21 437	23 602	26 008
Finland	3 430	2 074	4 600	1 200	—
German Democratic Republic	38 700*	44 700*	44 500*	36 400*	38 000*
Poland	81 000	83 400	87 300	88 300	89 800
Romania	49 298	45 917	48 636	51 513	50 000*
Soviet Union	790 000*	800 000*	810 000*	790 000*	780 000*
Sweden	62 805	65 636	56 975	87 604	62 588
Switzerland	2 000	2 000	2 000	2 500	2 500*
Turkey	7 500	9 000	10 000	9 600	10 000
Yugoslavia	97 531	82 815	99 954	113 154	112 417
Algeria	5 000	5 000	4 000	4 000	4 000
Morocco	57 600	48 300	63 500	55 300	64 900
Namibia	35 416	28 930	38 511	40 047	40 634
Nigeria	400	600	800	600	300
South Africa	23 600	24 000	34 100	29 700	34 500
Tunisia	10 513	8 399	2 043	2 355	1 600
Zambia	14 572	3 300	8 873	6 648	7 979
Canada	241 957	254 380	240 011	257 680	225 775
Jamaica	1 000*	2 000*	600*	800*	500*
Mexico	191 500	193 200	223 500	208 900	215 000*
Trinidad and Tobago	400*	1 200*	1 500*	1 400*	1 000*
USA (c)	964 006	971 309	1 047 088	916 830	1 000 000*
Argentina	31 340	28 000	28 663	30 657	32 173
Brazil (d)	63 066	71 621	81 575	84 691	88 203
Colombia	3 000*	3 400*	3 700*	4 000*	4 500*
Peru	65 100	71 200	83 300	67 400	70 800
Venezuela	15 000	17 000	20 000	19 000	18 500
Burma	7 636	6 995	9 400	5 300	3 900
China	195 000*	200 000*	215 000*	239 600	238 600
India	21 556	22 697	22 185	26 831	30 466
Iran	5 000	7 500	7 500	8 000	10 000
Japan	321 642	362 948	367 000	361 452	338 500
Korea, Dem. P.R. of	65 000*	65 000*	65 000*	65 000*	70 000*
Korea, Republic of	17 753	20 304	22 394	22 890	82 500
Malaysia	4 000	9 000	10 000	12 000	9 000
Philippines	6 000	4 000	7 000	7 000	7 000
Taiwan	38 000	44 300	48 700	53 500	66 400
Thailand	3 174	6 198	7 536	9 122	11 366
Australia	223 335	220 347	215 747	171 039	216 660
New Zealand	6 000	6 000	6 000	4 000	3 600
World total	5 300 000	5 400 000	5 600 000	5 400 000	5 600 000

Notes

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

(a) Including alloys

(b) Sales

(c) Excluding Pb content of primary antimonial lead

(d) Including direct use scrap

Exports of Lead

Lead
tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Ores & concentrates	10 096	2 644	3 728	3 189	1 658
Unwrought	88 231	116 686	93 478	89 494	87 348
Unwrought alloys	24 816	26 395	29 695	30 204	25 322
Scrap	22 314	34 383	30 800	14 783	21 394
Belgium-Luxembourg					
Unwrought	63 887	69 709	52 726	47 823	54 935
Unwrought alloys	12 501	14 993	17 847	10 236	9 633
Scrap	6 063	7 427	8 555	7 445	23 362
Denmark					
Ore	220	200	—	—	250
Unwrought	356	600	330	2 444	174
Unwrought alloys	7 561	10 231	3 713	852	174
Scrap	8 040	14 206	14 520	14 362	13 275
France					
Ore	3 096	122	14	7	25
Unwrought	33 888	35 781	39 559	34 821	53 053
Unwrought alloys	15 761	18 055	20 207	23 017	27 863
Scrap	10 674	17 973	12 630	7 105	8 330
Germany, Federal Republic of					
Ore	741	3	9 991	9 822	10 770
Unwrought	76 969	66 093	70 802	65 938	53 555
Unwrought alloys	43 361	40 467	36 190	33 062	34 238
Scrap	17 194	15 756	14 558	11 496	11 604
Greece					
Ore	36 800	33 706	23 000	38 800	30 000*
Unwrought (a)	—	2 000	2 168	3 442	3 064
Irish Republic					
Ores & concentrates	59 606	61 114	62 622	60 400	56 218
Unwrought (a)	177	294	132	14	83
Scrap	2 995	5 107	4 085	2 062	3 761
Italy					
Ore	21 023	30 906	24 907	14 498	16 512
Unwrought	3 129	4 397	5 036	2 754	16 047
Unwrought alloys	2 765	4 409	6 749	7 700	4 448
Scrap	1 168	320	1 255	96	153
Netherlands					
Unwrought	1 141	2 547	7 062	8 660	12 160
Unwrought alloys	12 056	12 826	12 989	11 710	10 462
Scrap	25 946	30 024	20 213	17 203	16 173
Portugal					
Ore	1 049	1 048	1 090	1 029	1 065
Spain					
Ore	153	42 322	40 769	42 215	65 913
Unwrought (a)	39 544	61 486	56 014	22 500	18 250
Scrap	48	5 026	14	121	3 976
Austria					
Unwrought	767	467	988	1 126	1 935
Scrap	2	93	49	4 565	4 227
Bulgaria					
Unwrought (a) (f)	2 100*	1 600*	2 400*	6 000*	5 000*
Czechoslovakia					
Ores & concentrates (f)	5 700*	5 800*	5 900*	6 100*	5 600*
Finland					
Ore	42 708	7 494	6 105	3 927	4 850
Unwrought (a)	1 345	25	83	228	660
Scrap	372	262	1 044	1 415	6 709
Greenland					
Ores & concentrates	34 216	29 376	26 313	26 955	27 925
Hungary					
Scrap	2 594	2 614	3 017	1 860	1 813
Norway					
Ore	6 898	6 732	6 686	7 180	6 026
Scrap	6 706	8 159	6 475	7 171	8 308

Lead

Exports of Lead

tonnes

Country	1983	1984	1985	1986	1987
Soviet Union					
Unwrought (a) (f)	17 200*	23 000*	25 200*	25 500*	18 200*
Sweden					
Ore	51 326	47 895	42 962	58 060	56 820
Unwrought	52 204	55 450	50 590	50 648	52 213
Unwrought alloys	3 207	7 956	14 215	15 140	14 072
Scrap	513	458	165	573	2 217
Switzerland					
Unwrought	7 694	6 815	4 983	2 088	2 855
Scrap	5 980	10 077	10 391	16 008	11 232
Turkey					
Ore (e)	2 725	76	—	—	...
Yugoslavia					
Concentrates	4 274	5 925	5 764	734	727
Unwrought	17 623	14 698	15 071	11 886	15 497
Unwrought alloys	483	1 599	2 031	466	2 787
Algeria					
Ore	2 655	6 777	4 746	3 153	...
Ivory Coast					
Scrap	1 567	1 006	702	...	...
Morocco					
Ore	72 119	85 272	60 366	35 243	31 158
Unwrought	55 697	46 107	55 893	55 679	63 410
South Africa					
Concentrates (b)	85 984	81 377	102 790	102 637	91 127
Unwrought (f)	17 700*	10 600*	7 200*	16 800*	18 900*
Scrap (f)	700*	1 400*	1 400*	2 300*	1 500*
Tunisia					
Ore	10 028	4 500	3 300	3 000	2 000
Unwrought	3 515	5 949	1	—	60
Scrap	200	621	99	2 923	1 592
Zambia					
Unwrought	12 700	9 201	5 546	1 623	...
Canada					
Ore (b)	85 548	114 721	93 658	118 375	207 938
Unwrought	147 281	124 528	114 007	111 852	100 206
Scrap	8 535	5 960	11 393	25 565	21 971
Honduras					
Ores & concentrates (b)	11 581	13 772	15 580	16 498	...
Mexico					
Ores & concentrates	370	10 980	9 874	5 618	15 770
Unwrought	90 603	93 496	106 038	104 003	86 602
USA					
Ores & concentrates (b)	20 123	11 858	9 987	4 380	106 596
Unwrought	13 245	3 745	23 467	8 874	3 425
Unwrought alloys	4 443	1 232	1 931	2 342	1 041
Scrap	50 920	45 097	59 949	65 031	52 944
Argentina					
Ores & concentrates	20 948	15 540	19 854	17 079	...
Bolivia					
Ore	21 277	6 124	5 300*	26 720	14 312
Chile					
Ores & concentrates	351	8 925	2 266	2 111	...
Peru					
Ores & concentrates	298 870	274 137	221 090	201 657	253 224
Unwrought (a)	52 539	55 075	61 217	48 848	42 804

Exports of Lead

Lead
tonnes

Country	1983	1984	1985	1986	1987
Burma (d)					
Unwrought	6 563	9 011	1 780	6 304	...
Dubai					
Scrap	—	2 780	3 037	5 924	...
Hong Kong					
Scrap	2 596	3 097	1 883	2 502	3 523
Iran (c)					
Ore	9 263	14 823	...	...	...
Japan					
Ores & concentrates	3 001	14 172	5 343	—	—
Unwrought (a)	15 501	17 454	25 131	25 379	17 113
Scrap	129	548	3 974	2 893	18 201
Korea, Dem. P. R. of					
Unwrought (a) (f)	9 900*	16 300*	13 100*	15 500*	13 900*
Korea, Republic of					
Ore	—	3 000	1 700	—	4 606
Unwrought (a)	1	2	251	9 186	8 713
Singapore					
Unwrought (a)	2 265	1 472	673	5 584	8 608
of which: Re-exports	1 668	1 154	527	5 443	8 216
Scrap	1 862	3 597	7 057	5 103	9 690
of which: Re-exports	122	—	2 530	961	921
Taiwan					
Unwrought (a)	16 033	15 925	20 602	23 473	16 030
Thailand					
Ore	42 737	42 004	46 788	54 110	51 247
Australia					
Ores & concentrates	91 227	150 687	180 986	217 787	125 863
Unwrought					
Base bullion (b)	159 390	199 119	175 263	184 920	178 300
Refined (a)	185 664	150 441	156 733	111 929	133 150
Scrap	4 549	9 112	19 101	26 070	36 371

Notes

(1) 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

Lead

Imports of Lead

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Ores & concentrates	34 571	50 000*	40 000*	52 000*	41 000*
Unwrought	138 146	173 092	182 476	181 203	183 831
Unwrought alloys	1 786	2 581	2 799	1 830	2 804
Scrap	1 246	1 482	2 047	3 819	10 456
Belgium-Luxembourg					
Ore	85 480	67 774	114 697	76 144	107 072
Unwrought	55 356	50 579	39 195	49 740	30 810
Unwrought alloys	7 945	7 372	10 195	11 639	10 315
Scrap	13 485	15 053	11 626	6 218	10 317
Denmark					
Unwrought	10 269	9 337	246	8 502	9 329
Unwrought alloys	2 912	6 732	20 222	11 024	6 080
Scrap	6 782	5 872	994	339	323
France					
Ore	144 346	158 366	190 536	182 378	183 926
Unwrought	33 303	41 588	28 098	27 830	32 412
Unwrought alloys	15 829	13 661	13 009	9 245	10 148
Scrap	13 246	4 870	9 279	14 644	20 640
Germany, Federal Republic of					
Ore	217 753	206 723	236 490	194 054	226 010
Unwrought	103 830	130 402	118 711	121 939	79 908
Unwrought alloys	14 840	14 281	16 428	25 727	27 855
Scrap	30 886	69 865	45 905	50 542	44 995
Greece					
Ore	...	8 531	9 783	9 009	12 501
Unwrought (a)	23 921	13 879	9 752	1 937	4 820
Irish Republic					
Unwrought (a)	973	2 204	257	1 251	1 297
Scrap	3 918	4 700	4 787	7 359	8 473
Italy					
Ore	5 589	11 329	12 019	30 945	70 867
Unwrought	110 901	105 455	97 924	122 387	93 310
Unwrought alloys	22 548	19 289	17 071	18 424	16 310
Scrap	21 640	14 188	12 763	18 122	18 507
Netherlands					
Unwrought	30 587	23 060	26 500	28 733	26 918
Unwrought alloys	6 152	9 140	9 009	8 177	9 104
Scrap	15 220	22 045	24 593	19 257	14 021
Portugal					
Unwrought (a)	24 321	21 175	20 112	21 609	23 671
Scrap	5	3	14 770	6 235	53
Spain					
Ore	64 599	88 050	66 862	50 319	40 866
Unwrought (a)	5 268	4 936	3 661	8 900	13 370
Scrap	1 486	226	768	40	698
Austria					
Ore	4 611	7 730	3 987	4 124	1 152
Unwrought	31 362	39 271	37 501	38 516	31 476
Scrap	2 925	4 332	6 745	6 333	3 787
Bulgaria					
Ore (f)	5 000*	2 100*	2 000*	6 000*	4 800*
Czechoslovakia					
Unwrought (a)	28 000	27 000	25 000	25 000	23 000
Finland					
Unwrought	11 929	12 137	15 953	10 742	12 926
Unwrought alloys	390	2 803	3 625	5 030	5 029
German Democratic Republic					
Unwrought (a) (f)	3 000*	4 100*	6 900*	11 500*	10 200*
Scrap (f)	5 300*	4 900*	7 600*	1 700*	9 700*
Hungary					
Unwrought & semi-manufactures	11 930	9 343	7 454	6 729	5 225
Norway					
Unwrought	6 100	8 156	6 965	7 658	6 317
Unwrought alloys	6 076	5 994	6 825	6 573	7 151
Poland					
Unwrought	1 621	6 133	6 195	3 041	2 838

Imports of Lead

Lead
tonnes

Country	1983	1984	1985	1986	1987
Soviet Union					
Ore (f)	49 800*	30 000*	33 800*	36 600*	18 500*
Unwrought (a) (f)	57 200*	58 200*	62 100*	5 600*	10 900*
Sweden					
Ore	12 551	21 524	8 264	—	—
Unwrought	1 852	457	2 021	1 479	594
Unwrought alloys	2 048	2 877	2 790	2 346	3 197
Scrap	2 984	10 393	20 651	16 378	18 551
Switzerland					
Unwrought	10 429	8 167	10 681	10 186	8 075
Turkey					
Unwrought (a)	8 735	10 179	16 480	12 862	13 628
Yugoslavia					
Concentrates	6 537	573	416	2 887	—
Unwrought (a)	10 731	11 614	9 518	13 439	7 752
Scrap	—	—	960	1 859	1 112
Algeria					
Unwrought	4 276	3 959	7 993	14 265	...
Unwrought alloys	562	2 103	2 390	2 761	...
Egypt					
Unwrought & scrap	16 881	12 358	16 934	8 085	...
Kenya					
Unwrought (a)	188	229	246	56	98
Madagascar					
Unwrought (a)	126	233	259	115	208
Mozambique					
Unwrought	300	133	281	1	...
Nigeria					
Unwrought (a)	...	35	1 542	317	...
South Africa					
Ore	—	7 277	15 567	14 867	...
Unwrought	5 438	9 912	3 877	1 000	...
Scrap	216	791	126	...	...
Sudan					
Unwrought	40	134	...	...	...
Tunisia					
Ore	11 928	6 319	—	—	—
Unwrought	...	—	1 501	2 709	3 038
Canada					
Unwrought	2 551	6 312	5 676	4 244	12 559
Mexico					
Unwrought & scrap	255	1 250	375	...	...
USA					
Ores & concentrates (b)	47 514	68 800	42 665	86 747	229 858
Unwrought					
Base bullion	53	45	799	161	10 905
Other	113 602	148 411	121 049	123 919	174 430
Alloys	19 149	14 871	13 752	17 575	14 457
Scrap	2 630	2 873	1 850	2 269	6 088
Argentina					
Unwrought	1 138	—	—	—	...
Brazil					
Ore	6 591	10 724	27 447	30 120	38 095
Unwrought (a)	649	652	2 141	3 410	15 580
Scrap	2 849	6 543	12 888	16 308	25 192
Colombia					
Unwrought (a)	1 328	618	790	1 424	...
Uruguay					
Unwrought	476	1 169	1 068	1 312	1 926
Venezuela					
Unwrought (a)	5 233	7 394	7 889	8 790	9 018
Scrap	—	1 243	3 740	3 164	5 756

Lead

Imports of Lead

tonnes

Country	1983	1984	1985	1986	1987
China					
Unwrought (a) (f)	9 200*	6 400*	1 700*	6 200*	4 000*
Hong Kong					
Unwrought (a)	2 591	1 893	2 321	5 072	12 006
Scrap	157	287	458	681	524
India (c)					
Unwrought	...	...	33 232	...	...
Unwrought alloys	...	...	8 255	...	...
Scrap	...	...	6 542	...	...
Indonesia					
Unwrought	7 870	8 958	7 670	7 853	8 620
Unwrought alloys	4 847	5 452	5 500	7 291	6 888
Iran (d)					
Unwrought	768	6 603	...	...	...
Israel (g)					
Unwrought	1 909	1 753	2 990	2 108	3 340
Japan					
Ore	237 807	249 226	261 795	273 829	294 728
Unwrought	52 752	97 982	74 561	46 966	39 398
Unwrought alloys	8 457	10 466	13 279	23 380	10 006
Scrap	1 012	450	185	83	65
Jordan					
Unwrought & scrap	745	332	314	130	—
Korea, Republic of					
Unwrought	23 261	22 900	37 109	38 917	37 649
Unwrought alloys	15 133	8 566	26 694	16 115	10 030
Scrap	6 661	6 534	20 162	39 382	45 891
Malaysia					
Unwrought (a)	9 177	13 505	12 291	11 659	13 552
Scrap	280	792	4 666	1 053	1 755
Pakistan (e)					
Unwrought (a)	2 096	2 284	2 276	1 942	3 935
Philippines					
Unwrought (a)	9 600	2 756	2 984	4 532	8 739
Scrap	341	—	3 600	4 307	9 069
Singapore					
Unwrought (a)	5 873	6 349	5 457	9 674	16 206
Syria					
Unwrought & scrap	2 680	1 204	2 439	1 454	...
Taiwan					
Unwrought (a)	17 540	12 170	12 272	16 154	20 947
Scrap	48 215	56 773	54 839	89 536	79 653
Thailand					
Unwrought	16 718	11 655	8 917	8 276	12 643
Unwrought alloys	1 135	777	386	1 376	811
Scrap	1 415	1 589	0	1 095	3 686
Australia					
Ores & concentrates	...	...	8 000	11 297	20 111
New Zealand (e)					
Unwrought (a)	5 873	5 220	5 408	4 346	4 144

Notes

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

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

Production of Lithium Minerals

Lithium
tonnes

Country	1983	1984	1985	1986	1987
Portugal Lepidolite	545	985	130	1 800	—
Soviet Union	55 000*	55 000*	55 000*	55 000*	55 000*
Namibia	792	904	1 873	855	916
Zimbabwe	19 193	22 548	27 910	32 760	14 959
Canada	—	700*	4 500*	7 500*	...
USA (a) (b)	4 500*	5 000*	4 500*	4 000*	...
Argentina	152	25	35	184	178
Brazil					
Amblygonite	113	49	118	150*	150*
Lepidolite	1	—	26	—	—
Petalite	1 892	477	1 323	1 150*	1 250*
Spodumene	116	288	107	200*	200*
Chile (c)	—	2 110	4 508	4 458	6 139
China	15 000*	15 000*	15 000*	15 000*	15 000*
Australia Spodumene	2 492	6 668	12 009	8 530	16 621
World total (a)	6 400*	7 400*	7 600*	7 200*	7 200*

- (a) Li content
(b) Mostly spodumene
(c) Carbonate

Lithium

Exports of Lithium

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Metal	97	163	...	...	...
Oxides	117	222	...	...	199
Carbonate	72	38	100	286	432
Belgium-Luxembourg					
Oxides	2	—	54	50	—
France					
Oxides	62	79	48	21	36
Germany, Federal Republic of					
Metal	60	59	71	54	49
Oxides	610	692	761	694	909
Carbonate	914	1 294	1 093	1 462	1 444
Netherlands					
Oxides	145	14	27	18	—
Carbonate	432	31	9	62	132
Spain					
Lithium minerals	942	1 567	47	9	96
South Africa					
Lithium minerals (a)	...	300*	3 100*	1 500*	100*
Zimbabwe					
Lithium minerals	16 172	23 805	28 117	22 837	18 053
USA					
Oxides	2 594	3 721	3 562	2 897	2 917
Carbonate	8 065	8 213	6 312	5 253	5 783
Chile					
Carbonate	—	959	4 770	4 487	6 063
China					
Oxides (a)	600*	500*	400*	500*	500*
Carbonate (a)	300*	400*	700*	1 100*	1 300*

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

Imports of Lithium

Country	1983	1984	1985	1986	1987
United Kingdom					
Metal	7	12	21	36	51
Oxides	1 533	1 188	459	510	625
Carbonate	430	431	659	1 160	1 742
Belgium-Luxembourg					
Oxides	160	156	175	187	225
Carbonate	239	257	214	237	249
France					
Metal	8	10	18	41	7
Oxides	602	479	473	329	415
Carbonate	440	548	410	596	578
Germany, Federal Republic of					
Metal	13	21	22	24	22
Oxides	641	674	687	1 668	1 515
Carbonate	4 014	5 026	5 328	5 068	5 034
Italy					
Metal	2	5	6	1	45
Oxides	215	416	298	267	396
Carbonate	297	361	335	527	702
Netherlands					
Metal	2	21	11	1	2
Oxides	143	68	102	83	68
Carbonate	697	244	246	466	514
Spain					
Lithium minerals	53	441	430	567	803
Oxides	170	100	140	95	206
Carbonate	163	210	143	289	282
South Africa					
Lithium minerals	1 228	1 146	443	...	...
USA					
Lithium minerals	7	136	4 170	12 010	16 487
Brazil					
Oxides	346	271	426	388	471
Carbonate	449	79	267	36	...
Japan					
Metal	30	32	42	50	81
Oxides	766	858	797	885	888
Carbonate	3 626	3 773	4 430	2 431	3 096
Korea, Republic of					
Oxides	33	38	43	287	588
Carbonate	32	159	152	166	309
Australia					
Oxides (a)	87	151	139	...	...

(a) Years ended 30 June of that stated

Production of Magnesite

tonnes

Country	1983	1984	1985	1986	1987
Greece	858 840	1 057 006	884 373	943 759	900 000*
Spain	597 137	691 542	692 196	700 000*	710 000*
Austria	1 005 768	1 183 409	1 255 043	1 084 360	946 943
Czechoslovakia	662 000	660 000	654 000	666 000	671 000
Poland	16 100	20 600	19 200	20 900	22 300
Soviet Union	2 500 000*	2 500 000*	2 500 000*	2 500 000*	2 500 000*
Turkey	724 541	723 268	1 136 714	1 306 645	1 190 021
Yugoslavia	303 965	373 547	417 407	422 548	403 000
Egypt	3 588	2 918	477	6 095	5 038
South Africa	22 560	33 059	28 898	61 186	74 961
Zimbabwe	24 072	21 642	19 385	27 649	28 991
Canada (b)	80 000	112 000	136 000	144 000	150 000*
Brazil (c)	231 297	326 235	265 177	300 000*	300 000*
Colombia	...	13 500	14 230	14 936	15 000*
China	2 000 000*	2 000 000*	2 000 000*	2 000 000*	2 000 000*
India	436 210	417 979	421 379	460 315	419 933
Iran (a)	5 000*	5 000*	5 000*	5 000*	2 000*
Korea, Dem. P.R. of	1 900 000*	1 900 000*	1 900 000*	1 900 000*	1 900 000*
Nepal	15 016	44 349	19 851	63 190	50 000
Pakistan	1 844	3 876	2 113	1 757	3 824
Philippines	620	625	1 090	2 111	2 000*
Australia	20 539	67 041	57 535	41 441	53 941
World total	11 400 000	12 200 000	12 400 000	12 700 000	12 300 000

Notes

(1) In addition to the countries listed, Bulgaria, 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) Including beneficiated and directly shipped material

Exports of Magnesite

Country	1983	1984	1985	1986	1987
United Kingdom					
Crude	42	50	155	105	50
Calcined	7 394	28 374	28 472	3 255	1 865
Belgium-Luxembourg					
Crude	365	404	282	154	534
Calcined	1 210	2 553	4 140	4 790	2 313
France					
Crude	66	222	980	515	218
Calcined	2 208	1 549	2 935	1 830	6 666
Germany, Federal Republic of					
Crude	168	133	24	22	204
Calcined	18 890	17 285	22 661	31 571	46 274
Greece					
Crude	25 068	24 931	10 447	8 054	...
Calcined	350 194	402 572	332 779	326 861	...
Irish Republic	33 127	(a) 74 600*	(a) 72 800*	(a) 52 700*	(a) 43 200*
Italy					
Crude	1 115	946	2 373	743	713
Calcined	28 647	60 433	59 301	111 705	97 851
Netherlands					
Crude	1 875	1 554	1 049	1 618	2 260
Calcined	25 678	25 122	33 020	31 500	33 604
Spain					
Crude & calcined	111 996	123 050	119 024	108 740	86 982
Austria					
Crude	1 461	697	573	755	387
Calcined	129 583	167 799	154 233	137 550	140 875
Czechoslovakia	291 000	428 000	446 000	305 000	303 000
Finland	278	65	1 860	503	581
Norway	9 575	9 870	10 271	8 689	4 170
Soviet Union (a)	15 500*	9 200*	9 700*	6 800*	7 100*
Sweden	240	502	1 889	575	796
Turkey					
Crude	10 003	46 812	58 597	17 833	...
Calcined	82 067	117 802	100 812	116 209	(d) 166 093
Yugoslavia	5 049	6 857	8 271	7 953	5 817
South Africa (c)	£670 000	£1 599 000	£17 000	...	...
Zimbabwe	22 678	18 051	16 852	23 175	25 099
Brazil					
Calcined	73 802	97 267	84 169	75 263	...
China (a)	312 400*	413 600*	495 600*	513 200*	539 400*
Hong Kong					
Crude & calcined (e)	15 416	18 399	15 457	29 478	25 638
India (b)					
Calcined	1 448	3 030	1 358	...	...
Israel (a)	24 800*	24 400*	21 900*	8 600*	21 400*
Japan	3 728	4 109	4 144	4 745	2 794
Korea, Dem. P. R. of (a)	231 800*	212 300*	237 700*	194 200*	188 100*
Singapore	151	602	245	172	480
of which: Re-exports	151	602	245	28	123
Australia	2 808	3 984	5 443	2 652	4 095

Notes

(1) So far as possible sea water magnesia has been excluded from this table if specifically identified in trade accounts

(2) Countries known to produce sea water magnesia and which do not specifically identify it in their trade accounts are Irish Republic, Israel and Norway

(3) 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) Years ended 31 March following that stated

(c) Values shown are for the common customs area

(d) Including crude

(e) Re-exports

Magnesite

Imports of Magnesite

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Crude	15 282	12 420	14 860	9 241	7 778
Calcined	107 420	119 216	118 218	110 356	107 334
Belgium-Luxembourg					
Crude	1 500	524	315	803	447
Calcined	13 901	18 295	17 616	18 822	13 720
Denmark					
Crude & calcined	10 589	10 051	8 710	11 013	9 125
France					
Crude	5 691	80	53	100	117
Calcined	157 645	158 681	158 897	168 310	181 491
Germany, Federal Republic of					
Crude	4 395	5 779	6 242	4 918	6 089
Calcined	356 929	390 625	369 230	361 565	309 741
Greece	7 020	9 898	26 883	24 413	11 196
Irish Republic	40 029	43 948	36 202	42 251	35 623
Italy					
Crude	16 096	23 141	20 266	12 720	12 965
Calcined	73 908	84 030	72 517	72 416	71 898
Netherlands					
Crude	3 187	4 408	3 933	1 939	2 582
Calcined	54 923	60 868	74 263	77 687	56 607
Portugal	1 678	741	698	1 006	911
Spain					
Crude & calcined	47 918	63 967	64 887	59 253	54 837
Austria					
Crude	111	221	153	584	118
Calcined	95 445	116 497	150 117	121 481	108 534
Bulgaria (b)	8 100*	24 100*	25 100*	6 100*	8 100*
Finland	21 336	14 359	17 631	9 620	5 225
German Democratic Republic (b)	33 000*	63 200*	58 200*	32 000*	31 000*
Hungary					
Calcined	98 312	91 467	94 990	100 032	91 480
Norway	5 142	6 110	7 947	6 911	9 292
Poland					
Calcined	243 021	222 513	263 398	211 464	251 748
Romania (b)	29 700*	78 300*	66 700*	50 200*	50 600*
Soviet Union					
Calcined	618 370	569 887	582 650	696 638	577 600
Sweden	20 752	30 005	28 126	23 471	28 130
Switzerland					
Calcined	4 221	4 524	5 178	5 185	6 157
Yugoslavia					
Crude	26 883	31 543	27 533	5 244	0
Calcined	19 663	19 712	15 805	16 388	12 897
Algeria	237	545	802	697	...
Egypt	1	2 434	9 210	2 289	...
Morocco	42	162	49	120	166
South Africa					
Crude & calcined	59 213	79 915	75 601	81 187	...
Tanzania	...	150	2 501	251	7
Tunisia	102	514	375	480	698
Zaire	447	627	...	...	...
Canada					
Calcined	42 054	49 943	46 468	46 600	72 757
USA					
Crude & calcined	101 994	191 255	223 410	264 820	247 123

Imports of Magnesite

Country	1983	1984	1985	1986	1987
Argentina					
Calcined	17 633	17 687	19 926	15 811	...
Brazil					
Crude & calcined	697	1 268	536	1 376	745
Chile	4 042	7 691	59 461	37 285	...
Peru					
Crude & calcined	1 689	4 722	5 238	5 081	8 202
Venezuela					
Crude & calcined	11 941	20 913	89 051	60 201	94 519
Hong Kong	20 378	22 593	21 331	31 501	28 322
India (c)	...	...	9 575	...	...
Indonesia	3 955	3 690	6 456	8 641	5 367
Iran (d)	394	385	...	...	...
Israel (b)	200*	1 200*	1 000*	1 100*	1 200*
Japan					
Crude	44 778	50 420	38 538	33 613	36 202
Calcined	238 958	268 207	296 228	220 347	246 041
Korea, Republic of	7 232	335 380	12 347	5 078	11 703
Malaysia	2 866	5 921	9 645	5 595	9 730
Pakistan (a)	20 003	1 513	1 318	722	660
Philippines					
Crude & calcined	6 051	6 039	5 651	8 375	29 268
Singapore	371	567	791	472	1 781
Taiwan	17 736	20 264	20 242	8 698	469
Thailand					
Crude	4 376	7 426	7 704	13 234	19 176
Calcined	2 095	3 771	2 493	1 204	2 874
Australia					
Calcined	11 706	9 619	16 107	9 933	...
New Zealand (a)	1 944	5 691	7 650	6 795	2 201

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
- (c) Years ended 31 March following that stated
- (d) Years ended 20 March following that stated

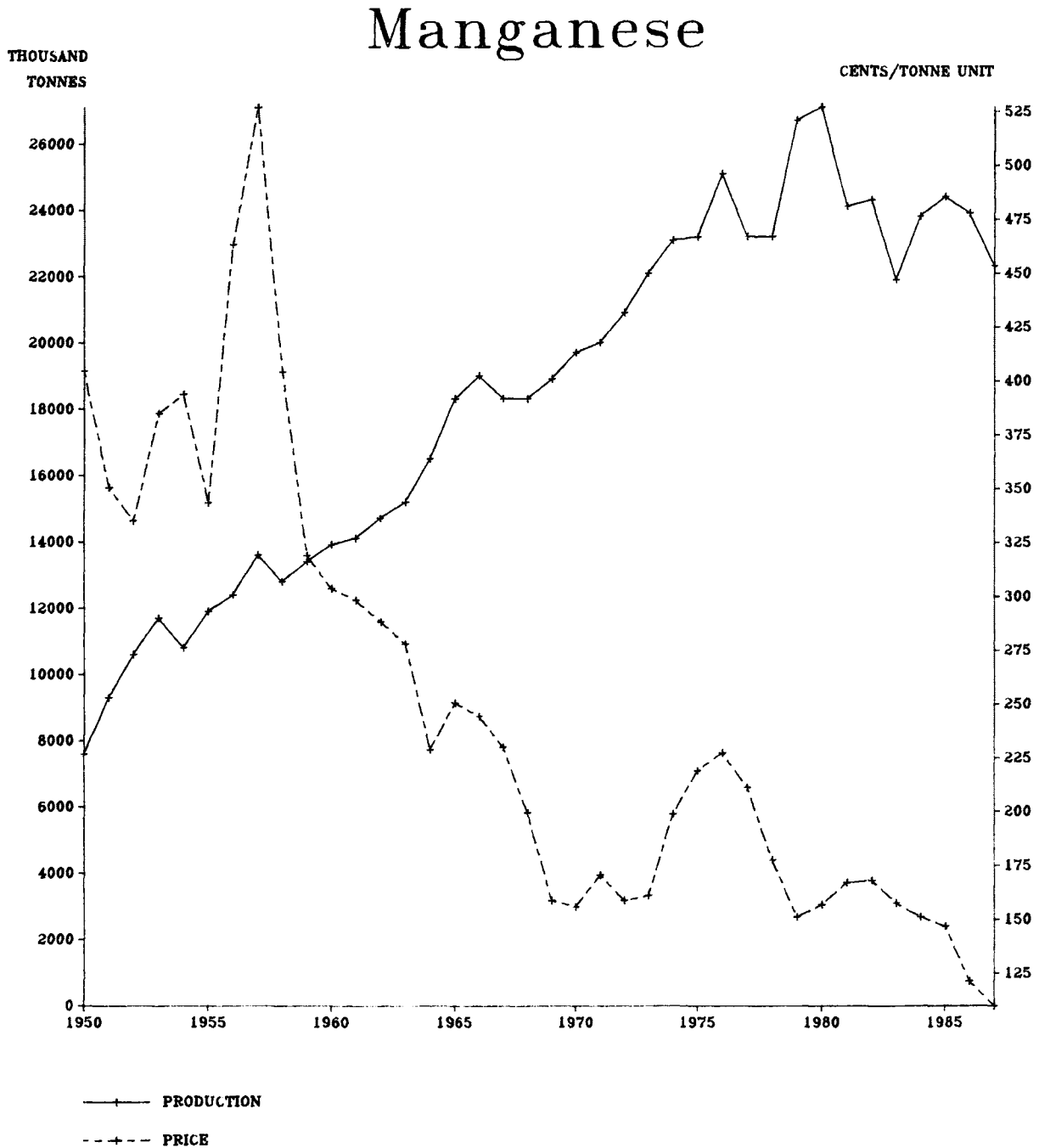


Figure 11 World production of manganese ore from 1950 to 1987 compared with the yearly average price of Indian 46-48% Mn ore c.i.f. US ports expressed in constant 1980 US cents per metric ton unit.

Constant commodity prices (to 1986) taken from Commodity Trade and Price Trends published by the Johns Hopkins University Press for the World Bank.

Production of Manganese Ore

Country		1983	1984	1985	1986	1987
Greece	(50%)	4 636	5 447	5 058	4 560	...
Italy	(30%)	7 205	9 528	8 621	6 396	3 802
Austria (e)		65 284	67 037	60 074	58 945	57 486
Bulgaria	(30%)	45 000	45 000	38 000	37 000	38 000
Czechoslovakia	(17%) (d)	900*	900*	950*	900*	900*
Hungary	(30%)	58 606	67 000	62 294	62 172	69 964
Romania	(22%)	78 000	66 000	68 000	67 000	65 000*
Soviet Union	(35%)	9 876 000	10 089 000	9 900 000	9 300 000	9 400 000
Turkey	(40%)	3 200	42 796	10 750	7 770	7 000*
Yugoslavia	(34%)	31 643	21 079	31 800	41 280	41 297
Gabon	(50%)	1 762 000	2 021 000	2 349 000	2 440 000	2 216 000
Ghana	(40%)	173 100	286 700	315 600	259 300	253 600
Morocco	(50%)	73 515	59 127	43 690	40 334	42 500
South Africa						
Metallurgical	(40%)	2 627 672	2 857 619	3 442 544	3 563 647	2 766 804
Chemical	(55%)	259 291	191 750	157 924	155 647	125 310
Zaire	(45%)	1 803	30 776	37 240	913	...
Mexico	(38%)	350 000	476 200	396 400	459 000	385 300
USA	(10%)	30 412	80 216	(a) 18 037	(a) 12 991	...
Argentina	(21%)	6 926	5 888	7 276	9 886	6 393
Brazil	(40%) (b)	2 091 631	2 693 131	2 523 194	2 700 000*	2 100 000*
Chile	(33%)	26 050	26 172	35 635	31 631	31 803
China	(30%)	1 600 000*	1 600 000*	1 600 000*	1 600 000*	1 600 000*
India	(35%) (c)	1 277 236	1 130 109	1 258 903	1 284 081	1 275 111
Indonesia	(50%)	8 318	12 267	23 295	1 985	1 196
Japan	(26%)	75 199	61 635	21 140	5 905	—
Philippines	(48%)	2 242	615	387	457	421
Thailand	(45%)	6 710	8 695	4 412	4 888	9 148
Australia	(48%)	1 370 233	1 848 889	2 002 960	1 648 921	1 853 279
World total		21 900 000	23 800 000	24 400 000	23 800 000	22 400 000

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) Including beneficiated and direct shipping ore

(c) Including ore grading 54% to less than 35% Mn

(d) Manganiferous iron ore

(e) Mn content of domestic iron ore

Manganese

Exports of Manganese

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Ore (a)	1 413	1 934	3 853	235	323
Metal	1 232	1 001	(c) 600*	(c) 600*	(c) 400*
Belgium-Luxembourg					
Ore	2 882	2 757	492	877	737
Metal	1 185	1 489	1 327	1 960	1 760
France					
Ore (a)	20 907	76 454	73 775	95 250	107 069
Metal	4 949	6 434	5 789	4 014	5 574
Germany, Federal Republic of					
Ore (a)	4 020	757	1 144	1 000	2 172
Metal	143	131	118	193	461
Greece					
Ore	1 429	361	—	501	...
Italy					
Ore (a)	1 009	1 919	1 272	1 747	484
Netherlands					
Ore	43 208	46 597	47 849	41 166	51 917
Metal	2 257	1 338	1 830	1 241	1 100
Portugal					
Ore	4 625	—	—	—	19 459
Bulgaria					
Ore	(c) 39 000*	(c) 36 000*	(c) 10 000*	7 000	11 000
Hungary					
Ore	9 608	11 657	11 417	9 081	12 035
Norway					
Ore	1 522	5	—	505	5
Soviet Union					
Ore	1 079 000	1 081 000	1 126 000	1 101 000	714 000
Sweden					
Ore	509	—	24	—	—
Metal	111	68	86	113	119
Turkey					
Ore	—	—	6 914	602	28
Yugoslavia					
Ore	5 175	7 156	13 281	6 995	1 060
Gabon					
Ore	1 986 810	...	...	2 550 898	...
Ghana					
Ore	136 000	237 000	252 000	277 000	239 000
Morocco					
Ore	57 860	69 665	47 012	50 738	43 679
South Africa					
Ore	1 995 649	3 038 301	2 890 306	2 415 694	1 561 846
Metal	24 634	36 603	29 126	27 166	...
Zaire					
Ore (c)	31 200*	24 400*	25 500*	62 500*	16 900*
Mexico					
Ore	143 069	246 470	129 885	120 157	158 132
USA					
Ore	21 299	223 197	69 753	41 554	70 743
Metal	5 937	3 718	4 805	4 840	5 626
Brazil					
Ore	747 436	878 976	901 201	759 875	579 408
China					
Ore (c)	22 800*	13 100*	4 400*	4 300*	6 800*
Metal (c)	850*	200*	750*	1 200*	1 500*
India (d)					
Ore (b)	358 442	621 432	486 380	...	...
Indonesia					
Ore (a)	27 670	26 260	30 665	4 959	5 000
Japan					
Ore (b)	1 973	2 476	1 605	1 293	1 853

Exports of Manganese

Manganese
tonnes

Country	1983	1984	1985	1986	1987
Philippines					
Ore (a)	1 315	—	—	216	20
Singapore					
Ore	27 449	25 492	21 954	23 565	21 772
of which: Re-exports	8 065	12 230	7 392	23 565	21 772
Thailand					
Ore	1	4 100	—	—	—
Australia					
Ore	1 003 513	1 460 139	1 402 897	1 144 579	1 306 000

Notes

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

(a) Including manganiferous iron ore

(b) Including ferruginous manganese ore

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

(d) Years ended 31 March following that stated

Manganese

Imports of Manganese

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Ore (b)	367 206	269 865	386 299	159 500	120 550
Metal	3 424	3 113	4 215	4 831	2 484
Belgium-Luxembourg					
Ore	162 653	221 559	230 711	199 138	75 549
Metal	1 757	2 333	2 096	2 994	3 421
Denmark					
Ore	322	416	1 085	575	543
France					
Ore (b)	745 625	1 007 721	1 039 791	760 987	702 453
Metal	1 461	1 184	824	1 183	2 124
Germany, Federal Republic of					
Ore (b)	434 261	535 843	377 795	473 126	378 627
Metal	5 468	6 102	6 225	6 344	5 489
Greece					
Ore	...	...	10 852	589	15
Irish Republic					
Ore (b)	21 152	28 072	24 178	34 758	26 343
Italy					
Ore (b)	385 550	273 192	392 646	329 736	452 653
Metal	1 974	2 653	3 522	1 664	1 836
Netherlands					
Ore	44 389	50 386	72 493	130 177	124 983
Metal	2 170	1 560	2 113	2 004	1 710
Portugal					
Ore (c)	68 587	227 526	127 342	126 703	78 052
Spain					
Ore	213 765	417 653	299 032	244 299	202 286
Metal	676	524	466	674	614
Austria					
Ore	362	441	666	437	472
Bulgaria					
Ore	96 800	94 400	93 000	83 000	65 000
Czechoslovakia					
Ore	506 000	482 000	457 000	332 000	438 000
Finland					
Ore	10 154	7 005	10 045	2 265	2 218
German Democratic Republic					
Ore (a)	27 400	21 800	19 500	30 200	23 800
Hungary					
Ore	343	340	480	440	420
Norway					
Ore	623 305	737 061	701 993	817 544	628 173
Metal	1 579	1 121	1 678	1 315	1 641
Poland					
Ore	574 194	648 163	617 977	670 843	682 259
Romania					
Ore	220 000	165 000	225 000	196 000	...
Sweden					
Ore	24 527	486	336	12 121	11 139
Metal	1 442	977	1 072	1 726	2 064
Turkey					
Ore	1 910	1 348	1 300	840	1 618
Yugoslavia					
Ore	130 169	148 033	140 249	132 548	88 173
Ivory Coast					
Ore	1 250	1 301	2 067	...	...
Kenya					
Ore (b)	1 739	1 998	1 592	3 550	2 363
South Africa					
Ore	5 542	7 970	5 250	3 050	...
Zimbabwe					
Ore	4 174	5 131	6 539	23 550	18 419
Canada					
Ore (a)	42 260	77 543	102 199	94 914	80 957
Metal	2 652	3 078	3 757	2 655	2 085

Imports of Manganese

Manganese

tonnes

Country	1983	1984	1985	1986	1987
Mexico					
Ore	155 418	141 803	24 332	...	...
USA					
Ore	334 151	306 714	344 087	415 884	308 932
Metal	5 606	12 033	8 609	8 844	8 132
Argentina					
Ore	95 426	28 970	64 000	50 578	...
Brazil					
Ore	19 206	1 006	3 753	2 106	...
Metal	1 174	1 217	1 336	1 364	...
Colombia					
Ore	1 477	3 397	2 241	3 951	...
Peru					
Ore	625	1 056	1 320	1 099	662
Venezuela					
Ore	5 150	28 956	48 377	48 006	62 259
Hong Kong					
Ore	204	135	243	341	665
India (e)					
Ore	...	...	4 809	...	...
Metal	...	...	236	...	...
Indonesia					
Ore (b)	2 889	1 545	1 153	1 170	1 998
Iran					
Ore (d)	3 000*	3 700*	1 500*	3 500*	...
Japan					
Ore (c)	1 623 244	2 212 243	2 183 066	1 806 871	1 580 662
Korea, Dem. P.R. of					
Ore (d)	20 200*	41 600*	21 300*	30 000*	29 200*
Korea, Republic of					
Ore	196 457	255 364	275 920	222 831	373 880
Malaysia					
Ore	1 499	1 462	1 128	985	1 170
Pakistan (f)					
Ore	—	25 030	163	33 187	27 722
Philippines					
Ore (b)	3 981	3 438	2 669	3 040	3 594
Saudi Arabia					
Ore	7 424	22 649	20 144	27 929	26 124
Singapore					
Ore	44 840	35 095	35 923	28 846	45 512
Sri Lanka					
Ore	867	1 342	290	104	1 299
Taiwan					
Ore	106 195	97 160	128 970	119 241	131 704
Australia					
Ore	1 004	1 298	1 576	1 703	1 575
Metal	1 144	1 561	1 012	649	923

Notes

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

(a) Mn content

(b) Including manganiferous iron ore

(c) Including ferruginous manganese ore

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

(e) Years ended 31 March following that stated

(f) Years ended 30 June of that stated

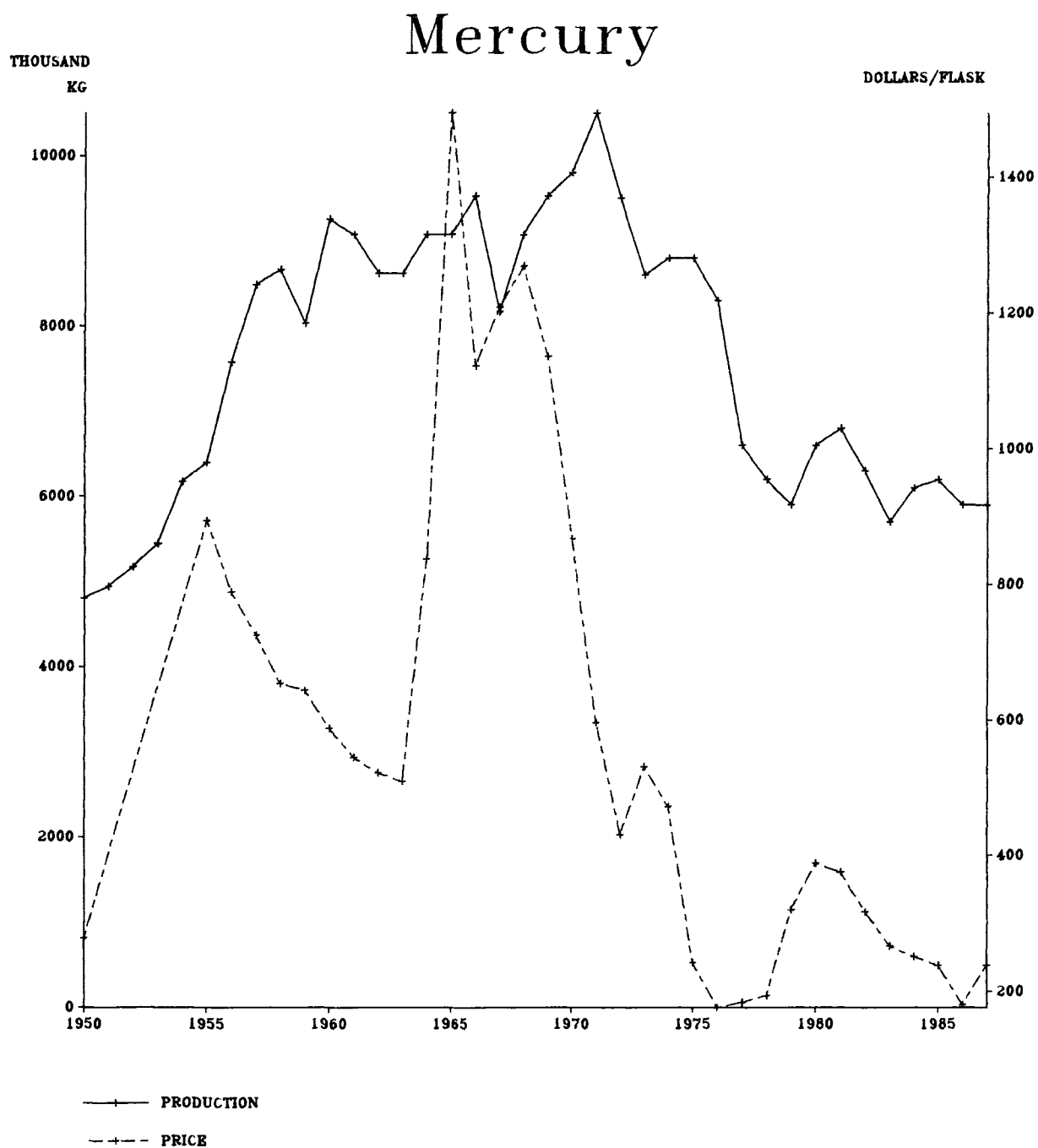


Figure 12 World production of mercury from 1950 to 1987 compared with the annual average price (USA) expressed in constant 1980 US dollars.

Constant commodity prices have been derived from Metals Week, as quoted in Metallstatistik (published by Metallgesellschaft, 1988), using the CPI for the USA published in International Financial Statistics Yearbook (1988).

Production of Mercury

Mercury
kilograms

Country	1983	1984	1985	1986	1987
Spain	1 416 156	1 519 898	1 552 707	1 470 000	1 553 000
Czechoslovakia	144 000	152 000	158 000	168 000	164 000
Finland	64 000	79 000	125 138	146 138	144 047
Soviet Union	1 700 000*	1 600 000*	1 600 000*	1 500 000*	1 650 000*
Turkey	161 667	182 125	226 328	261 649	202 416
Yugoslavia	51 750	72 000	88 000	75 000	67 000
Algeria	345 000*	793 500*	793 500*	760 000*	760 000*
Mexico	221 000	384 000	394 000	345 000	350 000
USA	864 239	656 642	569 839	483 000	100 000*
China	700 000*	700 000*	700 000*	700 000*	900 000*
World total	5 700 000	6 100 000	6 200 000	5 900 000	5 900 000

Mercury

Exports of Mercury

kilograms

Country	1983	1984	1985	1986	1987
United Kingdom	131 004	43 392	69 778	20 479	64 487
Belgium-Luxembourg	77 200	26 800	9 900	11 400	3 000
Denmark	5 100	7 600	6 300	1 100	7 100
France	107 000	79 000	56 000	87 900	32 400
Germany, Federal Republic of	573 200	199 300	149 600	111 700	137 700
Italy	380 037	82 005	19 400	3 000	54 900
Netherlands	418 000	420 000	25 000	23 000	50 000
Spain	903 000	1 590 000	942 000	1 089 000	702 000
Austria	3 600	6 200	2 900	2 800	1 700
Finland	66 000	177 000	108 000	81 000	224 000
Norway	63 000	57 000	57 000	30 000	73 000
Sweden	114 000	97 000	5 000	11 000	7 000
Switzerland	951	7 993	29 450	5 206	19 845
Turkey	241 708	270 649	298 114	181 459	101 000
Yugoslavia	2 000	22 000	41 000	34 000	17 000
Algeria	501 544	1 144 770	2 032 127	569 500	...
Dominican Republic	3 895	3 800	...	...	...
Mexico	215 807	229 735	92 295	148 000	137 000
USA (a)	258 000*	168 000*	143 000*	136 000*	120 000*
China (a)	248 000*	154 000*	377 000*	465 000*	1 089 000*
Hong Kong (b)	76 176	5 813	42 637	93 730	242 503
Japan	25 453	74 785	330 946	272 485	200 365
Singapore	15 357	6 703	10 678	5 680	21 445
of which: Re-exports	15 309	6 703	10 653	5 680	21 445

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

(b) Re-exports

Imports of Mercury

Country	1983	1984	1985	1986	1987
United Kingdom	185 052	287 637	393 346	417 712	435 615
Belgium-Luxembourg	262 200	329 400	259 800	211 700	115 200
Denmark	8 100	12 000	15 600	7 100	14 900
France	171 000	148 000	157 000	188 000	123 400
Germany, Federal Republic of	560 300	426 100	402 800	412 400	343 400
Greece	1 000	2 000	2 000	4 000	2 000
Irish Republic	11 800	1 100	19 900	18 500	1 400
Italy	27 868	137 731	170 000	179 329	144 300
Netherlands	344 000	170 000	26 000	33 000	83 000
Portugal	8 200	15 300	19 100	15 100	7 000
Spain	1 000	1 030	1 053	18 000	98 000
Austria	12 700	11 400	6 500	5 500	7 000
Czechoslovakia (a)	42 500*	26 300*	8 600*	10 000*	...
Finland	...	1 000	1 000	...	2 000
German Democratic Republic (a)	321 000*	333 000*	374 000*	300 000*	...
Hungary	77 000	97 000	61 000	57 000	60 000
Norway	4 000	9 000	13 000	3 000	8 000
Poland	5 000*	(a) 18 000*	...	...	...
Romania (a)	143 000*	254 000*	214 000*	203 000*	...
Sweden	32 000	20 000	16 000	47 000	11 000
Switzerland	40 076	61 656	58 778	37 384	17 691
Yugoslavia	67 000	29 000	8 000	10 000	23 000
Algeria	1 196	...	52	963	...
Egypt	...	29 000	21 000	19 000	...
Morocco	6 699	7 477	11 279	3 261	...
South Africa	41 900	29 000	22 300	...	...
Tunisia	1 000	7 965	10 772	11 027	10 706
Canada	74 000	75 000	40 000	77 000	33 000
USA	505 215	918 488	618 901	695 914	653 309
Argentina	61 465	74 600	46 000	212 000	...
Brazil	91 956	177 005	186 441	222 000	272 000
Colombia	55 079	31 819	35 533	37 088	...
Peru	11 454	18 988	15 200	27 318	44 814
Uruguay	400	200	300	4 500	33 700
Venezuela	10 000	121 931	6 096	47 558	104 149
Burma (d)	1 930	2 845	307 340	3 099	...
Hong Kong	99 546	15 390	97 683	123 626	253 964
India (d)	...	...	291 868	...	...
Indonesia	22 119	11 118	40 422	179 190	192 285
Iran (b)	6 863	5 215	...	...	...
Israel (a)	4 700*	4 000*	1 800*	400*	1 500*
Japan	123 525	52 470	17 694	29 647	75 309
Korea, Dem. P.R. of (a)	79 900*	10 000*	10 000*	5 000*	...
Korea, Republic of	19 218	13 983	14 179	19 579	28 509
Malaysia	4 500	14 850	8 360	6 000	8 520
Pakistan (c)	93 867	77 718	21 646	49 418	109 429
Philippines	1 784	16 842	30 549	55 013	65 966
Saudi Arabia	21 750	—	—	565 533	—
Singapore	27 910	14 181	25 345	31 552	45 335
Sri Lanka	406	1 333	1 089	1 359	917
Taiwan	8 743	11 185	9 989	9 723	8 511
Thailand	8 472	5 219	8 636	13 874	11 269
Australia	40 045	34 439	30 861	66 310	52 100

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

(b) Years ended 20 March following that stated

(c) Years ended 30 June of that stated

(d) Years ended 31 March following that stated

Mica

Production of Mica

tonnes

Country	1983	1984	1985	1986	1987
France (e)	9 286	10 854	10 084	10 834	9 300
Portugal (a)	206	823	440	484	160
Spain (e)	1 300	990	727	325	250*
Norway (b)	4 000*	4 000*	4 000*	3 000*	4 000*
Soviet Union	49 000*	49 000*	50 000*	50 000*	50 000*
Yugoslavia	946	235	644	756	887
Madagascar	1 096	719	589	1 775	402
Morocco	500*	1 200	1 440	1 500*	1 060
Mozambique	309	126	—	—	—
South Africa	2 672	4 478	2 153	2 510	1 325
Sudan	10	100	—	—	—
Zimbabwe	547	960	581	1 390	800
Canada	10 900	12 100	13 500*	15 000*	17 000*
Mexico	1 560	1 676	1 446	1 400*	1 400*
USA (d) (e)	127 000	146 000	125 000	134 000	146 000
Argentina	313	290	721	551	791
Brazil (a)	3 408	3 265	931	1 662	2 000*
China (c)	13 100*	16 000*	16 800*	19 700*	18 000*
India	11 660	9 608	7 482	7 519	10 547
Sri Lanka	973	626	529	895	1 228
Taiwan	311	304	114	774	787
Australia	266	2 194	1 574	24	106
World total	239 000	266 000	239 000	254 000	266 000

Notes

(1) In addition to the countries listed, Namibia, Pakistan and Romania are also believed to produce mica

(a) Exports

(b) Crude only

(c) Conservative BGS estimates, based on reconstructed exports

(d) Sold or used by producers

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

Exports of Mica

Mica
tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Unmanufactured	105	89	112	95	23
Ground	1 169	754	1 310	1 101	2 560
Waste	2 403	2 563	1 668	1 940	1 727
Belgium-Luxembourg	32	26	225	82	12
France					
Unmanufactured	1 832	5 050	2 887	2 591	2 542
Ground	3 969	4 548	4 842	4 310	4 491
Germany, Federal Republic of					
Unmanufactured	13	52	36	0	15
Ground	906	1 203	1 411	1 364	1 327
Italy					
Unmanufactured	227	194	116	43	107
Ground	271	364	113	79	134
Netherlands					
Unmanufactured	383	315	983	779	1 016
Ground	2 451	458	475	222	655
Portugal	206	823	440	484	160
Spain	465	49	60	22	21
Austria	829	829	316	1 659	371
Finland	814	548	566	274	1 315
Norway	2 009	2 009	1 934	1 422	1 916
Sweden	58	28	20	46	38
Switzerland	75	75	130	77	89
Madagascar	900	874	779	1 874	653
Morocco	—	1 434	1 330	1 508	2 230
Mozambique	...	286	...	...	...
South Africa	873	884	1 076	720	1 105
Zimbabwe					
Ground	111	259	396	845	468
USA					
Unmanufactured	2 185	1 909	1 361	1 503	913
Ground	7 453	5 236	6 559	5 313	4 301
Brazil	3 408	3 265	931	1 662	2 000*
China (a)	13 100*	16 000*	16 800*	19 700*	18 300*
India (b)					
Block	808	678	717	...	...
Splittings	2 219	2 476	2 708	...	...
Condenser films	4	48	3	...	...
Waste	9 344	13 151	14 520	...	...
Japan	158	455	290	366	318
Malaysia	325	246	862	...	1 797
Singapore	363	396	222	51	298
of which: Re-exports	194	350	215	51	298
Sri Lanka	1 043	631	534	889	1 309
Taiwan	413	295	248	198	394

Notes

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

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

(b) Years ended 31 March following that stated

Mica

Imports of Mica

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Unmanufactured	144	169	82	570	515
Ground	3 323	6 334	3 185	1 925	5 524
Waste	12 941	12 391	12 587	17 519	13 904
Belgium-Luxembourg					
Unmanufactured	890	1 138	3 600	6 568	5 023
Ground	882	2 866	962	779	939
Denmark	223	254	272	258	206
France					
Unmanufactured	1 156	3 022	3 676	4 214	3 989
Ground	1 097	1 025	633	631	875
Germany, Federal Republic of					
Unmanufactured	5 133	4 620	4 912	4 124	2 860
Ground	5 381	6 222	7 034	7 343	11 911
Greece	140	263	474	514	591
Irish Republic	168	241	135	222	127
Italy					
Unmanufactured	269	313	400	109	265
Ground	628	985	1 111	986	863
Netherlands					
Unmanufactured	348	330	876	987	1 594
Ground	3 704	1 589	1 724	893	1 181
Portugal	320	283	382	168	145
Spain	1 300	1 244	3 963	2 567	1 506
Austria	203	205	321	183	221
Finland	239	198	248	276	304
German Democratic Republic	1 350	1 042	1 124	1 212	820
Norway					
Unmanufactured	190	178	165	179	347
Waste	1 763	2 113	3 878	1 115	1 535
Poland	779	1 750	1 241	1 357	729
Soviet Union (c)	1 400*	1 300*	1 600*	...	...
Sweden	438	422	447	399	434
Switzerland	480	753	611	585	726
Turkey	39	25	20	326	9
Yugoslavia	977	133	253	297	336
Egypt	27	80	258	28	...
South Africa	486	1 073	586	...	...
Tunisia	167	106	12	13	8
Canada	2 791	2 396	2 311	2 174	2 204
Jamaica	134	59	119	103	162
Mexico	47	161	132	...	...
Trinidad and Tobago	197	176	117	129	67
USA					
Block	8	76	296	105	42
Splittings	164	559	483	899	786
Ground	4 673	5 812	5 487	5 451	5 673
Waste	518	...	—	10	...
Other unmanufactured	1 889	(d) 4 730	3 426	2 140	(d) 4 195
Brazil	109	—	1	25	43
Colombia	105	150	113	53	...
Venezuela	656	1 061	1 033	704	429
Abu Dhabi	281	39	61	17	...
Brunei	24	—	1	...	...
Dubai	251	230	248	26	...
Hong Kong	19	48	32	48	57
Indonesia	547	704	909	599	237
Iran (a)	51	15	...	...	...

Imports of Mica

Mica
tonnes

Country	1983	1984	1985	1986	1987
Japan					
Block	783	2 963	2 163	1 965	3 648
Splittings	1 301	2 611	1 903	1 457	2 824
Waste	4 395	3 554	3 088	5 603	3 504
Other unmanufactured	3 226	3 873	3 711	6 118	7 251
Korea, Republic of	434	569	1 023	987	1 084
Malaysia	114	67	118	87	352
Philippines	84	67	26	109	134
Saudi Arabia	1 032	670	608	—	654
Singapore	1 553	2 027	1 220	496	382
Taiwan					
Unmanufactured	50	51	33	54	251
Ground	174	243	160	391	572
Thailand	172	319	153	177	274
Australia	335	204	395	670	686
New Zealand (b)	£91 000	£122 000	£120 000	£105 000	£119 000

Notes

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

- (a) 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 waste

Molybdenum

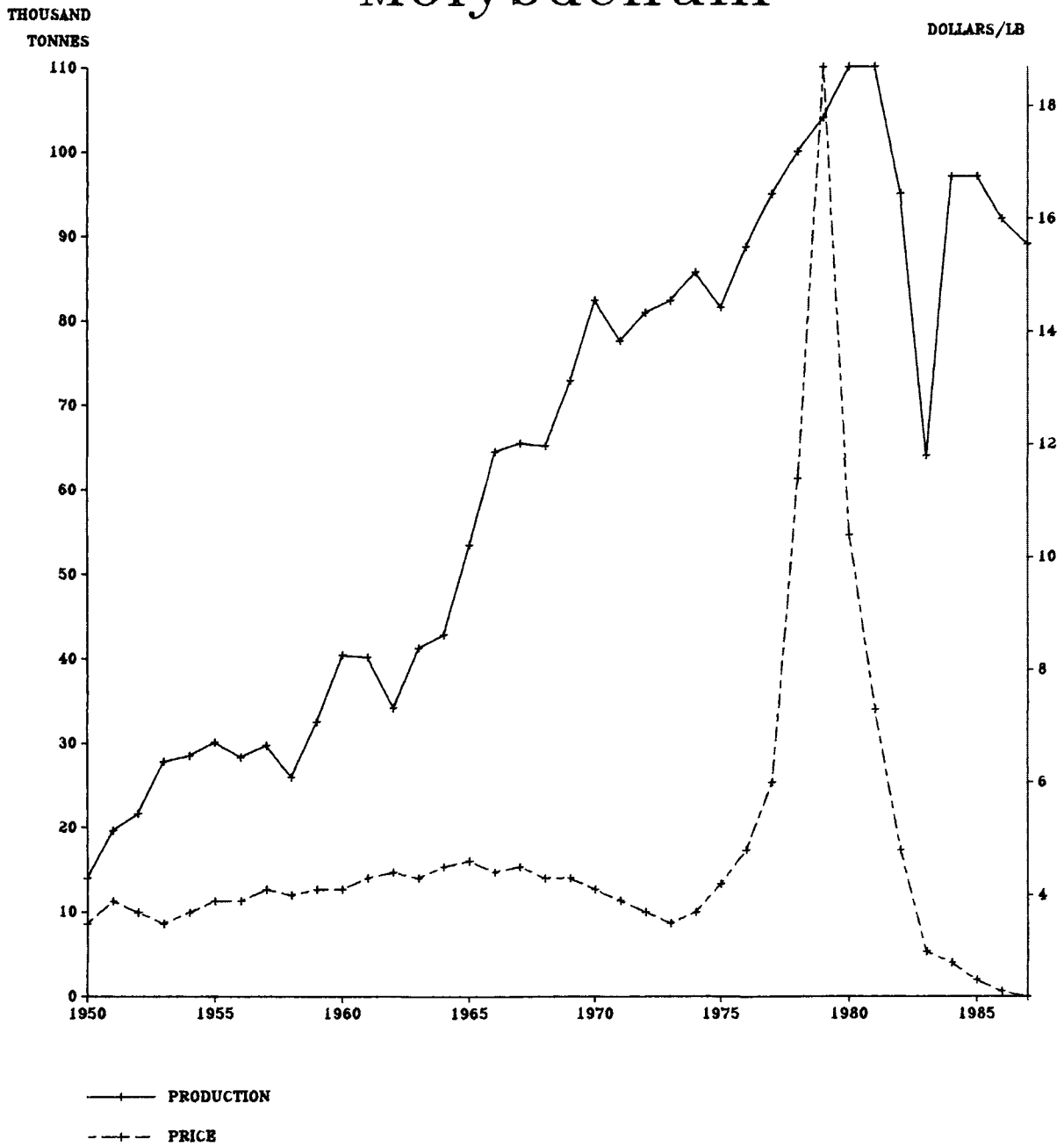


Figure 13 World mine production of molybdenum from 1950 to 1987 compared with the annual price of molybdenum in oxide expressed in constant 1980 US dollars.
 Constant commodity prices derived from INTERMET Molybdenum data-base (1987) using the CPI for the USA taken from International Financial Statistics Yearbook (1988).

Mine Production of Molybdenum

Molybdenum
tonnes (metal content)

Country	1983	1984	1985	1986	1987
Bulgaria	190*	190*	190*	180*	180*
Soviet Union	11 100*	11 200*	11 300*	11 400*	11 500*
Turkey	100*	100*	100*	100*	100*
Niger	83	57	32	20*	8
Canada	10 194	11 557	6 950	11 251	14 771
Mexico	5 866	4 054	3 761	3 350	4 400
USA	15 238	47 021	49 173	42 627	34 073
Chile	15 264	16 861	18 391	16 581	16 941
Peru	2 633	3 085	3 833	3 491	3 352
China	2 000*	2 000*	2 000*	2 000*	2 000*
Japan	102	157	100*	100*	100*
Korea, Republic of	143	159	335	317	327
Mongolia	950*	1 000*	1 000*	1 100*	1 100*
Philippines	40	—	—	—	—
World total	64 000	97 000	97 000	92 000	89 000

Notes

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

Molybdenum

Exports of Molybdenum

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Ores & concentrates	6 120	4 906	4 402	2 894	2 020
Metal	460	414	408	629	763
Oxides	1 035	1 614	1 594	1 109	1 298
Belgium-Luxembourg					
Ores & concentrates	8 649	10 847	11 412	11 346	12 890
Metal	90	90	114	141	142
Oxides	35	39	42	36	53
France					
Ores & concentrates	364	227	193	4 961	2 115
Metal	284	288	280	290	291
Germany, Federal Republic of					
Ores & concentrates	6 898	5 291	3 526	4 045	3 417
Metal	622	680	649	636	849
Italy					
Ores & concentrates	298	—	43	22	—
Metal	150	49	4	64	35
Netherlands					
Ores & concentrates	8 905	15 801	18 224	13 699	8 694
Metal	184	122	274	220	422
Oxides	1 504	1 631	1 509	945	1 455
Austria					
Metal	1 201	1 284	1 439	1 267	1 266
Finland					
Ores & concentrates	310	488	—	—	—
Sweden					
Ores & concentrates	1 458	745	1 375	1 687	2 747
Metal	5	71	118	7	13
Canada					
Ores & concentrates (a)	11 349	8 896	5 636	11 368	14 253
Mexico					
Ores & concentrates (a)	7 482	4 674	4 533	...	...
USA					
Ores & concentrates (a)	21 350	28 764	28 966	22 295	18 430
Metal	826	907	863	1 289	1 596
Chile					
Ores & concentrates (a)	3 793	4 677	5 580	6 115	...
Oxides	16 250	11 538	11 516	...	...
Peru					
Ores & concentrates	5 084	5 699	7 254	6 839	6 541
China					
Ores & concentrates (b)	100*	50*	500*	12 300*	7 600*
Japan					
Metal	51	41	55	63	81
Korea, Republic of					
Ores & concentrates	—	—	230	308	126
Philippines					
Ores & concentrates	122	—	—	—	—

Notes

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

(a) Mo content

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

Imports of Molybdenum

Country	1983	1984	1985	1986	1987
United Kingdom					
Ores & concentrates	14 419	18 042	19 057	19 248	15 695
Metal	308	489	358	278	315
Oxides	191	102	304	237	135
Belgium-Luxembourg					
Ores & concentrates	22 976	21 952	22 150	21 874	24 787
Metal	278	173	223	211	480
Oxides	298	282	39	147	180
France					
Ores & concentrates	5 650	6 246	5 677	7 446	8 631
Metal	225	243	260	248	231
Oxides	35	77	144	124	156
Germany, Federal Republic of					
Ores & concentrates	19 061	18 597	17 600	17 817	16 305
Metal	749	964	1 146	1 033	828
Oxides	274	192	174	120	107
Italy					
Ores & concentrates	2 360	4 438	4 810	2 742	2 870
Metal	175	189	142	218	195
Oxides	47	86	65	65	32
Netherlands					
Ores & concentrates	13 816	20 741	24 061	22 961	15 985
Metal	235	178	186	116	202
Oxides	29	9	24	30	27
Spain					
Ores & concentrates	2 787	3 446	4 600	5 236	4 991
Metal	24	38	25	52	43
Austria					
Metal	143	109	97	117	121
Oxides	1 748	2 063	2 241	2 066	1 706
Czechoslovakia					
Ores & concentrates (a)	800*	600*	600*	900*	800*
Finland					
Ores & concentrates	558	671	1 121	326	1 074
Metal	3	6	6	1	4
Soviet Union					
Ores & concentrates (a)	1 000*	300*	100*	...	...
Sweden					
Ores & concentrates	5 254	6 357	6 479	7 246	7 402
Metal	33	71	138	186	262
Oxides	232	138	125	96	236
Switzerland					
Metal	9	21	22	20	23
Yugoslavia					
Metal	23	29	14	24	20
South Africa					
Metal	26	23	23	13	...
Oxides	10	188	414	361	...
Canada					
Oxides	141	238	187	202	193
USA					
Ores & concentrates	924	21	83	789	996
Metal	271	323	338	373	444
Oxides	3 548	3 992	1 893	810	...
Argentina					
Oxides	473	519	357	479	...
Brazil					
Ores & concentrates	1 465	2 590	2 893	2 493	3 093
Metal	28	51	56	75	58
Oxides	0	519	542	484	740

Molybdenum

Imports of Molybdenum

tonnes

Country	1983	1984	1985	1986	1987
Japan					
Ores & concentrates	18 737	18 246	21 138	18 024	17 115
Metal	203	423	428	290	380
Oxides	549	578	384	414	468
Korea, Republic of					
Ores & concentrates	151	179	115	263	522
Metal	67	15	21	28	32
Philippines					
Metal	30	20	20	2	4
Singapore					
Metal	19	11	4	1	4
Taiwan					
Metal	70	90	60	85	105
Australia					
Ores & concentrates	63	138	174	...	...

Notes

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

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

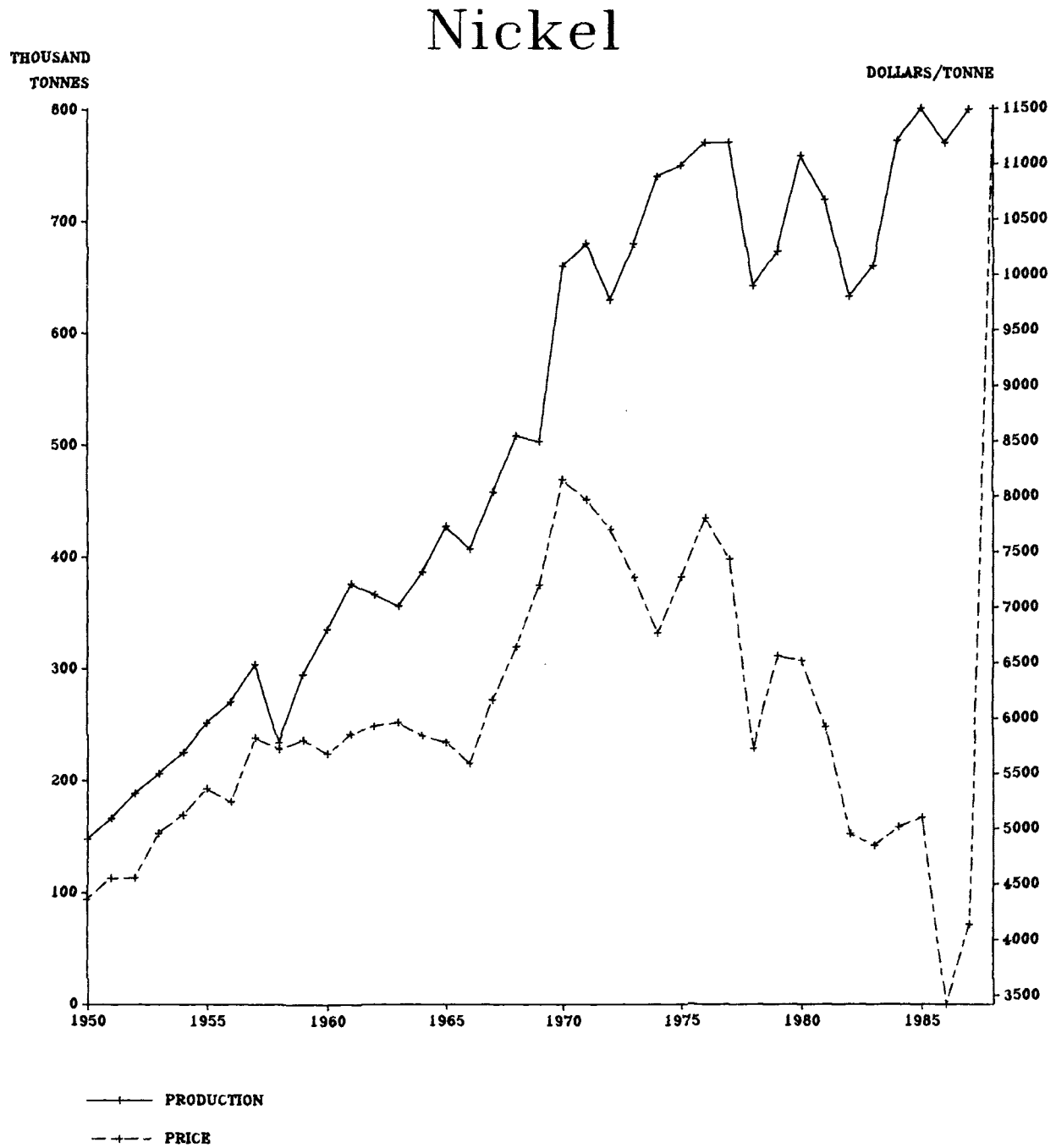


Figure 14 World mine production of nickel from 1950 to 1987 compared with the yearly average f.o.b. contract price (to 1988) of Canadian electrolytic cathodes expressed in constant 1980 US dollars (from 1980, LME cathodes).

Trend-line analysis of the production data indicates a growth rate of approximately 4½% per annum over 37 years.

Constant commodity prices (to 1986) taken from Commodity Trade and Price Trends published by the Johns Hopkins University Press for the World Bank.

Mine Production of Nickel

tonnes (metal content)

Country	1983	1984	1985	1986	1987
Greece (d)	12 900	15 800	15 900	10 300	9 200
Albania	7 200	9 200	9 600	10 000	10 500
Finland	5 214	6 928	9 136	11 800	10 600
German Democratic Republic	2 200	2 000	2 000	2 000	2 000*
Norway	359	326	425	467	600*
Poland	300*	—	—	—	—
Soviet Union	172 000*	178 000*	173 000*	166 000*	173 000*
Yugoslavia	1 600*	2 200*	2 800*	3 200*	3 500*
Botswana	18 214	19 565	19 567	18 972	16 528
South Africa (a)	20 500	22 500	29 000	31 800	34 300
Zimbabwe	10 147	10 251	9 897	9 732	10 393
Canada (b)	125 022	173 725	169 971	163 639	189 086
Cuba	37 636	31 835	32 064	33 523	34 200*
Dominican Republic (d)	19 017	24 805	25 400	24 100	32 500
USA	—	13 190	5 558	1 066	—
Brazil	15 561	23 532	20 300	21 423	21 000*
Colombia	17 307	20 799	14 608	20 980	23 500*
Burma (e)	20*	20*	20*	20*	20*
China	13 700*	18 300*	25 800*	29 400*	30 400*
Indonesia	41 200	47 800	48 200	67 300	57 200
Philippines	13 900	13 601	28 158	12 745	8 500
Australia	76 625	76 923	85 757	76 739	74 554
New Caledonia (c)	46 162	58 326	72 361	64 518	58 608
World total	657 000	770 000	800 000	780 000	800 000

(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

(d) Ni content of ferro-nickel

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

Nickel

Smelter/Refinery Production of Nickel

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom	23 200	22 300	17 800	30 900	29 500
France	4 878	5 217	7 019	8 241	6 680
Greece	12 858	15 829	15 900	10 300	9 200
Albania	4 500	4 000	4 000	4 000	4 500
Czechoslovakia	3 000*	4 500*	4 000*	4 000*	4 000*
Finland	14 514	15 282	15 656	17 791	15 392
German Democratic Republic	3 000*	3 000*	3 000*	3 200*	3 500*
Norway	28 619	35 548	37 513	38 202	44 565
Poland	300*	—	—	—	—
Soviet Union	192 000*	193 000*	190 000*	188 000*	191 000*
Yugoslavia	1 000	1 800	2 800	3 200	3 500
South Africa	19 200	20 500	24 000	27 000	27 000
Zimbabwe	13 000	10 400	11 500	16 400	16 700
Canada	93 047	111 591	108 041	111 279	131 500
Cuba	9 342	8 452	8 829	8 382	8 600*
Dominican Republic (a)	21 202	24 219	25 802	21 989	29 100
USA	(b) 30 300	40 763	33 005	1 498	—
Brazil	10 740	12 716	13 166	13 465	13 862
Colombia	13 055	16 575	11 373	18 018	19 300
China	13 000*	17 500*	24 600*	28 000*	29 000*
Indonesia	4 900	4 800	4 800	4 500	3 100
Japan	82 300	89 361	92 594	92 750	91 605
Philippines	6 097	3 528	16 993	1 153	—
Australia	41 800	38 660	40 807	42 097	44 529
New Caledonia	21 717	29 158	36 103	33 001	29 531
World total	668 000	729 000	749 000	727 000	756 000

Notes

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

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

(b) Excluding production from domestic ores

Exports of Nickel

Country	1983	1984	1985	1986	1987
United Kingdom					
Mattes, sinters etc.	572	184	323	682	1 285
Unwrought	12 696	10 527	8 477	15 610	16 786
Unwrought alloys	1 039	1 849	2 108	1 840	1 779
Scrap	5 637	5 842	5 408	4 629	5 030
Oxides	150	88	130	79	98
Belgium-Luxembourg					
Unwrought	229	173	146	50	59
Unwrought alloys	213	80	72	263	312
Scrap	708	843	1 139	739	991
Denmark					
Scrap	43	58	15	30	87
France					
Unwrought	4 504	4 316	5 267	6 051	5 753
Unwrought alloys	912	1 266	953	889	1 086
Scrap	2 070	3 602	3 637	3 109	2 865
Oxides	62	80	30	8	15
Germany, Federal Republic of					
Mattes, sinters etc.	5 553	1 786	1 491	1 727	1 187
Unwrought	11 497	6 651	2 726	2 985	5 838
Unwrought alloys	2 861	3 695	3 905	3 405	3 589
Scrap	7 637	9 404	10 032	5 668	6 492
Oxides	2 437	76	58	98	95
Greece					
Scrap	590	21	18	—	...
Irish Republic					
Unwrought (a)	108	59	36	35	7
Scrap	51	149	151	161	208
Italy					
Unwrought (a)	713	141	124	113	378
Scrap	165	169	119	163	281
Netherlands					
Mattes, sinters etc.	2 782	(b) 4 800*	(b) 3 500*	(b) 3 700*	(b) 2 700*
Unwrought (a)	2 013	426	443	500	650
Scrap	2 206	3 015	3 068	4 684	3 433
Oxides	781	(b) 500*	(b) 400*	(b) 500*	(b) 200*
Spain					
Scrap	36	328	164	96	64
Austria					
Scrap	457	774	295	214	104
Finland					
Mattes, sinters etc.	955	—	—	—	—
Unwrought (a)	11 322	13 247	13 852	15 086	13 309
Scrap	4 628	2 269	1 777	59	55
Norway					
Ore	9 952	8 231	10 843	11 871	8 991
Unwrought	30 014	37 812	35 669	37 917	44 125
Scrap	107	49	143	108	91
Soviet Union					
Mattes, sinters etc. (b)	800*	250*	500*	200*	300*
Unwrought (b)	35 500*	37 500*	29 100*	37 800*	54 600*
Sweden					
Mattes, sinters etc.	117	—	—	—	—
Unwrought (a)	482	622	96	52	78
Scrap	1 620	613	533	655	740
Switzerland					
Unwrought, mattes, sinters etc.	27	12	105	44	122
Scrap	318	422	256	295	369
Yugoslavia					
Unwrought	46	466	347	—	—
Scrap	93	154	398	70	81
Botswana					
Mattes, sinters etc.	52 117	86 587	53 155	51 290	56 000*
South Africa					
Slurry, mattes, sinters etc. (b)	36 200*	46 000*	42 800*	29 200*	29 700*
Unwrought (a) (b)	15 500*	16 400*	16 100*	17 900*	14 800*
Scrap (b)	100*	400*	400*	200*	400*

Nickel

Exports of Nickel

tonnes

Country	1983	1984	1985	1986	1987
Zimbabwe					
Unwrought (a)	16 237	11 303	10 896	14 326	15 832
Canada					
Ores, concentrates, mattes etc. (c)	51 273	79 492	81 276	71 712	77 275
Unwrought	67 386	80 508	81 773	86 057	96 165
Scrap	2 988	9 693	4 948	6 253	7 663
Cuba					
Oxide, sinter & sulphide (e)	37 807	36 658	33 416	34 912	...
USA					
Unwrought (a)	20 309	23 815	16 415	1 961	1 825
Scrap	12 056	11 934	14 093	9 538	10 489
Hong Kong					
Unwrought (f)	4 277	3 020	3 242	4 865	6 228
Scrap	378	293	118	387	956
Oxides (f)	146	189	244	162	76
Indonesia					
Ore	514 972	579 284	626 745	963 198	992 877
Mattes, sinters etc.	46 010	49 848	54 004	54 315	49 496
Japan					
Unwrought (a)	285	348	313	181	228
Malaysia					
Unwrought alloys	213	473	106	...	17
of which: Re-exports	43	392	91	...	—
Philippines					
Ores & concentrates	346 973	527 205	616 455	420 809	483 417
Unwrought (a)	10 362	2 344	11 284	2 566	—
Singapore					
Unwrought	9 440	4 717	2 069	2 399	1 483
of which: Re-exports	9 409	4 685	2 017	2 399	1 483
Scrap	413	160	1 072	280	142
of which: Re-exports	32	16	947	16	30
Taiwan					
Unwrought	111	3	392	356	1 140
Scrap	1 423	1 825	1 889	1 506	2 180
Australia (d)	62 000*	60 900*	61 800*	71 000*	66 500*
New Caledonia					
Ores	1 065 479	1 332 945	1 443 908	1 074 502	1 019 729
Mattes, sinters etc.	4 700	8 900	11 800	12 900	9 900

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)

(f) Re-exports

Imports of Nickel

Country	1983	1984	1985	1986	1987
United Kingdom					
Mattes, sinters etc.	25 937	39 891	42 753	38 008	39 957
Unwrought	10 423	13 280	13 948	14 024	17 031
Unwrought alloys	467	2 079	2 216	2 060	1 127
Scrap	2 298	2 810	4 137	3 197	4 503
Oxides	511	553	1 062	598	2 709
Belgium-Luxembourg					
Ore	—	—	—	1 087	2 350
Mattes, sinters etc.	423	2 402	1 669	1 943	1 791
Unwrought	2 993	2 079	2 322	3 141	5 418
Unwrought alloys	1 347	971	274	646	1 228
Scrap	327	601	527	304	627
Oxides	349	384	142	746	274
Denmark					
Unwrought	222	204	106	178	244
Unwrought alloys	22	156	38	38	5
France					
Mattes, sinters etc.	7 092	8 649	13 600	13 534	11 697
Unwrought	17 893	18 094	15 415	14 798	22 712
Unwrought alloys	2 659	4 604	4 357	3 755	4 872
Scrap	529	917	942	669	579
Oxides	545	283	204	146	61
Germany, Federal Republic of					
Mattes, sinters etc.	11 999	12 239	12 583	11 186	13 104
Unwrought (a)	44 830	48 284	42 368	46 071	57 342
Scrap	4 902	8 389	7 561	6 062	6 987
Oxides	186	383	234	558	280
Greece					
Unwrought	100	73	133	120	...
Irish Republic					
Unwrought (a)	142	220	305	585	398
Italy					
Mattes, sinters etc.	2 676	4 261	4 426	4 927	6 743
Unwrought	13 593	19 811	17 336	17 254	15 616
Unwrought alloys	664	473	583	1 133	849
Scrap	140	81	271	87	220
Oxides	2 300	2 106	975	1 836	440
Netherlands					
Mattes, sinters etc. (e)	14 600*	7 600*	10 400*	8 600*	5 900*
Unwrought	3 054	1 604	1 737	2 973	1 834
Unwrought alloys	62	30	34	142	83
Scrap	1 320	3 737	2 943	2 776	2 773
Oxides	267	152	314	141	145
Portugal					
Unwrought (a)	275	223	286	347	328
Spain					
Mattes, sinters etc.	2 625	2 376	1 849	1 591	1 503
Unwrought (a)	4 982	4 776	3 780	4 863	4 270
Austria					
Mattes, sinters etc.	622	1 122	1 207	907	405
Unwrought (a)	2 888	3 105	2 664	3 030	2 814
Scrap	222	608	572	155	949
Czechoslovakia					
Unwrought (a)	8 060	6 483	6 558	5 473	7 460
Finland					
Ore	12 188	7 325	13 661	10 971	12 516
Mattes, sinters etc.	9 901	8 786	9 759	9 267	4 514
Unwrought (a)	4 973	4 661	5 084	2 735	2 313
Scrap	1 987	2 489	2 681	3 839	3 216
Norway					
Mattes, sinters etc.	63 140	93 459	102 443	101 073	92 110
Unwrought (a)	281	146	202	153	64
Scrap	8	73	3	12	11
Sweden					
Mattes, sinters etc.	4 059	2 934	2 700	3 513	3 515
Unwrought	9 224	12 566	11 874	10 042	10 628
Unwrought alloys	372	293	309	306	177
Scrap	3 365	4 575	5 510	6 709	6 048

Nickel

Imports of Nickel

tonnes

Country	1983	1984	1985	1986	1987
Switzerland					
Unwrought, mattes, sinters etc.	895	901	1 261	1 382	1 157
Scrap	94	70	86	29	29
Yugoslavia					
Unwrought	1 394	2 659	2 837	2 395	1 627
South Africa					
Mattes, sinters etc.	455	577	904	628	...
Unwrought	40	57	41	...	...
Canada					
Ores, concentrates & scrap (b)	29 401	24 736	31 592	38 331	23 533
Unwrought (a)	3 355	4 100	3 338	3 451	3 348
Mexico					
Mattes, sinters etc.	1 227	2 088	3 539	1 889	2 228
USA					
Slurry, mattes, sinters etc.	54 552	70 900*	55 462	4 518	4 755
Unwrought (a)	84 709	93 456	88 704	91 717	103 314
Scrap	5 507	5 623	5 036	6 164	6 865
Oxides	3 818	5 013	4 618	712	804
Argentina					
Unwrought	762	735	311	538	...
Brazil					
Unwrought (a)	174	341	1 135	1 915	1 700
Colombia					
Unwrought	231	309	144	280	...
Venezuela					
Unwrought	109	171	201	493	327
Hong Kong					
Unwrought	5 008	4 494	3 811	7 052	6 220
India (c)					
Mattes, sinters etc.	...	...	3 276	...	...
Unwrought	...	...	3 466	...	...
Unwrought alloys	...	...	1 299	...	...
Scrap	...	...	1 101	...	...
Japan					
Ore	2 297 076	2 834 813	2 976 005	2 885 823	2 926 857
Mattes, sinters etc.	38 323	50 510	52 656	58 312	54 610
Unwrought	26 822	31 377	24 690	24 024	42 352
Unwrought alloys	237	172	208	325	261
Scrap	3 668	3 242	2 622	2 219	3 089
Korea, Dem. P.R. of					
Unwrought (a) (e)	200*	500*	700*	600*	1 900*
Korea, Republic of					
Unwrought	2 002	2 306	3 472	5 839	4 961
Scrap	167	224	327	284	554
Malaysia					
Unwrought (a)	296	398	104	133	111
Singapore					
Unwrought	11 385	917	2 638	3 726	1 493
Scrap	145	182	170	182	284
Taiwan					
Mattes, sinters etc.	429	1 949	2 938	11 514	11 256
Unwrought (a)	4 060	4 497	3 863	6 535	6 364
Scrap	133	136	396	1 223	383

Imports of Nickel

Country	1983	1984	1985	1986	1987
Thailand					
Unwrought (a)	622	433	387	517	775
Australia					
Mattes, sinters etc.	51	0	121	1 869	84
Unwrought	306	1 133	737	1 082	1 211
Unwrought alloys	77	132	80	41	51
Scrap	14	44	129	211	353
New Zealand (d)					
Unwrought (a)	10	105	131	65	64

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

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

Petroleum

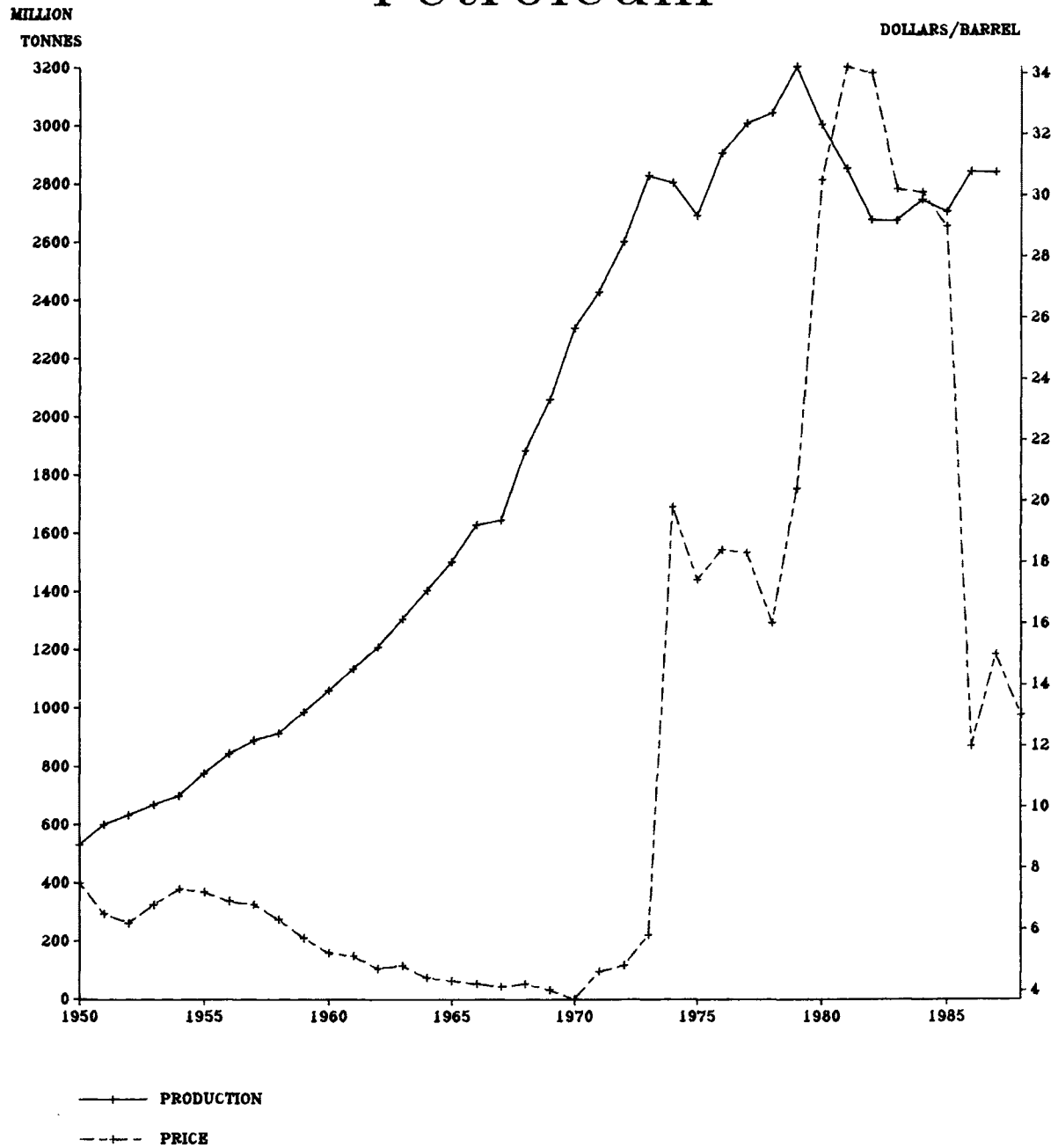


Figure 15 World production of crude petroleum from 1950 to 1987 compared with the weighted yearly average price (to 1988) f.o.b. OPEC countries of light crude expressed in constant 1980 US dollars (prior to 1974, f.o.b. Ras Tanura).
Constant commodity prices (to 1986) taken from Commodity Trade and Price Trends published by the Johns Hopkins University Press for the World Bank.

Production of Crude Petroleum

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom	110 882 000	121 307 000	122 449 000	121 238 000	117 613 000
Denmark (e)	2 148 712	2 219 205	2 853 368	3 238 459	4 552 394
France	1 660 000	2 064 405	2 642 572	2 912 000	3 234 621
Germany, Federal Republic of	4 116 000	4 055 000	4 105 000	4 017 000	3 800 000
Greece	1 249 630	1 332 524	1 330 684	1 327 000	1 210 000
Italy	2 197 582	2 236 203	2 342 545	2 510 564	3 908 036
Netherlands	2 589 000	3 102 000	3 728 000	4 628 000	4 291 000
Spain	2 976 845	2 245 179	2 088 248	1 858 400	1 639 000
Albania	4 000 000*	3 000 000*	3 100 000*	3 000 000*	3 000 000*
Austria	1 268 573	1 205 430	1 146 958	1 115 924	1 060 367
Bulgaria	300 000*	280 000*	280 000*	280 000*	280 000*
Czechoslovakia	93 000	91 000	123 000	142 000	147 000
German Democratic Republic	60 000*	60 000*	60 000*	60 000*	60 000*
Hungary	2 004 000	2 007 000	2 012 000	2 005 000	1 914 000*
Norway	30 482 453	34 681 721	38 342 000	42 483 000	49 126 000
Poland	210 000	189 000	194 000	167 000	149 000
Romania	11 593 000	11 453 000	10 718 000	10 125 000	10 000 000*
Soviet Union	616 300 000	612 700 000	595 000 000	615 000 000	624 200 000
Turkey	2 204 481	2 086 715	2 109 986	2 393 806	2 643 000
Yugoslavia	4 124 751	4 044 010	4 149 259	4 140 489	3 867 000
Algeria	42 300 000	46 100 000	41 600 000	45 700 000	44 800 000
Angola	8 894 952	10 190 996	11 514 325	14 102 000	18 300 000
Benin	250 000*	400 000*	350 000*	350 000*	350 000*
Cameroon	5 650 000	7 890 000	9 200 000	9 090 000	8 602 000
Congo	5 365 144	6 210 000	5 600 000	5 610 000	5 777 000
Egypt	35 957 000	41 217 000	44 312 000	40 237 000	43 178 000
Gabon	7 869 000	8 730 000	8 626 000	8 384 000	7 800 000
Ivory Coast	1 025 000	1 120 000	1 300 000	1 350 000	1 200 000
Libya	54 400 000	53 500 000	52 700 000	49 900 000	47 900 000
Nigeria	61 000 000	68 600 000	72 900 000	72 900 000	63 700 000
Tunisia	5 532 000	5 480 000	5 408 000	5 249 000	5 005 000
Zaire	1 261 528	1 598 073	1 670 213	1 060 000	1 530 000
Barbados	52 095	87 137	93 219	76 743	68 181
Canada	71 838 600	76 334 900	77 795 600	77 981 100	81 144 500
Cuba	742 200	770 400	867 600	938 000	894 000
Guatemala	375 009	241 474	151 222	255 251	191 167
Mexico	138 983 294	145 090 791	139 758 862	129 268 989	135 000 000*
Trinidad and Tobago	8 235 968	8 758 037	9 070 986	8 701 325	7 995 579
USA	425 368 000	434 720 000	439 224 000	424 977 000	408 771 000
Argentina	25 977 400	25 318 400	24 342 500	22 982 800	22 800 000
Bolivia	1 174 800	1 104 800	912 000	816 000	912 000
Brazil	17 461 000	24 482 865	28 889 605	30 287 000	30 100 000*
Chile	2 083 322	2 040 390	1 892 273	1 770 015	1 584 100
Colombia	7 657 000	8 633 000	9 084 000	15 629 000	19 835 000
Ecuador	12 043 653	13 239 624	14 295 932	14 727 997	8 868 000
Peru	8 432 000	9 096 000	9 286 924	8 748 524	8 064 014
Suriname	19 119	39 415	67 174	114 035	136 518
Venezuela	95 525 697	89 937 100	82 961 800	87 444 000	83 571 800
Abu Dhabi	41 634 759	38 900 000	41 600 000	50 400 000	55 500 000
Bahrain	2 086 475	2 088 661	2 090 301	2 115 710	2 108 000
Brunei	8 070 000	7 597 000	7 593 000	7 532 000	7 750 000
Burma (d)	1 435 347	1 660 220	1 000 000	896 500	900 000
China (a)	106 070 000	114 640 000	124 900 000	130 600 000	134 000 000
Dubai	17 100 267	17 259 000	18 800 000	18 900 000	20 400 000
India	25 148 000	28 046 000	29 860 000	31 157 000	30 128 000
Indonesia	64 895 924	68 402 999	64 007 442	68 544 356	63 385 000
Iran	122 400 000	109 300 000	110 000 000	94 500 000	114 700 000
Iraq	53 864 799	55 211 419	70 600 000	85 500 000	102 400 000
Israel	12 130	17 420	9 396	13 136	15 143
Japan	448 650	433 950	570 135	676 223	636 147
Kuwait	53 015 873	58 578 330	53 458 000	71 580 400	61 440 000
Malaysia	18 303 756	21 402 997	21 300 000	26 200 000	24 900 000
Neutral Zone (c)	16 900 000	21 100 000	17 000 000	17 900 000	20 200 000*
Oman	19 357 733	20 785 638	24 802 837	27 864 000	28 982 500
Pakistan	650 027	891 332	1 669 605	2 008 496	2 030 343
Philippines	638 847	513 384	564 000	434 000*	300 000*

Production of Crude Petroleum

tonnes

Country	1983	1984	1985	1986	1987
Qatar	13 993 349	20 100 000	15 900 000	16 600 000	16 100 000*
Ras al Khaimah	—	316 000	350 000	550 000	490 000
Saudi Arabia	227 969 318	215 413 043	159 446 753	240 253 165	209 570 000
Sharjah	380 615	3 051 000	3 090 000	3 130 000	3 125 000
Syria	8 537 509	8 590 418	8 425 305	9 660 000	12 000 000
Taiwan	122 825	123 970	107 783	96 000	350 000
Thailand	355 283	797 129	1 123 113	1 425 000	1 600 000
Australia	21 209 115	26 376 971	30 447 317	27 151 450	29 076 240
New Zealand (b)	656 450	840 570	1 228 060	1 353 930	1 291 950
World total	2 671 000 000	2 744 000 000	2 703 000 000	2 838 000 000	2 838 000 000

Notes

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

(a) Including oil from shale and coal

(b) Petroleum condensate

(c) Neutral zone of Kuwait and Saudi Arabia

(d) Years ended 31 March following that stated

(e) Sales

Production of Natural Gas

million m3

Country	1983	1984	1985	1986	1987
United Kingdom	38 700	38 529	42 971	45 304	47 641
Belgium	23	47	52	37	38
France	6 662	6 344	5 419	4 217	5 493
Germany, Federal Republic of	17 623	15 950	14 459	13 865	15 871
Irish Republic	2 194	2 327	2 413	1 679	1 669
Italy	12 991	13 902	14 158	15 893	16 324
Netherlands	76 536	77 251	80 721	74 037	74 247
Spain	5	176	273	378	670
Albania	400*	500*	380*	400*	450*
Austria	1 213	1 272	1 164	1 112	1 167
Bulgaria	57	47	21	17	15
Czechoslovakia	613	758	705	751	785
German Democratic Republic	7 600*	12 370	11 430	11 430	13 000
Hungary	6 510	6 911	7 456	7 022	7 118
Norway	25 831	27 375	26 999	27 802	29 365
Poland	5 491	6 087	6 390	5 824	5 745
Romania	38 106	39 054	38 904	39 371	36 300
Soviet Union	535 700	587 400	643 000	686 000	727 000
Yugoslavia	2 090	1 997	2 400	2 448	2 886
Algeria	35 590	35 040	36 470	37 560	43 170
Angola	350	340	343	400	450
Egypt	3 210	4 060	4 930	5 680	6 280
Gabon	150	290	70	60	70
Libya	4 050	4 600	5 200	5 600	5 000
Morocco	83	83	94	88	60
Nigeria	2 000	2 750	2 800	3 590	3 700
Tunisia	434	426	408	423	375
Canada	83 311	89 993	96 354	91 608	98 725
Mexico	31 271	28 984	26 703	25 848	26 000*
Trinidad and Tobago	4 013	4 133	4 077	3 297	3 398
USA (e)	453 990	492 480	463 876	452 800	462 700
Argentina	13 137	13 760	14 641	15 903	16 000*
Bolivia	2 612	2 632	2 644	2 691	2 678
Brazil	1 529	1 871	2 346	2 671	2 880
Chile	1 494	1 513	1 431	1 199	1 200*
Colombia	3 756	3 840	3 848	3 800*	3 700*
Peru	625*	625*	625*	650*	625*
Venezuela	17 165	17 260	17 330	19 080	19 900
Abu Dhabi	6 500	7 660	9 670	10 140	12 610
Afghanistan (c)	2 500	2 700	2 800*	2 900	2 800
Bahrain	3 945	4 110	4 640	5 804	6 130
Bangladesh (d)	2 042	2 353	2 679	3 020	3 549
Brunei	8 261	8 359	8 149	8 170	10 418
Burma (b)	515	702	830	1 080	1 190
China	12 210	12 430	12 930	13 693	15 000*
Dubai	3 400*	1 200*	2 120	2 300	2 600*
India	3 432	3 236	4 905	6 628	6 334
Indonesia	33 594	43 083	44 741	46 126	49 019
Iran	8 900	13 500	14 600	15 200	16 000
Iraq	650	590	850	1 550	3 750
Israel	66	53	53	40	45
Japan	2 085	2 133	2 225	2 105	2 168
Kuwait (a)	4 837	5 199	5 066	5 730	5 300*
Malaysia	3 700	9 200	12 380	14 950	15 500
Oman	753	971	1 500	2 010	2 260

Production of Natural Gasmillion m³

Country	1983	1984	1985	1986	1987
Pakistan	9 728	9 991	10 370	11 113	11 633
Qatar	5 341	5 930	5 460	5 800	5 610
Ras al Khaimah	—	—	130	310	350
Saudi Arabia (a)	12 900	11 900	18 800	25 200	26 800
Sharjah	—	900	1 110	2 270	3 750
Syria	250	150	150	220	620
Taiwan	1 237	1 266	1 125	1 023	1 057
Thailand	1 607	2 421	3 746	3 617	5 059
Australia	11 581	12 600	13 470	(f) 14 714	(f) 15 023
New Zealand	2 170	2 826	3 596	4 485	4 350
World total	1 600 000	1 700 000	1 800 000	1 800 000	1 900 000

Notes

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

(a) Including one-half of the output of the Neutral Zone

(b) Years ended 31 March following that stated

(c) Years ended 20 March following that stated

(d) Years ended 30 June of that stated

(e) Dry gas

(f) Including ethane

Exports of Crude Petroleum

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom	68 278 840	75 858 236	79 580 673	81 883 124	80 616 236
Belgium-Luxembourg	80 139	78 082	11 468	—	6 058
Denmark	1 117 767	803 941	1 042 763	841 022	1 741 057
France	436 279	68 181	681	102	20 644
Germany, Federal Republic of	1 114 665	1 097 809	1 206 185	1 155 040	1 101 194
Greece	—	346 181	373 695	739 868	...
Italy	240 922	188 093	278 818	187 764	619 306
Netherlands	254 572	535 170	1 328 149	1 362 432	1 024 625
Spain	191 202	166 423	—	—	—
Czechoslovakia	428 000	—	—	—	...
Hungary	1 275 000*	1 332 000*	818 000*	863 000*	...
Norway	25 623 382	30 064 286	32 602 346	35 375 520	41 746 707
Soviet Union (a)	116 660 000*	125 779 000*	113 388 000*	120 192 000*	122 923 000*
Sweden	—	—	94 000	133 000	140 000
Algeria	25 172 102	23 420 053	11 027 997	25 101 495	...
Angola	7 482 947	8 753 070	9 934 516	12 440 000	...
Cameroon	1 996 129	1 213 061	1 120 632	...	...
Congo	2 080 456	5 480 152	5 124 850	5 512 859	...
Egypt	7 800 450	7 446 667	10 508 550	7 248 746	...
Gabon	6 728 000	8 118 000	8 350 000	8 200 000*	...
Ivory Coast	181 320	425 670	169 512	150 000*	...
Libya	45 184 000	44 841 000	43 035 000	43 636 000*	...
Nigeria	54 026 000	55 212 062	63 454 315	56 790 657	...
Tunisia	4 089 300	4 005 641	3 892 961	4 049 073	3 711 464
Zaire	1 283 157	1 658 472	1 647 521	1 500 000*	...
Bahamas (d)	9 105 083	7 954 446	8 859 264	9 052 524	...
Canada	15 305 074	19 041 544	25 438 501	30 665 913	32 635 978
Guatemala	257 386	135 278	64 945	252 785	186 166
Mexico	79 462 516	78 821 400	74 152 900	66 672 000	70 000 000*
Netherlands Antilles	653 000	478 000	25 855 000	488 000	597 000
Trinidad and Tobago	4 660 839	4 319 975	4 806 133	4 497 870	3 881 794
USA	909 559	775 855	1 009 163	810 248	952 386
Colombia	—	—	—	4 523 000	7 499 000
Ecuador	7 699 616	8 475 503	8 613 658	8 817 027	5 300 000*
Peru	1 105 576	977 454	1 238 558	654 786	152 963
Venezuela	51 132 000	52 296 200	43 239 000	49 668 000	53 646 900
Brunei	8 504 468	8 249 257	7 889 806	7 500 000*	...
China	14 830 000	22 010 000	30 030 000	28 500 000	27 230 000
India (b)	5 522 334	6 478 383	528 086	...	...
Indonesia	54 894 367	50 055 502	39 126 096	44 454 043	39 133 463
Iran (a)	108 502 000*	73 316 000*	65 998 000*	56 018 000*	69 455 000*
Iraq	35 525 000	42 036 000	54 391 000*	66 651 000*	...
Kuwait	27 561 932	33 402 731	24 107 000	40 716 000*	...
Malaysia	14 223 964	16 497 360	16 722 986	19 297 000	18 111 170
Oman	17 440 000	18 358 000	22 376 000	25 343 000*	...
Qatar	13 480 912	17 268 000	13 513 000	15 147 000*	...
Saudi Arabia	196 229 411	159 340 130	108 390 692	164 060 513	121 105 806
Singapore	465 106	331 656	198 777	184 347	111 289
of which: Re-exports	465 106	330 811	85 202	89 900	97 893
Syria	5 864 738	5 126 778	4 445 449	3 968 469	...
United Arab Emirates	52 643 000	48 857 000*	51 344 000*	59 088 000*	...
Australia	137 991	3 095 421	6 229 600	4 015 600	5 670 400
New Zealand (c)	—	—	115 666	357 491	92 979

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

(b) Years ended 31 March following that stated

(c) Years ended 30 June of that stated

(d) Re-exports

Imports of Crude Petroleum

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom	22 802 643	25 002 401	26 869 737	32 182 351	33 109 328
Belgium-Luxembourg	19 984 899	17 869 509	15 464 760	21 493 630	23 872 531
Denmark	5 312 434	5 296 283	4 806 490	4 302 879	4 286 750
France	69 207 937	72 112 223	68 694 509	66 440 317	63 043 635
Germany, Federal Republic of	65 212 699	66 933 641	64 193 086	66 569 034	63 840 159
Greece	11 091 382	9 988 737	12 966 465	10 455 080	13 800 000
Irish Republic	1 064 969	1 171 185	1 322 211	1 400 472	1 528 804
Italy	72 813 911	63 408 561	64 880 757	72 403 264	67 023 444
Netherlands	40 274 160	44 976 426	40 342 992	46 940 080	48 512 517
Portugal	7 247 627	7 546 090	7 063 418	8 163 307	7 890 708
Spain	36 809 954	36 808 184	39 475 257	40 434 467	44 850 096
Austria	5 358 960	5 906 643	6 205 712	6 187 679	6 232 912
Bulgaria	12 500 000*	12 500 000*	12 500 000*	12 500 000*	...
Czechoslovakia	17 100 000	17 200 000	16 900 000	17 800 000	...
Finland	10 303 753	9 343 190	9 827 751	9 934 967	10 685 513
German Democratic Republic	22 648 000	23 236 000	22 802 000	22 250 000	20 949 000
Hungary	8 863 853	8 815 537	7 253 254	7 560 547	8 499 143
Norway	1 758 493	2 025 324	1 507 190	2 111 984	2 781 082
Poland	14 074 000	13 612 000	13 712 000	14 139 000	14 169 000
Romania	12 395 000	13 534 000	14 626 000	17 047 000	...
Soviet Union	13 000 000*	15 000 000*	12 400 000*	14 600 000*	15 000 000*
Sweden	14 857 526	13 791 116	14 366 621	16 372 054	15 411 383
Switzerland	4 046 305	3 973 667	3 810 036	3 917 551	3 895 006
Turkey	14 259 426	15 466 759	15 505 105	16 742 477	19 692 000
Yugoslavia	9 397 515	9 690 063	8 600 466	10 841 501	10 917 193
Canary Islands	5 498 185	4 973 235	4 283 112	3 903 461	3 935 314
Ethiopia	733 050	730 674	757 743	749 630	788 513
Ghana	1 050 000*	1 040 000*	1 050 000*	1 070 000*	...
Ivory Coast	1 062 192	846 518	1 489 727	1 400 000*	...
Kenya	1 849 725	1 874 257	1 951 997	2 006 049	2 102 564
Liberia	350 000*	360 000*	355 000*	...	...
Madagascar	500 153	197 104	297 457	113 379	244 099
Morocco	4 157 646	4 581 284	5 024 916	4 507 338	4 836 221
Mozambique	88 216	130 000*	...	...	...
Senegal	930 016	1 045 618	621 126	840 337	859 800
Sierra Leone	115 028	225 660	196 161	409 000*	...
Somalia	395 000*	350 000*	375 000*	370 000*	...
South Africa	18 000 000*	17 500 000*	17 500 000*	17 500 000*	...
Sudan	718 486	579 949	650 000*	600 000*	...
Tanzania	298 197	508 908	535 380	534 384	509 773
Togo	320 000*	...	...	...	...
Tunisia	400	—	22 793	412 867	423 199
Zaire	179 062	180 000*	185 000*	110 000*	...
Zambia	710 000*	582 752	720 547	700 000*	...
Bahamas	15 962 682	13 212 183	7 505 512	9 030 903	...
Barbados	125 461	122 055	113 981	170 000*	...
Canada	13 321 612	13 554 747	14 464 163	18 396 615	19 856 397
Costa Rica	377 634	366 407	428 291	638 118	560 805
Cuba	6 861 100	7 235 300	8 046 400	8 000 000*	...
Dominican Republic	1 569 881	1 784 391	1 713 618	1 761 772	...
El Salvador	731 480	1 549 452	633 568	635 000*	...
Guatemala	430 434	1 639 201	1 557 643	...	...
Honduras	387 307	201 378	543 191	210 897	300 000*
Jamaica	1 119 837	653 408	974 052	2 390 222	659 335
Martinique	315 372	335 466	245 529	410 064	551 342
Netherlands Antilles	21 945 000	19 257 000	5 662 000	7 729 000	9 867 000
Nicaragua	500 440	422 243	965 173	...	...
Panama	1 643 018	1 473 428	1 241 975	967 541	1 347 741
Trinidad and Tobago	99 045	50	197 141	34	248 729
USA	173 550 459	177 025 821	169 110 946	219 298 518	234 068 069
Brazil	36 451 896	32 243 757	26 798 497	29 777 240	30 946 000
Chile	1 867 745	1 940 656	2 118 303	2 733 994	...
Colombia	2 034 343	1 489 240	992 137	—	—
Paraguay	173 478	162 877	156 848	205 265	255 079
Uruguay	1 235 504	1 282 000	1 073 624	1 360 237	1 131 831

Imports of Crude Petroleum

tonnes

Country	1983	1984	1985	1986	1987
Bahrain	6 583 000*	8 081 000*	7 218 000*	9 958 000	...
Bangladesh	923 172	1 003 938	992 492	902 000	1 000 000
Cyprus	511 928	640 411	502 240	602 545	615 889
India (b)	15 552 000	14 620 000	15 143 488	14 534 000	...
Indonesia	3 371 276	5 607 778	3 675 798	3 826 943	4 184 629
Israel	7 326 000	7 053 000	6 292 000	7 360 000	...
Japan	186 845 724	192 528 887	176 369 002	167 840 928	164 125 425
Jordan	2 545 246	2 442 436	2 264 435	2 285 058	2 537 871
Korea, Republic of	25 307 519	26 758 353	27 072 058	28 837 773	29 241 798
Lebanon	500 000*	760 000*	625 000*	1 120 000*	...
Malaysia	3 071 072	2 553 703	2 252 298	1 933 480	1 563 128
Pakistan	4 018 741	4 108 039	4 364 701	3 727 075	3 714 220
Philippines	8 241 174	7 686 117	6 592 038	7 027 203	8 945 688
Singapore	30 875 283	32 381 136	29 753 982	32 385 635	31 489 670
Sri Lanka	19 453 439	1 918 070	1 658 094	1 638 547	1 778 853
Syria	6 076 426	6 223 190	5 067 089	2 283 195	...
Taiwan	18 711 695	17 696 377	16 255 485	17 163 675	19 244 855
Thailand	7 978 734	7 258 687	7 291 364	7 703 742	8 160 754
Yemen, People's Dem. Rep. of	343 172	37 300	104 800	106 926	9 390
Australia	7 994 736	7 690 965	6 030 700	6 714 000	7 254 000
New Zealand (a)	1 307 138	1 734 032	1 683 713	713 958	1 599 407

(a) Years ended 30 June of that stated

(b) Years ended 31 March following that stated

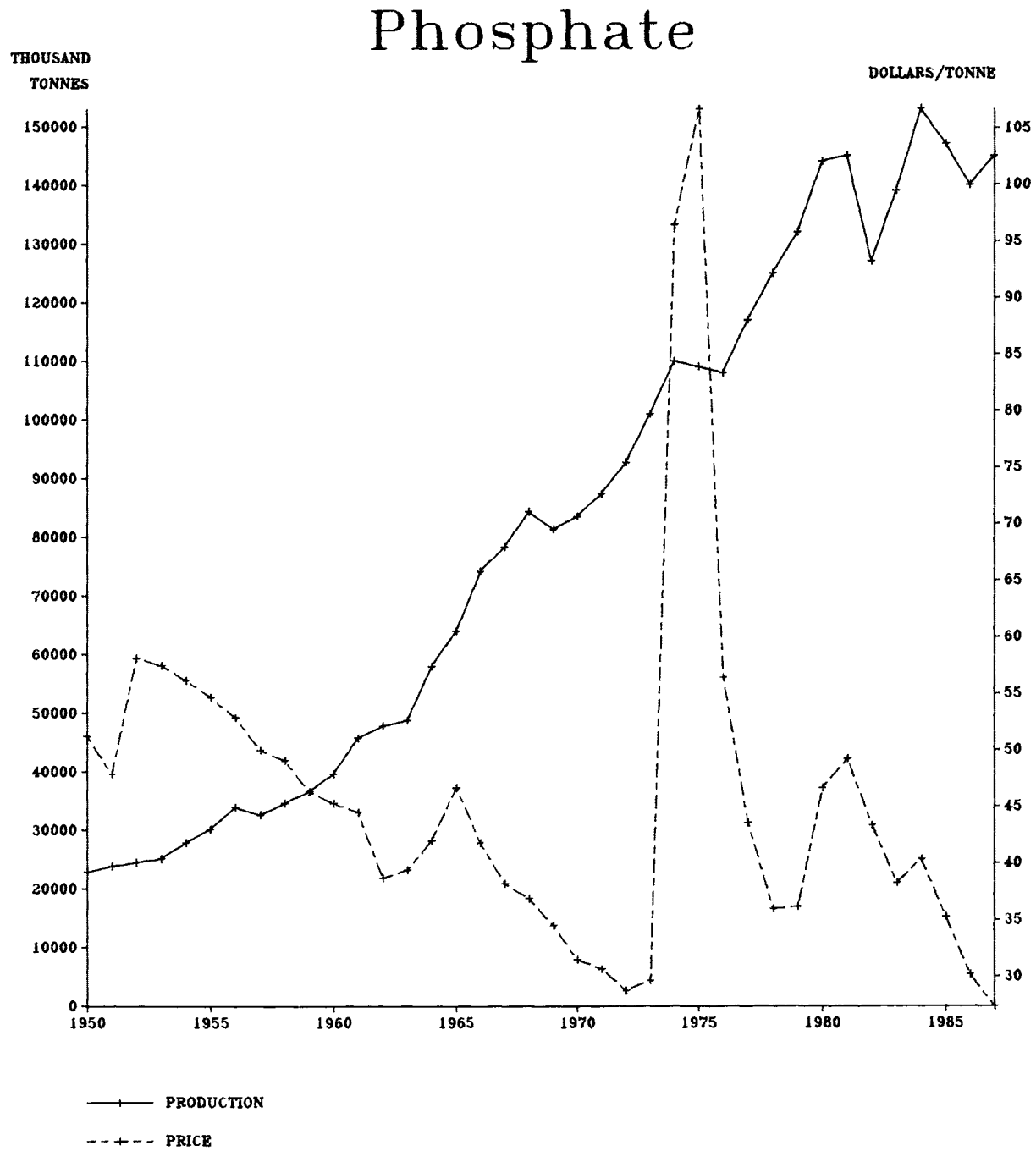


Figure 16 World production of phosphate rock from 1950 to 1987 compared with the yearly average price of Moroccan phosphate f.a.s. Casablanca expressed in constant 1980 US dollars.

Trend-line analysis of the production data indicates a growth rate of approximately 6% per annum over 37 years.

Constant commodity prices (to 1986) taken from *Commodity Trade and Price Trends* published by the Johns Hopkins University Press for the World Bank.

Production of Phosphate Rock

Country	1983	1984	1985	1986	1987
Finland	381 216	477 300	511 500	527 495	553 279
Soviet Union	33 100 000*	33 300 000*	33 755 000*	33 900 000*	34 100 000*
Sweden	106 636	132 700	193 445	186 676	228 000
Turkey	50 350	99 608	38 525	2 700	19 200
Algeria	892 800	1 000 200	1 207 700	1 203 300	1 073 200
Egypt	584 446	710 342	748 126	769 160	580 061
Morocco	19 842 300	21 351 000	20 779 000	21 427 000	21 270 172
Senegal					
Phosphate rock	1 255 209	1 932 000	1 813 280	1 875 628	1 873 748
Aluminium phosphate (a)	251 274	279 000	355 266	131 300	191 090
South Africa	2 887 034	2 496 038	2 433 375	2 922 500	2 623 100
Tanzania	20 100	14 500	21 039	10 028	18 386
Togo	2 080 674	2 695 600	2 451 700	2 313 900	2 543 933
Tunisia	5 924 000	5 319 000	4 505 000	5 800 000	6 215 000
Zimbabwe	132 911	134 447	135 061	135 592	154 827
Mexico	785 038	652 651	786 500	800 000*	800 000*
Netherlands Antilles (b)	3 525	20 219	27 992	22 702	22 291
USA	42 573 000	49 197 000	50 835 000	40 320 000	40 954 000
Brazil (d)	3 240 603	3 827 223	4 170 680	4 544 000	4 912 000
Chile					
Phosphate rock	935	4 606	7 110	6 684	10 154
Guano	129	—	3 150	7 546	5 678
Colombia	16 944	11 480	24 249	28 624	13 074
Peru	2 510	12 694	12 216	5 200	63 000
Venezuela	8 216	3 265	8 567	194 221	104 000
China	11 630 000	14 210 000	6 974 000	9 500 000*	9 500 000*
Christmas Island (b) (c)	1 036 081	1 257 576	1 187 225	880 115	846 800
India	790 804	883 258	925 061	667 070	679 419
Indonesia	5 573	1 917	525	601	2 592
Iraq	1 199 000*	1 000 000*	1 000 000*	1 000 000*	1 000 000*
Israel	1 965 700	2 064 500	2 195 300	2 518 000	2 731 000
Jordan	4 745 931	6 119 591	6 067 139	6 249 223	6 845 400
Kampuchea, Democratic	5 000*	5 000*	5 000*	—	—
Korea, Dem. P.R. of	500 000*	500 000*	500 000*	500 000*	500 000*
Pakistan	610	142	8 783	31 094	72 782
Philippines					
Phosphate rock	4 135	7 488	8 848	1 656	...
Guano	610	552	1 318	3 466	...
Sri Lanka	15 726	13 685	17 295	14 977	21 305
Syria	1 231 000	1 515 000	1 224 000	1 606 000	1 986 000
Thailand	5 158	3 075	4 072	4 940	4 502
Vietnam	200 000*	200 000*	250 000*	300 000*	320 000*
Australia	4 868	15 345	33 116	33 659	11 294
Nauru (b)	1 684 000	1 358 520	1 508 200	1 493 600	1 375 500
World total	139 000 000	153 000 000	147 000 000	142 000 000	144 000 000

(a) Including lime phosphates

(b) Exports

(c) Including phosphate dust

(d) Including beneficiated and directly shipped material

Phosphates

Exports of Phosphate Rock

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom	10 393	20 253	607	407	326
Belgium-Luxembourg	28 715	19 287	26 761	17 604	30 822
Denmark	333	1 789	1 713	1 369	10 467
France	4 953	1 931	4 239	3 202	4 065
Germany, Federal Republic of	1 925	2 446	9 824	2 482	2 989
Netherlands	39 478	32 944	57 174	21 876	137 637
Soviet Union (c)	4 016 000*	3 777 000*	3 175 000*	2 451 000*	2 581 000*
Sweden	77 198	91 286	98 426	132 725	142 096
Algeria	559 586	547 230	715 182	785 363	799 500
Egypt	200 802	77 600	141 705	71 770	179 500
Morocco	13 976 192	14 951 346	14 789 875	13 696 128	13 061 333
Senegal					
Calcium phosphate	1 268 529	1 449 668	1 260 886	1 319 474	845 789
Aluminium phosphate	69 072	64 347	70 153	60 489	52 284
South Africa	251 214	471 723	694 824	...	...
Togo	2 007 744	2 761 000	2 444 800	2 266 300	2 508 500
Tunisia	1 208 681	1 140 360	1 114 864	1 205 752	1 241 277
Mexico	21 846	—	353	...	...
Netherlands Antilles	3 525	20 219	27 992	22 702	22 291
USA	12 197 310	11 319 562	10 284 000	9 176 000	8 454 000
Christmas Island (a)	1 036 081	1 257 576	1 187 225	880 115	846 800
Israel (b)	1 916 879	2 071 012	2 219 084	2 351 399	2 369 093
Jordan	3 701 053	4 695 015	4 609 710	5 197 665	5 543 685
Singapore	14 395	5 095	3 499	2 605	898
of which: Re-exports	12 298	4 723	3 021	2 605	898
Syria	1 002 104	951 055	794 246	1 262 299	1 604 000
Australia	4 618	26 312	10 034	22 800	15 000
Nauru	1 684 000	1 358 520	1 508 200	1 493 600	1 375 500

(a) Including phosphate dust

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

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

Imports of Phosphate Rock

Country	1983	1984	1985	1986	1987
United Kingdom	1 489 067	1 340 133	1 159 512	936 153	758 084
Belgium-Luxembourg	2 316 777	2 472 435	2 482 188	2 286 726	2 522 224
Denmark	286 185	315 972	328 663	198 473	234 464
France	4 516 315	4 652 290	4 254 324	3 566 714	3 754 537
Germany, Federal Republic of	2 031 054	1 933 425	1 943 064	1 579 045	1 444 894
Greece	126 193	379 040	202 829	356 999	751 589
Irish Republic	3 405	7 369	7 239	5 105	2 813
Italy	1 553 599	1 448 556	1 295 729	1 388 856	1 302 576
Netherlands	2 158 927	2 366 108	2 388 066	2 053 253	2 212 428
Portugal	301 863	364 752	342 282	307 603	324 888
Spain	2 484 904	2 887 721	2 775 044	3 700 779	2 832 571
Austria	442 367	470 133	424 530	421 837	350 134
Bulgaria	836 501	755 549	722 898	629 255	520 900
Czechoslovakia (a)	281 000	276 000	282 000	273 000	255 000
Finland	443 613	387 694	383 000	190 800	136 200
German Democratic Republic (a)	418 800	425 200	424 000	437 300	368 300
Hungary	648 880	645 820	575 883	585 147	712 200
Norway	414 847	507 213	452 112	445 807	475 426
Poland	3 176 000	2 965 000	3 261 000	2 970 000	3 482 000
Romania (a)	989 000	910 000*	947 100	945 000*	890 000*
Sweden	724 394	774 193	749 688	588 417	739 838
Switzerland	5 873	6 423	6 247	5 063	5 237
Turkey	922 641	727 758	682 049	702 401	813 580
Yugoslavia	1 801 832	1 438 167	1 312 471	1 439 150	1 373 803
Ivory Coast	7 575	4 882	7 793	7 400	...
Mozambique	3 000	3 000	...	...	...
Nigeria	14 000	17 000	11 000	7 400	...
Tanzania	15 557	23 000	15 000	...	...
Zimbabwe	27 758	7 971	—	11 939	6 747
Canada	2 625 389	3 142 653	2 621 667	2 355 683	1 968 225
Mexico	1 115 000	1 250 758	1 038 488	1 096 763	1 345 432
USA	8 811	23 223	35 049	527 776	466 562
Brazil	5	9 449	31 678	119 237	152 675
Chile	—	6 066	18 948	13 871	...
Colombia	51 444	37 425	40 608	51 127	46 300
Uruguay	18 856	35 967	42 000	35 422	89 700
Venezuela	34 463	54 909	72 545	59 639	54 926
Bangladesh	145 000	93 000	123 000	157 100	162 000
China	579 000	619 000	286 000	338 400	312 800
India	1 396 000	1 680 000	1 867 000	1 867 600	1 996 400
Indonesia	361 759	636 509	817 432	717 571	1 195 638
Japan	2 437 819	2 322 869	2 413 608	2 076 190	2 159 958
Korea, Dem. P.R. of	167 000	41 000	50 000	144 400	90 000
Korea, Republic of	1 591 814	1 651 629	1 770 968	1 606 721	1 702 440
Malaysia	274 539	284 629	374 644	283 857	384 588
Pakistan (b)	237 076	280 621	246 979	191 855	115 573
Philippines	10 588	13 574	306 130	1 286 548	1 034 936
Saudi Arabia	345	—	9 604	17 177	4 298
Singapore	16 149	9 528	5 219	4 920	3 445
Sri Lanka	9 406	20 110	24 025	13 434	18 718
Taiwan	228 636	367 089	308 858	330 763	361 188
Australia	2 198 005	1 606 414	1 810 000	1 690 000	1 666 000
New Zealand (b)	915 071	898 605	924 638	484 595	338 178

(a) P₂O₅ content

(b) Years ended 30 June of that stated

Mine Production of Platinum Group Metals

kilograms (metal content)

Country	1983	1984	1985	1986	1987
Finland					
Platinum (a)	68	33	67	120	120
Palladium (a)	71	34	60	96	89
Soviet Union					
Platinum	28 000*	29 000*	30 000*	31 000*	32 000*
Palladium	75 000*	77 000*	79 000*	81 000*	83 000*
Yugoslavia					
Platinum (a)	6	13	3	0	22
Palladium (a)	91	108	87	85	132
Ethiopia (c)	2	0	0	2	1
South Africa	83 606*	106 557*	115 000*	123 000*	131 000*
Zimbabwe					
Platinum	53	24	19	26	18
Palladium	74	38	30	35	29
Canada (b)	6 965	10 369	10 534	12 190	10 930
USA					
Platinum	(d) 195	(d) 455	(d) 470	(d) 500	1 000*
Palladium	...	...	...	...	2 600*
Colombia	320	314	362	447	699
Japan					
Platinum (a)	667	607	691	663	753
Palladium (a)	1 155	1 051	1 359	1 453	1 417
Australia					
Platinum	52	66	95	115	84
Palladium	449	523	476	428	451
World total	197 000	226 000	238 000	251 000	264 000

Notes

- (1) Wherever possible, figures relate to quantities of platinum group metals thought to be recovered from ores originating in the country stated
- (2) Figures for metal production are only given for countries where recovery is thought to be based predominantly on domestic materials or on imported materials which have not been recorded as mine production elsewhere in the table
- (3) In addition to the countries listed, Bulgaria, China, Indonesia, Papua New Guinea and Philippines are 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
- (d) Including palladium

Exports of Platinum Group Metals

Country	1983	1984	1985	1986	1987
United Kingdom					
Platinum	29 933	31 137	30 605	33 277	27 388
Palladium	11 828	16 530	16 374	20 252	14 865
Other platinum metals	5 199	5 589	7 005	11 311	6 485
Waste & scrap	80	7 003	2 188	290	25 925
Belgium-Luxembourg					
Platinum	30 952	2 239	1 931	3 770	2 405
Platinum metals	6 200	6 757	7 206	7 696	6 880
Waste & scrap	£6 681 000	£3 774 000	£2 719 000	£4 400 000	£3 384 000
Denmark					
Platinum	128	76	75	95	55
Waste & scrap	1 319	918	944	285	1 810
France					
Platinum	20 639	33 513	6 267	3 471	4 417
Platinum metals	2 241	2 742	3 219	4 942	7 066
Waste & scrap	6 507	3 146	29 111	28 203	178 800
Germany, Federal Republic of					
Platinum	7 004	9 287	8 654	9 393	13 189
Palladium	3 584	5 057	5 823	4 878	5 192
Other platinum metals	3 179	4 477	5 028	4 824	5 546
Waste & scrap	212	43	44 573	999	277
Irish Republic					
Platinum & platinum metals	930	415	414	614	997
Italy					
Platinum	3 853	95 527	1 537	2 253	966
Platinum metals	1 066	766	904	1 968	2 105
Netherlands					
Platinum	1 234	1 719	1 672	1 263	1 232
Platinum metals	721	717	556	571	534
Waste & scrap	7 000	14 000	4 000	6 000	8 000
Portugal					
Platinum & platinum metals	34	192	406	300	...
Spain					
Platinum & platinum metals	15 457	325	220	149	78
Austria					
Platinum & platinum metals	357	13 295	413	467	740
Finland					
Platinum & platinum metals	80	36	15	547	12
Norway					
Platinum & platinum metals	1 270	1 385	1 549	1 601	1 975
Soviet Union					
Platinum & platinum metals (a)	53 500*	58 000*	46 900*	58 300*	76 900*
Sweden					
Platinum & platinum metals	£2 708 500	£1 382 700	£954 300	£1 334 000	£749 000
Switzerland					
Platinum	24 053	38 988	31 057	28 470	37 741
South Africa					
Platinum & platinum metals (a)	73 900*	91 100*	95 000*	99 800*	111 900*
Waste & scrap (a)	2 200*	500*	1 100*	800*	3 500*
Canada					
Ores & concentrates (b)	5 757	8 465	7 174	9 062	7 763
Platinum metals	3 151	4 260	6 015	3 662	4 506
of which: Re-exports	276	353	243	68	166
Waste & scrap	1 219	5 109	8 527	7 519	6 696
USA					
Ores & concentrates (b)	1 096	1 331	195	1 157	172
Platinum	7 597	5 651	6 376	3 773	5 675
of which: Re-exports	3 276	133	700	877	3 114
Palladium	5 748	6 350	7 173	6 608	6 855
of which: Re-exports	908	667	466	1 146	1 132
Other platinum metals	2 447	5 774	2 987	3 679	6 205
of which: Re-exports	230	623	258	990	1 847
Waste & scrap	24 139	17 535	12 219	11 730	10 545

Exports of Platinum Group Metals

kilograms

Country	1983	1984	1985	1986	1987
Colombia					
Platinum	75	908	1 434	1 010	...
China					
Platinum & platinum metals (a)	500*	150*	250*	400*	500*
Hong Kong					
Platinum & platinum metals (c)	272	431	829	619	2 642
Japan					
Platinum	1 017	1 192	1 481	659	388
Platinum metals	3 918	2 449	2 484	1 632	2 268
Australia					
Platinum & platinum metals	296	18 695	290	1 049	6 723
of which: Re-exports	55	18 133	73	...	...

Notes

(1) 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

(c) Re-exports

Imports of Platinum Group Metals

Country	1983	1984	1985	1986	1987
United Kingdom					
Platinum	5 658	6 084	13 009	10 322	10 425
Palladium	3 609	3 995	6 361	13 058	10 575
Other platinum metals	998	2 127	2 981	3 608	5 004
Waste & scrap	67 137	15 709	17 034	18 858	18 577
Belgium-Luxembourg					
Platinum	1 558	1 564	1 420	1 456	1 268
Platinum metals	497	525	445	556	477
Waste & scrap	£4 204 000	£5 370 000	£7 626 000	£9 254 000	£8 533 000
Denmark					
Platinum & platinum metals	664	840	639	691	726
France					
Platinum	3 582	10 863	6 241	5 375	5 436
Platinum metals	22 378	5 150	5 559	6 182	5 132
Waste & scrap	1 467	1 830	16 237	3 146	2 300
Germany, Federal Republic of					
Platinum	15 300	17 144	19 553	17 750	23 888
Palladium	11 123	17 656	19 333	18 109	17 081
Other platinum metals	5 305	8 410	4 609	5 425	5 127
Waste & scrap	49 951	41 868	74 551	87 922	122 240
Greece					
Platinum & platinum metals	£593 000	£1 008 000	£1 103 000	£1 038 000	...
Irish Republic					
Platinum & platinum metals	866	1 249	350	653	2 267
Italy					
Platinum	2 489	2 502	3 003	3 363	3 246
Platinum metals	2 775	3 372	3 291	3 903	4 025
Waste & scrap	305	514	600	1 339	3 900
Netherlands					
Platinum	1 643	1 653	1 384	777	892
Platinum metals	1 098	1 213	1 454	1 907	2 356
Portugal					
Platinum & platinum metals	157	249	366	200	...
Spain					
Platinum & platinum metals	15 186	617	610	1 304	1 165
Waste & scrap	764	868	1 000	1 000	325
Austria					
Platinum & platinum metals	513	453	1 262	1 314	2 420
Bulgaria					
Platinum & platinum metals (e)	700*	500*	800*	1 100*	700*
Czechoslovakia					
Platinum & platinum metals (e)	50*	20*	250*	250*	100*
Finland					
Platinum & platinum metals	73	106	96	123	334
German Democratic Republic					
Platinum & platinum metals (e)	500*	700*	1 900*	2 200*	1 700*
Hungary					
Platinum & platinum metals (e)	300*	300*	300*	400*	300*
Norway					
Platinum & platinum metals	456	786	679	669	786
Poland					
Platinum & platinum metals (e)	200*	400*	300*	900*	1 400*
Romania					
Platinum & platinum metals (e)	50*	150*	50*	160*	250*
Sweden					
Platinum & platinum metals	3 000	2 000	3 000	3 000	3 000
Switzerland					
Platinum	37 949	55 501	37 247	36 028	48 225
Turkey					
Platinum & platinum metals	6 441	244	350	424	...
Yugoslavia					
Platinum	£900 000	£1 165 000	£1 450 000	£1 082 000	£1 084 000

Imports of Platinum Group Metals

kilograms

Country	1983	1984	1985	1986	1987
Algeria					
Platinum & platinum metals	194	132	136	22	...
Nigeria					
Platinum & platinum metals	...	107	—	3	...
South Africa					
Platinum & platinum metals	1 451	2 940	2 310	...	...
Canada					
Platinum & platinum metals (c)	2 191	2 235	2 034	4 212	3 377
Costa Rica					
Platinum & platinum metals	278	332	198	31	5
Mexico					
Platinum	3	5	6	...	...
Palladium	33	69	39	...	...
Other platinum metals	13	2	80	...	...
Trinidad and Tobago					
Platinum & platinum metals	65	34	37	13	5
USA					
Ores & concentrates (d)	194	10	254	74	56
Platinum	34 933	50 292	48 669	56 582	36 431
Platinum metals					
Palladium	41 437	60 776	46 075	46 710	52 275
Iridium, osmium & osmiridium	811	695	928	1 264	612
Rhodium	4 081	4 842	6 257	5 570	6 577
Ruthenium	5 089	6 167	5 066	5 492	2 625
Unspecified	591	275	1 812	655	248
Waste & scrap	12 984	16 384	16 506	31 522	19 438
Argentina					
Platinum	27	27	9	23	...
Palladium	60	100	39	36	...
Other platinum metals	81	406	83	8	...
Brazil					
Platinum	61	124	115	215	...
Palladium	478	357	642	...	...
China					
Platinum & platinum metals (e)	100*	150*	500*	800*	1 700*
Hong Kong					
Platinum & platinum metals	335	1 226	1 367	587	1 683
India (a)					
Platinum	...	...	403	...	...
Indonesia					
Platinum & platinum metals	325	4	34	2	245
Iran (f)					
Platinum & platinum metals	£65 000	£37 000	...	...	...
Israel					
Platinum metals	£683 000	£915 000	£821 000	£1 415 000	£1 247 000
Japan					
Platinum	29 869	37 452	40 494	30 935	52 801
Platinum metals	37 509	43 748	39 072	47 824	53 964
Waste & scrap	579	1 710	2 664	3 179	6 688
Jordan					
Platinum	3 050	4 593	38	30	40
Korea, Republic of					
Platinum & platinum metals	635	3 385	399	590	465
Malaysia					
Platinum & platinum metals	1 734	1 969	553	25 963	10 651
Singapore					
Platinum	283	56	1 065	474	1 055

Imports of Platinum Group Metals

Country	1983	1984	1985	1986	1987
Taiwan					
Platinum & platinum metals	1 763	2 482	2 133	599	1 053
Thailand					
Platinum & platinum metals	47	865	6	59	443
Australia					
Platinum metals	1 904	576	1 216	968	5 848
New Zealand (b)					
Platinum & platinum metals	37	116	144	86	61

Notes

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

- (a) Years ended 31 March following that stated
- (b) Years ended 30 June of that stated
- (c) Derived from Canadian ores and concentrates exported for treatment
- (d) Platinum metals content
- (e) BGS estimates, based on known exports from certain countries
- (f) Years ended 20 March following that stated

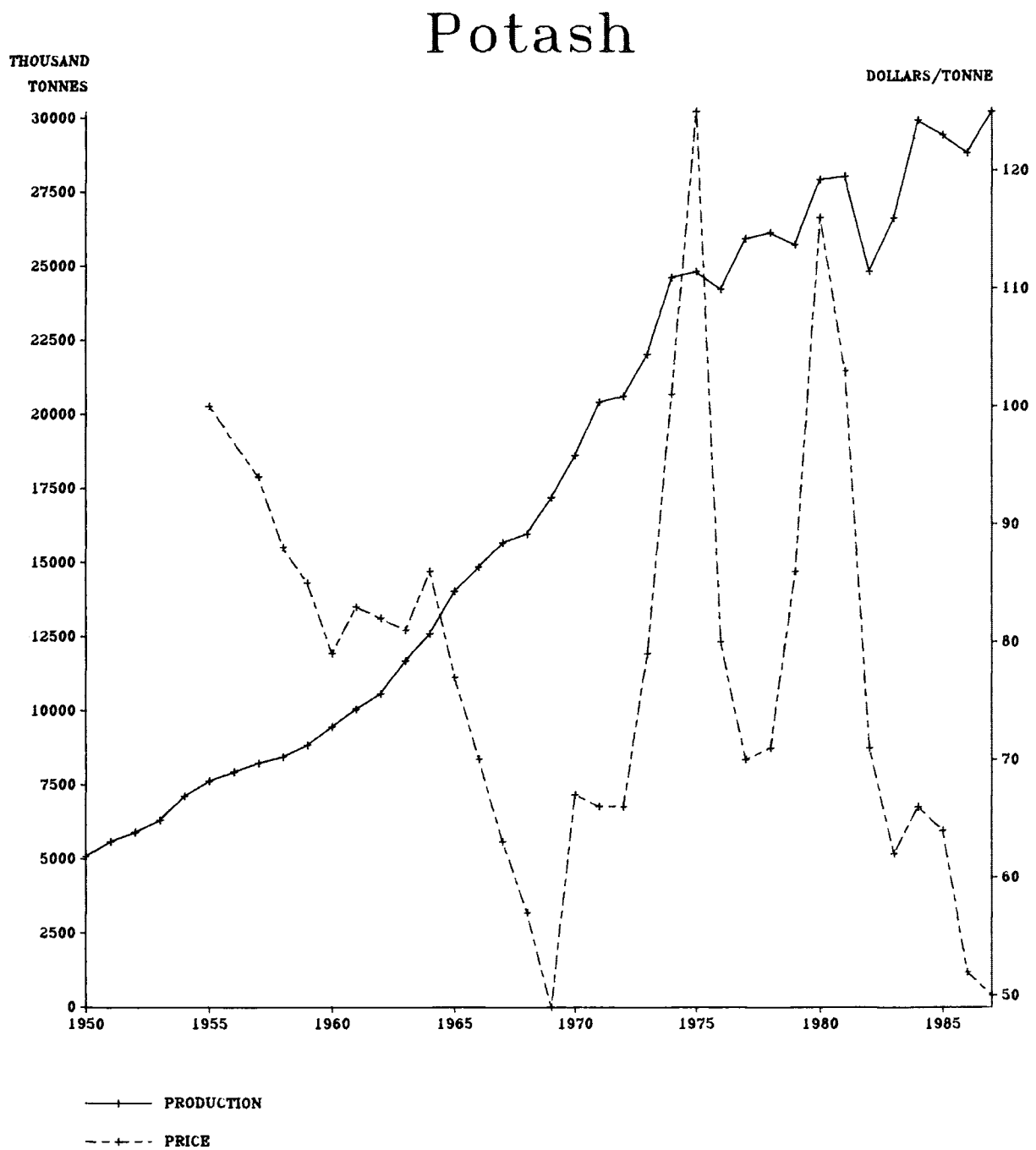


Figure 17 World production of potash (K_2O) from 1950 to 1987 compared from 1955 with the annual price (Vancouver) expressed in constant 1980 US dollars.

Trend-line analysis of the production data indicates a growth rate of approximately 6% per annum over 37 years.

Constant commodity prices derived from those quoted in International Financial Statistics Yearbook (1988), using the CPI for the USA from the same source.

Production of Potash

Potash
tonnes (K₂O content)

Country	1983	1984	1985	1986	1987
United Kingdom					
Chloride	318 213	335 440	354 496	416 965	450 345
France					
Potassic salts	1 651 000	1 873 000	1 882 000	1 748 000	1 665 000
Germany, Federal Republic of					
Potassic salts	2 419 000	2 645 000	2 583 000	2 161 000	2 199 000
Italy					
Potassic salts	178 310	162 958	204 177	157 958	177 834
Spain					
Potassic salts	773 174	791 082	761 057	701 953	714 902
German Democratic Republic					
Potassic salts	3 431 000	3 465 000	3 465 000	3 485 000	3 510 000
Soviet Union	9 294 000	9 776 000	10 367 000	10 200 000	10 900 000
Canada					
Chloride	6 294 000	7 527 000	6 661 077	6 752 709	7 668 000
USA					
Potassic salts	1 429 000	1 564 000	1 296 000	1 202 000	1 262 000
Chile					
Nitrate	21 300*	18 500*	21 000*	20 600*	23 100*
China	29 000*	40 000*	40 000*	40 000*	40 000*
Israel					
Chloride	1 000 000*	1 100 000*	1 130 000	1 255 000	1 253 000
Jordan	172 000	295 000	561 000	660 000*	722 000
World total	27 000 000	29 600 000	29 300 000	28 800 000	30 600 000

Potash

Exports of Potash

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Chloride	145 704	96 633	78 547	94 929	327 485
Other potassic fertilisers	288	2 305	1 132	900	1 594
Potassic chemicals	1 398	6 116	4 874	4 023	6 214
Belgium-Luxembourg					
Fertiliser salts	...	765	382	2 127	1 024
Sulphate (b)	223 500*	248 000*	325 000*	315 900*	341 400*
Chloride	...	...	15 328	29 572	107 714
Other potassic fertilisers	...	4 233	4 361	5 519	5 130
Potassic chemicals	2 051	3 131	2 845	2 181	1 994
France					
Fertiliser salts	11 088	3 378	7 889	6 710	7
Chloride	433 980	425 826	411 129	288 716	419 134
Other potassic fertilisers	22 527	32 049	22 594	20 563	19 779
Potassic chemicals	2 497	1 749	3 166	7 306	5 476
Germany, Federal Republic of					
Fertiliser salts	38 254	42 459	47 006	43 401	47 958
Potassic fertilisers	2 193 135	2 595 451	2 322 673	2 177 290	2 297 189
Potassic chemicals	37 212	42 548	43 278	40 649	39 174
Greece					
Potassic fertilisers	—	22 739	33 110	58 175	...
Italy					
Sulphate	86 143	126 802	111 027	66 291	56 733
Other potassic fertilisers	1 682	3 085	390	285	1 904
Potassic chemicals	5 183	5 364	2 025	1 951	2 969
Netherlands					
Sulphate (a)	520	97	1 331	276	296
Chloride (a)	2 209	1 421	2 372	5 999	44 039
Potassic chemicals	1 750	2 708	3 414	3 090	3 603
Portugal					
Potassic fertilisers	0	2	752	110	12
Spain					
Sulphate	66 529	68 502	61 075	86 746	58 479
Chloride	662 595	518 391	501 184	395 562	627 730
Potassic chemicals	11 872	10 190	8 127	9 355	8 423
Czechoslovakia					
Potassic chemicals (b)	25 000*	17 100*	9 600*	3 700*	1 600*
German Democratic Republic					
Fertiliser salts (a)	2 905 000	2 776 000	2 791 000	2 814 000	2 894 000
Poland					
Potassic chemicals	...	3 026	4 476	4 310	...
Romania					
Potassic chemicals (b)	50 300*	34 300*	59 200*	51 100*	25 000*
Soviet Union					
Fertiliser salts	4 512 795	5 435 118	5 455 746	5 127 007	5 412 162
Sweden					
Potassic chemicals	5 260	5 650	4 632	...	...
Switzerland					
Potassic chemicals	308	1 376	1 684	1 061	844
Yugoslavia					
Potassic chemicals	2 728	2 135	632	873	882
Canada					
Chloride	9 411 941	11 493 880	9 981 058	9 894 211	10 983 658
USA					
Sulphate	177 760	214 480	273 290	316 673	414 830
Chloride	385 980	621 820	699 770	708 357	511 590
Potassic chemicals	10 120	10 513	13 389	19 114	22 868
Chile					
Fertiliser salts	140 352	100 509	113 508	108 215	94 478
China					
Potassic chemicals (b)	1 500*	1 200*	1 000*	2 100*	5 600*
Hong Kong					
Potassic chemicals (c)	426	555	234	811	1 721

Exports of Potash

Potash
tonnes

Country	1983	1984	1985	1986	1987
Israel					
Chloride (b)	1 052 900*	1 196 400*	1 186 400*	1 179 900*	1 225 300*
Other potassic fertilisers (b)	174 400*	224 300*	225 600*	186 400*	142 600*
Potassic chemicals (b)	86 800*	101 700*	107 700*	100 900*	108 700*
Japan					
Potassic fertilisers	58	580	82	310	384
Potassic chemicals	8 001	4 751	7 780	8 985	10 485
Jordan					
Fertiliser salts	2 555	458 232	844 773	1 205 056	1 243 928
Korea, Republic of					
Sulphate	8 419	24 156	22 544	27 419	19 493
Other potassic fertilisers	1 970	4 310	4 917	9 258	21 679
Potassic chemicals	4 300	6 573	4 871	7 399	9 292
Singapore					
Sulphate	4 519	4 553	5 022	5 143	1 918
of which: Re-exports	4 519	4 553	5 022	5 143	1 918
Chloride	8 102	6 485	16 755	13 625	12 267
of which: Re-exports	8 002	6 405	16 754	13 625	12 265
Other potassic fertilisers	192 808	157 790	152 238	122 600	125 807
of which: Re-exports	192 759	157 675	151 635	122 454	125 607
Taiwan					
Potassic fertilisers	10 250	6 600	12 600	25 855	34 511
Potassic chemicals	1 256	693	997	1 016	1 063

Notes

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

(c) Re-exports

Imports of Potash

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Fertiliser salts	25 720	36 038	30 424	32 144	25 912
Chloride	472 538	509 166	574 494	470 885	521 274
Other potassic fertilisers	11 892	12 951	7 728	7 764	7 834
Potassic chemicals	23 303	25 530	26 975	27 377	30 146
Belgium-Luxembourg					
Fertiliser salts	...	32 653	40 155	39 460	38 646
Sulphate	...	27 729	31 771	32 799	48 693
Chloride	...	...	1 077 430	1 066 949	1 308 403
Other potassic fertilisers	...	18 418	27 945	155 690	22 912
Potassic chemicals	11 345	11 263	13 725	13 696	12 351
Denmark					
Fertiliser salts	1 275	2 750	3 376	2 761	2 667
Sulphate	30 467	42 405	53 793	45 612	39 109
Chloride	231 526	245 684	234 532	217 429	240 420
Potassic chemicals	4 629	5 970	6 989	7 508	7 140
France					
Sulphate	146 296	160 925	170 005	151 572	162 211
Chloride	705 431	702 795	767 872	664 553	1 115 053
Potassic chemicals	22 492	21 957	21 817	24 367	29 117
Germany, Federal Republic of					
Chloride	82 992	79 962	75 965	64 364	149 060
Potassic chemicals	15 159	26 055	27 712	18 209	18 840
Greece					
Sulphate	3 597	39 823	37 544	51 818	159 971
Potassic chemicals	4 786	6 159	9 287	5 902	...
Irish Republic					
Sulphate	7 354	9 917	8 524	4 436	3 600
Chloride	295 984	322 772	318 289	235 034	297 680
Other potassic fertilisers	10	126	1 657	310	548
Italy					
Fertiliser salts	11 687	10 757	9 090	7 112	4 632
Sulphate	32 664	44 735	44 454	70 665	77 050
Chloride	563 626	612 727	587 945	606 425	666 059
Other potassic fertilisers	18 852	13 756	15 296	19 759	21 295
Potassic chemicals	28 853	31 995	38 883	27 219	30 418
Netherlands					
Fertiliser salts (a)	322	209	297	377	654
Sulphate (a)	37 736	45 294	47 149	44 979	41 337
Chloride (a)	164 677	175 810	183 428	200 780	285 553
Potassic chemicals	30 297	33 470	40 090	39 776	44 357
Portugal					
Sulphate	3 636	1 000	1 001	1 315	2 573
Chloride	71 050	58 710	56 746	65 459	78 038
Potassic chemicals	2 668	3 820	2 759	2 750	3 487
Spain					
Potassic chemicals	9 044	9 367	13 388	15 846	25 783
Austria					
Fertiliser salts	16 598	11 628	12 868	12 079	10 424
Sulphate	19 866	24 001	28 152	22 757	20 416
Chloride	221 256	225 143	226 825	185 489	163 225
Other potassic fertilisers	4 502	6 536	17 500	7 340	7 829
Potassic chemicals	6 325	6 437	6 799	6 896	7 136
Bulgaria					
Fertiliser salts (c)	132 500*	144 100*	163 000*	188 900*	142 300*
Czechoslovakia					
Fertiliser salts (a)	580 000	556 000	556 000	572 000	551 000
Finland					
Chloride	374 727	405 553	(c) 230 300*	(c) 213 100*	(c) 212 100*
Other potassic fertilisers	171	311	384	364	182
Potassic chemicals	3 521	2 985	4 296	4 314	6 278
Hungary					
Fertiliser salts	2 906	4 135	3 349	2 338	2 257
Potassic fertilisers	1 416 228	1 272 665	1 286 440	1 114 655	432 372
Potassic chemicals	757	942	1 103	1 220	1 509

Imports of Potash

Potash
tonnes

Country	1983	1984	1985	1986	1987
Iceland					
Sulphate	2 851	4 528	1 803	5 781	5 041
Chloride	8 182	5 831	8 194	4 090	4 120
Norway					
Sulphate	78 776	82 057	87 473	97 947	92 449
Chloride	233 462	292 775	255 038	218 791	212 012
Other potassic fertilisers	1 480	820	1 182	926	1 066
Potassic chemicals	2 087	2 158	2 753	3 457	2 189
Poland					
Chloride	...	16 736	18 228	17 993	...
Other potassic fertilisers	1 685 000	2 444 000	2 357 000	2 373 000	2 496 000
Potassic chemicals	...	6 131	5 875	6 027	...
Romania					
Fertiliser salts (a)	337 600	363 000	346 000	459 900	359 000
Sweden					
Fertiliser salts	1 701	1 863	2 175	2 099	1 998
Potassic fertilisers	660	1 098	823	1 301	2 158
Potassic chemicals	3 094	3 798	3 494	3 894	4 485
Switzerland					
Fertiliser salts	96 524	111 788	81 381	71 002	68 464
Potassic chemicals	9 907	12 042	12 603	13 482	13 415
Turkey					
Fertiliser salts	—	0	23 803	20 634	16 881
Sulphate	6 990	9 994	11 946	50 958	8 563
Other potassic fertilisers	31 392	50 533	11 259	39 697	34 524
Potassic chemicals	...	5 750	4 372	6 326	2 808
Yugoslavia					
Sulphate	13 440	18 841	22 294	18 899	17 138
Chloride	533 936	506 950	599 574	559 280	523 319
Potassic chemicals	206 261	153 386	160 887	178 226	141 134
Algeria					
Sulphate	39 612	93 228	89 582	71 585	...
Potassic chemicals	352	521	386	450	...
Cameroon					
Potassic fertilisers	20 160	...	...	...	...
Canary Islands					
Potassic fertilisers	45	5	1 378	4 179	1 532
Potassic chemicals	2 769	1 698	600	1	741
Egypt					
Potassic fertilisers	25 047	73 218	29 082	35 402	...
Gabon					
Fertiliser salts	1 863	128	399	459	...
Potassic fertilisers	1 053	1 207	1 339	1 516	...
Ivory Coast					
Sulphate	8 000	5 547	8 282	...	...
Chloride	33 059	43 407	44 866	...	...
Kenya					
Potassic fertilisers	15 260	2 989	2 733	1 540	1 076
Liberia					
Potassic fertilisers	5	890	235	70	...
Madagascar					
Potassic fertilisers	8 123	6 441	5 133	1 072	4 664
Malawi					
Potassic fertilisers	9 694	4 918	...	...	...
Mauritius					
Potassic fertilisers	21 432	21 632	26 367	21 229	27 605
Morocco					
Sulphate	41 533	43 180	43 748	47 079	34 710
Chloride	34 803	41 129	54 467	41 048	61 176
Potassic chemicals	1 809	946	990	982	971
Mozambique					
Potassic fertilisers	2 400	...	2 530	...	...
Potassic chemicals	3 460	...	...	...	...

Potash

Imports of Potash

tonnes

Country	1983	1984	1985	1986	1987
Niger					
Potassic fertilisers	459	1 161	1 335	2 864	...
Nigeria					
Potassic fertilisers	...	37 451	2 334	6 690	...
Reunion					
Potassic fertilisers	50	50	249	3 700	5 240
Senegal					
Potassic fertilisers	9 141	14 925	24 941	1 160	6 447
South Africa					
Potassic fertilisers	230 354	294 470	292 296	208 068	...
Potassic chemicals	4 704	5 102	5 762	5 483	...
Tunisia					
Potassic fertilisers	7 318	4 665	10 865	15 021	3 501
Zimbabwe					
Sulphate	10 931	12 751	22 423	15 672	20 740
Chloride	18 760	32 858	44 802	28 577	47 685
Belize					
Potassic fertilisers	671	660	71	1 030	2 044
Canada					
Sulphate	15 411	15 644	30 837	29 005	11 814
Chloride	2 277	1 772	707	390	967
Other potassic fertilisers	47 367	68 185	33 687	23 991	51 503
Potassic chemicals	8 834	8 079	8 294	9 786	10 159
Costa Rica					
Potassic fertilisers	36 250	29 663	43 293	54 030	57 559
Cuba					
Sulphate	24 706	19 673	24 281	18 000	...
Chloride	315 502	333 733	390 593	367 000	345 000*
Dominican Republic					
Sulphate	759	1 301	1 119	...	...
Other potassic fertilisers	19 435	17 218	12 657	12 800	25 600
El Salvador					
Potassic fertilisers	240	11	14 646	...	...
Guadeloupe					
Potassic fertilisers	2 873	2 700*	2 900*	...	...
Guatemala					
Potassic fertilisers	6 889	27 454	12 186	...	...
Honduras					
Potassic fertilisers	5 845	9 728	6 727	9 700	13 900
Jamaica					
Potassic fertilisers	6 726	15 048	183	3 096	391
Martinique					
Potassic fertilisers	18 514	21 322	19 854	20 033	4 561
Mexico					
Sulphate	33 975	41 164	37 173	...	...
Chloride	124 482	171 177	170 095	150 000*	120 000*
Nicaragua					
Potassic fertilisers	34 955	28 355	13 573	...	...
Panama					
Potassic fertilisers	6 314	8 600	6 444	9 098	2 485
St. Kitts-Nevis-Anguilla					
Potassic fertilisers	1 383	2 591	...	...	...
Trinidad and Tobago					
Potassic fertilisers	973	8 230	669	3 125	1 281
USA					
Fertiliser salts	33 605	35 106	41 948	46 196	20 100
Sulphate	61 409	55 104	48 788	47 689	57 635
Chloride	7 144 557	7 775 921	7 468 432	6 836 183	6 613 676
Other potassic fertilisers	167	150	99	149	296
Potassic chemicals	16 370	...	27 973	38 611	...
Argentina					
Sulphate	4 252	4 562	2 878	8 299	...
Chloride	6 867	12 685	6 714	11 219	...
Potassic chemicals	3 827	5 415	2 630	7 198	...

Imports of Potash

Potash
tonnes

Country	1983	1984	1985	1986	1987
Brazil					
Sulphate	28 490	48 824	22 292	42 976	...
Chloride	1 188 262	1 745 156	1 777 567	2 234 374	(e) 2 449 753
Potassic chemicals	4 977	11 296	7 886	15 263	...
Chile					
Sulphate (c)	10 000*	12 300*	20 900*	28 300*	19 000*
Chloride (c)	40 000*	44 000*	36 300*	59 100*	14 200*
Colombia					
Sulphate	9 233	11 657	16 267	16 470	...
Chloride	123 366	153 306	157 470	173 707	...
Potassic chemicals	1 769	1 730	2 883	1 874	...
Ecuador					
Chloride	8 650	23 301	19 263	4 667	19 272
Other potassic fertilisers	8 195	4 961	100	2 512	6 944
Guyana					
Potassic fertilisers	1 846	2 000*	2 000*	...	...
Peru					
Sulphate	—	211	4 059	8 611	8 349
Chloride	5 253	8 042	12 355	24 500	45 678
Potassic chemicals	929	852	859	1 367	1 099
Uruguay					
Potassic fertilisers	4 849	5 030	6 339	6 536	5 310
Potassic chemicals	67	108	115	368	505
Venezuela					
Potassic fertilisers	20 057	146 134	256 054	144 569	140 354
Potassic chemicals	1 248	794	1 293	1 811	1 794
China					
Potassic fertilisers (c)	712 000*	817 000*	350 000*	440 000*	1 240 000*
Cyprus					
Potassic fertilisers	271	1 164	1 001	1 061	1 239
Dubai					
Potassic fertilisers	511	996	1 530	984	...
Hong Kong					
Potassic fertilisers	—	4 525	15 000	—	—
Potassic chemicals	859	979	764	1 689	2 181
India (b)					
Fertiliser salts	...	...	55 006	...	...
Chloride	...	...	964 220	...	...
Other potassic fertilisers	...	...	125 357	...	...
Indonesia					
Sulphate	6 601	2 300	1 000	1 700	5 307
Chloride	182 775	163 640	277 594	88 759	206 641
Other potassic fertilisers	66 125	110 490	33 080	1 694	45
Potassic chemicals	3 189	1 982	1 972	1 870	2 323
Japan					
Sulphate	223 754	238 242	197 876	171 347	222 776
Chloride	1 059 323	1 032 574	1 138 094	970 042	1 142 162
Other potassic fertilisers	55 572	74 929	39 460	58 065	74 872
Potassic chemicals	21 191	5 080	3 902	8 410	11 799
Jordan					
Potassic fertilisers	348	18	753	—	—
Korea, Dem. P.R. of					
Potassic fertilisers (c)	99 000*	67 500*	110 100*	23 000*	11 000*
Korea, Republic of					
Sulphate	1 999	—	6 955	—	—
Chloride	308 604	358 851	482 105	429 960	697 864
Other potassic fertilisers	22 920	1	—	—	—
Potassic chemicals	2 738	2 281	1 594	5 174	9 142
Malaysia					
Fertiliser salts	367	244	287	10	184
Sulphate	7 018	11 183	16 890	7 714	9 861
Chloride	86 645	196 322	178 762	229 231	291 726
Other potassic fertilisers	258 643	281 964	314 658	229 510	310 158
Pakistan (d)					
Potassic chemicals	1 313	1 329	2 083	1 678	1 956

Potash

Imports of Potash

tonnes

Country	1983	1984	1985	1986	1987
Philippines					
Sulphate	6 988	6 058	32 471	19 521	19 543
Chloride	40 993	42 963	24 174	66 109	148 489
Other potassic fertilisers	16 235	2 393	1 624	960	2 105
Potassic chemicals	1 433	1 600	2 458	2 546	2 538
Saudi Arabia					
Sulphate	3 998	36 773	23 843	2 497	14 239
Other potassic fertilisers	23 749	44 134	34 548	32 772	34 661
Singapore					
Sulphate	11 510	3 501	22 312	6 613	3 800
Chloride	64 955	10 783	216	8 256	12 037
Other potassic fertilisers	192 670	158 402	166 838	140 667	112 024
Sri Lanka					
Chloride	32 563	26 716	48 287	35 914	55 600
Other potassic fertilisers	36 801	38 615	43 426	24 393	45 599
Syria					
Potassic fertilisers	11 673	19 765	44	10 986	...
Taiwan					
Chloride	152 833	186 908	130 064	212 492	178 217
Potassic chemicals	7 911	8 749	8 645	11 526	16 101
Thailand					
Sulphate	13 015	750	4 050	11 158	19 035
Chloride	424	1 039	3 878	6 477	6 960
Other potassic fertilisers	59 280	39 882	34 089	45 334	63 194
Potassic chemicals	3 599	10 519	3 876	10 674	7 543
Australia					
Sulphate	8 647	11 873	10 471	6 567	10 000*
Chloride	188 591	247 616	193 283	191 673	260 000*
Other potassic fertilisers	7	139	879	1 155	4 000*
Potassic chemicals (d)	10 942	13 545	12 443	...	...
Fiji					
Potassic fertilisers	2 289	5 835	1 792	3 208	...
New Zealand (d)					
Sulphate	1 717	973	1 611	1 140	617
Chloride	123 142	150 811	209 957	107 319	94 883
Other potassic fertilisers	13 654	28 251	31 899	308	2 776
Potassic chemicals	941	2 041	1 726	1 302	1 277

Notes

(1) 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) K_2O content

(b) Years ended 31 March following that stated

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

(d) Years ended 30 June of that stated

(e) Including sulphate

Production of Rare Earth Minerals

Country	1983	1984	1985	1986	1987
Madagascar					
Bastnaesite	25*	25*	9	10*	...
Zaire					
Monazite	15	2	—	—	—
USA					
Bastnaesite (a)	17 083	25 311	13 428	11 094	16 710
Monazite (a) (e)	400*	450*	450*	450*	450*
Brazil					
Monazite	5 256	3 622	3 953	4 000*	4 000*
China (a)	6 000*	8 000*	10 000*	11 860	15 100
India					
Monazite (d)	4 000*	4 000*	4 000*	4 000*	4 000*
Malaysia					
Monazite	(b) 1 034	(b) 1 095	5 808	5 959	2 908
Xenotime	(b) 10	(b) 68	1 124	145	31
Sri Lanka					
Monazite	292	147	200*	17	100
Thailand					
Monazite	257	298	663	1 609	458
Xenotime	38	28	158	28	30
Australia					
Monazite	15 141	16 260	18 735	14 822	12 813
Xenotime	24	66	46	41	5
World total (c)	65 200	81 900	74 500	69 600	78 100
World total (REO content)	39 100*	49 000*	44 200*	41 700*	46 800*

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 the Soviet Union and possibly, on a small scale, in Indonesia, Democratic P. R. of Korea, Mozambique and South Africa

(a) REO content. Assumed to be 60% of concentrates produced

(b) Exports

(c) Expressed as grossed up weight of concentrates produced

(d) Years ended 31 March following that stated

(e) Nominal capacity

Rare Earths

Exports of Rare Earths

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Cerium compounds	...	...	...	337	351
Ferro-cerium & other pyrophoric alloys	19	12	13	10	6
Metals	41	26	57	40	64
Denmark					
Ferro-cerium & other pyrophoric alloys	131	107	0	0	1
France					
Ferro-cerium & other pyrophoric alloys	127	108	111	102	123
Metals	59	110*	81	59	130
Germany, Federal Republic of					
Cerium compounds	218	157	183	150	201
Other rare earth compounds	13	29	9	13	13
Ferro-cerium & other pyrophoric alloys	50	63	61	78	85
Metals	170	22	34	18	14
Italy					
Metals	43	34	39	14	138
Austria					
Metals	385	675	712	391	351
Soviet Union					
Rare earth compounds (b)	600*	500*	900*	1 000*	400*
Metals (b)	30*	50*	100*	40*	...
South Africa (a)					
Rare earth compounds	£540	£10 400	£1 400	...	...
USA					
Ores & concentrates	5 102	8 033	7 711	6 140	4 534
Ferro-cerium & other pyrophoric alloys	66	33	26	35	82
Brazil					
Cerium compounds	875	79	0	—	...
Ferro-cerium & other pyrophoric alloys	290	284	182	307	...
Metals	124	102	233	89	103
China					
Rare earth compounds (b)	1 000*	2 500*	5 200*	4 300*	6 000*
Ferro-cerium & other pyrophoric alloys (b)	200*	100*	150*	400*	300*
Hong Kong					
Ferro-cerium & other pyrophoric alloys (c)	109	85	103	131	140
Japan					
Ferro-cerium & other pyrophoric alloys	79	54	30	20	25
Malaysia					
Ores & concentrates	1 044	1 163	2 365	738	1 024
Thailand					
Ores & concentrates	82	1 992	1 350	1 306	428
Australia					
Ores & concentrates	17 670	18 124	18 024	14 100	10 491

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 S.I.T.C. (Rev.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

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

(c) Re-exports

Imports of Rare Earths

Country	1983	1984	1985	1986	1987
United Kingdom					
Cerium compounds	...	...	...	222	240
Ferro-cerium & other pyrophoric alloys	6	5	29	3	4
Metals	24	28	88	61	57
Belgium-Luxembourg					
Cerium compounds	104	77	75	127	127
Other rare earth compounds	11	18	15	17	12
Ferro-cerium & other pyrophoric alloys	5	26	26	6	8
Metals	15	18	64	54	32
Denmark					
Rare earth compounds	3	6	1	2	3
Ferro-cerium & other pyrophoric alloys	1	1	1	12	15
France					
Cerium compounds	524	590	946	962	167
Other rare earth compounds	845	897	2 103	1 366	1 797
Ferro-cerium & other pyrophoric alloys	124	90	76	118	62
Metals	75	162	235	203	188
Germany, Federal Republic of					
Cerium compounds	546	599	1 036	1 034	1 133
Other rare earth compounds	220	455	816	710	851
Ferro-cerium & other pyrophoric alloys	13	16	13	10	17
Metals	129	135	107	113	138
Italy					
Ferro-cerium & other pyrophoric alloys	4	14	10	5	8
Metals	68	54	16	64	67
Netherlands					
Cerium compounds	2 984	3 758	2 108	1 215	1 382
Other rare earth compounds	2 671	2 904	1 588	1 639	1 389
Ferro-cerium & other pyrophoric alloys	112	6	21	16	11
Metals	81	1	11	28	14
Spain					
Rare earth compounds	216	248	270	247	272
Ferro-cerium & other pyrophoric alloys	644	36	40	43	47
Metals	24	24	11	43	14
Austria					
Metals	91	59	147	88	2
Switzerland					
Metals	4	5	5	1	1
South Africa					
Rare earth compounds (a)	£100 000	£67 000	£156 000	...	...
USA					
Ores & concentrates	4 027	5 661	5 694	2 960	1 122
Cerium compounds	30	710	7	300	...
Other rare earth compounds	609	935	202	294	...
Ferro-cerium & other pyrophoric alloys	104	138	113	94	96
Metals	56	149	237	68	...
Argentina					
Cerium compounds	23	16	27	40	38
Other rare earth compounds	7	5	2	2	3
Metals	21	31	7	2	1
Brazil					
Cerium compounds	100	104	182	156	...
Other rare earth compounds	15	15	20	11	...

Rare Earths

Imports of Rare Earths

tonnes

Country	1983	1984	1985	1986	1987
Hong Kong					
Ferro-cerium & other pyrophoric alloys	149	122	143	183	217
Indonesia					
Ferro-cerium & other pyrophoric alloys	62	39	42	76	22
Metals	12	35	4	0	0
Japan					
Cerium compounds	53	57	149	411	260
Other rare earth compounds	3 975	6 996	9 829	8 178	8 674
Ferro-cerium & other pyrophoric alloys	23	21	31	29	52
Metals	26	131	59	132	278
Korea, Republic of					
Cerium compounds	100	77	67	74	158
Malaysia					
Ores & concentrates	523	2 046	2 476	...	...
Singapore					
Ferro-cerium & other pyrophoric alloys	28	24	36	87	75
Taiwan					
Metals	0	5	32	62	34
Thailand					
Ferro-cerium & other pyrophoric alloys	70	59	84	92	75

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 S.I.T.C. (Rev.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

Production of Salt

Salt
tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Rock salt	1 316 000	1 569 000	2 030 000	2 040 000	1 855 000
Brine salt	1 394 000	1 423 000	1 552 000	1 510 000	1 554 000
Salt in brine (a)	3 601 000	4 134 000	3 563 000	3 305 000	3 672 000
Denmark	451 855	522 892	573 939	573 557	536 951
France					
Rock salt	694 000	1 030 000	1 178 000	976 000	950 000*
Salt in brine	4 239 000	4 417 000	4 167 000	3 963 000	3 910 000
Sea salt	1 354 000	1 381 000	1 423 000	1 610 000	1 500 000*
Germany, Federal Republic of					
Rock salt	6 119 000	7 010 000	7 512 000	7 462 000	7 256 000
Brine salt	743 000	815 000	885 000	892 000	913 000
Salt in brine	4 404 455	4 945 991	5 055 285	5 193 884	5 395 544
Greece	147 665	126 478	195 103	190 000*	190 000*
Italy					
Rock salt & brine salt	3 453 817	3 255 421	3 175 734	3 432 696	3 694 028
Sea salt	1 100 000*	1 000 000*	1 000 000*	1 000 000*	1 000 000*
Netherlands	3 124 000	3 674 000	4 154 000	3 763 000	3 979 000
Portugal					
Rock salt	429 934	455 950	464 362	466 398	513 203
Sea salt	208 652	163 023	213 826	194 392	...
Spain					
Rock salt	2 008 109	2 155 765	2 160 356	2 100 000	2 100 000*
Sea salt	1 121 582	1 197 715	1 027 383	916 055	...
Other salt	27 780	34 867	52 010	84 000	...
Albania	70 000*	70 000*	70 000*	72 000*	73 000*
Austria					
Rock salt	1 288	1 124	1 363	1 569	1 350
Salt in brine	141 000	239 000	230 000	250 000	255 000*
Evaporated salt	359 118	418 707	437 584	485 513	483 624
Bulgaria	87 000*	89 000*	89 000*	91 000*	91 000*
Czechoslovakia	343 356	343 760	349 174	338 240	337 985
German Democratic Republic	3 126 300	3 133 400	3 137 700	3 139 000	3 150 000*
Poland					
Rock salt	1 131 000	1 185 000	1 198 000	1 221 000	1 231 000
Other salt	3 195 000	3 526 000	3 667 000	4 198 000	4 944 000
Romania	4 596 000	4 874 000	5 019 000	5 355 000	5 398 000
Soviet Union	16 200 000*	16 500 000*	16 100 000*	16 100 000*	16 100 000*
Switzerland					
Evaporated salt	21 312	32 692	31 792	29 862	...
Other salt	240 890	296 204	300 254	318 111	(1) 330 735
Turkey	1 261 383	1 290 202	1 189 421	1 171 824	1 217 000
Yugoslavia					
Rock salt	191 886	146 552	149 151	234 685	153 067
Sea salt	38 474	44 151	67 897	69 842	67 672
Other salt	194 709	188 839	193 194	199 760	282 650
Algeria					
Brine salt & sea salt	150 000*	175 000	168 000	190 500	200 000*
Angola	7 900	—	6 000	10 000*	10 000*
Cape Verde Islands	10 340	9 064	6 163	4 855	...
Egypt	830 957	845 000	922 707	863 794	1 054 760
Ethiopia (d)	125 000*	135 000*	135 000*	135 000*	135 000*
Ghana	50 000*	50 000*	50 000*	50 000*	50 000*
Kenya	83 427	100 825	34 348	71 912	72 000
Libya	12 000*	12 000*	12 000*	12 000*	12 000*
Madagascar	—	10 440	40 199	54 721	42 339
Mali	4 500*	4 500*	4 500*	4 500*	4 500*
Mauritania	5 400*	5 400*	5 400*	5 400*	5 400*
Mauritius (c)	6 196	7 000	6 000	7 000	7 000*
Morocco	69 800	70 100	105 023	118 814	130 946
Mozambique	35 000	18 600	28 000*	28 000*	28 000*
Namibia	137 796	88 560	153 637	135 981	124 561
Senegal	170 000	170 000	143 000	145 000	100 000*
Somalia	30 000*	30 000*	30 000*	30 000*	30 000*
South Africa	744 295	615 531	722 482	752 440	703 620
Sudan	150 000	16 000	65 000	190 000	83 939

Salt

Production of Salt

tonnes

Country	1983	1984	1985	1986	1987
Tanzania	29 700	29 900	21 108	21 868	22 100
Tunisia (c)	375 000	415 000	405 000	450 000	422 000
Bahamas	862 000	870 000	850 000	991 000	811 000
Canada					
Rock salt	5 846 994	7 030 664	6 608 739	6 867 287	6 504 386
Other salt (e)	2 755 389	3 204 735	3 475 958	3 464 559	3 491 758
Costa Rica	110 000*	110 000*	29 484	30 000*	12 650
Cuba	180 200	184 500	220 900	266 000	260 000*
Dominican Republic	50 425	47 646	47 159	54 000	54 000
El Salvador (c)	44 543	46 901	32 024	31 751	...
Guatemala (c)	34 500	34 500	...	39 000	37 000
Honduras	30 000*	30 000*	30 000*	30 000*	30 000*
Mexico	5 703 030	6 166 705	6 467 140	5 927 000	6 000 000*
Netherlands Antilles (k)	202 137	357 019	238 559	257 503	305 877
Nicaragua (c)	18 000*	15 000*	15 000*	15 000*	15 000*
Panama (c)	38 778	18 585	16 101	8 872	17 074
USA (f)					
Rock salt	9 018 000	12 115 000	13 327 000	11 429 000	10 854 000
Salt in brine	17 193 000	17 843 000	17 334 000	16 257 000	16 442 000
Evaporated salt	5 153 000	5 633 000	5 688 000	5 575 000	5 809 000
Argentina	677 934	937 267	1 447 495	1 218 183	950 478
Brazil					
Rock salt	929 269	948 743	994 873	600 000	...
Sea salt	3 259 291	3 578 090	1 734 390	1 600 000	...
Chile	714 598	625 760	753 427	1 032 373	870 300
Colombia					
Rock salt	265 919	270 892	235 881	227 601	204 045
Sea salt	423 441	528 962	494 393	500 938	616 971
Peru	149 832	253 027	204 992	205 000*	...
Venezuela (c)	360 589	280 700	338 889	511 421	...
Afghanistan (g)	10 000*	10 000*	10 000*	10 000*	10 000*
Bangladesh (j)	243 022	671 870	489 000	746 000	416 000
Burma (b) (c) (h)	280 000	301 000	321 000	341 000	350 000*
China	16 130 000	16 420 000	14 790 000	17 299 000	18 000 000*
Cyprus	—	7 399	10 013	6 051	—
India					
Rock salt	4 565	4 254	3 941	1 664	970
Sea salt	7 008 000	7 725 000	9 875 000	10 116 000	11 000 000*
Indonesia	618 000	370 000	600 000*	600 000*	...
Iran (g)	682 000	691 000	703 000	700 000*	700 000*
Iraq	80 000*	80 000*	70 000*	70 000*	70 000*
Israel	145 000	145 000	150 000*	294 800	302 700
Japan (i)	921 000	1 200 000	1 200 000*	1 370 000	1 397 000
Jordan (b)	34 000	21 680	32 192	11 746	18 000
Kampuchea, Democratic	40 000*	40 000*	40 000*	40 000*	40 000*
Korea, Dem. P.R. of	570 000*	570 000*	570 000*	570 000*	570 000*
Korea, Republic of	481 000	518 000	643 000	729 000	664 000
Kuwait	19 673	22 239	21 000	21 000*	21 000*
Laos	10 000*	10 000*	10 000*	30 000*	30 000*
Lebanon	5 000*	5 000*	5 000*	5 000*	5 000*
Mongolia	16 000*	16 000*	16 000*	16 000*	16 000*
Nepal	...	...	7 500	7 000*	7 000
Pakistan					
Rock salt	570 072	598 810	584 306	544 815	515 782
Sea salt	176 740	198 551	268 914	242 274	302 486
Philippines	381 912	401 008	421 058	442 111	446 532
Sri Lanka	128 471	123 157	75 919	104 278	115 274
Syria	88 000	38 000	106 000	87 000*	87 000*
Taiwan	79 188	218 491	173 898	136 078	99 943
Thailand					
Rock salt	5 679	9 850	12 786	2 000	3 268
Other salt	165 000*	165 000*	165 000*	165 000*	165 000*

Production of Salt

Salt
tonnes

Country	1983	1984	1985	1986	1987
Vietnam	890 000*	800 000*	379 000	450 000	230 000*
Yemen Arab Republic	141 000*	148 000*	150 000*	300 000	163 000
Yemen, People's Dem. Rep.	66 000	75 700	66 900	40 300	55 500
Australia	5 169 900	5 695 263	5 835 364	6 130 300	6 336 000
New Zealand	81 000	57 000	51 500	—	...
World total	159 400 000	173 000 000	174 200 000	175 000 000	176 600 000

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 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
- (k) Exports
- (l) Salt; all forms

Exports of Salt

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom	378 865	484 511	402 946	368 717	404 587
Belgium-Luxembourg	170 973	227 720	205 256	164 861	83 597
Denmark	191 695	232 814	237 286	272 420	240 652
France	448 765	606 316	788 763	747 002	600 741
Germany, Federal Republic of	1 793 005	2 116 175	2 359 839	2 290 731	2 146 283
Irish Republic	685	1 042	973	1 556	1 234
Italy	262 651	314 778	428 591	619 198	613 394
Netherlands	2 193 162	2 593 710	2 863 178	2 684 831	2 658 571
Portugal	5 511	9 029	11 038	5 559	31 660
Spain	474 244	537 170	893 928	510 839	435 014
Austria	1 014	925	1 506	1 621	2 727
German Democratic Republic	1 390 000	1 501 000	1 604 000	1 721 000	1 653 000
Norway	3 523	4 091	2 413	2 487	1 798
Poland	376 675	370 418	380 110	327 246	304 144
Romania (a)	720 100*	730 200*	850 800*	872 300*	842 000*
Soviet Union	338 931	375 181	398 970	418 057	451 609
Sweden	6 668	5 342	2 063	1 835	1 681
Turkey	6 258	29 343	16 343	20 857	17 387
Algeria	—	3 744	265	13 938	...
Cape Verde Islands	6 080	9 670	2 140	5 000	...
Egypt	12 670	9 539	9 551	13 013	...
Ethiopia	5 010	15 153	33 600	...	8 819
Ivory Coast	1 669	2 846	1 936	...	...
Kenya	569	25	32	16 042	20 974
Madagascar	2 181	7 827	11 150	9 116	8 289
Morocco	1	1 587	26 450	28 400	60 905
Senegal	152 157	186 731	137 676	116 478	61 628
South Africa	103 262	89 129	91 639	88 761	79 843
Tanzania	3 273	3 552	2 480	4 025	2 164
Tunisia	285 020	261 337	314 566	359 568	340 702
Bahamas	856 334	975 205	1 224 632	1 057 542	...
Canada	1 915 597	2 546 688	2 289 275	2 552 532	1 960 130
El Salvador	12 823	12 857	7 536	...	...
Honduras	1 937	15	—	...	...
Jamaica	2 558	3 260	1 925	1 669	2 347
Mexico	3 942 108	4 629 809	4 561 576	4 435 400	4 994 844
Netherlands Antilles	202 137	357 019	238 559	257 503	305 877
USA	469 139	744 275	834 036	1 065 696	501 311
Argentina	20 423	14 172	7 718	12 738	...
Brazil	243 225	348 114	144 580	37 809	...
Chile	363 231	469 109	517 117	921 244	826 387
Colombia	25 250	—	300	61 479	...
China	960 000	1 040 000	1 070 000	1 170 000	1 069 088
Hong Kong (e)	6 496	1 519	1 039	947	614
India (b)	457 229	172 531	324 880	...	...
Iran (c)	2 319	233	...	...	...
Israel (a)	9 700*	7 900*	19 600*	9 700*	8 000*
Japan	1 292	1 250	1 414	1 182	717
Jordan	306	—	222	187	305
Korea, Republic of	3 193	1 647	6 412	11 689	49 967
Kuwait	967	1 738	...	...	...
Malaysia	343	599	604	...	1 245
Pakistan (d)	8 052	13 150	8 519	17 270	16 485
Saudi Arabia	5 608	5 609	6 433	12 298	6 507

Exports of Salt

Salt
tonnes

Country	1983	1984	1985	1986	1987
Singapore	17 458	20 523	13 817	9 216	9 663
of which: Re-exports	17 228	20 016	12 995	7 565	8 961
Sri Lanka	86 150	37 153	1 000	2 000	0
Taiwan	672	1 239	1 472	1 950	3 418
Thailand	47 483	52 971	61 548	54 489	60 579
Yemen, People's Dem. Rep. of	50 451	39 400	30 000	26 565	17 000
Australia	4 535 174	4 782 933	5 165 672	5 213 037	5 500 000*
New Zealand (d)	2 021	4 862	2 490	2 760	3 891

(a) BGS estimates, based on known imports into certain 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) Re-exports

Salt

Imports of Salt

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom	93 957	115 152	333 373	357 128	222 668
Belgium-Luxembourg	1 101 805	1 133 678	1 346 543	1 341 250	1 295 472
Denmark	143 085	189 271	274 092	298 748	297 250
France	162 837	154 850	151 575	154 332	169 380
Germany, Federal Republic of	749 322	765 110	826 942	782 790	867 951
Greece	16 636	35 679	48 873	68 322	123 991
Irish Republic	79 218	90 400	102 967	107 907	105 570
Italy	378 105	706 712	943 874	934 150	882 193
Netherlands	134 917	222 924	412 093	336 495	285 188
Portugal	20 817	205	8 025	31 272	33 486
Spain	875	669	324	4 703	12 128
Austria	232	153	134	212	643
Bulgaria	238 275	218 171	239 462	237 618	...
Czechoslovakia (a)	120 300*	120 300*	140 000*	150 300*	148 700*
Faeroe Islands	25 655	32 556	30 821	34 590	17 983
Finland	495 618	662 659	598 805	526 692	586 315
Greenland	3 256	3 769	4 678	3 330	3 921
Hungary	572 569	578 011	672 310	735 959	696 629
Iceland	80 733	48 797	71 526	83 191	103 353
Malta	£134 800	£90 000	£81 600	£188 600	£58 000
Norway	505 514	554 410	561 315	555 602	596 368
Soviet Union	110 000*	110 000*	110 000*	...	...
Sweden	1 103 475	1 227 833	1 261 550	1 281 459	1 157 390
Switzerland	2 004	2 084	1 932	2 225	3 282
Yugoslavia	241 104	83 976	320 812	290 413	329 638
Algeria	17 623	412	953	105	...
Botswana	7 749	7 871	6 092	7 726	...
Burkina Faso	16 600	16 100	...	...	...
Burundi	207	9 181	9 930	...	...
Cameroon	4 644	...	...	...	...
Canary Islands	514	444	294	444	432
Central African Republic	4 537	5 290	5 100	...	...
Congo	3 548	5 990	5 495	4 645	...
Egypt	784	216	1 037	623	...
Gabon	6 779	5 145	5 029	4 571	...
Ivory Coast	45 101	42 882	42 950	...	...
Kenya	103	10 856	254	321	549
Liberia	4 259	...	3 157	3 320	3 615
Malawi	9 850	15 848	...	...	...
Mauritius	1 663	230	391	5 385	622
Niger	3 227	35 747	27 187	26 001	...
Nigeria	...	217 162	3 117 989	226 669	...
Reunion	1 754	3 299	2 224	3 495	2 030
Seychelles	317	409	196	318	385
Sierra Leone	1 664	5 409	626	733	...
South Africa	43 550	50 528	2 565	...	...
Uganda	23 687	...	...	...	...
Zaire	141 971	15 759	58 567	39 213	433 878
Zambia	...	138 213	76 858	944	...
Zimbabwe	57 080	88 874	53 133	51 190	48 329
Bahamas	5 977	2 898	3 480	2 658	...
Barbados	1 834	1 374	3 020	...	...
Belize	746	595	566	552	562
Canada	777 310	1 053 215	1 255 519	1 328 235	1 112 100
Dominica	457	379	429	534	659
Grenada	425	542	391	507	...
Guadeloupe	2 482	2 099	2 451	2 294	2 410
Guatemala	14 808	6 366	11 732	26 195	...
Honduras	316	450	274	...	...
Jamaica	18 108	46 496	25 058	20 541	23 667
Martinique	2 658	2 547	2 373	2 532	2 380
Mexico	456	572	583	...	...
Netherlands Antilles	930	643	1 620	923	1 456
Nicaragua	42 055	25 000	...	...	...
Panama	949	1 297	1 037	704	554
St. Lucia	838	704	830	740	797

Imports of Salt

Country	1983	1984	1985	1986	1987
Trinidad and Tobago	16 643	21 710	15 351	23 515	23 453
USA	5 440 388	6 844 710	5 630 974	6 046 735	7 165 810
Brazil	5	37	222 568	783 343	1 231 509
Chile	70	4 680	2 088	3 256	...
Colombia	1 666	73	184	82	...
French Guiana	368	396	504	379	429
Guyana	3 218	5 619	...	...	...
Paraguay	26 186	20 824	11 475	3 898	2 011
Peru	537	621	345	363	442
Suriname	2 940	1 991	4 343	2 631	1 710
Uruguay	67 144	43 275	52 036	76 801	63 841
Abu Dhabi	1 965	5 116	3 438	6 801	2 308
Bahrain	1 991	1 455	2 330	2 143	1 887
Bangladesh (b)	338 850	522 122	209 281	399 272	153 000
Brunei	1 133	1 341	1 802	...	...
Cyprus	742	1 030	847	1 283	5 706
Dubai	20 596	8 277	8 448	14 751	...
Hong Kong	101 053	92 620	106 599	130 537	129 938
India (c)	...	...	37 704	...	...
Indonesia	943	1 050	26 830	60 886	85 463
Japan	6 380 780	6 458 125	6 832 551	6 614 250	6 830 128
Jordan	1 314	1 306	1 442	620	742
Korea, Republic of	757 371	757 954	800 109	872 771	1 102 538
Kuwait	6 452	7 195	...	...	...
Macao	1 845	1 787	2 081	2 276	2 273
Malaysia	155 142	129 872	146 470	152 962	175 315
Oman	6 133	11 724	10 259	7 907	...
Philippines	109 633	65 420	71 131	88 918	93 052
Qatar	2 305	3 368	...	4 108	...
Saudi Arabia	20 665	16 880	16 209	14 038	10 694
Singapore	50 472	43 160	36 102	36 700	47 136
Taiwan	584 903	711 505	805 115	859 515	596 704
Thailand	21 149	10 324	846	937	1 160
Australia	6 235	6 377	5 710	6 895	7 971
Fiji	3 125	3 425	2 769	3 485	...
New Caledonia	523	745	624	741	625
New Zealand (b)	79 124	50 235	98 669	49 898	94 298
Solomon Islands	796	2 733	1 071	1 490	1 475
Vanuatu	292	317	352	373	...

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

(b) Years ended 30 June of that stated

(c) Years ended 31 March following that stated

Sillimanite

Production of Sillimanite Minerals

tonnes

Country	1983	1984	1985	1986	1987
France					
Andalusite	41 900	50 100	56 600	50 900	50 000*
Spain					
Andalusite & kyanite	4 486	3 000	2 800	3 000*	2 500*
Soviet Union					
Kyanite (a)	100 000*	100 000*	100 000*	100 000*	100 000*
Sweden					
Kyanite	—	—	2 200*	5 000*	5 000*
South Africa					
Andalusite	116 576	143 305	194 693	181 624	194 373
Sillimanite	815	1 311	1 337	1 330	1 243
Zimbabwe					
Kyanite	—	874	1 676	1 851	1 834
USA					
Kyanite (b)	100 000*	100 000*	100 000*	90 000*	90 000*
Brazil					
Kyanite (d)	526	1 290	2 350	2 500*	...
China	2 500*	2 500*	2 500*	2 500*	2 500*
India					
Andalusite	2 730	706	500	732	482
Kyanite	41 958	38 254	30 574	32 394	37 382
Sillimanite	8 496	15 519	17 123	14 674	14 336
Korea, Republic of					
Andalusite	289	209	42	—	—
Australia					
Kyanite	445	1 255	818	768	1 079
Sillimanite (c)	121	507	650	133	77
World total	421 000	459 000	514 000	487 000	503 000

Notes

(1) 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) Including related minerals
- (c) Excluding sillimanite clay
- (d) Including beneficiated and directly shipped material

Exports of Sillimanite Minerals

Sillimanite

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Sillimanite minerals	2 502	5 334	5 172	4 631	4 362
Belgium-Luxembourg					
Sillimanite minerals					
Crude	588	—	—	—	24
Other	39	46	21	38	20
Denmark					
Sillimanite minerals	20	157	13	72	23
France					
Sillimanite minerals					
Crude	0	17	93	8	9
Other	166	34	86	107	20
Germany, Federal Republic of					
Sillimanite minerals					
Crude	1 305	2 400	716	533	2 015
Calcined	4 250	6 300	7 297	6 938	4 884
Italy					
Sillimanite minerals					
Crude & calcined	22	48	—	1 021	536
Other	24	754	—	—	895
Netherlands					
Sillimanite minerals					
Crude	498	1 775	1 901	2 099	1 815
Other	489	396	263	432	1 371
Austria					
Sillimanite minerals	12 713	20 039	15 122	22 374	20 735
Czechoslovakia					
Sillimanite minerals (b)	14 600*	14 100*	16 400*	18 500*	16 800*
German Democratic Republic					
Sillimanite minerals (b)	600*	800*	1 400*	1 000*	900*
South Africa					
Andalusite	69 264	91 574	142 143	113 514	117 622
Sillimanite	2 560	1 340	1 467	748	979
USA					
Kyanite & related minerals (a) (b)	66 400*	77 400*	73 600*	58 500*	59 500*
Brazil					
Kyanite	—	20	381	241	...
Japan					
Sillimanite minerals (d)	8 439	9 238	11 946	12 473	10 362
Macao					
Sillimanite minerals	15 414	14 832	14 577	20 806	27 102
New Zealand (c)					
Sillimanite minerals	10 129	13 410	14 039	14 259	18 118

Notes

(1) 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

(c) Years ended 30 June of that stated

(d) Including chamotte and dinas earth

Imports of Sillimanite Minerals

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Sillimanite minerals	35 618	52 708	49 452	44 609	48 717
Belgium-Luxembourg					
Sillimanite minerals					
Crude	1 978	391	1 220	537	1 320
Other	851	1 264	1 274	813	3 217
Denmark					
Sillimanite minerals	270	415	641	661	1 129
France					
Sillimanite minerals					
Crude	1 283	2 376	2 264	2 604	2 528
Other	2 458	1 845	1 187	2 114	3 207
Germany, Federal Republic of					
Sillimanite minerals					
Crude	14 070	13 181	39 360	35 641	30 583
Calcined	58 219	75 721	70 813	44 734	49 971
Greece					
Sillimanite minerals	171	1 712	201	1 874	813
Italy					
Sillimanite minerals					
Crude	12 261	22 763	31 245	16 242	13 509
Other	11 452	13 594	9 914	6 512	7 799
Netherlands					
Sillimanite minerals					
Crude	864	4 870	8 659	7 509	3 980
Other	813	2 903	3 159	2 367	1 037
Spain					
Sillimanite minerals	2 887	3 253	3 327	5 282	5 502
Austria					
Sillimanite minerals	73 637	75 372	85 497	81 258	76 969
Norway					
Sillimanite minerals (a)	380	915	689	1 763	322
Mexico					
Mullite	1 281	1 544	1 583	...	...
Argentina					
Sillimanite minerals	700	1 196	18	152	...
Japan					
Sillimanite minerals	17 675	27 515	28 413	28 653	26 609
Mullite, chamotte & dinas earth	23 847	22 289	17 981	20 146	20 195
Korea, Republic of					
Sillimanite minerals	1 307	1 704	3 166	3 141	5 582
Mullite	2 047	2 975	4 206	6 300	7 172
Australia					
Sillimanite minerals & dinas earth	212	2 402	4 677	3 912	6 286

Notes

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

(a) Including chamotte and dinas earth

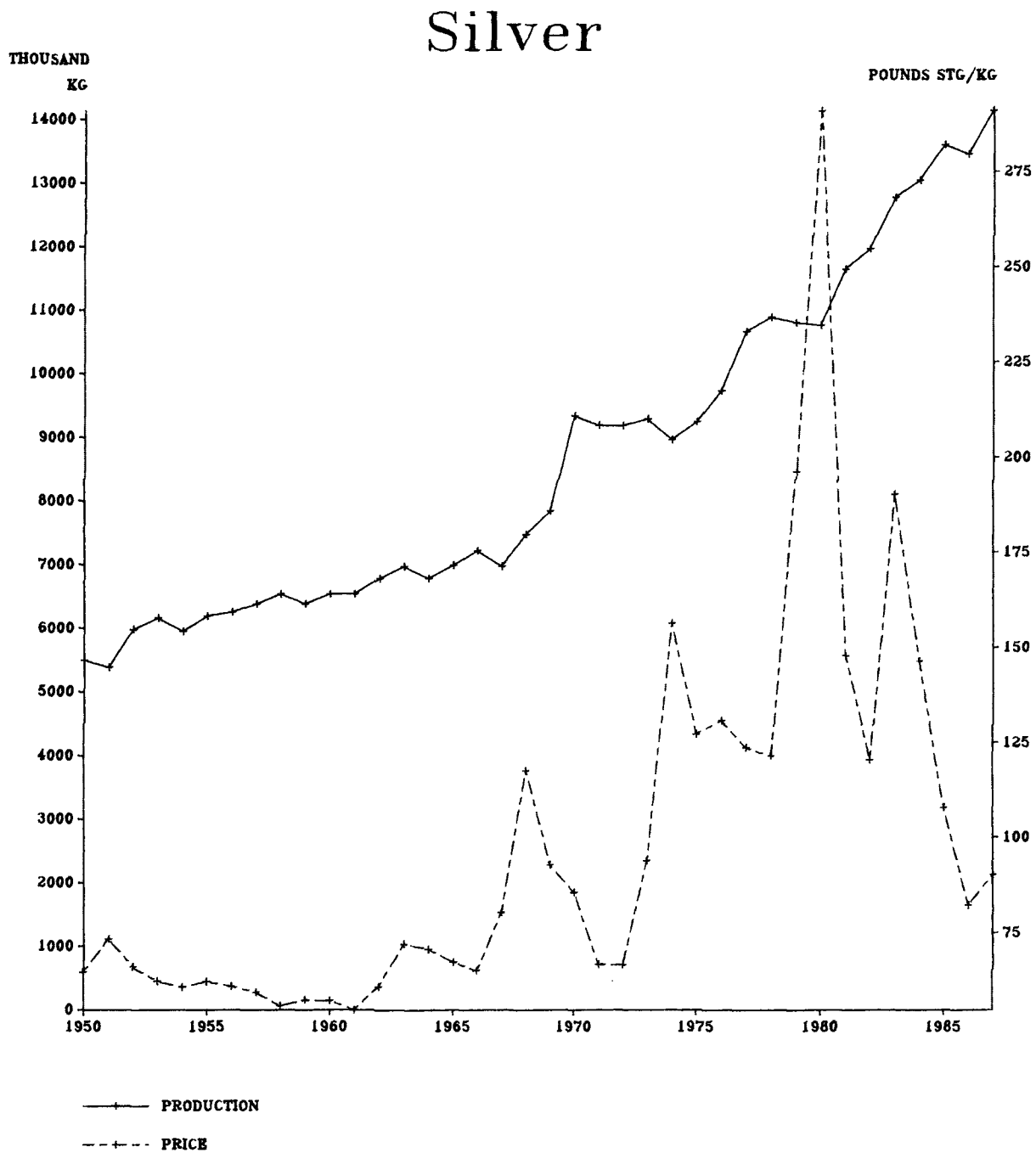


Figure 18 World mine production of silver from 1950 to 1987 compared with the annual average spot price expressed in constant 1980 pounds sterling.

Trend-line analysis of the production data indicates a growth rate of approximately 2.5% per annum over 37 years.

Constant commodity prices derived from those quoted by Metal Bulletin (1988), using the RPI for the UK obtained from the Annual Abstract of Statistics (1989) published by HMSO and pre-1967, the CPI for the UK published in International Financial Statistics Yearbook (1988).

Mine Production of Silver

kilograms (metal content)

Country	1983	1984	1985	1986	1987
United Kingdom	2 635	2 558	1 720	1 773	2 030
France	23 966	25 259	26 413	25 884	24 200
Germany, Federal Republic of	36 300	38 100	34 300	27 500	30 900
Greece	55 900	57 000	50 700	53 700	51 900
Irish Republic	9 900	8 670	8 600	8 150	7 200
Italy (a)	73 450	48 338	71 572	56 338	83 531
Portugal	631	693	624	714	761
Spain	214 940	289 624	366 939	327 000*	350 000*
Bulgaria	25 000	26 000	26 000	26 000	26 000
Czechoslovakia	30 000*	32 000*	32 000*	33 000*	34 000*
Finland	45 008	52 610	48 704	37 096	22 500
German Democratic Republic	43 000*	40 000*	41 000*	41 000*	41 000*
Greenland	12 300	10 300	10 400	11 100	13 200
Hungary	500*	500*	500*	—	—
Poland	678 000	744 000	831 000	829 000	831 000
Romania	25 000*	24 000*	25 000*	23 000*	20 000*
Soviet Union	1 600 000*	1 600 000*	1 620 000*	1 600 000*	1 550 000*
Sweden	204 046	235 262	250 065	262 042	215 000
Turkey	6 800*	7 000*	16 800	8 900	10 000*
Yugoslavia (a)	123 903	128 167	156 451	177 446	151 129
Algeria	3 700*	3 700*	3 700*	3 700*	3 700*
Ghana	435*	435*	435*	435*	435*
Morocco	103 000	104 000	108 000	89 000	162 000
Namibia	93 000	96 000	83 000	90 836	74 974
South Africa	202 374	218 981	209 367	223 590	210 366
Tunisia	2 803	1 660	804	809	700
Zaire	39 501	37 780	47 200	34 300	49 000
Zambia	29 027	24 736	18 873	26 780	29 879
Zimbabwe	29 081	27 837	24 851	26 126	25 288
Canada (c)	1 197 031	1 326 720	1 197 072	1 087 989	1 375 000
Dominican Republic	41 342	37 557	49 184	42 185	35 693
El Salvador	684	677	—	—	—
Honduras	77 600	80 700	83 300	50 000	23 221
Mexico	1 910 839	1 986 690	2 152 959	2 303 142	2 414 954
Nicaragua	1 973	1 600*	923	800*	888
USA	1 350 885	1 386 988	1 226 531	1 073 800	1 237 644
Argentina	77 767	61 698	67 500	66 371	59 665
Bolivia	187 399	141 840	111 352	95 107	141 772
Brazil	15 112	25 796	55 263	63 616	60 600
Chile	468 276	490 365	517 333	500 077	499 761
Colombia	3 078	4 773	5 249	4 648	5 203
Peru (b)	1 570 000	1 651 000	1 915 002	1 925 798	2 054 463
Burma	17 400	17 900	17 700	13 800	26 100
China	80 000*	80 000*	100 000*	120 000*	150 000*
India	15 792	24 886	25 587	35 266	37 943
Indonesia	32 430	33 320	35 431	46 467	47 600
Iran	10 000*	20 000*	20 000*	25 000*	28 000*
Japan	307 216	323 575	339 485	351 270	281 020
Korea, Dem. P.R. of	300 000*	285 000*	270 000*	295 000*	300 000*
Korea, Republic of	66 557	76 353	68 926	142 700	71 000
Malaysia	15 092	14 653	16 249	14 066	15 776
Oman	—	2 800	1 900	1 600	1 600
Philippines	56 696	48 956	52 416	51 532	51 400
Taiwan	10 739	11 330	11 386	12 613	9 856
Australia	1 032 895	972 303	1 085 933	1 022 761	1 119 300
Fiji	412	520	442	785	815
Papua New Guinea	47 597	45 608	51 967	57 288	62 899
World total	12 609 000	13 039 000	13 594 000	13 449 000	14 133 000

(a) Smelter and/or refinery production

(b) Recoverable

(c) Including Ag content of ores, concentrates and matte exported

Silver

Exports of Silver

kilograms

Country	1983	1984	1985	1986	1987
United Kingdom					
Metal	3 373 284	1 678 700	563 779	2 006 669	1 512 544
Waste & scrap	691 011	176 602	574 675	248 999	218 293
Belgium-Luxembourg					
Metal	1 069 356	820 581	1 172 995	1 295 591	952 194
Denmark					
Metal	34 344	46 060	45 567	48 701	38 537
of which: Re-exports	28 996	42 314	42 889	47 808	37 051
France					
Metal	1 291 718	632 765	454 838	558 913	568 832
Waste & scrap	347 571	360 306	329 373	143 873	145 700
Germany, Federal Republic of					
Metal	1 487 183	1 345 629	1 485 977	1 543 337	1 504 420
Waste & scrap	655 945	629 033	406 956	1 176 662	1 271 124
Greece					
Metal	424	42 208	40 636	142 259	32 000
Italy					
Metal	129 534	81 651	168 100	141 173	28 300
Netherlands					
Metal	159 244	120 668	133 149	152 419	93 457
Portugal					
Metal	1 757	68	40	9	...
Spain					
Metal	191 980	154 073	151 586	63 799	181 503
Austria					
Metal	52 972	50 128	53 566	42 090	238 663
Waste & scrap	2 224	1 352	333	437	17
Finland					
Metal	34 000	34 000	37 000	37 000	43 000
German Democratic Republic					
Metal (d)	200 200*	284 100*	290 900*	452 500*	217 100*
Norway					
Metal	31 405	26 897	28 872	37 336	32 355
Poland					
Metal	405 000	478 000	549 000	404 000	619 000
Sweden					
Metal	210 000	242 000	197 000	283 000	319 000
Switzerland					
Metal	367 455	484 390	543 835	687 604	767 286
Yugoslavia					
Metal	90 000	61 000	92 000	220 000	71 000
Waste & scrap	...	400*	1 000	—	—
Morocco					
Metal	80 591	73 723	86 407	91 079	107 000
Namibia					
Metal	93 000	96 000	83 000	106 000	...
South Africa					
Metal	209 581	217 081	217 935	228 010	189 273
Tunisia					
Metal	...	1 375	—	—	—
Canada					
Ores & concentrates (b)	439 927	423 967	338 833	373 312	488 617
Metal	1 051 415	1 095 929	1 343 251	1 317 350	556 967
Dominican Republic					
Metal (c)	52 322	48 079	59 387	51 064	45 000*
El Salvador					
Metal	852	730	...	...	...
Honduras					
Concentrates (b)	50 669	62 893	65 568	70 140	...
Mexico					
Metal	1 386 307	1 473 880	1 854 920	1 724 000	1 595 000
Nicaragua					
Metal (a)	14 180	...	...	...	...

Exports of Silver

Country	1983	1984	1985	1986	1987
USA					
Ores & concentrates (b)	2 093	20 231	8 394	8 846	472
Metal	458 190	360 478	445 202	406 769	440 287
Waste & scrap	566 110	406 216	403 898	459 587	497 242
Bolivia					
Ores & concentrates	771 658	384 449	198 600*	1 525 209	766 687
Chile					
Metal	280 276	292 879	312 738	336 669	...
Colombia					
Metal	2 547	2 025	2 225	1 595	...
Peru					
Metal	1 017 100	833 600	696 700	606 500	429 000
Venezuela					
Metal	...	24 220	108 974	114 952	9 362
Burma (f)					
Metal	19 347	19 876	8 180	14 992	...
China					
Metal (d)	17 000*	40 400*	70 700*	47 400*	33 600*
Hong Kong					
Metal	11 602	37 663	18 999	39 938	35 720
of which: Re-exports	8 212	32 857	15 260	36 514	33 930
Waste & scrap	419 139	421 507	408 507	140 628	224 511
of which: Re-exports	35 632	18 802	281	2 386	642
Japan					
Metal	220 011	132 745	93 413	63 158	71 148
Waste & scrap	...	...	...	1 000	2 000
Korea, Republic of					
Ores & concentrates	792 000	86 000	—	—	—
Metal	59 451	51 830	42 180	31 233	142 752
Malaysia					
Metal	23 220	9 549	3 732	...	4 630
Philippines					
Metal	18 545	2 972	15 476	22 023	4 903
Singapore					
Metal	11 108	3 768	1 852	3 771	8 155
of which: Re-exports	6 442	3 023	784	3 771	8 155
Taiwan					
Metal	700	274	950	1 244	544
Waste & scrap	8 093	712	—	2 085	90 182
Thailand					
Metal	103 024	5 638	75	1	2
Australia					
Silver-lead bullion	420 435	456 063	360 551	435 312	436 396
Silver in all ores, concentrates etc.	221 581	194 139	248 051	330 580	297 007
Metal	222 480	163 620	167 463	191 756	177 500
Fiji					
Metal	396	513	460	759	...
New Zealand (e)					
Metal	2 160	881	1 046	1 241	1 129
Papua New Guinea					
Metal	47 597	45 608	51 967	57 288	62 899

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
(e) Years ended 30 June of that stated
(f) Years ended 31 March following that stated

Silver

Imports of Silver

kilograms

Country	1983	1984	1985	1986	1987
United Kingdom					
Metal	2 476 676	1 644 617	1 304 497	1 767 806	1 327 114
Waste & scrap	402 741	361 752	643 500	393 173	332 705
Belgium-Luxembourg					
Metal	1 599 738	920 915	1 468 886	1 367 762	1 250 291
Denmark					
Metal	74 372	100 636	113 278	113 410	96 760
France					
Metal	539 071	600 777	518 581	605 591	549 185
Waste & scrap	155 163	27 930	19 742	77 459	111 300
Germany, Federal Republic of					
Metal	1 109 742	1 046 696	1 102 366	1 316 429	1 366 252
Waste & scrap	717 436	1 228 567	1 428 206	1 143 682	4 003 601
Greece					
Metal	15 637	14 304	25 961	55 261	42 000
Italy					
Metal	318 484	392 542	275 000	579 720	806 700
Netherlands					
Metal	134 548	141 455	117 298	157 854	126 606
Portugal					
Metal	34 465	27 779	56 475	70 241	...
Spain					
Metal	46 367	16 344	22 638	234 687	223 990
Austria					
Metal	135 242	165 752	184 899	116 877	197 399
Bulgaria					
Metal (f)	1 700*	1 400*	2 100*	2 300*	2 500*
Czechoslovakia					
Metal (f)	11 300*	16 100*	15 900*	1 900*	9 900*
Finland					
Metal	67 000	84 000	86 000	69 000	104 000
German Democratic Republic					
Metal (f)	345 300*	439 800*	483 200*	579 300*	288 000*
Iceland					
Metal	570	412	715	383	900
Malta					
Metal	414	1 596	831	1 606	824
Norway					
Metal	42 262	47 401	61 513	73 057	59 165
Sweden					
Metal	168 000	173 000	167 000	173 000	160 000
Switzerland					
Metal	1 172 851	1 097 993	903 449	1 748 798	1 646 764
Turkey					
Metal (b)	1 741	4 566	6 142	6 130	...
Yugoslavia					
Metal	17 000	24 000	32 000	19 000	17 000
Algeria					
Metal	21 178	35 900	4 041	6 887	...
Egypt					
Metal	15	...	783	...	...
Gabon					
Metal	156	128	505	37	...
Ivory Coast					
Metal	839	980	2 930	...	...
Madagascar					
Metal	136	76	443	121	176
Morocco					
Metal	810	732	876	691	1 000
Mozambique					
Metal	646	20	31	25 283	...
Nigeria					
Metal	...	52	1	5	...
Senegal					
Metal	99	145	107	179	52

Imports of Silver

Silver
kilograms

Country	1983	1984	1985	1986	1987
South Africa					
Metal	24 148	25 430	10 152	...	...
Tunisia					
Metal	...	2 694	1 354	1 343	448
Zaire					
Metal	1 084	237	...	...	...
Canada					
Metal	339 439	215 214	575 878	165 027	140 970
Costa Rica					
Metal	377	414	856	1 629	2 018
Jamaica					
Metal	500*	321	952	965	1 065
Panama					
Metal (a)	1 035	2 961	10 290	1 462	817
Trinidad and Tobago					
Metal	1 476	2 465	391	...	461
USA					
Ores & concentrates (c)	604 614	755 487	326 129	347 770	655 755
Metal	5 139 137	2 910 000	4 661 357	4 337 942	2 355 832
Waste & scrap	87 078	84 947	117 389	91 881	129 171
Argentina					
Metal	14 040	29 903	13 392	15 181	...
Brazil					
Metal	99 704	85 191	124 973	168 000	180 000
Colombia					
Metal	2 074	1 324	898	8 256	...
Ecuador					
Metal	1 093	215	340	1 100	4 000
Peru					
Metal	504	225	400	168	114
Venezuela					
Metal	...	...	27 571	49 789	39 429
Abu Dhabi					
Metal	195	2 257	1 072	125	20
Brunei					
Metal	210	434	493	...	...
China					
Metal (f)	45 200*	406 800*	10 500*	557 500*	22 500*
Cyprus					
Metal	4 022	4 389	6 957	8 570	8 585
Dubai					
Metal	294 985	14 466	3 015	89 062	...
Hong Kong					
Metal	25 576	53 779	43 118	56 477	59 655
Waste & scrap	2 567	675	440	1 186	3 441
India (g)					
Metal	...	...	719	...	...
Indonesia					
Metal	308	290	27	108	60
Iran (d)					
Metal	(f) 24 700*	28 710	(f) 12 600*	(f) 2 000*	(f) 35 300*
Israel					
Metal (f)	8 300*	12 000*	14 500*	25 500*	28 700*
Japan					
Ores & concentrates	—	—	68 000	1 907 000	4 032 000
Metal	422 451	502 919	570 787	481 716	657 190
Waste & scrap	2 000	1 613	701	819	1 320
Jordan					
Metal	57	2 215	271	535	—
Korea, Republic of					
Metal	5 659	6 697	14 713	11 537	11 276
Malaysia					
Metal	31 601	69 315	52 878	45 609	78 718

Silver

Imports of Silver

kilograms

Country	1983	1984	1985	1986	1987
Philippines Metal	833	203	38	15	7
Saudi Arabia Metal	758	2 746	12 790	—	—
Singapore Metal	22 617	27 733	39 890	97 201	140 172
Taiwan Metal	39 308	177 927	47 135	74 739	99 516
Thailand Metal	11 949	46 638	93 871	71 808	57 516
Australia Metal	8 720	1 466	2 807	955	15
New Zealand (e) Metal	40 708	41 950	39 867	40 598	39 682

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
 - (f) BGS estimates, based on known exports from certain countries
 - (g) Years ended 31 March following that stated

Sulphur

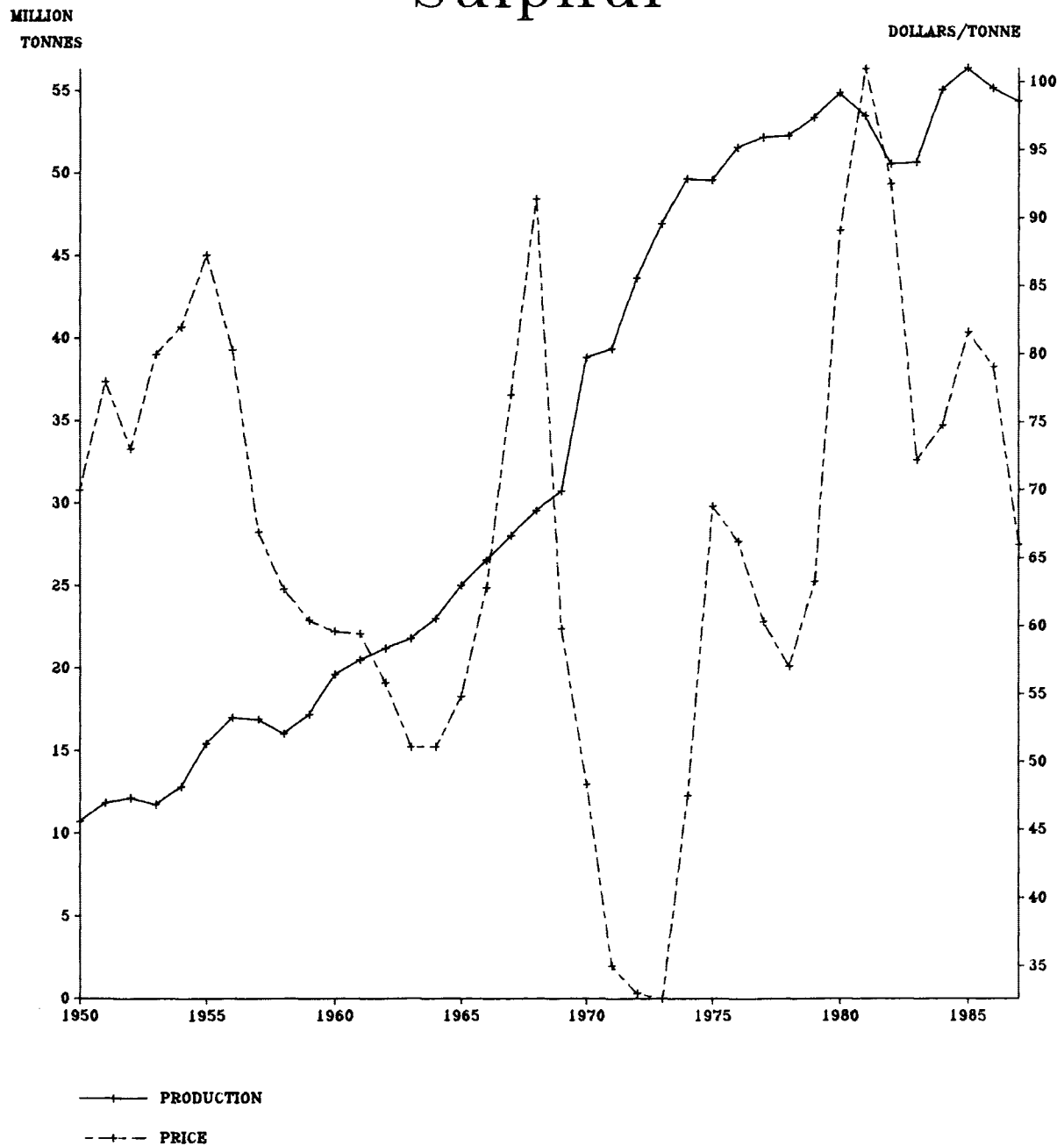


Figure 19 World production of sulphur in all forms from 1950 to 1987 compared with the annual average US price for elemental sulphur f.o.b. mine expressed in constant 1980 US dollars.

Trend-line analysis of the production data indicates a growth rate of approximately 5% per annum over 37 years.

Constant commodity prices derived from those quoted by USBM in Mineral Facts and Problems (1960 et seq.) and Mineral Commodity Summaries (1984 et seq.), using the CPI for the USA taken from International Financial Statistics Yearbook (1988).

Production of Sulphur and Pyrites

Country	1983	1984	1985	1986	1987
United Kingdom					
Recovered (a) (c)	51 000	58 000	54 000	58 000	51 000
Recovered (d)	55 000	75 000	80 000	105 000	119 000
Belgium					
Recovered (c) (d)	250 000*	240 000*	250 000*	260 000*	250 000*
Denmark					
Recovered (d)	7 291	10 859	7 376	12 810	10 568
France					
Recovered (d)	1 810 700	1 752 600	1 561 400	1 149 100	1 280 000
Germany, Federal Republic of					
Recovered (c)	400 000*	350 000*	320 000*	300 000*	300 000*
Recovered (d)	827 000*	1 041 000*	1 164 000*	1 190 000*	1 240 000*
Recovered (e)	95 000*	90 000*	85 000*	85 000*	85 000*
Greece					
Pyrites (45%)	64 583	74 227	77 968	66 017	70 000*
Recovered (d)	120 000*	125 000*	135 000*	135 000*	135 000*
Italy					
Pyrites (43%)	262 361	192 121	299 631	309 137	306 904
Recovered (d)	210 000*	200 000*	200 000*	185 000*	190 000*
Sulphur ore	9 397	4 747	1 130	—	2 674
Netherlands					
Recovered (c) (d)	205 000*	245 000*	250 000*	250 000*	245 000*
Portugal					
Pyrites (44%)	123 742	146 120	156 428	144 305	125 298
Recovered	5 000*	4 000*	5 000*	5 000*	5 000*
Spain					
Pyrites (47%)	1 073 336	1 292 310	1 231 302	1 191 975	1 010 000
Recovered (c) (d)	131 000*	137 000*	124 000*	115 000*	120 000*
Austria					
Recovered	41 429	38 455	35 454	40 334	35 413
Anhydrite	26 122	26 449	26 547	28 837	25 000*
Bulgaria					
Pyrites (42%)	80 000*	75 000*	65 000*	80 000*	80 000*
Recovered	56 000*	62 000*	53 000*	62 000*	65 000*
Czechoslovakia					
Pyrites (42%)	60 000*	60 000*	62 000	60 000*	60 000*
Recovered	10 000*	10 000*	41 866	41 127	38 023
Sulphur ore	5 000*	5 000*	6 000	6 000*	6 000*
Finland					
Pyrites (44%)	195 000	214 000	248 500	240 580	273 200
Recovered (c)	264 000	261 000	257 000	260 000	317 357
Recovered (d)	45 006	44 735	49 076	42 000	40 000*
German Democratic Republic					
Recovered	360 000*	350 000*	330 000*	315 000*	315 000*
Hungary					
Pyrites	3 000*	2 000*	2 000*	1 000*	1 000*
Recovered	9 000*	9 000*	9 000*	10 000*	10 000*
Norway					
Pyrites (50%)	178 901	214 791	199 617	190 395	179 067
Recovered (c) (d)	103 000*	66 000*	70 000*	80 000*	95 000*
Poland					
Frasch (g)	4 999 000	4 990 000	4 876 000	4 894 000	4 966 000
Recovered (c)	170 000*	170 000*	170 000*	170 000*	170 000*
Recovered (d)	30 000*	30 000*	30 000*	30 000*	30 000*
Anhydrite	20 000*	20 000*	20 000*	20 000*	20 000*
Romania					
Pyrites (42%)	200 000*	200 000*	200 000*	150 000*	150 000*
Recovered	150 000*	150 000*	150 000*	140 000*	130 000*
Soviet Union					
Pyrites (46%)	2 700 000*	2 600 000*	2 500 000*	2 350 000*	2 300 000*
Frasch	800 000*	800 000*	850 000*	875 000*	950 000*
Recovered (c)	1 600 000*	1 700 000*	1 700 000*	1 700 000*	1 650 000*
Recovered (d)	2 250 000*	2 300 000*	2 424 000*	2 450 000*	2 750 000*
Sulphur ore	1 800 000*	1 800 000*	1 800 000*	1 900 000*	1 900 000*

Production of Sulphur and Pyrites

tonnes (sulphur content)

Country		1983	1984	1985	1986	1987
Sweden						
Pyrites (48%)		206 589	200 535	195 419	215 161	220 000*
Recovered (c)		114 000*	122 000*	123 000*	125 000*	125 000*
Sulphur ore		20 441	26 324	22 916	33 763	50 000*
Turkey						
Pyrites (45%)		1 881	—	11 557	4 152	20 959
Recovered		131 660	151 338	159 566	172 928	149 721
Sulphur ore		31 174	41 352	42 671	40 051	33 642
Yugoslavia						
Pyrites (42%)		291 404	255 658	212 785	318 948	255 723
Recovered (c) (d)		183 000*	163 000*	173 000*	178 000*	178 000*
Algeria						
Recovered (d)		15 000*	20 000*	20 000*	20 000*	20 000*
Egypt						
Recovered (d)		10 000	2 000	10 000	10 000	10 000
Libya						
Recovered (d)		14 000*	14 000*	14 000*	14 000*	14 000*
Namibia						
Pyrites (50%)		80 719	104 454	87 182	94 726	60 130
South Africa						
Pyrites (48%)		473 568	463 878	477 321	498 701	467 531
Recovered (d)		32 000*	30 000*	(h) 100 000*	(h) 110 000*	(h) 110 000*
Recovered (c)		48 515	95 102	89 593	107 716	105 080
Zaire						
Recovered (c)		36 000*	37 000*	36 000*	36 000*	36 000*
Zambia						
Pyrites (43%)		25 513	18 172	28 288	19 197	19 406
Recovered		79 525	80 000	80 000*	80 000*	80 000*
Zimbabwe						
Pyrites (42%)		12 115	23 934	24 105	26 253	19 575
Recovered		5 000*	5 000*	5 000*	5 000*	5 000*
Canada						
Recovered (c)		707 000	856 000	881 000	810 000	802 512
Recovered (d)		6 631 123	8 352 978	8 102 163	6 965 775	5 809 000
Cuba						
Pyrites (40%)		5 000	—	—	—	—
Recovered (d)		8 000*	8 000*	8 000*	8 000*	8 000*
Mexico						
Frasch		1 224 856	1 363 870	1 550 803	1 588 000	1 803 000
Recovered (c)		100 000*	160 000*	160 000*	170 000*	180 000*
Recovered (d)		377 170	461 093	474 928	456 307	500 912
Netherlands Antilles						
Recovered (d)		(f) 87 471	(f) 69 476	32 000*	30 000*	30 000*
Trinidad and Tobago						
Recovered (d)		8 795	7 000*	5 000*	5 000*	3 000*
USA						
Pyrites (40%) (i)		302 000	283 000	328 000	309 000	173 000
Frasch		3 202 000	4 193 000	5 011 000	4 043 000	3 202 000
Recovered (c)		831 000	962 000	957 000	919 000	1 003 000
Recovered (d)		4 955 000	5 214 000	5 313 000	5 816 000	6 160 000
Bolivia (f)						
Sulphur ore		3 010	1 878	2 741	4 730	8 746
Brazil						
Pyrites		79 152	92 579	95 357	97 238	97 000*
Recovered (c)		43 993	52 403	79 002	100 033	115 000
Recovered (d)		65 462	71 287	54 591	73 572	75 000
Chile						
Recovered (c)		32 364	32 135	30 073	41 142	40 000*
Sulphur ore (b)		98 748	53 964	78 747	57 123	37 048
Colombia						
Recovered (d)		8 933	20 151	17 388	13 936	15 000*
Sulphur ore		32 059	36 245	34 216	36 710	41 490
Ecuador						
Recovered (d)		10 000*	10 000*	10 000*	10 000*	10 000*
Sulphur ore		5 000*	5 000*	4 000*	4 000*	5 000*
Peru						
Recovered (c)		64 709	64 256	68 145	66 300*	66 000*
Venezuela						
Recovered (d)		85 000*	86 000*	88 000*	99 380	100 000*

Production of Sulphur and Pyrites

tonnes (sulphur content)

Country	1983	1984	1985	1986	1987
Abu Dhabi					
Recovered (d)	10 000	50 000	105 000	91 000*	91 000*
Bahrain					
Recovered (d)	49 000	50 000*	42 000	45 000*	45 000*
China					
Pyrites (45%)	2 300 000*	2 100 000*	2 200 000*	2 500 000*	2 500 000*
Recovered	350 000*	350 000*	400 000*	300 000*	300 000*
Sulphur ore	200 000*	200 000*	300 000*	300 000*	300 000*
Cyprus					
Pyrites (44%)	21 279	10 411	30 970	24 936	42 457
India					
Pyrites (37%)	19 661	13 862	17 412	22 026	29 486
Recovered (c)	110 000*	115 000*	120 000*	120 000*	120 000*
Recovered (d)	3 554	2 197	305	50	—
Iran					
Recovered (d)	16 000*	130 000*	150 000*	250 000*	300 000*
Sulphur ore	20 000*	30 000*	30 000*	30 000*	30 000*
Iraq					
Frasch	300 000*	500 000*	500 000*	600 000*	620 000*
Recovered (d)	40 000*	70 000*	70 000*	200 000*	250 000*
Israel					
Recovered (d)	10 000*	10 000*	10 000*	15 000*	20 000*
Japan					
Pyrites (49%)	272 000	259 000	253 000	158 000	79 000
Recovered (c) (g)	1 239 000	1 191 000	1 201 000	1 174 000	1 215 000
Recovered (d)	1 102 000	1 142 000	1 044 000	985 000	927 000
Korea, Dem. P. R. of					
Pyrites (40%)	200 000*	200 000*	200 000*	200 000*	200 000*
Recovered (c)	30 000*	30 000*	30 000*	30 000*	30 000*
Korea, Republic of					
Recovered (c)	54 000*	54 000*	55 000*	55 000*	55 000*
Recovered (d)	36 000*	36 000*	35 000*	35 000*	35 000*
Kuwait					
Recovered (d)	147 038	147 461	202 377	268 000	309 000
Oman					
Pyrites	11 000*	31 000*	31 000*	31 000*	30 000*
Pakistan					
Recovered	26 000*	26 000*	26 000*	26 000*	26 000*
Philippines					
Pyrites (46%)	28 917	38 091	76 975	108 597	158 000
Recovered (c)	57 000*	95 000*	100 000*	120 000*	140 000*
Qatar					
Recovered (d)	19 000	33 000	37 000	37 000*	35 000*
Saudi Arabia					
Recovered (d)	782 000	1 055 000	1 100 000*	1 300 000*	1 400 000*
Singapore					
Recovered (d)	3 666	5 557	5 000*	5 000*	5 000*
Syria					
Recovered (d)	30 000*	35 000*	35 000*	35 000*	40 000*
Taiwan					
Recovered	26 936	28 705	42 949	62 980	89 082
Australia					
Recovered (c)	454 637	386 047	435 313	453 012	536 244
Recovered (d)	12 897	13 058	11 718	10 200*	8 500
Total Pyrites	9 300 000	9 200 000	9 300 000	9 400 000	8 900 000
Total Frasch	10 500 000	11 800 000	12 800 000	12 000 000	11 600 000
Total Recovered	28 600 000	31 800 000	31 950 000	31 300 000	31 400 000
Total Sulphur ore	2 200 000	2 200 000	2 350 000	2 400 000	2 400 000
World total (all forms)	50 600 000	55 000 000	56 400 000	55 100 000	54 300 000

Notes

(1) Pyrites: nominal sulphur content is shown in parentheses

- (a) Spent oxide
- (b) Including caliche at 45% S content
- (c) From smelter gases
- (d) From petroleum refining and/or natural gas
- (e) Other
- (f) Exports
- (g) Including S content of sulphur ore
- (h) Including production from synthetic fuels
- (i) Including hydrogen sulphide and liquid sulphur dioxide

Exports of Sulphur and Pyrites

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Sulphur					
Crude	1 685	3 025	1 929	1 584	2 857
Sublimed & precipitated	177	247	127	600	169
Belgium-Luxembourg					
Pyrites	1 051	73	46	125	130
Sulphur					
Crude	7 479	8 787	7 511	10 904	32 078
Sublimed & precipitated	79	79	213	189	292
Denmark					
Sulphur					
Crude	3 429	3 368	3 361	3 222	4 209
Sublimed & precipitated	1	327	499	4 642	2 415
France					
Sulphur					
Crude	677 396	717 405	536 711	366 873	472 083
Refined	1 524	1 813	1 163	821	2 258
Sublimed	2 494	5 908	5 145	2 176	2 722
Precipitated	109	53	32	47	72
Germany, Federal Republic of					
Pyrites	1 041	1 302	1 217	1 290	1 400
Sulphur					
Crude	461 821	509 636	667 953	686 040	764 327
Sublimed & precipitated	314	450	502	361	200
Greece					
Sulphur	4 884	10 187	13 571	7 023	...
Italy					
Pyrites	3 626	5 005	4 778	4 676	4 883
Sulphur					
Crude	7 301	4 714	14 455	3 631	450
Sublimed & precipitated	65	82	21	449	49
Netherlands					
Sulphur					
Crude	15 100	26 415	22 288	29 104	95 299
Sublimed & precipitated	20	3	8	24	—
Spain					
Pyrites	347 656	386 088	312 087	347 216	248 457
Sulphur					
Crude	1 285	1 105	145	425	10 774
Sublimed & precipitated	2 508	135	34	76	47
Albania					
Pyrites (c)	59 500*	31 500*	24 600*	24 900*	20 500*
Finland					
Pyrites	157 180	(c) 110 800*	(c) 88 300*	(c) 144 200*	(c) 161 500*
Norway					
Pyrites	186 867	167 974	169 308	172 650	108 080
Sulphur					
Crude	7 525	4 307	3 722	2 643	739
Sublimed & precipitated	0	1 904	1 317	2 751	2 799
Poland					
Sulphur	4 034 000	4 078 000	3 906 000	3 823 000	3 856 000
Soviet Union					
Pyrites	362 000	273 000	294 000	315 000	309 000
Sulphur (c)	37 200*	34 000*	58 100*	30 200*	41 500*
Sweden					
Pyrites	97	13 452	30	14	58 654
Sulphur					
Crude	1 641	1 588	1 502	10 246	18 969
Sublimed & precipitated	12	116	25	9 286	82
Switzerland					
Sulphur					
Crude	6 260	8 151	4 634	6 421	16 877
Sublimed & precipitated	3	3	27	43	28
Yugoslavia					
Pyrites	95 764	359 202	156 132	80 463	65 467

Exports of Sulphur and Pyrites

Country	1983	1984	1985	1986	1987
South Africa Sulphur	14 203	13 781	8 465	...	1 041
Canada Pyrites	£41 000	£25 000	£68 000	£67 000	—
Sulphur	5 670 813	7 327 177	7 818 672	6 257 290	6 571 800
Mexico Sulphur	1 933 469	1 520 176	871 149	1 047 362	1 444 615
Netherlands Antilles Sulphur	87 471	69 476	6 585	4 000	23 000
USA Sulphur	994 754	1 348 404	1 401 511	1 919 495	1 215 832
Bolivia Sulphur	4 098	1 940	2 900*	6 050	8 790
Colombia Sulphur	1 869	3 419	1 354	1 641	...
Venezuela Sulphur	...	15 191	24 000	16 000	20 033
Bahrain Sulphur	17 268	44 286	26 453	38 040	44 843
China Sulphur					
Crude (c)	...	...	11 000*	42 300*	23 300*
Sublimed & precipitated (c)	...	100*	6 800*	3 600*	4 900*
Cyprus Pyrites	11 031	31 044	65 423	65 938	21 905
Iran (a) Sulphur	...	14 500	(c) 86 800*	(c) 61 500*	(c) 58 900*
Japan Sulphur					
Crude	239 025	274 095	165 981	77 815	138 133
Sublimed & precipitated	371	358	382	1 201	1 692
Korea, Republic of Sulphur	2 238	2 456	2 953	3 399	4 960
Kuwait Sulphur	461 757	666 082	166 000	...	...
Saudi Arabia Sulphur	1 547 418	1 723 341	988 240	924 676	371 948
Singapore Sulphur					
Crude	28 997	24 269	7 338	(d) 15 885	(d) 24 815
Sublimed & precipitated	8 570	14 743	7 051	10 600	22 207
Taiwan Sulphur					
Crude	1 728	2 783	1 497	1 192	599
Sublimed & precipitated	105	219	75	153	274
Australia Zinc concentrates (b)	196 400	215 100	214 100	...	...

(a) Years ended 20 March following that stated

(b) Recoverable sulphur

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

(d) Re-exports

Imports of Sulphur and Pyrites

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Pyrites	21 961	19 638	15 909	15 540	12 830
Sulphur					
Crude	842 801	810 963	806 358	684 569	618 984
Sublimed & precipitated	457	418	524	563	379
Belgium-Luxembourg					
Pyrites	276 252	286 067	276 967	260 194	296 979
Sulphur					
Crude	399 067	535 236	492 262	397 666	414 213
Sublimed & precipitated	1 505	982	1 352	1 451	2 298
Denmark					
Pyrites	112	74	80	71	26
Sulphur					
Crude	60 906	63 460	72 939	40 896	48 289
Sublimed & precipitated	103	76	122	174	142
France					
Pyrites	1 028	1 553	1 177	1 144	1 328
Sulphur					
Crude	537 557	552 170	623 421	530 890	642 767
Refined	430	1 004	929	2 079	2 959
Sublimed & precipitated	68	178	78	141	137
Germany, Federal Republic of					
Pyrites	80 190	149 274	187 042	203 328	150 525
Sulphur					
Crude	327 349	328 090	252 380	232 639	214 142
Sublimed & precipitated	891	929	1 154	2 041	1 434
Greece					
Pyrites	67 452	76 044	41 354	19 082	3 803
Sulphur					
Crude	43 295	82 618	46 749	101 072	137 751
Sublimed & precipitated	59	48	43	81	33
Irish Republic					
Sulphur					
Crude	493	271	327	391	318
Sublimed & precipitated	90	47	45	98	39
Italy					
Pyrites	262 813	186 607	167 574	158 971	102 513
Sulphur					
Crude	464 907	376 160	399 494	337 251	283 843
Sublimed & precipitated	961	1 364	1 215	1 325	1 202
Netherlands					
Pyrites	223	311	204	243	302
Sulphur					
Crude	299 006	373 997	377 044	289 455	237 546
Sublimed & precipitated	280	396	603	213	248
Portugal					
Sulphur	28 694	18 473	19 825	23 089	22 842
Spain					
Sulphur					
Crude	63 818	46 595	70 862	42 999	42 825
Sublimed & precipitated	620	462	42	37	51
Austria					
Pyrites	804	775	854	668	655
Sulphur					
Crude	93 489	113 304	98 589	90 590	82 590
Sublimed & precipitated	248	53	336	255	238
Bulgaria					
Pyrites (a)	262 000*	249 000*	238 000*	210 000*	190 000*
Sulphur (a)	60 000*	68 000*	50 100*	60 000*	50 000*
Czechoslovakia					
Sulphur	525 000	469 000	505 000	466 000	488 000
Finland					
Sulphur					
Crude	54 460	84 902	78 377	28 183	17 951
Sublimed & precipitated	19	10	514	13	20

Imports of Sulphur and Pyrites

Country	1983	1984	1985	1986	1987
German Democratic Republic					
Sulphur (a)	157 600*	135 000*	135 000*	135 000*	137 700*
Hungary					
Pyrites	80 067	4 174	37 568	73 563	53 995
Sulphur	174 692	168 066	171 503	167 395	158 061
Malta					
Sulphur	217	127	45	93	81
Norway					
Sulphur					
Crude	3 886	5 599	4 117	6 138	3 371
Sublimed & precipitated	16	420	61	11	30
Romania					
Pyrites (a)	...	48 900*	70 300*	...	...
Sulphur	(a) 164 200*	(a) 203 100*	392 900	(a) 163 600*	(a) 121 900*
Soviet Union					
Sulphur (a)	998 100*	1 065 600*	1 162 400*	1 719 100*	860 300*
Sweden					
Pyrites	168	14 749	21 970	48 807	65 914
Sulphur					
Crude	4 919	14 995	6 368	8 467	7 885
Sublimed & precipitated	5 962	9 525	12 004	9 898	8 402
Switzerland					
Pyrites	156	154	84	131	146
Sulphur					
Crude	39 336	46 043	48 577	47 320	57 173
Sublimed & precipitated	198	138	206	120	146
Turkey					
Pyrites	89 995	166 070	95 324	31 815	...
Sulphur					
Crude	76 868	20 998	111 006	129 108	108 254
Sublimed & precipitated	140	4 844	95	55	59
Yugoslavia					
Pyrites	...	156	61 081	4 584	451
Sulphur					
Crude	73 145	70 486	149 205	164 534	129 365
Refined	48 434	45 419	13 521	7 222	2 481
Sublimed & precipitated	1 868	404	584	498	130
Algeria					
Sulphur					
Crude	73 796	42 508	118 048	75 978	...
Sublimed & precipitated	2 507	3 505	6 294	5	...
Egypt					
Pyrites	48 694	8	16 100	203	...
Sulphur					
Crude	141 934	195 110	127 132	69 921	...
Sublimed & precipitated	127	142	26 131	9 060	...
Ethiopia					
Sulphur	1 820	403	1 237	2 074	70
Gabon					
Sulphur	9 157	206	5 250	5 501	...
Ivory Coast					
Sulphur	6 554	2 085	58	...	...
Kenya					
Sulphur					
Crude	6 019	666	931	482	6 480
Sublimed & precipitated	415	511	5 471	1 047	1 368
Morocco					
Sulphur	1 349 554	1 418 685	1 469 308	1 672 342	2 042 825
Niger					
Sulphur	32 729	33 412	20 679	25 951	...
Nigeria					
Sulphur	...	1 662	3 485	772	...
Senegal					
Sulphur	14 396	109 686	119 009	118 679	149 584
South Africa					
Pyrites	108	69	38	...	...
Sulphur					
Crude	383 414	597 145	463 502	319 353	...
Sublimed & precipitated	111	223	53	...	...

Imports of Sulphur and Pyrites

tonnes

Country	1983	1984	1985	1986	1987
Tanzania					
Sulphur	10 000	82 556	1 230	1 025	4 878
Tunisia					
Sulphur	982 412	997 536	556 496	1 096 422	1 119 864
Zaire					
Sulphur	19 349	2 815	...	...	...
Zimbabwe					
Sulphur	28 654	38 950	11 484	15 436	29 575
Canada					
Sulphur	2 365	3 020	3 168	10 760	24 712
Cuba					
Sulphur	184 618	142 427	157 061	124 535	123 000
El Salvador					
Sulphur	2 481	3 181	97	...	...
Guatemala					
Sulphur	42	362	1 437	1 000	...
Jamaica					
Sulphur	2 962	3 002	2 947	302	3 005
Mexico					
Sulphur					
Crude	324	493	23 215	...	...
Sublimed & precipitated	179	361	139	...	...
Nicaragua					
Sulphur	395	1 120	135	...	...
Trinidad and Tobago					
Sulphur	3 062	56	37	37	26
USA					
Pyrites	870	13 040	3 299	40 429	32 501
Sulphur	1 694 919	2 557 429	2 288 304	1 427 881	1 599 125
Argentina					
Sulphur	100 532	129 310	35 473	110 571	119 000
Brazil					
Sulphur					
Crude	953 789	1 174 132	1 084 955	1 155 291	1 189 846
Sublimed & precipitated	538	499	633	792	748
Chile					
Sulphur	71 096	117 270	77 339	65 096	70 502
Colombia					
Sulphur					
Crude	26 377	38 003	20 365	25 850	28 000
Sublimed & precipitated	85	187	200	81	...
Peru					
Sulphur	3 802	4 362	4 391	2 784	4 947
Suriname					
Sulphur	1 042	363	768	637	1 064
Uruguay					
Sulphur	5 872	13 561	11 975	20 144	15 350
Venezuela					
Sulphur	126	247	14 048	296	268
Bangladesh (b)					
Sulphur	18 423	34 935	...	...	27 998
China					
Sulphur	357 082	286 811	163 247	13	56
Cyprus					
Sulphur	3 140	2 513	2 561	2 823	2 384
Hong Kong					
Sulphur					
Crude	696	644	530	5 342	294
Sublimed	273	308	58	294	434
India (d)					
Sulphur					
Crude	...	920 000	989 861	983 000	1 312 000
Sublimed	...	...	99	...	...
Indonesia					
Sulphur					
Crude	3 121	1 975	2 624	10 844	33 620
Sublimed & precipitated	102 564	212 487	182 620	221 404	345 495

Imports of Sulphur and Pyrites

Country	1983	1984	1985	1986	1987
Iran (c)					
Sulphur	420	180	...	...	...
Israel					
Sulphur	164 358	203 581	245 455	201 387	250 950
Japan					
Pyrites	—	0	2 281	28 246	205 020
Sulphur	0	—	87	2 023	68
Jordan					
Sulphur					
Crude	113 148	126 426	169 300	127 528	168 387
Sublimed & precipitated	42 494	102 469	15 682	35 638	20 723
Korea, Republic of					
Sulphur					
Crude	448 076	567 836	592 867	518 369	520 997
Sublimed & precipitated	706	1 292	1 025	1 330	1 902
Malaysia					
Sulphur					
Crude	5 907	6 766	12 290	886	1 631
Sublimed & precipitated	7 512	8 447	10 798	22 796	20 349
Pakistan (b)					
Sulphur					
Crude	25 605	11 483	39 194	25 986	41 035
Sublimed & precipitated	120	1 343	445	1 958	810
Philippines					
Sulphur					
Crude	1 719	917	309	2 015	17 233
Sublimed & precipitated	17 884	16 245	20 382	17 318	1 704
Singapore					
Sulphur					
Crude	69	84	34	142	168
Sublimed & precipitated	159	281	127	510	216
Sri Lanka					
Sulphur					
Crude	405	707	322	363	1 203
Sublimed & precipitated	163	508	309	280	640
Syria					
Sulphur					
Crude	46 427	17 477	55 560	59 201	...
Sublimed & precipitated	220	1 357	9	33	...
Taiwan					
Sulphur					
Crude	48 380	63 374	74 955	60 515	17 893
Sublimed & precipitated	205 885	243 935	158 334	261 370	153 152
Thailand					
Sulphur					
Crude	27 409	39 941	50 753	57 334	46 703
Refined	3 581	1 439	4 104	2 561	12 310
Sublimed & precipitated	257	288	136	120	224
Australia					
Sulphur	392 581	470 795	392 344	398 101	379 560
New Zealand (b)					
Sulphur					
Crude	209 962	207 380	209 696	176 775	78 208
Sublimed & precipitated	291	282	333	738	687

(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

(d) Years ended 31 March following that stated

Talc

Production of Talc

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom	16 000	19 413	20 000	12 357	12 529
France	316 000	320 000	314 000	325 000	269 000
Germany, Federal Republic of	14 300	17 300	15 000	13 000	...
Greece	1 666	1 712	1 725	17 310	...
Italy	161 000	142 727	129 614	151 406	148 028
Portugal	7 325	6 822	4 998	5 908	7 292
Spain	69 467	72 237	88 776	73 914	...
Austria	122 128	134 011	131 454	133 319	129 959
Finland	318 430	327 472	318 547	284 179	324 474
Hungary	2 440	3 223	1 756	1 550	1 685
Norway	87 000*	65 124	70 000*	70 000*	...
Romania	60 000*	65 000*	65 000*	65 000*	65 000*
Soviet Union	510 000*	520 000*	520 000*	520 000*	530 000*
Sweden	21 056	17 882	14 400	11 233	1 000*
Yugoslavia	23 757	28 487	27 534	25 656	30 993
Egypt	5 497	6 406	6 229	5 579	6 105
South Africa					
Talc	7 617	10 561	10 220	8 641	8 005
Wonderstone (pyrophyllite)	3 575	3 851	4 227	4 606	3 467
Zambia	1 313	367	449	266	258
Zimbabwe	552	285	437	532	516
Canada	97 030	122 992	126 860	123 037	136 000
Mexico	11 032	8 900	29 900	20 000*	...
USA					
Talc	889 000	945 000	1 078 000	1 106 000	(d) 1 120 000*
Pyrophyllite	79 000	77 000	73 000	75 000	...
Argentina					
Talc	24 766	22 774	15 944	22 353	24 138
Pyrophyllite	4 925	5 012	2 785	2 812	1 260
Brazil					
Talc (b)	326 145	348 915	343 647	370 700	(d) 600 000*
Pyrophyllite (b)	42 967	64 432	43 401	50 000*	...
Chile	637	422	1 299	2 257	875
Colombia	6 639	8 760	8 611	9 013	11 927
Paraguay	120	150	120	130	180
Peru	5 232	9 238	500*	1 000*	...
Uruguay	685	1 658	1 308	1 255	1 648
Burma (a)	128	128	128	130*	...
China	950 000*	950 000*	1 000 000*	1 000 000*	1 000 000*
India					
Pyrophyllite	63 948	84 570	56 199	58 884	51 724
Steatite	284 020	346 038	344 681	378 683	359 448
Iran (e)	5 700	35 400	30 800	31 000*	...
Japan					
Talc	87 692	84 056	79 044	74 903	45 346
Pyrophyllite	1 064 499	1 073 420	1 023 809	962 302	939 165
Korea, Dem. P.R. of	170 000*	170 000*	170 000*	170 000*	170 000*
Korea, Republic of					
Talc	171 214	192 208	194 174	210 631	161 052
Pyrophyllite	460 922	656 442	738 304	587 049	690 819
Nepal (c)	15 157	6 782	6 015	8 780	10 000
Pakistan	15 960	15 568	20 183	23 021	23 278
Philippines	878	927	345	—	...
Taiwan	27 053	18 680	17 560	21 552	22 102
Thailand	20 148	28 479	43 478	39 051	41 850
Australia					
Talc	167 009	179 709	132 074	179 467	206 865
Pyrophyllite	9 569	7 051	7 317	8 588	6 036
World total	6 800 000	7 200 000	7 300 000	7 300 000	7 400 000

(a) Years ended 31 March following that stated

(b) Including beneficiated and directly shipped material

(c) Years ended mid-July of that stated

(d) Including pyrophyllite

(e) Years ended 20 March following that stated

Exports of Talc

Talc
tonnes

Country	1983	1984	1985	1986	1987
United Kingdom	4 270	3 583	4 842	2 542	2 354
Belgium-Luxembourg	27 510	38 566	41 241	39 929	53 838
France	82 480	94 011	103 460	99 535	111 683
Germany, Federal Republic of	4 663	5 657	8 534	7 587	8 991
Greece	566	174	109	245	...
Italy	49 595	41 864	41 987	43 076	40 473
Netherlands	17 551	10 791	7 762	8 817	12 066
Spain	28 484	33 123	31 197	32 910	31 875
Austria	104 252	114 085	110 150	113 369	120 177
Czechoslovakia (a)	6 200*	7 200*	6 500*	6 800*	6 200*
Finland	42 912	47 904	52 634	48 284	75 867
Norway	50 693	48 830	44 435	42 702	45 100
Sweden	13 768	14 619	12 305	8 145	13 916
Switzerland	137	126	95	86	144
Turkey	677	1 202	1 739	782	334
Yugoslavia	942	3	54	91	21
Egypt	660	552	665	843	...
USA	197 689	232 670	214 711	211 931	283 693
Brazil	1 295	3 141	4 135	2 197	...
China	534 378	513 446	521 423	582 220	638 009
Hong Kong (c)	14 121	13 881	13 471	29 250	25 204
India (b)	9 635	12 592	12 443	...	...
Japan	4 058	4 838	4 792	3 518	2 654
Jordan	2 889	5 222	7 310	10 993	6 357
Korea, Dem. P. R. of (a)	28 900*	34 500*	20 400*	23 800*	18 000*
Korea, Republic of	45 898	40 650	37 987	42 486	36 580
Singapore	981	536	832	512	890
of which: Re-exports	947	522	816	508	863
Taiwan	1 823	1 007	509	695	357
Thailand	5 153	8 343	2 889	2 364	3 488
Australia	131 914	163 370	122 306	183 357	129 656

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

(b) Years ended 31 March following that stated

(c) Re-exports

Talc

Imports of Talc

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom	59 847	67 615	(c) 59 135	68 408	70 675
Belgium-Luxembourg	34 390	35 610	58 735	68 617	83 766
Denmark	8 465	9 605	9 964	9 649	9 870
France	23 217	20 976	16 146	17 929	23 330
Germany, Federal Republic of	141 789	143 494	139 082	148 298	155 536
Greece	1 739	2 067	2 036	2 508	2 717
Irish Republic	2 725	2 414	2 143	1 643	1 654
Italy	22 943	26 066	24 963	28 465	32 429
Netherlands	45 455	37 751	42 241	46 910	59 100
Portugal	4 773	5 808	5 068	6 708	7 666
Spain	9 391	9 338	11 669	13 614	19 971
Albania (d)	900*	100*	...	100*	...
Austria	1 729	3 609	2 732	6 198	10 698
Czechoslovakia (d)	700*	900*	1 400*	1 500*	2 300*
Finland	671	5 515	577	424	440
German Democratic Republic (d)	2 200*	2 200*	3 200*	1 500*	2 200*
Hungary	4 201	6 168	3 751	4 368	5 334
Norway	5 675	8 127	8 046	6 302	6 207
Poland	16 662	25 646	20 944	23 154	25 424
Soviet Union (d)	2 500*	3 000*	1 000*	1 500*	1 000*
Sweden	22 315	24 581	26 369	27 289	31 426
Switzerland	11 991	13 368	13 421	14 922	15 059
Turkey	321	585	420	549	506
Yugoslavia	4 037	6 129	4 378	4 856	4 336
Algeria	1 532	1 267	1 631	1 584	...
Cameroon	...	500*	...	300*	300*
Egypt	1 345	1 247	1 027	975	...
Ivory Coast	886	1 591	2 736	...	...
Kenya	3 266	2 738	3 101	4 721	4 670
Morocco	1 209	1 552	1 060	1 079	1 417
South Africa	2 557	3 198	2 545	4 154	...
Tunisia	136	1 536	1 371	1 044	1 191
Zaire	51	233	...	...	...
Canada	35 390	38 816	41 132	39 362	49 515
Costa Rica	969	913	809	1 096	927
Dominican Republic	955	1 284	859	462	...
El Salvador	390	426	399	...	...
Guatemala	219	412	266	159	...
Honduras	281	154	251	...	...
Jamaica	505	390	463	1 170	449
Mexico	75 546	102 655	100 281	...	...
Panama	223	241	204	265	254
Trinidad and Tobago	2 413	1 172	621	507	592
USA	39 912	40 509	42 494	50 776	49 000*
Argentina	728	341	451	382	...
Chile	222	6 007	1 580	11 044	...
Colombia	2 193	1 618	2 244	890	...
Ecuador	611	805	778	559	618
Peru	427	352	400	621	1 070
Venezuela	5 156	12 594	8 540	8 873	14 877
Cyprus	412	428	265	380	595
Dubai	437	466	622	465	...
Hong Kong	15 526	15 258	15 972	32 707	30 312
Indonesia	20 304	17 292	13 385	27 722	17 464
Iran (a)	79	548	...	...	...
Israel (d)	1 300*	900*	1 400*	700*	1 500*
Japan	615 182	619 260	573 901	614 422	579 171
Jordan	427	220	329	399	471
Korea, Republic of	5 225	20 981	29 742	41 926	63 937
Malaysia	6 551	5 966	5 473	7 010	6 796
Pakistan (b)	23 135	56 447	988	1 156	13 635

Imports of Talc

Talc
tonnes

Country	1983	1984	1985	1986	1987
Philippines	9 709	5 011	5 620	7 147	8 464
Saudi Arabia	1 876	5 379	2 769	2 918	3 004
Singapore	8 119	8 382	3 986	6 205	5 163
Sri Lanka	703	1 310	1 789	1 355	1 467
Syria	3 130	442	2 782	1 099	...
Taiwan	6 662	9 915	10 744	12 230	22 726
Thailand	19 160	17 474	18 891	22 118	26 518
Australia	147	215	352	151	300
New Zealand (b)	5 826	2 806	2 495	2 371	2 217

- (a) Years ended 20 March following that stated
- (b) Years ended 30 June of that stated
- (c) Excludes a small quantity which is suppressed by Customs and Excise
- (d) BGS estimates, based on known exports from certain countries

Production of Tantalum and Niobium Minerals

tonnes

Country		1983	1984	1985	1986	1987
Portugal						
Columbite-tantalite	(25%, 25%)	3	3	2	5	...
Spain						
Tantalite	(— , 25%)	47	32	18	12*	10*
Mozambique						
Tantalite	(10%, 45%)	14	7	4	3	—
Microlite	(5%, 50%)	23	10	6	3	—
Namibia						
Tantalite	(— , 14%)	3	5	3	8	14
Nigeria						
Columbite	(43%, 6%)	80	126	101	13	48
Rwanda						
Columbite-tantalite	(30%, 23%)	50	52	28	—	—
Zaire						
Columbite-tantalite	(27%, 27%)	51	100	147	50*	50*
Zimbabwe						
Columbite-tantalite	(11%, 28%)	35	59	40	33	37
Canada						
Pyrochlore	(45%, —)	2 685	4 257	4 506	4 480	4 046
Tantalite	(3%, 30%)	—	—	106	107	97
Brazil						
Pyrochlore	(42%, —)	16 828	30 087	31 311	31 000*	30 000*
Columbite-tantalite	(20%, 30%)	264	170	323	274	300*
Djalmaite	(1%, 50%)	7	14	15	10*	10*
Malaysia						
Columbite	(40%, 14%)	67	50	76	215	228
Struverite	(— , 10%)	—	99	120	34	141
Thailand						
Columbite-tantalite	(17%, 25%)	549	477	432	121	183
Struverite	(— , 6%)	275	30	309	241	423
Australia						
Columbite-tantalite	(20%, 33%)	117	145	110	140	121
World total concentrates		21 000	36 000	38 000	37 000	36 000
Nb content		8 500*	14 800*	15 500*	15 300*	14 700*
Ta content		400*	300*	400*	300*	300*

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, French Guiana and Zambia

(2) The figures in this table refer to gross tonnage of tantalum and niobium concentrates

(3) Estimated average niobium and tantalum contents are given in the form (Nb%, Ta%) for each country and each mineral, relating where possible to the later years

(4) Niobium and tantalum are also recovered from tin slags. This source is particularly important in the case of tantalum and in recent years is believed to have accounted for over 60% of all tantalum recovered

(5) No detailed information on the production of tantalum bearing tin slags is available but the major producers are Thailand and Malaysia, with small amounts from Australia, Brazil, Nigeria, Portugal, South Africa and Zaire

Exports of Tantalum and Niobium

Country	1983	1984	1985	1986	1987
United Kingdom					
Tantalum	29	18	20	12	18
Niobium	2	22	9	6	16
France					
Tantalum	12	10	32	18	21
Germany, Federal Republic of					
Niobium & tantalum ores	1 328	1 347	1 895	54	6
Tantalum	87	112	117	93	93
Niobium	97	93	82	90	113
Italy					
Tantalum	13	1	2	11	16
Netherlands					
Niobium & tantalum ores	29	74	154	4	—
Tantalum	9	1	1	27	15
Austria					
Tantalum	12	12	17	21	18
Nigeria					
Columbite	...	70	257	48	...
Zaire					
Columbite-tantalite	83	150	84	146	119
Canada					
Niobium & tantalum ores (a)	2 700*	4 500*	4 900*	4 900*	4 100*
USA					
Tantalum ores & concentrates	55	71	52	32	54
Tantalum	155	228	303	272	296
Niobium	45*	45*	55*	55*	60*
Brazil					
Columbite-tantalite	115	233	270	273	187
Japan					
Tantalum	9	10	12	11	18
Malaysia					
Columbite & tantalite	99	81	45	25	136
Tin slags	3 801	10 183	9 709	8 654	14 444
Singapore					
Tantalum ores & concentrates (b)	29	20	3	393	12
Tin slags	1 856	781	1 012	571	1 378
of which: Re-exports	1 422	489	97	488	242
Taiwan					
Tantalum	84	22	22	5	21
Thailand					
Columbite & tantalite	125	274	88	13	61
Tin slags	1 577	1 516	330	70	935
Australia					
Columbite-tantalite	229	239	268	198	440

Notes

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

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

(b) Re-exports

Imports of Tantalum and Niobium

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Tantalum	51	53	38	41	63
Niobium	18	12	25	19	21
Belgium-Luxembourg					
Niobium & tantalum ores	997	1 378	1 949	2 046	1 845
Tantalum	17	43	20	40	36
Niobium	1	1	13	6	3
France					
Tantalum	31	48	49	36	44
Niobium	26	37	73	24	40
Germany, Federal Republic of					
Niobium & tantalum ores	370	(a) 641	(a) 506	(a) 1 089	(a) 1 142
Tantalum	125	157	174	148	178
Niobium	41	31	34	30	18
Italy					
Tantalum	2	4	4	4	3
Niobium	4	64	3	33	56
Netherlands					
Niobium & tantalum ores	5	59	93	—	—
Tantalum	0	2	5	0	1
Austria					
Tantalum	12	29	41	19	54
USA					
Tantalum concentrates	231	997	349	355	...
Niobium concentrates	657	1 479	1 295	1 295	2 078
Tantalum	68	104	97	237	112
Niobium	2	9	4	6	...
Japan					
Tantalum ores & concentrates	121	275	221	66	35
Niobium ores & concentrates	740	2 042	1 974	1 651	1 336
Tantalum	48	75	79	45	48
Singapore					
Tantalum ores & concentrates	162	112	68	0	10
Tin slags	2 762	9 261	8 481	9 585	9 749

Notes

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

(a) Including other ores

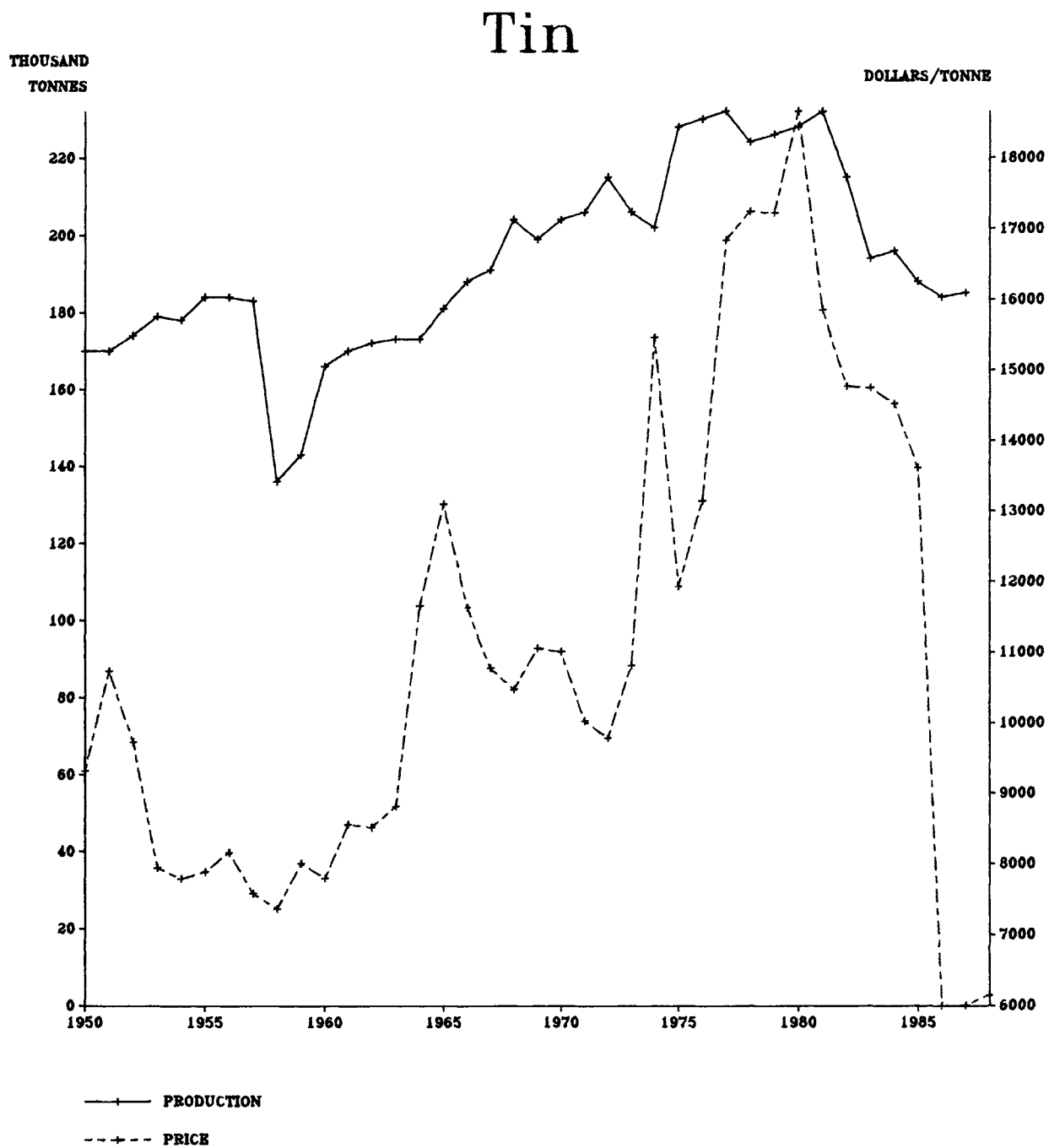


Figure 20 World mine production of tin from 1950 to 1987 compared with the yearly average price (to 1988) on the New York Market of Straits pig ex-dock major US port expressed in constant 1980 US dollars.

Constant commodity prices (to 1986) taken from Commodity Trade and Price Trends published by the Johns Hopkins University Press for the World Bank.

Mine Production of Tin

Tin
tonnes (metal content)

Country	1983	1984	1985	1986	1987
United Kingdom	4 000	5 216	5 204	4 276	4 033
Portugal	375	320	263	211	64
Spain	444	438	637	296	71
Czechoslovakia	250	250	250*	200*	500*
German Democratic Republic	2 000*	2 500*	2 800*	2 800*	3 000*
Soviet Union	17 000*	17 000*	16 000*	16 000*	15 000*
Cameroon	24*	24*	24*	—	—
Namibia	870	940	994	880	1 097
Niger	74	114	183	124	94
Nigeria	1 560	1 338	963	146	156
Rwanda	1 526	1 561	1 161	29	—
South Africa	2 668	2 301	2 153	2 055	1 412
Zaire	2 163	2 708	2 907	1 889	2 080
Zimbabwe	1 235	1 209	1 207	1 079	1 037
Canada (a)	140	209	119	2 356	3 397
Mexico	330	416	380	585	369
USA	100*	100*	100*	100*	100*
Argentina	291	274	454	379	186
Bolivia	25 278	19 911	16 136	10 479	8 128
Brazil	13 275	19 957	26 514	26 405	28 522
Peru (b)	2 808	3 314	3 779	4 817	5 263
Burma	1 642	2 029	1 751	1 495	939
China	17 000*	17 500*	20 000*	25 000*	28 000*
Indonesia	26 554	23 223	21 759	24 910	26 093
Japan	546	486	510	500	86
Laos	359	430	540*	400*	400*
Malaysia	41 367	41 307	36 884	29 134	30 388
Mongolia	1 000	1 000	1 000	1 000	1 200
Thailand	19 602	21 585	16 576	16 775	14 750
Vietnam	500*	500*	500*	500*	600*
Australia	(c) 9 275	(c) 7 939	6 374	8 515	7 691
World total	194 000	196 000	188 000	183 000	185 000

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

(b) Recoverable

(c) Excluding content of copper-tin concentrate

Tin

Smelter Production of Tin

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom	6 467	7 105	7 548	9 227	12 135
Netherlands	5 398	6 517	6 033	5 104	3 834
Portugal	421	409	460	193	22
Spain	3 500	2 900	3 300	1 965	1 671
Czechoslovakia	307	425	507	240	545
German Democratic Republic	2 600*	3 000*	3 300*	3 300*	3 400*
Soviet Union	18 500*	18 500*	18 500*	18 000*	17 000*
Nigeria	1 244	1 334	1 079	91	561
Rwanda	1 110	1 040	948	—	—
South Africa	2 685	2 371	2 683	2 804	2 490
Zaire	201	170	85	—	—
Zimbabwe	1 235	1 209	1 207	1 079	1 037
Mexico	1 276	1 595	1 533	1 483	1 723
USA	2 500	4 000	3 000*	3 213	3 927
Argentina	152	160	231	258	146
Bolivia (a)	14 164	15 842	12 859	7 673	2 610
Brazil	12 950	18 877	24 701	25 152	28 841
Burma	500	700	500	1 000	1 000
China	16 500*	17 000*	19 000*	20 000*	25 000*
Indonesia	28 390	22 493	20 418	22 080	24 200
Japan	1 260	1 354	1 391	1 281	896
Korea, Republic of	400	1 200	1 600	1 500	1 800
Malaysia	53 338	44 416	45 500	43 788	44 363
Singapore	1 800	3 500	4 000	500	1 000
Thailand	18 467	19 729	17 996	19 672	15 438
Vietnam	520*	475*	570*	600*	600*
Australia	2 913	2 899	2 683	1 399	563
World total	199 000	199 000	202 000	192 000	195 000

(a) Refined, including alloys

Exports of Tin

Tin
tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Concentrates	1 601	3 092	2 641	5 085	3 840
Unwrought	993	11 073	7 292	13 640	14 757
Unwrought alloys	907	1 993	1 605	2 972	2 818
Scrap	373	932	456	688	529
Belgium-Luxembourg					
Unwrought	219	339	240	1 644	2 023
Unwrought alloys	941	1 309	2 289	1 594	1 083
Scrap	107	50	68	84	64
Denmark					
Unwrought	678	964	1 101	1 084	18
Unwrought alloys	549	857	224	347	107
Scrap	7	67	180	261	200
France					
Concentrates	27	7	7	2 091	42
Unwrought	317	218	347	174	91
Unwrought alloys	26	51	99	22	56
Scrap	328	287	352	321	300
Germany, Federal Republic of					
Unwrought	1 562	1 457	1 158	1 289	538
Unwrought alloys	2 794	2 781	2 660	2 215	1 367
Scrap	230	144	87	123	276
Irish Republic					
Scrap	858	1 374	1 366	1 416	2 132
Italy					
Unwrought (a)	461	141	197	163	131
Scrap	57	94	60	200	72
Netherlands					
Concentrates	344	324	—	223	—
Unwrought	2 400	3 038	1 116	2 407	1 706
Unwrought alloys	1 011	1 116	1 012	798	782
Scrap	177	225	224	174	197
Spain					
Unwrought	20	245	168	213	0
Unwrought alloys	74	154	34	12	6
Scrap	122	99	56	—	275
Sweden					
Unwrought	32	37	60	38	102
Unwrought alloys	24	27	104	84	81
Switzerland					
Unwrought	196	179	198	161	97
Scrap	76	43	90	28	41
Namibia					
Concentrates	1 300	1 400	1 483	1 313	...
Niger					
Concentrates (b)	144	72	126	108	...
Nigeria					
Unwrought (a)	1 150*	1 280	400	215	600
Rwanda					
Concentrates	1 000*	—	870	...	...
South Africa					
Concentrates (b)	697	714	703	203	—
Unwrought (a)	1 170	828	449	1 007	526
Zaire					
Concentrates	2 853	3 633	5 095	5 500*	...
Unwrought	209	245	—	—	—
Canada					
Concentrates (b)	381	317	393	3 725	2 783
Jamaica					
Scrap	479	428	538	406	480

Tin

Exports of Tin

tonnes

Country	1983	1984	1985	1986	1987
USA					
Unwrought (a)	3 540	3 184	2 875	3 237	1 915
of which: Re-exports	2 200	1 755	1 397	1 689	597
Scrap	5 591	20 958	26 185	47 351	28 136
Argentina					
Tin-silver ore	2 634	2 252	1 030	—	185
Bolivia					
Concentrates	11 242	16 027	16 400*	22 753	20 239
Unwrought	13 532	15 614	11 424	8 207	1 911
Brazil					
Unwrought (a)	8 820	14 602	20 042	19 152	21 027
Peru					
Concentrates	3 198	3 229	2 567	4 631	4 367
Burma					
Concentrates (c)	2 067	2 636	780	9 451	...
China					
Unwrought (a)	3 643	2 641	7 249	7 421	15 894
Hong Kong					
Concentrates (d)	—	—	4 768	3 709	6 912
Unwrought	627	766	5 570	1 944	2 176
of which: Re-exports	441	458	5 287	1 768	1 819
Indonesia					
Concentrates	1 342	2 789	3 240	4 694	1 545
Unwrought (a)	24 950	22 568	21 104	23 804	24 241
Japan					
Unwrought (a)	161	117	96	56	87
Laos					
Concentrates (b)	1 284	—	—	—	...
Malaysia					
Unwrought (a)	57 231	39 688	57 482	40 504	50 318
Scrap	1 167	430	495	...	217
Singapore					
Concentrates	10 604	11 253	9 728	4 892	10 421
of which: Re-exports	10 582	10 852	9 215	4 892	10 421
Unwrought	20 754	17 870	20 339	29 914	29 820
of which: Re-exports	17 216	15 324	14 684	27 934	28 300
Scrap	551	465	137	75	77
of which: Re-exports	191	87	98	39	15
Thailand					
Unwrought	17 724	18 455	17 963	14 784	13 561
Unwrought alloys	1 152	1 083	1 674	245	108
Australia					
Concentrates	17 729	11 855	10 562	14 588	13 794
Unwrought (a)	494	469	430	228	135

Notes

(1) 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) Re-exports

Imports of Tin

Tin
tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Concentrates	22 407	21 055	20 713	30 166	26 280
Unwrought	4 802	4 492	3 924	4 249	2 905
Unwrought alloys	2 549	2 506	3 424	3 442	2 331
Scrap	2 915	1 664	563	303	446
Belgium-Luxembourg					
Concentrates	2 692	2 944	556	102	35
Unwrought	2 034	2 036	1 562	1 991	1 859
Unwrought alloys	252	275	2 291	1 545	289
Scrap	98	172	404	337	238
Denmark					
Unwrought	8	6	50	81	46
Unwrought alloys	511	745	310	1 925	189
Scrap	364	120	3	504	3
France					
Unwrought	7 900	7 976	6 648	7 889	7 319
Unwrought alloys	144	211	477	399	288
Scrap	75	41	15	15	3
Germany, Federal Republic of					
Concentrates	2 166	1 365	2 351	504	144
Unwrought	15 171	16 745	17 313	17 612	18 118
Unwrought alloys	1 446	2 029	1 825	1 274	1 366
Scrap	282	284	224	303	365
Greece					
Unwrought	376	259	365	477	...
Irish Republic					
Unwrought (a)	38	57	54	60	95
Italy					
Unwrought	5 432	5 559	5 135	5 734	6 123
Unwrought alloys	333	403	501	595	458
Netherlands					
Concentrates	8 910	3 000*	10 677	9 986	5 593
Unwrought	2 037	1 702	2 271	1 302	2 486
Unwrought alloys	716	552	899	1 369	627
Scrap	186	368	455	355	444
Portugal					
Concentrates	81	80	218	11	...
Unwrought (a)	408	396	182	655	786
Spain					
Concentrates	3 784	4 351	4 262	3 071	1 848
Unwrought (a)	97	84	252	1 575	1 838
Austria					
Unwrought	438	509	501	523	512
Czechoslovakia					
Unwrought (a)	2 933	2 896	3 058	3 200	2 819
Finland					
Unwrought (a)	132	224	112	214	142
Hungary					
Unwrought & semi-manufactures	2 038	1 654	1 277	1 422	1 674
Norway					
Unwrought	324	402	342	448	396
Unwrought alloys	72	70	141	113	85
Poland					
Unwrought	4 352	3 634	3 029	3 625	2 713
Soviet Union					
Concentrates (e)	2 200*	1 300*	2 200*	800*	2 500*
Unwrought (e)	7 200*	11 500*	11 600*	10 000*	8 000*
Sweden					
Unwrought	296	372	502	558	458
Unwrought alloys	51	68	68	95	22
Scrap	0	12	90	59	128
Switzerland					
Unwrought	890	791	977	1 369	1 011
Turkey					
Unwrought (a)	995	853	1 007	1 097	1 052

Tin

Imports of Tin

tonnes

Country	1983	1984	1985	1986	1987
Yugoslavia					
Unwrought (a)	1 121	1 122	1 387	1 565	1 068
Algeria					
Unwrought (a)	114	618	454	161	...
Egypt					
Unwrought & scrap	358	288	440	265	...
Morocco					
Unwrought (a)	114	132	156	158	127
Canada					
Unwrought	3 769	4 105	3 698	3 925	3 791
Mexico					
Concentrates	1 974	3 553	5 081	6 306	7 042
Unwrought	463	73	29	171	98
Scrap	270	453	156	...	...
USA					
Concentrates (b)	969	3 517	1 639	4 031	2 967
Unwrought	34 048	41 241	33 830	35 768	41 150
Unwrought alloys	2 146	2 607	3 377	1 018	1 610
Scrap	1 153	1 157	737	925	1 453
Argentina					
Unwrought	874	914	469	1 344	556
Chile					
Unwrought	531	517	647	1 063	379
Colombia					
Unwrought (a)	242	299	317	378	311
Peru					
Unwrought (a)	278	117	158	324	312
Venezuela					
Unwrought (a)	257	612	967	782	1 015
Hong Kong					
Unwrought	1 675	1 907	3 983	3 568	4 655
India (f)					
Unwrought (a)	2 100	2 300	1 766	3 100	2 000
Scrap	...	...	12 254	...	...
Iran (d)					
Unwrought	717	370	...	...	...
Japan					
Unwrought	29 333	30 470	28 297	31 769	31 997
Unwrought alloys	433	1 425	1 983	542	1 591
Korea, Republic of					
Concentrates	574	1 749	2 687	1 532	3 698
Unwrought (a)	2 216	2 402	1 603	3 755	4 296
Malaysia					
Concentrates	25 554	16 364	13 634	23 806	31 408
Unwrought (a)	1 068	854	795	601	805
Philippines					
Unwrought (a)	681	690	360	465	797
Singapore					
Concentrates	3 674	6 504	8 315	5 501	12 064
Unwrought	1 508	2 347	1 119	12 742	11 021
Scrap	2 630	436	337	281	536

Imports of Tin

Tin
tonnes

Country	1983	1984	1985	1986	1987
Taiwan					
Unwrought (a)	1 557	2 265	1 724	4 512	4 409
Australia					
Unwrought	103	105	136	186	177
New Zealand (c)					
Unwrought (a)	134	167	153	139	156

Notes

(1) 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

(f) Years ended 31 March following that stated

Titanium

Production of Titanium Minerals

tonnes

Country	1983	1984	1985	1986	1987
Portugal Ilmenite	247	164	227	232	141
Finland Ilmenite	163 900	167 000	53 000	—	—
Norway Ilmenite	555 947	651 834	735 842	802 426	852 322
Soviet Union Ilmenite	435 000*	440 000*	445 000*	450 000*	455 000*
Rutile	10 000*	10 000*	10 000*	10 000*	10 000*
Sierra Leone Rutile	71 801	91 289	80 611	97 101	113 252
South Africa (e)	213 000	228 000	255 000	255 000	317 000
Canada (a) Ilmenite (d)	1 865 000	1 780 000	2 560 000	2 500 000*	...
USA Ilmenite (b)	235 000*	250 000*	290 000*	290 000*	290 000*
Brazil Ilmenite	48 193	61 227	68 827	75 472	75 000*
Rutile	1 058	682	389	495	500*
China Ilmenite	140 000*	140 000*	140 000*	140 000*	140 000*
India Ilmenite	144 804	140 000	143 000	140 000*	140 000*
Rutile	6 715	6 000*	6 800	7 300*	7 300*
Malaysia Ilmenite	(c) 207 297	(c) 224 042	315 736	414 941	509 202
Sri Lanka Ilmenite	80 486	102 048	114 954	133 873	175 000
Rutile	8 386	6 467	8 605	8 443	9 000
Thailand Ilmenite	205	148	1 078	13 489	26 278
Leucoxene	—	388	488	797	800
Australia Ilmenite	892 570	1 493 171	1 418 867	1 237 694	1 498 000
Rutile	163 374	170 424	211 615	215 774	246 263
Leucoxene	13 358	32 110	13 809	14 143	11 290
World total Ilmenite (Wt. of concs)	5 400 000	6 100 000	7 000 000	6 900 000	7 600 000
Rutile (Wt. of concs)	308 000	335 000	374 000	395 000	456 000
All forms (TiO ₂ content)	3 000 000*	3 405 000*	3 884 000*	3 860 000*	4 237 000*

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) Including a mixed product containing ilmenite, leucoxene and rutile

(c) Exports

(d) Processed into slag. In 1987, Canada produced 850 000 tonnes (80% TiO₂)

(e) Ti content of titanium minerals and slag

Exports of Titanium

Titanium
tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Ilmenite	0	27	1 125	—	16 187
Metal	...	...	2 512	2 094	2 036
Oxides	119 012	117 190	120 134	136 715	158 557
Belgium-Luxembourg					
Metal	137	185	173	109	213
Oxides	64 101	62 784	68 898	70 850	71 343
France					
Titanium minerals	235	95	247	108	1 785
Metal	969	1 188	1 717	1 189	877
Oxides	141 958	148 788	155 082	161 104	156 567
Germany, Federal Republic of					
Ilmenite	16	788	7 556	920	348
Other titanium minerals	6 636	7 551	7 520	4 144	3 494
Metal	2 300	2 325	1 868	1 276	1 415
Oxides	210 506	209 287	220 838	229 431	235 606
Italy					
Titanium minerals	536	990	1 906	1 335	31
Metal	182	200	130	211	156
Oxides (b)	14 500*	17 900*	22 700*	25 300*	22 000*
Netherlands					
Ilmenite	617	769	739	525	3 087
Other titanium minerals	40 983	46 890	29 925	35 208	64 248
Metal	36	115	73	61	48
Oxides	29 624	32 863	35 060	35 955	33 891
Spain					
Oxides	39 124	46 813	39 934	23 997	26 836
Czechoslovakia					
Oxides (b)	3 700*	2 800*	2 600*	3 300*	2 800*
Finland					
Oxides	61 959	(b) 46 400*	(b) 46 500*	(b) 48 800*	(b) 46 700*
Norway					
Titanium minerals	519 611	599 214	641 910	693 265	715 915
Oxides	(c) 2 996	(b) 8 300*	(b) 9 800*	(b) 8 800*	(b) 14 800*
Soviet Union					
Metal (b)	1 200*	700*	1 200*	700*	700*
Sweden					
Metal	510	628	430	288	402
Oxides	438	671	568	608	651
Yugoslavia					
Oxides	13 867	16 173	16 209	17 961	19 794
Sierra Leone					
Rutile	46 216	94 677	77 931	120 542	...
South Africa					
Titanium minerals & slag (a)	181 000	218 000	222 000	243 000	272 000
Canada					
Titanium slag	500 000*	600 000*	750 000*	750 000*	800 000*
Metal (d)	702	370	536	605	495
Oxides (d)	23 190	23 779	24 184	22 235	15 906
USA					
Titanium minerals	4 369	7 867	25 183	4 842	4 024
Metal	7 198	6 727	9 470	16 151	10 899
Oxides	84 904	98 340	93 639	105 178	120 896
Brazil					
Titanium minerals	—	2 002	2 832	5 474	6 600
China					
Metal (b)	50*	200*	400*	100*	400*
Oxides (b)	2 000*	2 400*	3 900*	5 400*	10 000*
Hong Kong					
Oxides (f)	2 055	1 926	2 743	2 840	4 784
India (e)					
Ilmenite	23 625	7 852	17 956	...	...

Titanium

Exports of Titanium

tonnes

Country	1983	1984	1985	1986	1987
Japan					
Metal	6 044	9 700	7 330	6 143	7 073
Oxides	60 351	59 923	61 662	69 346	78 441
Korea, Republic of					
Oxides	2 395	1 796	2 148	1 497	3 215
Malaysia					
Ilmenite	207 297	224 042	249 218	397 696	302 587
Sri Lanka					
Ilmenite	11 190	96 066	134 550	139 400	105 000
Rutile	—	—	6 800	11 860	—
Taiwan					
Oxides	7 971	81	29	395	12
Australia					
Ilmenite	816 933	1 172 986	1 151 921	1 034 209	1 045 497
Rutile	217 662	191 507	211 723	229 665	256 781
Leucoxene	9 276	30 959	16 779	13 474	10 685
Oxides (b)	24 800*	27 700*	24 900*	28 800*	28 300*

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) Ti content

(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

(f) Re-exports

Imports of Titanium

Country	1983	1984	1985	1986	1987
United Kingdom					
Ilmenite	188 708	248 110	277 971	283 274	293 474
Other titanium minerals	92 691	72 792	88 900	90 380	122 735
Titanium slag	...	...	36 607	38 143	37 666
Metal	(b) 6 900*	(b) 7 900*	7 959	8 854	12 626
Oxides	39 309	34 248	34 400	37 864	37 193
Belgium-Luxembourg					
Ilmenite	63 501	43 251	71 237	56 604	67 450
Other titanium minerals	40 626	48 251	51 062	50 210	65 255
Metal	790	463	1 313	859	877
Oxides	25 497	29 124	29 808	29 579	33 859
Denmark					
Oxides	8 370	9 926	10 569	11 144	11 632
France					
Ilmenite	116 251	90 513	124 164	171 650	62 971
Other titanium minerals	62 070	77 338	108 892	94 086	132 942
Titanium slag	...	...	63 686	110 446	115 508
Metal	1 774	2 397	2 701	1 775	2 633
Oxides	44 079	48 828	46 502	46 451	48 409
Germany, Federal Republic of					
Ilmenite	373 776	425 444	467 169	432 551	465 354
Other titanium minerals	29 956	30 242	19 193	18 053	18 075
Titanium slag	195 938	214 318	246 179	229 223	239 572
Metal	2 046	4 223	3 976	2 902	3 126
Oxides	73 730	76 783	81 916	91 228	97 672
Greece					
Oxides	8 483	8 770	9 546	10 215	...
Irish Republic					
Oxides	2 289	3 419	3 071	3 300	1 791
Italy					
Ilmenite	2 102	17 386	141 419	36 524	119 145
Other titanium minerals	4 212	4 996	4 760	18 324	6 105
Titanium slag	63 006	42 043	83 365	85 752	77 930
Metal	1 991	2 806	3 010	3 472	3 409
Oxides	53 236	54 769	55 216	60 176	62 446
Netherlands					
Ilmenite	639	9 850	4 816	3 717	5 204
Other titanium minerals	53 063	42 018	35 014	43 749	59 251
Titanium slag	41 055	45 419	36 594	45 260	46 919
Metal	244	253	215	234	344
Oxides	23 102	27 333	29 312	28 618	32 187
Portugal					
Oxides	8 727	10 371	9 460	10 646	10 773
Spain					
Ilmenite	130 137	185 060	186 184	104 153	133 841
Other titanium minerals	1 912	2 729	2 433	2 767	2 100
Metal	1 354	1 094	1 128	1 789	449
Oxides	11 608	10 622	10 419	12 769	13 839
Austria					
Oxides	9 640	10 637	11 915	11 913	12 708
Bulgaria					
Titanium minerals (b)	4 100*	3 100*	2 300*	2 600*	3 800*
Oxides (b)	1 400*	1 900*	3 500*	2 500*	1 800*
Czechoslovakia					
Oxides (b)	3 000*	2 900*	3 800*	3 200*	3 200*
Finland					
Titanium minerals	31 435	(b) 30 400*	...	...	(b) 9 200*
Oxides	2 125	2 261	2 498	2 083	3 580
German Democratic Republic					
Oxides (b)	17 200*	20 700*	20 100*	20 900*	22 400*
Norway					
Oxides	5 086	4 924	6 609	7 601	7 309
Poland					
Titanium minerals	—	34 666	—	—	...
Romania					
Titanium minerals (b)	2 700*	4 500*	6 400*	5 000*	8 600*
Oxides (b)	5 500*	5 800*	7 500*	5 600*	2 800*

Titanium

Imports of Titanium

tonnes

Country	1983	1984	1985	1986	1987
Soviet Union					
Titanium minerals (b)	91 700*	110 700*	89 200*	90 000*	85 000*
Oxides (b)	2 800*	2 500*	9 800*	5 300*	11 600*
Sweden					
Titanium minerals	2 233	3 200	4 636	2 676	2 405
Metal	1 145	802	644	704	500
Oxides	22 887	22 752	23 899	24 856	25 532
Switzerland					
Oxides	2 134	2 290	2 348	1 693	2 004
Turkey					
Titanium minerals	3 721	...	3 196	9 337	...
Oxides	(a) 2 250	(a) 2 387	17 165	17 478	...
Yugoslavia					
Titanium minerals	53 470	47 209	27 275	48 147	48 463
Oxides	3 142	3 026	4 294	5 300	4 535
Algeria					
Oxides	6 334	6 946	14 299	15 253	...
Egypt					
Oxides	1 264	1 733	60	424	...
Kenya					
Oxides	314	261	678	518	785
Morocco					
Oxides	2 097	3 145	3 293	2 904	3 716
South Africa					
Oxides	3 592	4 176	1 104	411	...
Zimbabwe					
Oxides	102	1 052	1 253	1 253	1 192
Canada					
Metal	275	356	589	480	392
Oxides	18 768	25 557	25 154	27 693	30 618
Mexico					
Ilmenite	76 157	95 518	29 567	...	...
Rutile sand	2 297	2 506	2 507	...	...
USA					
Ilmenite	237 186	373 374	460 543	423 045	308 524
Rutile (c)	101 221	163 754	162 988	200 118	146 891
Titanium slag	125 834	190 363	264 742	328 285	408 785
Metal	4 368	7 164	5 283	4 812	3 984
Oxides	161 260	174 425	177 671	183 863	174 290
Argentina					
Titanium minerals	2 402	1 568	526	1 994	...
Brazil					
Ilmenite	21 020	35 729	15 000	15 000	10 000
Rutile	1 972	2 496	2 994	2 614	3 026
Oxides	10 362	3 701	5 107	15 089	...
Chile					
Oxides (b)	2 600*	3 400*	2 600*	4 900*	3 500*
Colombia					
Oxides	6 245	7 833	7 623	8 708	...
Uruguay					
Oxides	2 001	2 986	2 580	5 291	5 958
Venezuela					
Oxides	...	14 131	11 541	13 805	19 751
China					
Metal (b)	...	50*	100*	200*	300*
Oxides (b)	12 000*	9 200*	23 500*	20 300*	19 400*
Hong Kong					
Oxides	6 108	6 633	7 492	8 283	11 308
India (d)					
Oxides	...	...	6 232	...	...
Indonesia					
Oxides	14 885	12 589	15 131	14 112	14 182
Iran					
Oxides (b)	13 100*	7 400*	2 100*	1 900*	1 300*

Imports of Titanium

Country	1983	1984	1985	1986	1987
Israel (f)					
Oxides	2 213	1 807	1 537	(b) 1 100*	...
Japan					
Titanium minerals	411 047	645 972	604 044	670 436	570 377
Titanium slag	63 118	62 697	95 476	89 956	88 387
Oxides	38 087	37 141	39 212	40 034	45 677
Jordan					
Oxides	1 593	2 173	1 921	808	1 922
Korea, Republic of					
Rutile sand	5 252	4 812	5 270	6 125	6 822
Titanium minerals	32 447	39 259	34 300	43 969	57 096
Metal	367	361	111	204	341
Oxides	19 333	21 861	22 651	28 143	28 688
Malaysia					
Oxides	7 426	7 302	7 623	7 616	8 755
Pakistan (e)					
Oxides	1 994	2 140	2 437	2 851	3 416
Philippines					
Titanium minerals	973	713	487	966	1 305
Oxides	9 111	6 239	5 483	8 218	10 537
Saudi Arabia					
Oxides	4 277	6 637	4 701	4 252	5 775
Singapore					
Oxides	6 365	9 236	6 854	8 725	8 508
Taiwan					
Oxides	28 910	34 115	32 536	43 592	47 505
Thailand					
Rutile	1 235	781	1 867	485	1 400
Oxides	846	1 135	1 828	1 708	2 210
Australia					
Oxides	805	1 565	1 250	1 213	1 167
New Zealand (e)					
Oxides	5 268	6 562	6 626	6 357	8 192

Notes

(1) Significant quantities of titanium slag are traded, but it is not always possible to identify this material in national trade accounts

(2) So far as possible, the term 'oxides', as used in this table, includes oxides and oxide based pigments classified under Standard International Trade Classification (Revision 2) items 522.46 and 533.1

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

(a) Excluding oxide based pigments

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

(c) Includes synthetic rutile

(d) Years ended 31 March following that stated

(e) Years ended 30 June of that stated

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

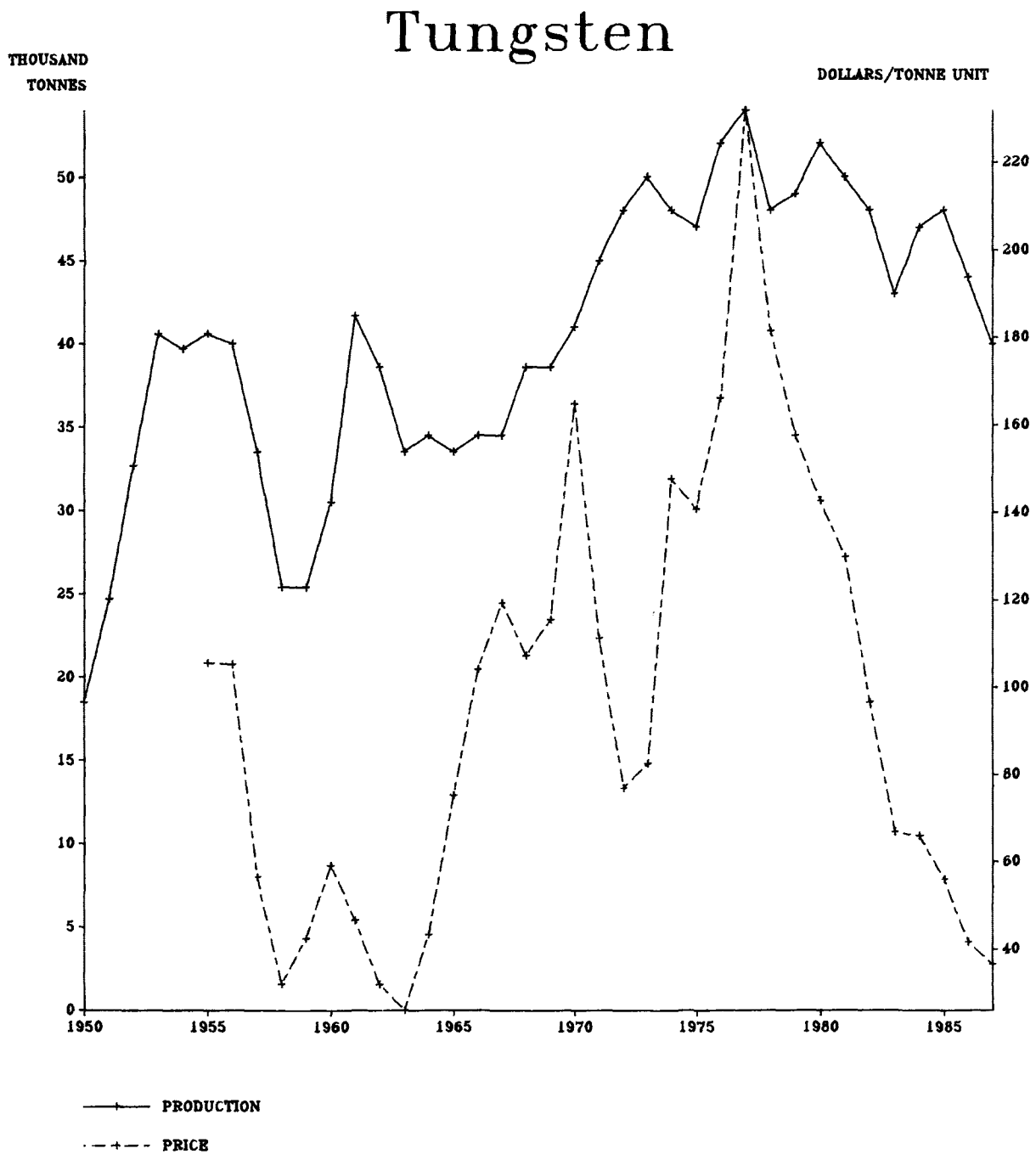


Figure 21 World mine production of tungsten from 1950 to 1987 compared with the annual average UK price from 1955 of 65% WO₃ concentrate c.i.f. European ports; post-1978 weighted average International Tungsten Indicator price, expressed in US dollars per metric ton unit of WO₃.

Constant commodity prices derived from Tungsten Statistics (1971 et seq.) published by the United Nations, using the CPI for the USA taken from International Financial Statistics Yearbook (1988).

Mine Production of Tungsten

tonnes (metal content)

Country	1983	1984	1985	1986	1987
France	800	745	735	987	—
Portugal (c)	1 186	1 509	1 765	1 657	1 205
Spain	517	565	458	495	100*
Austria	1 405	1 911	1 967	1 454	970
Czechoslovakia	50*	50*	50*	50*	45*
Soviet Union	9 100*	9 100*	9 200*	9 200*	9 200*
Sweden	460	485	582	443	400*
Turkey	291	394	448	475	374
Rwanda	204	229	310	24	21
Uganda	7	15	17	19	...
Zaire (b)	44	30	17	17	5*
Zimbabwe	23	55	14	2	1
Canada (a)	1 220	3 328	3 197	1 959	—
Mexico	186	274	282	294	213
USA	980	1 203	996	780	34
Argentina	41	37	17	20	14
Bolivia	2 449	1 893	1 643	1 380	804
Brazil (a)	1 026	1 037	1 090	875	672
Peru	762	699	723	742	259
Burma (b)	950	1 114	945	715	425
China	13 000*	14 000*	15 000*	15 000*	18 000*
India	16	30	28	23	26
Japan	820	795	463	482	209
Korea, Dem. P.R. of	1 000*	1 000*	1 000*	1 000*	1 000*
Korea, Republic of	2 480	2 703	2 580	2 455	2 375
Malaysia	49	23	21	4	—
Mongolia	1 500*	1 500*	1 500*	1 500*	1 500*
Thailand (c)	563	742	586	475	652
Australia (c)	2 015	1 733	1 970	1 600	1 150
New Zealand	6	7	7	0	...
World total	43 000	47 000	48 000	44 000	40 000

(a) Mainly scheelite

(b) Including tin-wolframite concentrates

(c) Wolframite and scheelite

Tungsten

Exports of Tungsten

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Tungsten ore	219	275	184	156	597
Metal	543	579	833	496	483
Carbide	551	799	900	923	623
Belgium-Luxembourg					
Metal	99	139	253	151	197
France					
Tungsten ore	818	522	484	353	242
Metal	398	372	499	427	411
Carbide	134	201	244	218	168
Germany, Federal Republic of					
Metal	860	1 129	1 322	1 244	1 225
Italy					
Metal	85	100	186	186	240
Netherlands					
Tungsten ore	629	451	1 166	97	82
Metal	398	460	523	510	813
Portugal					
Tungsten ore	1 669	2 506	2 604	1 455	2 008
Spain					
Tungsten ore	673	870	714	743	140
Austria					
Tungsten ore	73	25	0	114	60
Metal	874	1 050	1 485	1 085	823
Sweden					
Tungsten ore	644	498	193	394	265
Metal	44	111	194	52	84
Carbide	87	70	131	89	70
Switzerland					
Metal	45	70	63	38	33
Turkey					
Tungsten ores & concentrates	180	453	521	680	832
Metal	305	0	—	—	—
Rwanda					
Tungsten ores & concentrates	440	510	400	30	...
Zaire					
Tungsten ore	113	33	64	33	53
Zimbabwe					
Tungsten ore	24	72	36	—	—
Canada (a)	300*	3 400*	2 800*	1 400*	...
Mexico					
Tungsten ores & concentrates	546	847	1 073	689	615
USA					
Tungsten ores & concentrates	28	129	175	34	2
Metal	900	1 839	2 844	2 016	1 637
Ammonium paratungstate (a)	6	8	72	10	285
Carbide	330	448	683	369	388
Bolivia					
Tungsten ore	3 986	3 702	2 500*	2 279	1 827
Brazil					
Tungsten ore	1 482	970	514	137	—
Peru					
Tungsten ores & concentrates	960	1 336	1 500*	1 000*	...
Burma (b)					
Tungsten ores & concentrates	1 533	1 978	920	1 457	...

Exports of Tungsten

Country	1983	1984	1985	1986	1987
China					
Tungsten ores & concentrates	24 990	18 860	21 267	23 624	23 117
Metal	65	79	156	365	337
Hong Kong					
Tungsten ore (c)	—	—	1 717	2 013	3 692
Israel					
Metal	—	669	515	344	...
Japan					
Metal	147	195	235	260	269
Korea, Dem. P. R. of (a)	800*	800*	800*	800*	...
Korea, Republic of					
Tungsten ore	1 061	859	747	514	466
Metal	277	301	364	261	288
Carbide	303	428	543	582	499
Malaysia					
Tungsten ore	40	346	30	10	—
Singapore					
Tungsten ore	875	1 695	1 438	732	1 166
of which: Re-exports	777	1 654	1 420	732	1 166
Metal	91	105	68	52	86
of which: Re-exports	23	32	39	3	28
Thailand					
Tungsten ore	1 207	1 885	1 142	923	1 179
Australia					
Wolframite ores & concentrates	1 532	1 741	1 335	843	146
Scheelite ores & concentrates	2 355	1 419	1 965	1 683	1 909

Notes

(1) Significant amounts of tungsten are traded in the forms of ammonium paratungstate (APT) and carbide. Though statistics are included where available, most countries do not separately distinguish these forms in their trade accounts

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

(a) W content

(b) Years ended 31 March following that stated

(c) Re-exports

Tungsten

Imports of Tungsten

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Tungsten ore	693	896	627	549	311
Metal	213	415	632	558	426
Carbide	442	495	554	404	467
Belgium-Luxembourg					
Metal	188	176	263	258	232
Carbide	259	356	574	534	298
Denmark					
Carbide	317	241	205	250	266
France					
Tungsten ore	277	2 632	351	179	38
Metal	321	183	331	195	228
Carbide	251	231	242	247	160
Germany, Federal Republic of					
Tungsten ore	3 841	7 296	3 843	3 184	3 454
Metal	946	1 242	1 314	1 194	1 463
Carbide	286	380	437	552	501
Italy					
Tungsten ore	54	157	181	145	156
Metal	85	78	130	137	128
Carbide	158	262	377	346	443
Netherlands					
Tungsten ore	1 317	674	1 145	227	380
Metal	490	342	451	661	555
Spain					
Metal	17	381	481	76	37
Austria					
Tungsten ore	3 090	3 920	3 810	3 106	2 215
Metal	428	640	1 141	941	838
Finland					
Metal	20	20	18	24	29
Poland					
Tungsten concentrates	2 000	1 150	1 170	2 450	...
Soviet Union					
Tungsten concentrates	13 400*	13 600*	11 600*	14 000*	14 200*
Metal (d)	40*	130*	40*	...	...
Sweden					
Tungsten ore	682	813	1 150	1 329	268
Metal	163	154	42	211	172
Carbide	395	294	117	286	310
Switzerland					
Metal	43	75	98	64	61
Yugoslavia					
Metal	27	37	17	19	17
South Africa					
Tungsten ores & concentrates	507	363	542	515	...
Metal	34	32	25	...	...
Carbide	42	65	79	55	...
Mexico					
Metal	10	59	108	48	69
USA					
Tungsten ore	7 220	12 500*	10 476	5 693	4 531
Metal	769	1 599	825	792	1 286
Ammonium paratungstate (a)	654	1 172	1 351	1 156	1 402
Carbide	231	451	463	416	550
Hong Kong					
Tungsten ore	—	47	3 799	3 626	1 278
India (e)					
Tungsten ore	435	289	475	600*	...
Israel					
Metal (c)	97	467	804	302	139
Japan					
Tungsten ore	3 214	2 905	2 869	1 769	1 938
Metal	178	294	350	256	283

Imports of Tungsten

Country	1983	1984	1985	1986	1987
Korea, Republic of Metal	150	34	34	169	120
Malaysia Metal	63	84	42	146	97
Singapore Tungsten ore	1 211	2 430	1 699	1 235	1 175
Metal	94	82	100	101	105
Taiwan Metal	36	48	46	56	118
Australia (b) Metal	11	13	17	...	...

Notes

(1) Significant amounts of tungsten are traded in the forms of ammonium paratungstate (APT) and carbide. Though statistics are included where available, most countries do not separately distinguish these forms in their trade accounts

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

(a) W content

(b) Years ended 30 June of that stated

(c) 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

Vanadium



Figure 22 World mine production of vanadium from 1950 to 1987 compared with the annual average US price per pound of vanadium in V_2O_5 expressed in constant 1980 US dollars.

Trend-line analysis of the production data indicates a growth rate of approximately 7% per annum over 37 years.

Constant commodity prices derived from those quoted by USBM in Mineral Facts and Problems (1960 et seq.) and Mineral Commodity Summaries (1984 et seq.), using the CPI for the USA taken from International Financial Statistics Yearbook (1988).

Mine Production of Vanadium

Vanadium
tonnes (metal content)

Country	1983	1984	1985	1986	1987
Finland	3 190	3 066	2 132	—	—
Soviet Union	9 500*	9 500*	9 500*	9 600*	9 600*
South Africa	8 834	12 518	14 021	16 629	15 943
USA	1 969	1 467	1 500*	...	...
China	4 500*	4 500*	4 500*	4 500*	4 500*
World total	28 000	31 100	31 700	32 200	31 500

Notes

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

Vanadium

Exports of Vanadium

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Pentoxide	182	483	80	37	18
Metal	73	62	12	14	142
Belgium-Luxembourg					
Vanadiferous residues	1 163	4 477	4 685	7 631	3 095
Pentoxide	83	598	451	465	291
Vanadium-titanium pig iron	27	33	91	—	46
Metal	15	139	337	95	0
Denmark					
Vanadium-titanium pig iron	122	0	—	0	17
France					
Vanadiferous residues	40	100	181	323	96
Pentoxide	6	12	10	182	11
Vanadium-titanium pig iron	149	10	20	213	196
Metal	98	237	120	94	0
Germany, Federal Republic of					
Vanadiferous residues	1 486	2 005	4 296	2 735	3 742
Pentoxide	...	...	...	700	504
Vanadium-titanium pig iron	—	—	377	272	75
Metal	192	197	393	209	312
Italy					
Vanadiferous residues	1 956	2 534	1 901	1 238	657
Netherlands					
Vanadiferous residues	20	87	52	67	—
Vanadium-titanium pig iron	60	2	29	36	—
Finland					
Pentoxide (a)	4 000*	4 300*	2 600*	2 000*	1 500*
Soviet Union					
Vanadiferous residues	11 800*	12 000*	12 000*	12 000*	12 000*
South Africa					
Pentoxide (c)	15 925	21 798	22 018	29 726	26 251
USA					
Ores & concentrates (b)	105	20	4	80	...
Pentoxide	2 385	3 156	1 385	1 401	1 369
China					
Vanadiferous residues (a)	5 100*	...	...	...	...
Pentoxide (a)	3 700*	2 100*	3 100*	4 700*	4 000*

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

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

(b) V₂O₅ content

(c) Includes V₂O₅ content of vanadiferous residues

Imports of Vanadium

Country	1983	1984	1985	1986	1987
United Kingdom					
Pentoxide	1 929	660	260	373	255
Vanadium-titanium pig iron	184	—	—	13	—
Metal	142	358	129	155	238
Belgium-Luxembourg					
Vanadiferous residues	3 137	13 579	18 091	9 123	12 087
Pentoxide	4 062	4 797	4 049	4 056	4 194
Metal	27	208	350	96	0
France					
Pentoxide	1 126	2 501	2 216	1 416	127
Vanadium-titanium pig iron	20	0	8	8	—
Metal	29	52	141	35	111
Germany, Federal Republic of					
Vanadiferous residues	27 826	35 611	31 635	30 018	32 439
Pentoxide	1 455	1 714	1 870	1 806	1 554
Vanadium-titanium pig iron	2 274	61	—	—	4
Metal	4	2	267	66	40
Italy					
Vanadiferous residues	1 923	1 511	2 508	2 178	1 538
Pentoxide	106	135	69	15	95
Metal	23	6	35	71	22
Netherlands					
Vanadiferous residues	—	396	1 028	1 957	—
Pentoxide	25	10	7	30	11
Spain					
Pentoxide	545	540	145	117	216
USA					
Vanadiferous residues	212	400*	1 466	13 083	22 236
Pentoxide	661	241	111	719	579
Brazil					
Pentoxide	633	685	1 210	984	998
Japan					
Pentoxide	2 957	4 602	3 786	3 101	2 763

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

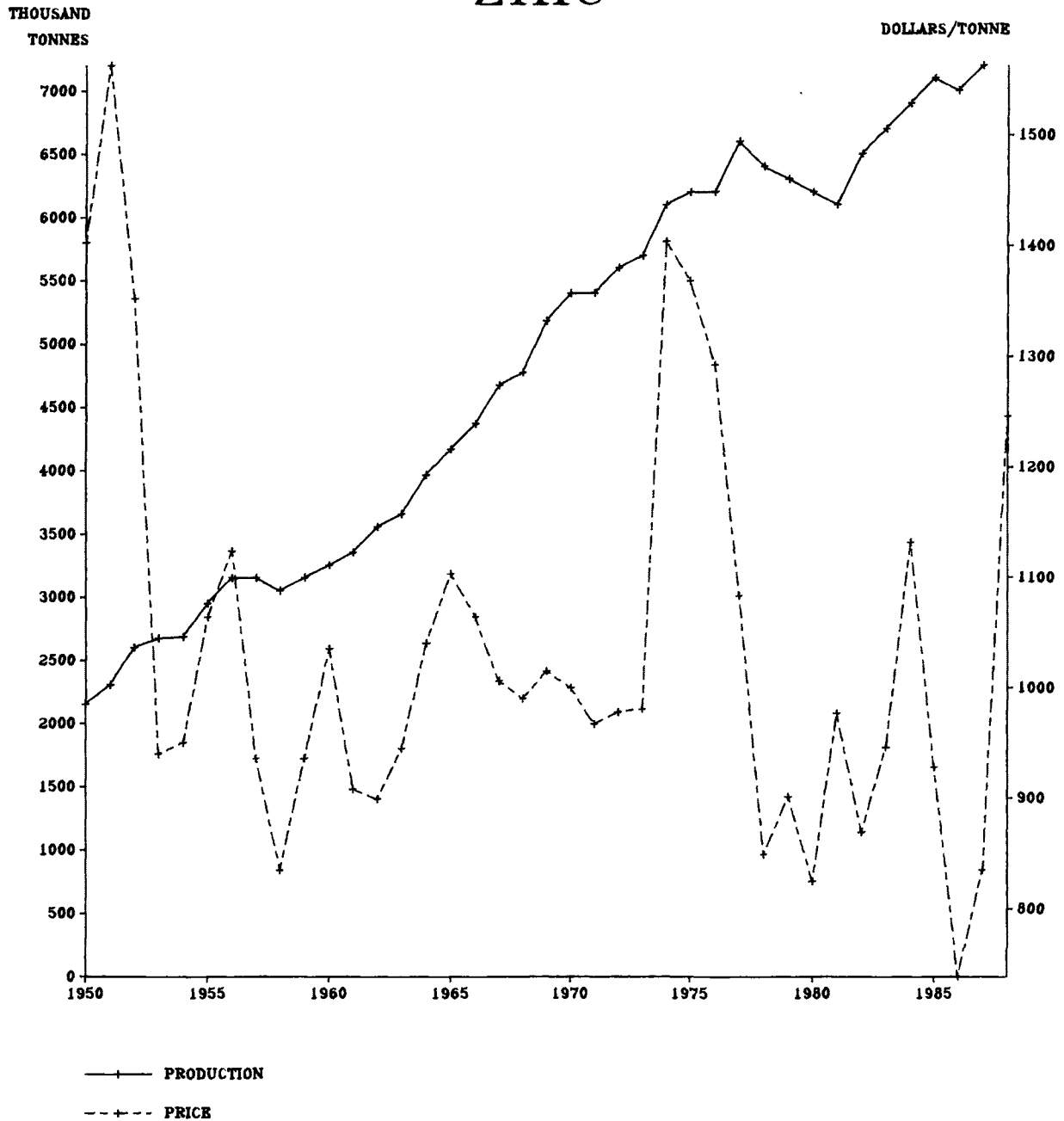


Figure 23 World mine production of zinc from 1950 to 1987 compared with the yearly average domestic producer price (to 1988) on the New York Market of prime western grade delivered New York expressed in constant 1980 US dollars.

Constant commodity prices (to 1986) taken from Commodity Trade and Price Trends published by the Johns Hopkins University Press for the World Bank.

Mine Production of Zinc

tonnes (metal content)

Country	1983	1984	1985	1986	1987
United Kingdom	8 879	7 159	5 043	5 605	6 522
France	34 493	36 425	40 572	39 534	55 900
Germany, Federal Republic of	113 481	113 000	117 600	103 700	98 900
Greece	22 063	22 550	21 107	22 257	20 700
Irish Republic	186 000	206 000	191 700	181 700	177 000
Italy	43 400	42 300	45 438	26 303	33 200
Spain	175 757	230 378	234 695	223 100	266 000
Austria	22 688	23 797	24 259	17 844	16 983
Bulgaria	68 000	65 000	68 000	70 000*	68 000*
Czechoslovakia	6 665	7 200	7 200	6 700	7 000*
Finland	60 777	65 285	65 247	60 300	55 000
Greenland	79 200	71 300	70 300	62 000	69 000
Hungary	2 306	1 920	1 606	418	—
Norway	32 356	28 513	27 352	23 032	22 164
Poland	189 000	190 700	190 900	183 900	185 800
Romania	40 000*	39 000*	40 000*	39 000*	37 000*
Soviet Union	1 025 000*	980 000*	1 000 000*	970 000*	950 000*
Sweden	214 367	217 254	223 191	229 396	218 600
Turkey	32 417	50 423	39 674	40 574	39 200
Yugoslavia	86 767	85 761	89 347	94 590	74 000
Algeria	12 100	14 600	13 500	13 400	13 000
Congo	—	—	2 000*	2 000*	—
Morocco	7 890	10 730	15 250	17 170	10 165
Namibia	29 800	29 900	30 472	34 069	39 375
South Africa	109 981	106 107	96 943	101 859	112 686
Tunisia	7 500	6 700	5 600	4 500	5 900
Zaire	73 970	73 955	75 101	74 800	87 500
Zambia	54 634	38 793	31 900	31 605	49 163
Canada	1 069 709	1 207 098	1 172 238	1 290 765	1 500 232
Honduras	38 000	41 500	44 000	25 400	12 000
Mexico	257 444	290 236	275 412	271 351	271 480
USA	296 700	277 500	251 900	216 000	232 900
Argentina	36 586	34 909	35 713	39 540	35 648
Bolivia	47 132	37 770	38 110	33 472	39 292
Brazil	119 843	113 691	123 811	123 942	119 400
Chile	5 993	19 168	22 288	10 504	19 618
Peru (a)	553 100	568 300	582 600	597 576	593 200
Burma	4 536	5 321	2 900	3 000	1 700
China	250 000*	300 000*	350 000*	395 700	343 900
India	36 500	43 700	53 000	45 000	53 300
Iran	39 500	47 100	50 000	36 000	40 000
Japan	255 712	252 700	253 021	222 071	165 675
Korea, Dem. P.R. of	140 000*	150 000*	185 000*	225 000*	220 200*
Korea, Republic of	55 980	49 232	45 746	37 282	23 530
Philippines	2 275	2 189	1 880	1 569	1 100
Thailand	3 000	27 379	51 228	69 159	63 112
Vietnam	10 000	10 000	10 000	10 000	10 000*
Australia	699 032	676 532	759 083	711 958	778 386
World total	6 700 000	6 900 000	7 100 000	7 000 000	7 200 000

(a) Recoverable

Production of Slab Zinc

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom	87 651	85 604	74 278	85 902	81 360
Belgium (a)	275 845	285 319	289 562	288 787	308 580
France	249 500	258 514	247 250	257 376	243 300
Germany, Federal Republic of	356 300	356 300	366 900	370 900	377 500
Italy	155 596	166 751	210 075	230 400	247 000
Netherlands	187 519	209 657	201 712	196 156	207 111
Portugal	3 800	6 400	5 900	5 700	5 800
Spain	189 900	207 400	213 300	199 300	213 600
Austria	19 699	21 000	20 496	19 453	19 759
Bulgaria	93 000	93 000	90 000	89 000	88 000
Finland	155 336	158 819	160 560	155 397	151 467
German Democratic Republic	16 500*	17 000*	17 000*	17 000*	18 000*
Norway	90 668	94 248	92 762	90 475	116 468
Poland	170 300	176 000	180 000	179 200	176 500
Romania	42 000	47 800	41 000	53 000	51 000
Soviet Union	1 060 000*	1 050 000*	1 050 000*	1 065 000*	1 045 000*
Turkey	14 300	19 900	22 200	15 400	18 000
Yugoslavia	88 049	92 649	83 398	89 286	118 067
Algeria	31 200	35 000	35 700	29 700	19 000
South Africa	82 426	90 303	93 704	80 803	96 100
Zaire	62 535	66 087	64 046	63 900	54 900
Zambia	37 882	29 177	22 766	22 493	21 025
Canada	617 033	683 156	692 406	570 981	610 474
Mexico	174 991	167 034	175 354	173 700	186 400
USA	305 084	331 245	333 774	316 281	342 663
Argentina	32 000	29 925	32 877	31 523	34 289
Brazil	110 958	114 449	120 737	135 296	148 036
Peru	153 966	148 372	169 746	156 020	145 100
China	200 000*	240 000*	280 000*	336 200	357 100
India	54 147	55 356	70 947	73 828	68 899
Japan	701 291	754 445	739 624	708 032	665 618
Korea, Dem. P. R. of	110 000*	130 000*	180 000*	210 000*	225 000*
Korea, Republic of	107 860	108 460	110 961	127 229	186 016
Thailand	—	4 000	62 108	58 552	66 868
Vietnam	10 000*	10 000*	10 000*	10 000*	10 000*
Australia	302 951	306 440	293 186	307 615	312 075
World total	6 400 000	6 600 000	6 900 000	6 800 000	7 000 000

(a) Including alloys

Exports of Zinc

Zinc
tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Ores & concentrates	7 537	955	108	5 225	8 852
Unwrought	20 318	8 094	8 060	11 448	4 197
Unwrought alloys	6 168	6 566	8 556	10 681	9 440
Scrap	14 596	15 246	17 846	17 285	22 461
Belgium-Luxembourg					
Ore	41 821	23 282	17 433	11 086	21 564
Unwrought	156 383	167 720	157 077	137 028	157 485
Unwrought alloys	33 767	29 387	32 433	48 904	55 943
Scrap	13 165	14 585	12 302	10 155	8 408
Denmark					
Unwrought	216	251	35	72	279
Unwrought alloys	114	35	7	7	0
Scrap	3 666	4 322	4 078	3 789	5 035
France					
Ore	98 338	117 188	102 056	85 555	49 307
Unwrought	50 711	93 016	68 653	59 715	70 504
Unwrought alloys	1 930	2 172	2 408	5 412	5 627
Scrap	11 908	11 456	11 502	14 102	12 233
Germany, Federal Republic of					
Ore	155 400*	178 100*	191 300*	151 900*	174 800*
Unwrought	122 425	109 313	114 326	97 278	93 628
Unwrought alloys	10 637	16 235	18 800	17 774	16 060
Scrap	14 889	17 523	16 181	18 328	17 993
Greece					
Ores & concentrates	57 500	39 450	43 300	45 250	46 900
Scrap	339	359	373	628	362
Irish Republic					
Ores & concentrates	356 219	403 706	370 754	368 974	352 778
Italy					
Ore	4 320	18 938	25 283	14 908	14 900
Unwrought	31 714	42 456	43 762	45 998	57 892
Unwrought alloys	4 080	2 678	2 010	2 843	2 169
Scrap	3 278	3 755	4 512	4 159	6 540
Netherlands					
Unwrought	173 605	176 927	173 861	174 891	182 548
Unwrought alloys	10 473	9 270	7 539	6 815	2 529
Scrap	9 509	11 500	10 544	11 924	17 542
Spain					
Ore	12 019	83 756	119 509	126 443	79 481
Unwrought (a)	96 900	106 004	127 214	94 198	105 532
Scrap	818	2 657	—	1	—
Austria					
Unwrought	4 861	4 520	4 371	4 035	4 704
Scrap	448	832	1 123	1 543	2 338
Bulgaria					
Unwrought (a) (b)	18 000*	24 900*	23 600*	22 500*	19 000*
Czechoslovakia					
Ore (b)	14 900*	14 500*	15 700*	14 200*	7 400*
Finland					
Ore	14 913	5 190	—	—	—
Unwrought	120 991	122 793	127 056	110 945	108 189
Unwrought alloys	10 568	13 444	13 308	16 812	26 160
Scrap	636	1 528	436	1 209	1 385
Greenland					
Ores & concentrates	152 599	134 696	121 621	118 839	113 804
Hungary					
Scrap	3 743	3 755	3 824	1 881	2 045
Norway					
Ore	25 658	10 989	10 959	8 355	7 185
Unwrought	71 764	74 852	71 757	67 058	98 931
Unwrought alloys	8 217	7 039	6 883	10 177	7 265
Scrap	327	395	308	539	590
Poland					
Unwrought	27 774	26 838	28 050	22 562	18 000
Soviet Union					
Unwrought (a) (b)	25 200*	25 400*	21 300*	16 900*	13 600*

Zinc

Exports of Zinc

tonnes

Country	1983	1984	1985	1986	1987
Sweden					
Ore	368 720	427 582	428 161	440 016	461 033
Unwrought (a)	1 077	613	1 104	973	1 257
Scrap	3 640	3 067	2 457	2 877	4 574
Switzerland					
Unwrought	249	118	137	27	1
Scrap	1 618	1 184	1 182	1 222	868
Turkey					
Ores & concentrates	1 200	—	5 554	11 207	14 812
Unwrought	183	112	1 664	7 597	1 174
Yugoslavia					
Concentrates	3 404	5 485	—	314	—
Unwrought (a)	25 022	24 038	14 882	25 268	38 884
Algeria					
Unwrought	31 011	18 735	9 444	28 772	...
Morocco					
Ore	14 149	24 072	30 816	28 789	20 218
Namibia					
Concentrates	56 300	56 500	57 495	64 280	74 290
South Africa					
Ores & concentrates (c)	15 065	35 644	12 840	29 510	15 962
Unwrought	507	1 373	7 658	1 171	—
Tunisia					
Ore	23 194	13 026	4 705	10 600	15 256
Zaire					
Unwrought	67 081	42 204	60 470	73 860	46 115
Zambia					
Unwrought	35 000	29 340	19 880	5 157	19 600
Canada					
Ore (c)	626 178	550 216	396 102	450 252	613 180
Unwrought	500 609	529 728	555 616	427 175	441 220
Scrap	17 996	19 552	18 083	23 157	24 501
Honduras					
Ores & concentrates (c)	23 185	31 253	34 937	36 866	...
Mexico					
Ores & concentrates	121 624	171 863	214 657	197 774	157 516
Unwrought	79 337	84 431	69 115	73 929	72 044
USA					
Ore (c)	67 474	30 579	23 264	11 005	158 803
Unwrought (a)	1 221	1 448	5 273	3 544	7 427
Scrap (c)	20 942	29 223	38 615	63 269	82 280
Argentina					
Ores & concentrates	20	470	7 761	7 602	...
Unwrought	—	—	8 900	761	...
Bolivia					
Ore	84 415	75 211	70 700*	74 243	82 297
Chile					
Concentrates	13 370	29 385	36 765	27 582	...
Peru					
Concentrates	797 615	799 076	746 680	860 706	863 850
Unwrought (a)	151 310	108 984	113 760	108 514	80 480
Burma (e)					
Concentrates	7 302	9 686	5 685	8 879	...
China					
Unwrought (a)	2 051	1 454	2 368	56 768	95 338
Hong Kong					
Unwrought (a) (g)	2 714	3 436	4 495	31 244	68 391
Indonesia					
Scrap	400	682	599	2 478	516
Iran (d)					
Ore	28 890	31 900	...	...	...
Japan					
Unwrought	49 217	45 191	33 427	23 382	51 854
Unwrought alloys	6 042	4 276	1 814	1 580	1 383
Scrap	618	1 823	1 436	1 880	3 233

Exports of Zinc

Country	1983	1984	1985	1986	1987
Korea, Dem. P. R. of					
Ores & concentrates (b)	17 100*	19 200*	11 800*	11 000*	...
Unwrought (a) (b)	21 600*	20 200*	34 600*	41 700*	53 600*
Korea, Republic of					
Unwrought (a)	0	40	533	1 720	38 032
Malaysia					
Scrap	762	661	690	...	1 175
Philippines					
Concentrates	4 590	5 258	4 487	3 404	2 128
Scrap	171	120	179	304	495
Saudi Arabia					
Scrap	2 811	5 413	9 170	11 132	7 504
Singapore					
Unwrought	3 927	4 685	2 955	3 584	5 576
of which: Re-exports	3 599	4 362	2 535	3 231	4 822
Scrap	1 050	758	662	650	538
Australia					
Ores & concentrates	767 437	840 271	836 324	875 233	865 984
Unwrought	232 651	220 953	214 549	217 422	240 689
Scrap	1 567	991	881	1 227	1 716
New Zealand (f)					
Scrap	457	755	521	707	791

Notes

(1) 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

(f) Years ended 30 June of that stated

(g) Re-exports

Imports of Zinc

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Ores & concentrates	167 171	196 100	185 406	200 898	177 233
Unwrought	115 160	116 308	130 705	101 858	114 248
Unwrought alloys	7 931	4 685	4 763	4 123	7 328
Scrap	1 817	2 237	996	2 673	4 601
Belgium-Luxembourg					
Ore	572 584	577 076	568 469	520 277	588 803
Unwrought (a)	53 148	49 352	51 546	49 090	40 535
Scrap	10 978	9 159	10 081	7 310	14 070
Denmark					
Unwrought	9 136	10 640	12 369	11 889	10 205
Unwrought alloys	3 155	2 664	2 338	2 826	2 472
Scrap	92	248	52	86	474
France					
Ore	583 938	558 386	540 090	513 512	512 825
Unwrought	55 306	64 881	61 332	64 107	70 364
Unwrought alloys	24 038	25 008	27 691	34 702	30 967
Scrap	7 154	6 345	5 590	7 529	8 880
Germany, Federal Republic of					
Ore	542 406	594 353	592 709	620 810	664 024
Unwrought	150 003	167 807	156 436	161 687	159 908
Unwrought alloys	11 960	11 648	11 377	12 528	11 308
Scrap	17 565	18 875	19 823	15 514	16 546
Greece					
Unwrought (a)	12 793	13 412	17 344	16 764	15 000
Irish Republic					
Unwrought (a)	1 939	1 442	1 298	1 359	1 603
Scrap	184	310	152	57	393
Italy					
Ore	201 564	291 425	395 978	443 572	441 883
Unwrought	84 207	90 946	63 325	54 548	63 654
Unwrought alloys	11 509	14 360	15 025	14 018	16 198
Scrap	11 001	13 073	10 563	8 237	5 086
Netherlands					
Ore	381 329	422 732	444 706	396 439	439 522
Unwrought	18 028	20 162	21 332	24 960	26 499
Unwrought alloys	498	515	897	1 517	1 449
Scrap	13 074	13 764	12 290	11 686	7 788
Portugal					
Unwrought (a)	10 682	9 385	10 999	11 144	13 311
Scrap	397	1 030	2 178	2 199	1 813
Spain					
Ore	81 454	72 157	34 950	34 614	33 743
Unwrought (a)	3 844	230	1 730	7 173	6 919
Scrap	96	564	252	1 322	1 282
Austria					
Ore	6 649	11 804	10 793	10 133	16 688
Unwrought	6 139	9 626	8 686	11 433	10 282
Scrap	265	321	198	68	383
Bulgaria					
Ore (i)	24 900*	31 600*	38 900*	35 900*	53 000*
Czechoslovakia					
Unwrought (a)	56 000	59 000	58 000	61 000	57 000
Finland					
Ore	205 579	167 309	183 143	189 686	195 806
Unwrought (a)	1 188	105	103	79	95
German Democratic Republic					
Ore (i)	73 500*	73 600*	77 300*	67 400*	80 200*
Unwrought (a) (i)	19 500*	19 000*	21 900*	20 500*	29 500*
Hungary					
Unwrought (g)	26 904	27 995	20 543	28 167	27 567
Iceland					
Unwrought (a)	73	63	75	71	92
Malta					
Unwrought (a)	105	140	134	145	109

Imports of Zinc

Zinc
tonnes

Country	1983	1984	1985	1986	1987
Norway					
Ore	87 894	115 477	104 461	110 468	171 939
Unwrought (a)	877	928	819	377	855
Scrap	3 966	5 278	5 551	5 900	3 959
Poland					
Unwrought	5 787	4 615	5 254	2 226	...
Soviet Union					
Ore (i)	82 500*	98 000*	82 900*	107 600*	88 800*
Unwrought (a) (i)	29 500*	25 300*	29 100*	16 600*	38 300*
Sweden					
Unwrought	32 650	35 538	32 269	32 943	36 111
Unwrought alloys	3 384	2 780	3 035	3 130	3 502
Switzerland					
Unwrought	20 330	21 441	26 363	30 186	23 386
Scrap	342	466	24	141	123
Turkey					
Unwrought	7 910	18 374	27 573	24 064	33 616
Yugoslavia					
Concentrates	29 383	26 912	58 669	38 590	45 145
Unwrought (a)	27 894	24 682	39 281	18 773	1 425
Algeria					
Ores & concentrates	35 630	0	2 696	83 859	...
Egypt					
Unwrought	6 519	9 812	10 735	11 412	...
Ivory Coast					
Unwrought (b)	2 042	2 251	3 753	...	...
Kenya					
Unwrought (a)	5 013	6 327	7 699	8 237	10 015
Morocco					
Unwrought (a)	2 628	2 944	3 373	2 397	19 177
Nigeria					
Unwrought (a)	...	3 204	4 965	1 211	...
South Africa					
Unwrought	3 149	2 846	3 685	5 024	...
Scrap	242	417	263	...	...
Sudan					
Unwrought	106	1 529	...	...	...
Tanzania					
Unwrought (a)	3 230	2 900	3 528	...	999
Tunisia					
Unwrought (b)	1 503	1 562	1 674	2 271	1 168
Canada					
Ores & concentrates (b) (c)	78 325	40 454	17 119	36 410	31 949
Unwrought	9 964	6 755	1 816	7 440	11 032
Costa Rica					
Unwrought (a)	3 910	4 435	4 217	3 647	4 093
Dominican Republic					
Unwrought	1 822	1 047	1 390	2 003	...
Guatemala					
Unwrought (a)	2 948	2 905	2 352	1 531	...
Honduras					
Unwrought (a)	1 086	1 084	892	...	...
Jamaica					
Unwrought	918	1 043	548	629	981
Nicaragua					
Unwrought (a)	562	1 089	1 271	...	...
Panama					
Unwrought (a)	478	399	384	323	237
Trinidad and Tobago					
Unwrought	1	152	605	401	298

Zinc

Imports of Zinc

tonnes

Country	1983	1984	1985	1986	1987
USA					
Ore (c)	62 210	95 569	91 392	197 735	425 516
Unwrought (a)	613 368	632 179	610 762	666 989	705 991
Scrap	3 900	6 259	3 247	4 521	4 025
Argentina					
Unwrought	86	3 735	60	4 457	...
Brazil					
Ores & concentrates	58 695	60 098	75 316	76 853	95 246
Unwrought (a)	3 598	5 268	28 584	23 153	49 208
Chile					
Unwrought (a)	4 252	4 613	6 036	5 761	...
Colombia					
Unwrought (a)	13 113	15 698	14 917	12 614	...
Ecuador					
Unwrought (a)	4 029	4 047	4 012	3 867	...
Uruguay					
Unwrought	847	1 167	1 014	1 497	1 950
Venezuela					
Unwrought	(a) 9 672	(a) 23 376	15 117	11 778	18 633
Unwrought alloys	...	...	3 024	5 400	8 237
China					
Unwrought (a)	228 708	230 178	268 628	116 945	68 153
Hong Kong					
Unwrought	8 315	7 540	10 355	42 596	66 435
Unwrought alloys	25 152	24 263	22 358	27 665	29 217
Scrap	46	29	178	539	599
India (d)					
Ores & concentrates	...	...	12 550	...	...
Unwrought	...	...	34 138	...	...
Unwrought alloys	...	...	40 638	...	...
Scrap	...	...	3 689	...	...
Indonesia					
Unwrought (a)	68 937	45 080	50 612	48 558	49 176
Scrap	432	120	495	392	654
Iran (e)					
Unwrought	13 195	8 627	...	...	...
Israel (h)					
Unwrought (b)	5 588	4 643	4 941	6 201	7 833
Japan					
Ore	759 924	954 676	856 648	916 166	974 026
Unwrought	42 087	57 032	64 970	92 753	105 319
Unwrought alloys	3 031	3 765	5 579	8 691	11 566
Scrap	248	464	345	57	4
Jordan					
Unwrought	421	499	603	1 128	981
Korea, Republic of					
Ores & concentrates	114 399	103 172	162 946	179 136	408 138
Unwrought (a)	5 417	18 703	11 399	117 492	36 387
Scrap	8 577	11 867	10 572	13 109	10 007
Macao					
Unwrought	645	1 279	1 901	1 423	1 504
Malaysia					
Unwrought	11 387	10 755	10 243	8 987	8 815
Unwrought alloys	8 352	7 068	7 987	5 907	9 695
Pakistan (f)					
Unwrought	13 162	7 096	15 357	11 868	14 766
Philippines					
Unwrought (a)	24 669	17 933	13 000	18 897	21 376
Saudi Arabia					
Unwrought	—	1 424	6 177	8 762	6 822
Singapore					
Unwrought	15 986	12 290	9 372	11 763	26 496
Scrap	479	211	415	221	574

Imports of Zinc

Country	1983	1984	1985	1986	1987
Sri Lanka					
Unwrought (a)	740	607	1 031	1 524	1 422
Syria					
Unwrought (b)	1 015	1 147	198	158	...
Taiwan					
Unwrought	47 783	39 827	39 410	56 406	64 459
Unwrought alloys	17 376	11 758	15 013	22 594	19 659
Scrap	43 701	13 322	19 837	69 369	110 814
Thailand					
Unwrought	35 680	44 279	13 352	2 764	2 554
Unwrought alloys	578	687	616	1 931	2 238
New Zealand (f)					
Unwrought (a)	18 407	19 852	24 675	19 642	20 403

Notes

(1) 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

Zirconium

Production of Zirconium Minerals

tonnes

Country	1983	1984	1985	1986	1987
Soviet Union	80 000*	80 000*	85 000*	85 000*	85 000*
South Africa (a)	162 281	153 123	160 533	160 000*	160 000*
USA	50 000*	60 000*	70 000*	85 000*	85 000*
Brazil (b)	13 790	6 375	21 039	13 351	15 000*
China	15 000*	15 000*	15 000*	15 000*	15 000*
India	11 395	12 000*	15 000*	16 000*	16 000*
Malaysia	(c) 2 662	(c) 2 344	11 652	12 633	17 828
Sri Lanka	5 923	3 708	4 061	910	2 500
Thailand	199	290	1 292	1 705	1 532
Australia	382 005	457 599	501 440	451 824	456 590
World total	723 000	790 000	885 000	841 000	854 000

Notes

(1) In this table the term 'zirconium minerals' is understood to mean zircon, unless otherwise stated

(a) Including baddeleyite (ZrO₂)

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

(c) Exports

Exports of Zirconium

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom					
Concentrates	596	434	491	315	376
Metal	...	...	179	123	92
Belgium-Luxembourg					
Concentrates	30	163	102	0	28
France					
Concentrates	188	61	175	415	967
Germany, Federal Republic of					
Concentrates	14 461	18 885	15 051	15 621	15 287
Metal	86	102	88	104	75
Italy					
Concentrates	5 094	5 112	5 073	8 137	11 137
Netherlands					
Concentrates	22 699	39 582	40 008	36 548	23 788
Spain					
Concentrates	50	307	300	110	135
Zirconium sand	1 116	2 072	1 841	2 393	1 677
Sweden					
Metal	81	114	79	126	101
South Africa					
Concentrates	132 765	148 451	161 339	...	...
USA					
Concentrates	12 007	8 655	15 334	15 868	20 103
Metal	718	745	1 122	1 111	1 297
of which: Re-exports	40	11	77	32	71
Malaysia					
Concentrates	2 662	2 344	2 499	4 015	11 930
Australia					
Concentrates	379 975	437 770	495 891	445 690	465 003

Notes

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

Imports of Zirconium

Country	1983	1984	1985	1986	1987
United Kingdom					
Concentrates	37 404	43 077	48 827	33 275	37 308
Metal	141	113	103	178	314
Belgium-Luxembourg					
Concentrates	3 818	4 476	5 954	3 112	2 522
Metal	135	151	174	242	208
France					
Concentrates	34 935	36 624	51 305	38 932	49 120
Metal	109	165	166	154	255
Germany, Federal Republic of					
Concentrates	68 622	75 486	78 929	83 002	58 895
Metal	355	327	489	395	425
Italy					
Concentrates	75 035	71 099	84 627	48 175	78 234
Netherlands					
Concentrates	26 076	45 424	40 856	38 464	29 927
Portugal					
Concentrates	1 554	1 623	1 858	1 895	2 187
Spain					
Concentrates	17 638	34 909	37 210	25 813	35 300
Zirconium sand	339	653	599	2 004	4 600
Bulgaria					
Concentrates (a)	1 800*	1 300*	1 700*	1 000*	2 500*
Czechoslovakia					
Concentrates (a)	2 100*	1 700*	2 300*	2 200*	2 400*
Finland					
Concentrates	946	1 046	2 495	3 540	1 519
Soviet Union					
Concentrates (a)	8 100*	...	...	3 800*	4 000*
Sweden					
Concentrates	3 984	3 272	3 113	4 269	1 139
Metal	290	176	256	296	253
Turkey					
Concentrates	174	263	387	644	...
Zirconium sand	...	...	2 660	3 141	...
Algeria					
Concentrates	100	100	20	24	...
Canada					
Metal	191	227	239	225	269
Mexico					
Zirconium sand	6 114	4 749	4 574	...	...
USA					
Concentrates	40 358	60 271	39 724	68 764	67 918
Metal	347	513	408	317	379
Argentina					
Concentrates	878	351	131	61	...
Zirconium sand	372	3 453	1 258	2 814	...
Brazil					
Concentrates	6 519	8 301	12 135	12 699	7 172
Zirconium sand	1 004	—	—	—	...
Japan					
Concentrates	198 224	217 648	238 321	171 709	177 474
Metal	526	627	638	498	415
Korea, Republic of					
Concentrates	2 514	7 097	5 928	10 844	19 002
Malaysia					
Concentrates	299	425	518	474	880
Taiwan					
Zirconium sand	1 509	1 911	1 053	792	1 829

Notes

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

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

Production of Beryl

tonnes

Country	1983	1984	1985	1986	1987
Portugal	3	10	2	—	35
Soviet Union	1 900*	1 900*	1 900*	2 000*	2 000*
Madagascar	70	46	130	50	35
Mozambique	6	7	3	4	—
Rwanda	32	44	27	—	—
South Africa	21	1	5	3	0
Zimbabwe	48	19	38	103	85
USA	6 046	5 470	5 205	5 927	7 000*
Argentina	24	72	31	50	46
Brazil (a)	943	1 021	878	812	693

Notes

(1) 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	1983	1984	1985	1986	1987
Finland	2 286	6 974	7 119	—	—
Soviet Union	200 000*	200 000*	200 000*	200 000*	200 000*
Turkey	702 301	894 606	954 359	928 010	983 165
USA (a)	1 182 000	1 240 000	1 151 000	1 135 000	1 256 000
Argentina	113 123	142 880	158 252	191 871	184 796
Chile	1 301	3 985	4 773	6 440	14 438
Peru	10 000*	10 000*	10 000*	10 000*	10 000*
China	27 000*	27 000*	27 000*	27 000*	27 000*

Notes

(1) 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 Metal

tonnes

Country	1983	1984	1985	1986	1987
Austria	6	5	5	6	7
Soviet Union	11*	11*	11*	11*	11*
USA (a)	20*	20*	22*	22*	23*
China	6*	6*	6*	6*	6*
Japan	7	8	10	9	...

Notes

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

(a) Including production of secondary metal

Production of Primary Magnesium Metal

tonnes

Country	1983	1984	1985	1986	1987
France	10 964	12 825	13 639	13 361	13 600
Italy	9 799	8 184	7 862	7 245	7 626
Norway	29 844	49 301	54 704	56 864	56 907
Soviet Union	80 000*	85 000*	85 000*	86 000*	86 000*
Yugoslavia	4 676	5 139	4 918	4 897	5 932
Canada	5 980	7 588	8 446	8 748	9 000*
USA	104 717	144 430	135 728	125 639	124 396
Brazil	519	1 195	2 615	4 356	5 488
China	8 500*	8 500*	9 000*	9 000*	9 000*
Japan	6 026	7 144	8 500	8 100	8 200

Production of Nepheline Syenite

tonnes

Country	1983	1984	1985	1986	1987
Norway	219 565	225 731	227 465	218 421	240 000*
Soviet Union	2 500 000*	2 500 000*	2 500 000*	2 500 000*	2 500 000*
Canada	523 249	520 640	467 186	467 491	506 000

Production of Perlite

tonnes

Country	1983	1984	1985	1986	1987
Greece	358 483	451 931	400 929	541 495	530 000*
Italy	75 000*	80 000*	80 000*	73 000*	73 000*
Czechoslovakia (a)	44 019	44 000*	44 000*	41 443	42 305
Hungary	92 530	94 360	94 460	109 360	112 410
Soviet Union	600 000*	600 000*	600 000*	600 000*	600 000*
Turkey	32 909	64 920	60 146	103 129	143 958
Mexico	41 377	31 515	37 261	35 000*	35 000*
USA	552 000	592 000	615 000	667 000	706 000
Argentina	...	13 722	16 131	19 960	...
Japan	75 000*	75 000*	75 000*	75 000*	75 000*
Philippines	2 020	15 641	3 883	24 400	...
Australia	2 856	3 708	2 740	3 838	5 054
New Zealand	1 008	0	—	—	—

Notes

(1) In addition to the countries listed, Algeria, Bulgaria, China, Iceland, Mozambique and Yugoslavia are also believed to produce perlite

(a) Expanded

Production of Selenium Metal

tonnes

Country	1983	1984	1985	1986	1987
Belgium	140*	180*	230*	250*	230*
Finland	11	26	19	6	10
Sweden	42	68	46	50*	50*
Yugoslavia	44	45	44	54	66
Zambia	18	21	13	22	27
Canada (a)	352	467	360	345	345
Mexico	24	44	42	23	29
USA	354	254	195	170*	230*
Chile	44	25	50	47	46
Peru	20	21	15	12	11
Japan	433	465	497	427	481
Australia	35	41	37*	...	...

Notes

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

(a) From 1985 primary recoverable only

Production of Strontium Minerals

tonnes

Country	1983	1984	1985	1986	1987
United Kingdom	12 054	16 079	23 039	14 739	22 655
Italy	414	—	4 611	4 667	177
Spain	31 740	24 840	39 100	40 000*	40 000*
Turkey	38 835	35 000*	35 000*	35 000*	55 000*
Algeria	5 400*	5 400*	5 400*	5 400*	5 400*
Mexico	37 506	31 991	32 320	24 289	25 000*
Argentina (a)	673	400	983	1 133	1 010
Cyprus	—	—	1 400	7 365	6 300
Iran	22 000	21 000	25 000	22 000	23 000
Pakistan	135	564	688	997	1 114

Notes

(1) 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

Production of Tellurium Metal

tonnes

Country	1983	1984	1985	1986	1987
Belgium	...	90	70	...	...
Canada (a)	24	14	19	17	15
USA	75*	75*	75*	75*	75*
Peru	16	14	15	10	7
Japan	55	65	66	56	53

Notes

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

(a) From 1985 primary recoverable only

Mine Production of Uranium

tonnes (metal content)

Country	1983	1984	1985	1986	1987
Belgium	43	47*	47*	45*	45*
France	3 132	3 117	3 248	3 817	3 321
Germany, Federal Republic of	48*	33*	31*	22*	20*
Portugal	93	103	105	99	142
Spain	175	191	201	208	248
Yugoslavia	—	40	50*	50*	50*
Gabon	1 009	918	939	917	794
Namibia	3 713	3 800	3 400	3 500	3 540
Niger	3 429	3 273	3 181	3 113	2 968
South Africa	6 039	5 732	4 877	4 630	4 015
Canada	6 823	10 272	10 441	11 502	13 612
USA	8 200	5 700	4 300	5 200	5 000
Argentina	172	129	126	173	95
Brazil	194	117	85	26	104
India	103	100	100	100	150
Australia	3 211	4 324	3 206	4 154	3 780
World total	36 400	37 900	34 300	37 600	37 900
World total (U ₃ O ₈ equivalent)	42 900	44 700	40 500	44 300	44 700

Notes

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

Production of Vermiculite

tonnes

Country	1983	1984	1985	1986	1987
Egypt	153	177	52	93	317
Kenya	876	872	1 515	2 544	3 887
South Africa	153 034	173 759	184 070	193 657	228 863
Mexico	399	505	430	450*	450*
USA (a)	256 000	286 000	285 000	288 000	275 000
Argentina	3 951	4 451	4 887	5 207	952
Brazil (b)	9 877	9 157	9 291	13 138	13 600*
India	2 476	1 934	1 805	4 933	2 439
Japan	17 000*	17 000*	17 000*	17 000*	17 000*
Australia	56	423	615	657	1 409

Notes

(1) In addition to the countries listed, Malawi is also believed to produce vermiculite

(a) Sold or used by producers

(b) Including beneficiated and directly shipped material

Production of Wollastonite

tonnes

Country	1983	1984	1985	1986	1987
Finland	15 402	14 669	16 917	16 795	15 768
Mexico	10 784	9 251	13 512	...	...
USA	72 000	72 000*	72 000	65 000	72 000
India	16 857	27 004	26 040	23 819	31 021

Notes

(1) In addition to the countries listed, Japan, Namibia and Turkey are also believed to produce wollastonite

APPENDIX

A brief explanation of the tables in the following pages is given in the *Explanatory Notes* at the beginning of this volume (page v). However, it must be stressed that the totals arrived at in the trade reconstructions are necessarily conservative, since country breakdown details are not released by every trading partner. Each table, therefore, shows only the data that can be extracted from published sources and no estimates are made for countries that suppress information.

Countries shown in this issue are listed alphabetically.

Australia Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom	2 397	4 576	3 176	3 765	2 849
Belgium-Luxembourg	28	7	6	28	181
France	2 865	2 247	1 043	934	1 380
Germany, Federal Republic of	6 514	5 736	4 900	3 527	4 634
Italy	2 145	2 029	1 119	2 022	1 826
Netherlands	18	34	23	6	-
Spain	200	23	22	264	72
Austria	35	134	101	142	118
Finland	1 234	110	425	-	-
Sweden	649	790	525	251	-
Switzerland	11	6	24	12	94
Yugoslavia	2	-	50	-	-
USA	10 066	6 967	7 646	8 657	10 294
Argentina	-	3	-	-	-
India	-	-	185	-	-
Hong Kong	203	531	603	500	1 509
Japan	3 953	1 971	2 645	2 819	3 693
Korea, Republic of	307	467	1 542	1 108	587
Malaysia	2	6	6	0	-
Pakistan	11	-	-	-	-
Philippines	-	-	-	-	10
Singapore	-	-	18	8	10
Taiwan	370	77	107	275	111
Thailand	10	3	7	-	19
New Zealand	0	0	15	-	5
Sub-total	31 020	25 717	24 188	24 318	27 392

Nickel mattes, sinters etc

Australia Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom	1 851	391	-	-	-
Belgium-Luxembourg	48	-	-	-	-
France	666	800	664	220	110
Germany, Federal Republic of	4 580	9 285	9 584	10 572	11 329
Greece	-	-	17	-	-
Italy	125	1 479	1 839	3 425	3 883
Spain	46	1	57	220	161
Austria	-	46	33	36	13
Finland	4 595	4 419	4 264	6 663	4 426
Norway	-	19	-	634	-
Sweden	3 209	2 917	2 484	3 513	3 065
Yugoslavia	47	3	-	176	-
India	-	-	120	-	-
Indonesia	-	170	-	-	-
Japan	16 326	21 309	21 671	21 753	20 586
Malaysia	2	1	4	2	1
Pakistan	6	-	-	-	-
Sub-total	31 501	40 840	40 737	47 214	43 574
(Ni content approx. 75%)	23 626	30 630	30 553	35 411	32 681
Nickel oxides					
United Kingdom	207	321	624	407	2 419
Belgium-Luxembourg	59	-	22	385	163
France	90	-	22	22	-
Germany, Federal Republic of	-	-	-	317	-
Italy	370	336	220	117	-
Netherlands	18	-	-	-	-
Venezuela	-	-	-	5	6
Hong Kong	-	-	-	7	11
Sub-total	744	657	888	1 260	2 599
(Ni content approx. 87%)	647	572	773	1 096	2 261
Australia nickel exports:-					
Unwrought	31 020	25 717	24 188	24 318	27 392
Mattes, sinters etc.	23 626	30 630	30 553	35 411	32 681
Ferro-nickel	-	-	-	-	-
Oxides	647	572	773	1 096	2 261
Content of ores & concentrates (Canada only)	6 721	4 019	6 251	10 218	4 124
Grand total	62 014	60 938	61 765	71 043	66 458

Titanium oxides

Australia Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom	-	-	-	-	58
France	-	-	-	-	1
Italy	-	18	-	-	-
Spain	-	-	-	40	120
Yugoslavia	5	-	3	-	-
South Africa	34	-	-	-	-
Canada	707	763	1 075	1 091	1 017
USA	5 072	4 787	4 794	4 781	3 559
Argentina	2	-	-	-	-
Bangladesh	34	19	-	-	-
Hong Kong	869	1 313	1 273	1 574	2 181
India	-	-	85	-	-
Indonesia	3 039	1 615	2 022	2 527	1 920
Japan	1 847	2 069	2 024	1 786	2 002
Korea, Republic of	10	3 961	3 071	4 716	3 647
Malaysia	2 202	1 531	1 081	1 449	2 155
Pakistan	467	499	827	232	16
Philippines	2 514	1 751	1 104	1 953	2 172
Saudi Arabia	-	-	-	-	15
Singapore	1 268	1 307	751	1 268	1 224
Sri Lanka	-	28	-	-	37
Taiwan	3 276	3 607	2 275	2 998	2 555
Thailand	51	121	262	544	612
Fiji	233	169	285	121	-
New Zealand	3 117	4 162	4 010	3 739	5 019
Western Samoa	15	-	-	-	-
Total	24 762	27 720	24 942	28 819	28 310

Antimony oxide

Belgium-Luxembourg Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom	198	110	155	125	39
Denmark	30	70	80	9	15
France	148	205	293	308	293
Germany, Federal Republic of	1 142	1 243	1 117	1 313	909
Greece	10	2	-	1	
Irish Republic	-	-	-	3	
Italy	155	282	421	517	451
Netherlands	180	389	511	366	373
Portugal	6	15	5	13	
Spain	26	55	-	59	25
Austria	116	46	5	84	83
Turkey	-	-	-	11	
Canada	141	93	72	78	95
USA	280	536	551	429	732
Venezuela	-	-	-	-	3
Japan	-	2	-	18	24
Korea, Republic of	4	18	-	5	5
Taiwan	-	-	13	2	4
Total	2 436	3 066	3 223	3 341	3 051

Belgium-Luxembourg Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom	769	301	262	615	293
Denmark	15	19	18	16	15
France	134	62	49	104	36
Germany, Federal Republic of	210	195	208	17	17
Greece	1	2	3	3	
Italy	39	58	50	74	-
Netherlands	2	2	12	3	6
Portugal	3	3	4	2	
Spain	2	3	2	5	36
Finland	3	-	1	-	-
Sweden	60	116	195	91	74
South Africa	14	6	2		
Mexico	22	50	10		
USA	373	404	383	232	120
Argentina	19	-	-		
Brazil	21	23	126		
India	-	-	19		
Japan	524	501	169	397	402
Korea, Republic of	-	4	8	30	35
Malaysia	-	2	-	-	-
Australia	-	2	1		
Total	2 211	1 753	1 522	1 589	1 034

Cobalt oxides

Belgium-Luxembourg Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom	50	64	59	65	111
Denmark	2	3	-	1	-
France	159	196	75	116	83
Germany, Federal Republic of	203	155	216	188	136
Italy	91	111	124	163	188
Netherlands	185	175	115	149	289
Portugal	5	2	-	2	3
Spain	57	31	32	50	60
Austria	-	1	1	1	1
Finland	-	-	-	2	-
Norway	7	11	-	-	-
Sweden	2	2	2	-	-
Turkey	40	34	31	27	19
Yugoslavia	-	1	4	0	-
Egypt				2	
South Africa	5	3	12		
USA	85	211	73	110	140
Argentina	7	6	4	4	
Brazil	2	0	6		
Chile	1	2	3	2	
Venezuela	-	-	2	1	4
Hong Kong	-	-	-	1	-
India			1		
Indonesia	6	6	5	5	15
Japan	448	324	169	346	289
Korea, Republic of	3	1	1	6	8
Malaysia	4	1	2	3	-
Pakistan	0	0	1	6	2
Philippines	-	1	-	1	-
Saudi Arabia	-	-	-	19	17
Singapore	4	1	2	2	-
Taiwan	49	35	16	53	76
Thailand	4	5	5	2	7
Australia	-	-	3		
New Zealand	1	3	-	-	-
Total	1 420	1 385	964	1 327	1 448

Niobium & tantalum ores

Canada Exports

	tonnes				
Importing Countries	1983	1984	1985	1986	1987
United Kingdom	-	-	-	-	37
Belgium-Luxembourg	1 235	1 299	1 838	2 046	1 845
Germany, Federal Republic of	208	-	-	-	-
Netherlands	-	-	9	-	-
USA	544	1 133	1 280	1 378	* 1 000
Japan	740	2 038	1 759	1 502	1 171
Total	2 727	4 470	4 886	4 926	4 053

Asbestos

Chile Imports

	tonnes				
Exporting Countries	1983	1984	1985	1986	1987
Italy				107	-
Zimbabwe				140	335
Canada				7 414	7 328
Total				7 661	7 663

Bentonite

Chile Imports

	tonnes				
Exporting Countries	1983	1984	1985	1986	1987
United Kingdom	-	-	-	-	3
Mexico	-	-	3		
USA	7 309	3 584	762	3 862	3 470
Total	7 309	3 584	765	3 862	3 473

Fluorspar

Chile Imports

	tonnes				
Exporting Countries	1983	1984	1985	1986	1987
United Kingdom	-	-	-	40	18
Mexico	3 046	3 030	3 025	* 3 000	
Total	3 046	3 030	3 025	3 040	

Iron & steel scrap

Chile Imports

tonnes

Exporting Countries	1983	1984	1985	1986	1987
United Kingdom	-	-	5 200	-	-
Canada	-	-	-	18	-
USA	25 641	23 310	15 598	11 138	5 150
Total	25 641	23 310	20 798	11 156	5 150

Potassium sulphate

Chile Imports

tonnes

Exporting Countries	1983	1984	1985	1986	1987
USA	10 023	12 349	20 910	28 260	19 030

Potassium chloride

Chile Imports

tonnes

Exporting Countries	1983	1984	1985	1986	1987
Canada	39 977	44 022	36 251	53 956	13 200
USA	-	-	-	5 150	1 040
Total	39 977	44 022	36 251	59 106	14 240

Titanium oxides

Chile Imports

tonnes

Exporting Countries	1983	1984	1985	1986	1987
United Kingdom	657	496	639	2 236	822
Belgium-Luxembourg	-	220	104	150	89
France	-	154	144	100	359
Germany, Federal Republic of	862	953	299	691	591
Italy	-	-	5	-	-
Netherlands	20	5	10	84	45
Spain	189	42	90	58	10
USA	771	1 445	1 257	1 561	1 598
Brazil	38	37	36	0	
Hong Kong	-	-	-	-	21
Japan	30	-	12	60	10
Total	2 567	3 352	2 596	4 940	3 545

Iron & steel ingots, blooms, billets
(CCCN.7307/SITC.672.5)

Finland Exports

					tonnes
Importing Countries	1983	1984	1985	1986	1987
United Kingdom		16 904	21 813	25 499	24 317
Denmark		-	-	-	93
Germany, Federal Republic of		1 038	2 053	7 991	-
Austria		-	-	10	53
Norway		-	5 034	293	-
Sweden		15 319	2 033	2 825	59 530
Turkey		-	-	6 866	
Morocco		-	-	30 503	
Trinidad & Tobago		15 400			
USA		9 725	11 324	13 519	12 653
Israel		2 530	-	13 264	8 325
Saudi Arabia		-	2 900	-	-
Sub-total		60 916	45 157	100 770	104 971
Official figure excluding codes 7307 / 672.5		41 083	66 107	23 032	56 580
Grand total		101 999	111 264	123 802	161 551

Unroasted iron pyrites

Finland Exports

					tonnes
Importing Countries	1983	1984	1985	1986	1987
Belgium-Luxembourg		22 089	5 768	23 153	21 958
Germany, Federal Republic of		60 924	72 511	106 808	78 097
Italy		27 797	-	-	17 344
Norway		-	-	3 948	-
Sweden		-	10 049	10 253	44 086
Total		110 810	88 328	144 162	161 485

Titanium oxides

Finland Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom		5 101	5 909	6 680	7 715
Belgium-Luxembourg		116	195	160	195
Denmark		1 094	1 358	1 311	1 163
France		2 518	2 488	2 574	2 708
Germany, Federal Republic of		6 529	6 641	6 383	6 675
Greece		660	550	423	* 500
Irish Republic		24	76	-	-
Italy		2 502	2 837	2 084	* 1 000
Netherlands		778	900	1 213	1 430
Portugal		2 007	1 923	2 350	2 349
Spain		18	72	36	158
Austria		968	904	856	925
German Democratic Republic		3 915	3 090	2 446	3 200
Iceland		-	45	-	-
Norway		236	82	53	261
Sweden		4 288	4 472	4 657	4 656
Switzerland		225	261	117	457
Turkey		155	1 529	1 097	10
Yugoslavia		22	25	66	20
Algeria		6	-	98	
Canary Islands		40	220	320	428
South Africa		923	34		
Zimbabwe		-	-	34	-
Trinidad & Tobago		-	180		
USA		5 515	5 261	5 380	3 894
Argentina		61	65	50	
Brazil		20	105		
Colombia		3 782	2 658	3 685	* 3 000
Peru		26	-	689	
Venezuela		1 638	706	1 513	1 663
Cyprus		73	78	101	* 100
Dubai		117	-	83	
India		-	150		
Israel		450	361	* 500	
Japan		1 203	1 500	1 380	1 560
Korea, Republic of		459	462	780	639
Malaysia		-	20	171	26
Pakistan		36	47	18	18
Philippines		256	504	448	520
Saudi Arabia		108	-	223	439
Singapore		-	10	80	100
Taiwan		106	54	90	90
New Zealand		389	721	676	828
Total		46 364	46 493	48 825	46 727

Vanadium pentoxide

Finland Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom	1 327	458	156	162	72
Belgium-Luxembourg	-	74	101	50	276
France	881	1 320	712	160	-
Germany, Federal Republic of	902	1 660	1 549	467	198
Italy	-	1	-	-	-
Netherlands	3	5	-	6	-
Spain	298	421	40	-	-
Soviet Union	-	-	-	* 1 000	* 1 000
USA	559	225	-	-	-
Argentina	30	-	-	-	-
Brazil	34	-	-	-	-
Indonesia	-	-	5	-	-
Japan	-	121	36	-	-
Total	4 034	4 285	2 599	1 845	1 546

Diatomite

Hungary Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
Belgium-Luxembourg	-	10	-	1 943	-
France	251	-	24	20	-
Germany, Federal Republic of	-	82	-	-	-
Greece	-	388	138	108	* 100
Italy	-	110	-	-	-
Austria	2 704	2 588	2 667	2 938	1 654
Total	2 955	3 178	2 829	5 009	1 754

Platinum & platinum metals

Hungary Imports

kilograms

Exporting Countries	1983	1984	1985	1986	1987
United Kingdom	32	7	7	1	-
Germany, Federal Republic of	218	302	305	296	349
Italy	55	-	-	0	-
Netherlands	-	-	-	3	-
Switzerland	-	-	-	62	0
Japan	29	29	-	-	-
Total	334	338	312	362	349

Iran Exports

	tonnes				
Importing Countries	1983	1984	1985	1986	1987
United Kingdom	613 872	2 087 264	618 677	627 185	1 711 183
Belgium-Luxembourg	-	861 376	1 313 418	1 089 425	2 534 972
Denmark	125 337	281 656	-	-	-
France	4 168 795	3 623 827	4 108 631	2 738 230	4 431 637
Germany, Federal Republic of	2 065 777	2 422 151	2 666 673	2 037 076	996 573
Greece	486 600	-	281 741	237 492	223 343
Italy	12 073 693	8 722 888	7 211 623	6 437 053	7 068 326
Netherlands	6 796 888	8 479 682	4 543 502	4 017 867	7 406 838
Portugal	1 361 186	941 134	365 001	894 592	-
Spain	7 508 772	5 733 447	4 358 325	3 361 531	4 823 175
Austria	32 792	155 919	268 206	116 953	294 295
Finland	560 593	255 856	792 712	168 489	-
Hungary	1 014 016	810 596	257 985	257 447	747 143
Norway	45 000	-	-	-	39 594
Poland	* 300 000	409 000	263 000	264 000	-
Sweden	613 000	211 000	64 000	652 000	605 000
Switzerland	100 356	159 841	22 770	45 461	-
Turkey	5 477 861	7 302 049	5 744 972	1 860 436	6 678 786
Yugoslavia	1 484 947	1 108 417	1 042 112	1 049 391	1 079 066
Canary Islands	800 685	82 621	75 320	-	-
Ivory Coast	50 249	-	-	-	-
Kenya	340 565	412 359	282 313	122 602	-
Sudan	54 130	-	-	-	-
Bahamas	99 630	158 826	-	-	-
Canada	2 094 200	677 753	547 781	1 648 157	563 122
Netherlands Antilles	462 000	-	-	-	-
USA	5 185 348	2 865 746	3 225 336	4 648 523	12 274 058
Brazil	1 874 372	842 890	514 429	* 500 000	-
Bangladesh	-	98 878	-	-	-
India	* 3 000 000	* 3 000 000	3 455 638	-	-
Japan	20 727 820	14 268 071	13 060 895	11 346 903	12 375 363
Malaysia	423 720	-	-	85 236	-
Pakistan	436 981	476 208	341 510	738 642	388 060
Philippines	170 596	95 705	304 183	750 125	662 062
Singapore	2 591 602	1 674 805	5 771 546	6 724 736	3 548 559
Sri Lanka	18 969 384	252 145	800 098	249 391	761 494
Syria	6 076 426	4 741 062	3 498 150	* 3 000 000	-
Taiwan	138 858	-	-	262 558	242 469
Thailand	-	-	197 887	86 307	-
Australia	176 196	-	-	-	-
New Zealand	-	102 447	-	-	-
Total	108 502 247	73 315 619	65 998 434	56 017 808	69 455 118

Sulphur

Iran Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
Turkey	-	-	13 146	-	
India	-	-	53 625	* 50 000	* 50 000
Pakistan	-	-	-	-	8 777
Saudi Arabia	-	-	-	-	100
Syria	-	-	19 994		
Thailand	-	-	-	11 545	-
Total			86 765	61 545	58 877

Manganese ore

Iran Imports

tonnes

Exporting Countries	1983	1984	1985	1986	1987
Belgium-Luxembourg	-	-	-	8	-
Netherlands	1 488	507	1 500	-	-
Singapore	1 500	3 211	-	3 500	40
Total	2 988	3 718	1 500	3 508	

Silver metal

Iran Imports

kilograms

Exporting Countries	1983	1984	1985	1986	1987
United Kingdom	3 301		451	721	1 305
Belgium-Luxembourg	200		33	-	-
Germany, Federal Republic of	20 686		12 130	1 302	10 961
Spain	-		-	-	22 995
Switzerland	500		-	-	86
Japan	50		-	-	-
Total	24 737		12 614	2 023	35 347

Titanium oxides

Iran Imports

tonnes

Exporting Countries	1983	1984	1985	1986	1987
United Kingdom	3 678	1 339	526	570	230
Belgium-Luxembourg	220	-	40	17	20
France	-	-	-	-	27
Germany, Federal Republic of	6 783	2 297	812	95	693
Italy	-	-	-	-	15
Netherlands	60	-	20	-	-
Spain	443	-	-	-	47
Austria	-	-	-	68	100
USA	-	-	-	364	-
Japan	1 932	3 733	686	762	123
Total	13 116	7 369	2 084	1 876	1 255

Irish Republic Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom		19 013	23 831	17 767	12 905
France		937	589	-	-
Germany, Federal Republic of		27 625	16 436	1 350	-
Italy		7 010	270	2 500	-
Netherlands		-	27	-	634
Spain		-	580	570	421
Austria		-	77	85	52
Poland		6 310	7 335	8 580	* 7 000
Sweden		1 000	503	-	-
South Africa		-	730		
Canada		-	-	-	-
USA		12 686	22 434	21 853	22 164
Total		74 581	72 812	52 705	43 176

Bromine

Israel Exports

kilograms

Importing Countries	1983	1984	1985	1986	1987
United Kingdom	4 432 064	4 805 620	6 610 050	4 915 710	8 102 690
Belgium-Luxembourg	740 800	1 171 700	318 800	1 344 100	1 361 800
Denmark	32 900	47 900	73 100	40 500	71 100
France	3 203 000	4 143 000	5 188 800	3 346 900	3 790 700
Germany, Federal Republic of	3 159 600	4 784 100	5 766 000	4 817 700	5 066 200
Italy	1 201 742	1 376 260	1 077 400	2 585 167	2 793 200
Netherlands	3 947 000	6 876 000	7 965 000	7 506 000	7 531 000
Spain	269 000	251 000	134 000	37 000	44 000
Hungary	350 000	350 000	450 000	375 000	388 000
Yugoslavia	3 000	4 000	2 000	1 000	1 000
South Africa	15 900	18 200	71 400		
Argentina	14 259	-			
Brazil	11 214	15 540	14 070	* 10 000	
India			54 540		
Taiwan	13 104	-	-	-	630
Total	17 393 583	23 843 320	27 725 160	24 979 077	29 150 320

Israel Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom	48	144	112	176	253
Belgium-Luxembourg	57	655	-	39	14
France	-	52	132	104	123
Germany, Federal Republic of	3 688	6 980	3 930	3 918	2 464
Greece	-	-	-	-	140
Italy	-	-	25	-	-
Netherlands	288	810	746	225	378
Spain	-	-	-	24	-
Switzerland	-	-	-	57	-
USA	-	-	-	14	-
Japan	24	-	-	55	62
Taiwan	-	-	-	2	-
Total	4 105	8 641	4 945	4 614	3 434

Magnesite

Israel Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom	314	587	951	1 928	2 166
Belgium-Luxembourg	-	-	-	-	2
France	3 716	2 068	1 458	457	267
Germany, Federal Republic of	20 376	19 501	14 701	4 176	4 531
Italy	-	1 348	1 838	926	3 797
Netherlands	350	491	403	508	1 170
Spain	-	50	19	112	517
Austria	-	-	-	440	-
South Africa	18	304	2 183		
Zimbabwe	-	-	1	-	1
USA	-	-	350	-	8 356
Argentina	5	-	-		
Venezuela	-	-	1	-	-
Japan	-	18	-	75	360
Taiwan	-	2	-	22	238
Total	24 779	24 369	21 905	8 644	21 405

Potassium chloride

Israel Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom	2 303	576	1 644	14 750	-
Belgium-Luxembourg	29 445	54 217	82 375	68 297	107 140
Denmark	-	-	-	-	3 000
France	169 965	236 453	196 628	118 868	265 759
Germany, Federal Republic of	18	-	-	-	700
Irish Republic	-	-	20	13 673	33 092
Italy	186 886	211 634	185 885	223 808	162 454
Netherlands	27 323	18 233	37 519	67 442	200 560
Portugal	23 535	27 226	18 062	19 642	17 156
Spain	36	-	-	6 247	16 111
Norway	24 115	17 543	29 662	12 600	11 718
Turkey	-	-	8 714	9 729	17 308
Kenya	-	486	-	-	-
Malawi	496	575	-	-	-
Mauritius	21 131	-	-	-	-
Zimbabwe	-	4 712	3 585	11 755	32 151
Mexico	-	31 500	-	-	-
USA	498 136	400 668	368 418	310 006	270 137
Argentina	1 116	4 207	1 899	3 480	-
Brazil	15 716	117 465	210 590	* 150 000	-
Colombia	-	6 012	-	2 508	-
Venezuela	-	-	10 500	52 502	-
Japan	2 300	11 900	12 900	16 500	13 500
Philippines	-	-	-	11 000	33 000
Singapore	26 158	10 669	-	5 500	-
Taiwan	24 121	42 363	18 003	61 600	41 549
Australia	65	-	-	-	-
Total	1 052 865	1 196 439	1 186 404	1 179 907	1 225 335

Other potassic fertilisers

Israel Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom	-	-	-	-	6 783
Belgium-Luxembourg	-	-	-	10 114	592
Greece	-	1 501	3 099	5 528	
Portugal	900	-	1 000	8 967	
Austria	-	-	-	103	-
Switzerland	-	-	-	-	1 120
Turkey	23 392	31 604	-	10 729	3 700
Canary Islands	-	-	1 250	2 500	2 016
Kenya	-	2 000	600	500	1 000
Malawi	2 000	1 190	-	-	-
Mauritius	300	-	-	-	-
Nigeria	-	2 953	-	-	-
South Africa	99 204	111 551	147 464	* 100 000	* 100 000
Canada	-	-	-	22	-
USA	32 194	33 230	30 165	35 129	16 804
Argentina	-	2 500	350	1 500	-
Cyprus	-	961	783	1 020	-
Singapore	16 444	33 125	35 312	10 300	-
Sri Lanka	-	-	-	-	1 100
Thailand	-	3 675	5 500	-	9 486
New Zealand	-	-	30	-	-
Total	174 434	224 290	225 553	186 412	142 601

Israel Exports

Importing Countries	tonnes				
	1983	1984	1985	1986	1987
United Kingdom	6 528	8 381	8 344	5 820	5 854
Belgium-Luxembourg	-	396	54	1 795	663
Denmark	1 046	998	1 076	901	879
France	19 409	17 892	18 536	19 586	24 484
Germany, Federal Republic of	2 860	2 311	2 144	1 911	3 092
Greece	2 341	3 563	6 416	4 378	* 4 000
Irish Republic	36	162	162	159	-
Italy	16 921	20 239	25 097	8 466	12 941
Netherlands	9 915	13 585	15 598	16 993	16 690
Portugal	1 240	1 998	714	640	
Spain	8 628	8 785	10 085	14 780	23 577
Austria	90	36	-	-	181
Finland	1 422	946	1 928	1 576	2 333
Sweden	206	387	437	494	339
Switzerland	540	594	396	450	486
Turkey	-	389	375	476	
Canary Islands	2 401	1 692	600	-	200
Canada	477	634	1 170	943	635
USA	-	-	-	1 300	1 200
Argentina	886	-	-		
Colombia	325	431	648	306	
Peru	-	-	-	122	
Cyprus	252	-	-	-	-
Hong Kong	-	72	-	-	-
Taiwan	691	528	216	504	871
Thailand	873	4 314	1 134	7 820	3 806
Australia	6 167	7 108	6 768	* 6 000	
New Zealand	509	678	574	428	600
Sub-total	83 763	96 119	102 472	95 848	102 831
Official potassium carbonate figure	3 002	5 628	5 189	5 008	5 886
Grand total	86 765	101 747	107 661	100 856	108 717

Salt

Israel Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom	180	150	-	8	204
Belgium-Luxembourg	-	-	3	-	1
Denmark	3	-	-	-	-
France	-	-	18	10	-
Germany, Federal Republic of	489	244	340	390	377
Greece	-	-	-	-	105
Italy	-	38	40	17	-
Netherlands	-	18	-	-	-
Spain	-	1	2	-	17
Austria	-	88	-	34	-
Faeroe Islands	-	-	1	-	-
Finland	5	-	-	-	-
Switzerland	15	32	33	30	193
Canary Islands	-	-	-	-	4
Malawi	-	36	-	-	-
Nigeria	-	-	13 048	-	-
South Africa	-	328	302	-	-
Canada	269	7	-	-	-
Cyprus	-	56	-	428	-
Hong Kong	3 878	2 106	2 228	3 634	1 940
Philippines	972	578	188	120	142
Singapore	3 860	4 236	3 384	4 929	5 030
Thailand	4	4	-	60	-
Total	9 675	7 922	19 587	9 660	8 013

Israel Imports

tonnes

Exporting Countries	1983	1984	1985	1986	1987
United Kingdom	89	71	686	978	813
Belgium-Luxembourg	-	-	1	4	-
Denmark	2	-	6	-	-
France	240	360	124	122	371
Germany, Federal Republic of	66	161	175	312	136
Irish Republic	10	6	-	-	-
Italy	733	764	121	10	-
Netherlands	164	128	274	237	222
Spain	-	-	-	-	210
USA	25	32	27	-	-
Taiwan	-	-	-	-	2
Total	1 329	1 522	1 414	1 663	1 754

Unwrought copper & alloys

Israel Imports

tonnes

Exporting Countries	1983	1984	1985	1986	1987
United Kingdom	14	29	65	7	1
Belgium-Luxembourg	-	-	2	6	11
France	-	-	-	9	-
Germany, Federal Republic of	247	756	101	601	561
Italy	108	171	* 100	21	90
Spain	-	301	-	-	-
Finland	7	3	4	1	1
Sweden	-	40	-	-	-
Switzerland	-	-	21	-	-
USA	-	-	27	36	20
Total	376	1 300	320	681	684

Diatomite

Israel Imports

tonnes

Exporting Countries	1983	1984	1985	1986	1987
France	-	-	5	-	-
Italy	1	2	-	2	-
Spain	30	30	20	10	30
USA	627	593	963	811	689
Total	658	625	988	823	719

Feldspar

Israel Imports

tonnes

Exporting Countries	1983	1984	1985	1986	1987
France	-	-	36	-	-
Greece	-	-	20	100	-
Italy	-	-	-	670	-
Norway	-	-	-	535	393
Turkey	267	200	-	2 217	-
Total	267	200	56	3 522	393

Gypsum

Israel Imports

tonnes

Exporting Countries	1983	1984	1985	1986	1987
United Kingdom	176	156	108	170	156
Belgium-Luxembourg	5	45	59	15	14
France	-	-	-	465	15
Germany, Federal Republic of	156	228	281	595	390
Italy	395	301	358	484	628
Netherlands	7	6	6	-	-
Spain	-	-	-	-	13
USA	494	308	278	371	592
Total	1 233	1 044	1 090	2 100	1 808

Pig iron

Israel Imports

tonnes

Exporting Countries	1983	1984	1985	1986	1987
United Kingdom	361	101	-	-	120
France	-	-	100	-	-
Germany, Federal Republic of	1 021	517	673	360	-
Italy	101	356	-	-	-
Spain	-	2	-	-	-
Total	1 483	976	773	360	120

Ferro-alloys

Israel Imports

tonnes

Exporting Countries	1983	1984	1985	1986	1987
United Kingdom	75	263	307	6	29
Belgium-Luxembourg	-	-	-	2	-
France	57	66	90	96	70
Germany, Federal Republic of	52	63	91	-	-
Italy	-	20	5	20	-
Spain	-	-	-	20	5
Norway	442	989	947	808	838
Sweden	11	28	158	-	-
Zimbabwe	-	-	-	12	44
Canada	3	-	-	-	-
USA	7	-	-	-	13
Total	647	1 429	1 598	964	999

Iron & steel scrap

Israel Imports

tonnes

Exporting Countries	1983	1984	1985	1986	1987
United Kingdom	13 500	36	104	121	-
Belgium-Luxembourg	-	1	5	4 235	4 454
France	-	-	1 773	211	204
Switzerland	137	57	89	183	105
USA	280	1 956	-	-	1 202
Hong Kong	-	-	108	-	55
Total	13 917	2 050	2 079	4 750	6 020

Kaolin

Israel Imports

tonnes

Exporting Countries	1983	1984	1985	1986	1987
United Kingdom	12 795	27 810	9 069	10 010	11 599
Belgium-Luxembourg	9	-	1	-	-
France	-	-	-	-	1
Germany, Federal Republic of	3	19	7	23	-
Greece	70	250	265	250	-
Italy	-	2 310	4 077	1 352	-
Netherlands	15	-	1	-	-
Spain	6	-	-	-	-
Turkey	-	-	1	5	-
USA	560	547	818	1 105	1 792
Total	13 458	30 936	14 239	12 745	13 392

Magnesite

Israel Imports

tonnes

Exporting Countries	1983	1984	1985	1986	1987
Greece	-	-	4	-	-
Italy	18	-	-	-	-
Netherlands	222	184	153	197	204
USA	-	1 027	883	872	978
Total	240	1 211	1 040	1 069	1 182

Mercury

Israel Imports

kilograms

Exporting Countries	1983	1984	1985	1986	1987
United Kingdom	1 242	22	1 094	-	548
Italy	1 000	-	-	-	-
Netherlands	-	4 000	-	-	-
Spain	346	-	726	380	1 000
Turkey	2 070	-	-	-	-
Total	4 658	4 022	1 820	380	1 548

Silver metal

Israel Imports

kilograms

Exporting Countries	1983	1984	1985	1986	1987
United Kingdom	2 320	3 913	3 632	4 282	9 498
Belgium-Luxembourg	-	-	660	-	5
France	403	416	1 226	727	466
Germany, Federal Republic of	3 551	6 641	7 762	19 024	18 195
Italy	39	316	-	110	-
Netherlands	103	-	350	119	-
Switzerland	1 134	413	841	1 209	556
USA	778	278	-	-	-
Total	8 328	11 977	14 471	25 471	28 720

Israel Imports

tonnes

Exporting Countries	1983	1984	1985	1986	1987
United Kingdom	-	-	1	2	-
Belgium-Luxembourg	5	2	4	12	5
France	649	740	1 247	509	1 507
Germany, Federal Republic of	-	-	2	-	-
Greece	530	-	-	-	-
Italy	71	85	177	149	-
Netherlands	-	-	1	-	-
Spain	10	30	-	-	-
Turkey	-	1	-	-	-
Total	1 265	858	1 432	672	1 512

Titanium oxide
(Pigments only)

Italy Exports

	tonnes				
Importing Countries	1983	1984	1985	1986	1987
United Kingdom	703	726	1 855	3 276	3 520
Belgium-Luxembourg	-	2 449	367	46	624
Denmark	36	-	207	257	295
France	2 319	2 486	4 675	7 166	6 024
Germany, Federal Republic of	3 530	3 868	3 973	3 910	2 638
Greece	561	479	1 140	2 008	* 1 000
Irish Republic	-	8	-	-	-
Netherlands	2 165	2 589	1 954	556	284
Portugal	34	48	37	83	
Spain	-	79	44	71	241
Austria	48	24	40	177	278
Finland	-	-	-	6	15
Norway	-	28	-		
Sweden	-	-	-	152	131
Turkey			2 978	2 295	* 2 000
Yugoslavia	-	552	145	111	29
Canary Islands	-	-	69	10	-
Morocco	-	21	68		
South Africa	-	-	1		
Canada	-	12	32	13	29
Colombia	-	574	602	294	
Venezuela	-	-	1 115	1 737	731
Korea, Republic of	1 183	832	775	663	819
Philippines	221	51	119	170	353
Taiwan	1 476	1 139	1 579	1 904	2 015
Australia	-	10	23		
Sub-total	12 276	15 975	21 798	24 905	21 026
Official oxide figure	2 273	1 931	874	438	987
Grand total	14 549	17 906	22 672	25 343	22 013

Unwrought aluminium & alloys

Dem. P.R. of Korea Exports

					tonnes
Importing Countries	1983	1984	1985	1986	1987
Hong Kong	-	-	675	6 675	2 247
Japan	-	200	7 688	3 613	3 678
Singapore	-	-	350	1 145	1 073
Total		200	8 713	11 433	6 998

Coal

Dem. P.R. of Korea Exports

					tonnes
Importing Countries	1983	1984	1985	1986	1987
France	-	-	-	4	-
Bulgaria	-	-	128 060	-	
Japan	30 276	92 603	259 138	405 609	288 571
Malaysia	-	-	-	157	-
Total	30 276	92 603	387 198	405 770	288 571

Gold metal

Dem. P.R. of Korea Exports

kilograms

Importing Countries	1983	1984	1985	1986	1987
Germany, Federal Republic of	7 243	10 723	4 159	3 958	5 094
Italy	46	-	-	-	-
Japan	-	75	3 173	849	2 633
Total	7 289	10 798	7 332	4 807	7 727

Graphite

Dem. P.R. of Korea Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
Austria	771	-	-	59	-
Poland		-	388	195	
Japan	1 400	11 026	5 410	4 306	6 475
Total	2 171	11 026	5 798	4 560	6 475

Dem. P.R. of Korea Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
Soviet Union	* 69 500	* 69 000	* 69 000	30 426	29 574
Egypt	-	-	4 600		
Hong Kong	-	-	525	3 558	959
Japan	31 466	67 742	69 002	69 648	66 295
Total	100 966	136 742	143 127	103 632	96 828

Iron & steel ingots, blooms, billets

Dem. P.R. of Korea Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
Turkey	-	10 368	-	-	
Hong Kong	2 600	7 924	2 315	3 602	862
Indonesia	-	60	3	-	-
Japan	-	4 862	-	200	3 107
Jordan	104	-	-	-	-
Philippines	10 554	5 043	4 401	4 434	13 376
Singapore	4 076	-	-	-	-
Total	17 334	28 257	6 719	8 236	17 345

Unwrought lead & alloys

Dem. P.R. of Korea Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
Germany, Federal Republic of	3 974	-	4 209	6 833	2 622
Poland	* 500	494	303	-	
Hong Kong	1 437	526	143	-	-
Japan	3 924	15 257	7 868	7 890	10 205
Malaysia	-	-	107	158	-
Singapore	-	-	455	602	1 027
Thailand	100	-	-	-	-
Total	9 935	16 277	13 085	15 483	13 854

Magnesite

Dem. P.R. of Korea Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom	600	600	-	-	-
Belgium-Luxembourg	698	553	819	55	-
France	3 023	5 619	10 622	18 256	28 371
Germany, Federal Republic of	54 863	33 287	41 563	42 820	40 115
Italy	-	3 349	-	-	-
Netherlands	808	680	1 010	272	-
Spain	3 171	4 477	10 371	6 605	4 762
Hungary	62	-	-	-	-
Norway	588	495	1 149	551	-
Poland	* 65 000	69 088	99 806	92 652	* 70 000
Sweden	-	-	573	-	-
Egypt	-	-	4 990		
Japan	102 992	94 178	66 824	33 007	44 831
Total	231 805	212 326	237 727	194 218	188 079

Talc

Dem. P.R. of Korea Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
Poland	* 5 000	7 284	7 167	9 417	* 8 000
Zimbabwe	-	-	-	33	-
Colombia	35	-	-	-	-
Indonesia	170	50	-	-	100
Japan	23 617	27 121	13 263	14 383	9 864
Malaysia	52	-	-	-	-
Total	28 874	34 455	20 430	23 833	17 964

Zinc ore

Dem. P.R. of Korea Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
Japan	17 067	19 150	11 843	11 033	-

Unwrought zinc & alloys

Dem. P.R. of Korea Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
Germany, Federal Republic of	-	-	-	-	779
Netherlands	-	-	-	-	111
Portugal	984	-	-	-	
Hungary	-	297	948	81	-
Poland		1 189	2 127	-	
Sweden	-	-	-	-	100
Switzerland	-	-	-	51	525
Hong Kong	512	1 054	2 685	2 457	3 436
Indonesia	-	-	-	15	-
Japan	20 124	17 620	28 718	39 054	36 487
Singapore	-	-	101	-	12 148
Total	21 620	20 160	34 579	41 658	53 586

Alumina

Dem. P.R. of Korea Imports

tonnes

Exporting Countries	1983	1984	1985	1986	1987
Hong Kong	-	-	-	18	-
Japan	20 433	24 097	23 100	11 521	7 554
Singapore	-	-	5 108	-	-
Total	20 433	24 097	28 208	11 539	7 554

Unwrought aluminium & alloys

Dem. P.R. of Korea Imports

tonnes

Exporting Countries	1983	1984	1985	1986	1987
United Kingdom	-	-	-	1	-
Italy	-	-	126	-	-
Spain	-	-	17	-	-
Hungary	200	-	-	-	-
Hong Kong	2 269	631	-	12	119
Japan	20	-	2	4	9
Singapore	90	-	-	56	-
Australia	-	-	1 503	3 275	-
Total	2 579	631	1 648	3 348	128

Chromium ore

Dem. P.R. of Korea Imports

	tonnes				
Exporting Countries	1983	1984	1985	1986	1987
Soviet Union	14 000	17 000	16 000	25 000	24 000

Ferro-manganese

Dem. P.R. of Korea Imports

	tonnes				
Exporting Countries	1983	1984	1985	1986	1987
Brazil	2 500	-	-		
Hong Kong	-	5 250	500	495	1 540
Japan	10 821	8 060	7 006	348	5 000
Singapore	-	-	-	-	113
Total	13 321	13 310	7 506	843	6 653

Other ferro-alloys

Dem. P.R. of Korea Imports

tonnes

Exporting Countries	1983	1984	1985	1986	1987
France	-	-	-	504	-
Italy	-	-	-	-	18
Soviet Union	* 7 500	* 7 000	* 7 500	7 471	7 942
Zimbabwe		301	403	2 107	3 080
Brazil	-	-	-	17	
Hong Kong	-	20	70	822	4 524
Japan	1 683	270	310	596	2 669
Singapore	10	197	301	-	-
Total	9 193	7 788	8 584	11 517	18 233

Manganese ore

Dem. P.R. of Korea Imports

tonnes

Exporting Countries	1983	1984	1985	1986	1987
Soviet Union	20 000	21 000	21 000	30 000	29 000
India	-	20 626	-		
Singapore	170	-	320	-	200
Total	20 170	41 626	21 320	30 000	29 200

Mercury

Dem. P.R. of Korea Imports

kilograms

Exporting Countries	1983	1984	1985	1986	1987
Hong Kong	64 964	4 986	-	-	-
Singapore	14 973	5 003	10 006	5 000	-
Total	79 937	9 989	10 006	5 000	

Unwrought nickel & alloys

Dem. P.R. of Korea Imports

tonnes

Exporting Countries	1983	1984	1985	1986	1987
Belgium-Luxembourg	-	-	-	-	6
Hong Kong	237	517	660	637	1 888
Malaysia	-	-	-	1	-
Total	237	517	660	638	1 894

Potassic fertilisers

Dem. P.R. of Korea Imports

tonnes

Exporting Countries	1983	1984	1985	1986	1987
Soviet Union	99 012	67 500	99 100	23 000	11 000
Jordan	-	-	11 000	-	-
Total	99 012	67 500	110 100	23 000	11 000

Netherlands Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom		550	43	101	230
Belgium-Luxembourg		1 245	820	959	1 648
France		-	10	-	-
Germany, Federal Republic of		1 688	1 746	1 369	-
Greece		-	-	-	2
Italy		668	24	528	-
Portugal		-	-	1	-
Spain		-	-	-	17
Austria		416	578	643	178
Sweden		-	-	-	450
Switzerland		144	157	57	148
Kenya		1	-	-	-
USA		* 30	* 40	-	-
Chile		-	3	9	-
Cyprus		1	-	-	-
India		-	83	-	-
Japan		-	-	10	-
Pakistan		7	11	-	-
Total		4 750	3 515	3 677	2 673

Nickel oxides

Netherlands Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom		56	220	124	167
Belgium-Luxembourg		188	28	306	10
France		245	14	4	0
Germany, Federal Republic of		41	33	39	21
Italy		9	12	11	18
Spain		-	-	-	1
Turkey		-	3	5	
USA		-	63	-	-
Brazil		-	1		
Hong Kong		-	-	10	-
Pakistan		2	1	0	-
Total		541	375	499	217

Netherlands Imports

tonnes

Exporting Countries	1983	1984	1985	1986	1987
United Kingdom	-	5	0	-	3
Belgium-Luxembourg	-	-	-	-	9
France	-	-	-	22	66
Germany, Federal Republic of	1 803	224	81	159	100
Greece	19	-	-		
Indonesia	12 807	7 343	10 344	8 380	5 720
Total	14 629	7 572	10 425	8 561	5 898

Titanium oxide
(Pigments only)

Norway Exports

					tonnes
Importing Countries	1983	1984	1985	1986	1987
United Kingdom		1 464	1 111	1 014	916
Belgium-Luxembourg		-	-	22	22
Denmark		14	2	5	259
France		-	-	-	32
Germany, Federal Republic of		5	1 054	1 358	2 749
Greece		-	412	51	
Italy		-	5	152	-
Netherlands		30	-	57	-
Spain		-	-	156	-
Finland		153	33	51	49
Sweden		2 854	2 896	2 865	2 876
Turkey			23	1	
Yugoslavia		-	-	-	5
Canary Islands		10	-	-	-
Canada		-	367	-	-
Jamaica		-	18	-	-
Colombia		253	-	115	
Peru		-	-	21	
Venezuela		-	-	462	762
Japan		1 022	612	414	-
Taiwan		10	18	821	353
Sub-total		5 815	6 551	7 565	8 023
Official oxide figure		2 474	3 245	1 253	6 740
Grand total		8 289	9 796	8 818	14 763

Antimony ores & concentrates

Peru Exports

	tonnes				
Importing Countries	1983	1984	1985	1986	1987
Belgium-Luxembourg	-	-	30	-	-
France	515	499	-	242	109
Spain	54	23	134	162	30
USA	-	126	-	-	109
Total	569	648	164	404	248

Antimony metal

Peru Exports

	tonnes				
Importing Countries	1983	1984	1985	1986	1987
France	110	73	-	-	-
USA	402	69	216	31	-
Total	512	142	216	31	

Barytes

Peru Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
France	-		986	-	-
Germany, Federal Republic of	-		15 156	-	-
Italy	-		-	2 898	-
USA	117 878		26 300	-	-
Chile	-			8	
Colombia	-		-	3 999	
Ecuador	3 414				
Venezuela	-		36 484	49 899	14 524
Total	121 292		78 926	56 804	14 524

Bismuth metal

Peru Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom	33	-			
France	-	1			
Germany, Federal Republic of	117	90			
Spain	6	1			
USA	296	178			
Brazil	12	44			
Total	464	314			

Note: Data for 1985-87 are in the main text

Peru Exports

						tonnes
Importing Countries	1983	1984	1985	1986	1987	
United Kingdom	-	-	10	-	-	
Belgium-Luxembourg	-	1	-	-	11	
France	-	-	5	-	10	
Germany, Federal Republic of	93	115	45	25	-	
USA	153	103	27	124	70	
Brazil	52	-	1			
Venezuela	-	-	17	3	1	
Total	298	219	105	152	92	

Copper ore

Peru Exports

						tonnes
Importing Countries	1983	1984	1985	1986	1987	
Belgium-Luxembourg			2 021	2 404	-	
Germany, Federal Republic of			-	29 180	36 538	
Spain			-	9 765	3 949	
Sweden			-	3 188	-	
Canada			* 800	* 2 100	* 24 600	
USA			* 3 700	* 4 500	* 4 500	
Brazil			9 223			
Japan			69 436	95 565	100 114	
Korea, Republic of			5 530	9 177	18 528	
Taiwan			9 235	-	9 207	
Total			99 945	155 879	197 436	

Bentonite

Poland Imports

tonnes

Exporting Countries	1983	1984	1985	1986	1987
United Kingdom	-	1	10	-	7
Italy	-	594	-	-	-
Bulgaria	11 213	9 678	11 745	21 880	* 15 000
Hungary	5 207	4 850	5 020	5 191	5 059
Yugoslavia	-	-	-	-	4 628
India			101		
Total	16 420	15 123	16 876	27 071	24 694

Diatomite

Poland Imports

tonnes

Exporting Countries	1983	1984	1985	1986	1987
Denmark	220	140	230	-	198
France	-	-	20	40	-
USA	1 111	582	1 915	1 495	2 117
Total	1 331	722	2 165	1 535	2 315

Poland Imports

kilograms

Exporting Countries	1983	1984	1985	1986	1987
United Kingdom	128	133	180	11	34
Belgium-Luxembourg	-	-	12	1	2
Germany, Federal Republic of	41	89	80	165	69
Switzerland	-	149	-	722	1 268
Total	169	371	272	899	1 373

Aluminium scrap

South Africa Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom	145	194	229	-	46
Belgium-Luxembourg	-	14	187	140	19
France	-	12	-	-	-
Germany, Federal Republic of	48	607	800	1 995	9
Italy	-	45	-	138	-
Netherlands	8	14	272	111	20
Spain	-	-	58	-	-
Zimbabwe		-	-	10	2
USA	-	-	-	184	-
Chile	72	49	-		
Hong Kong	-	-	-	-	18
Japan	2 816	2 851	6 403	4 237	2 208
Taiwan	-	394	836	860	279
Total	3 089	4 180	8 785	7 675	2 601

Antimony oxide

South Africa Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom	-	-	-	60	-
France	-	-	-	-	67
Spain	-	-	-	7	17
USA	3 462	6 770	3 206	5 342	3 930
Japan	-	-	-	-	2
Taiwan	-	-	-	34	89
Total	3 462	6 770	3 206	5 443	4 105

South Africa Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom	2 017	2 236	1 637	1 131	518
Belgium-Luxembourg	2 572	1 930	2 847	1 685	1 270
France	-	57	60	-	-
Germany, Federal Republic of	4 650	4 457	10 056	6 671	3 819
Italy	50	70	289	385	-
Netherlands	196	317	476	292	53
Portugal	-	-	-	38	-
Spain	2 532	626	1 007	790	336
Austria	-	180	438	24	215
Sweden	54	18	-	-	-
Yugoslavia	-	-	-	200	-
Zimbabwe		2	1	12	0
USA	230	-	-	-	-
Japan	770	882	73	110	81
Sri Lanka	-	-	-	8	-
Taiwan	255	226	146	567	1 306
Total	13 326	11 001	17 030	11 913	7 598

Pig iron

South Africa Exports

	tonnes				
Importing Countries	1983	1984	1985	1986	1987
United Kingdom	815	2 062	1 952	3 061	-
Belgium-Luxembourg	300	1 535	975	3 339	5 187
France	787	7 040	749	891	1 029
Germany, Federal Republic of	11 731	15 718	7 939	10 238	11 382
Italy	2 628	4 534	7 386	4 145	4 934
Netherlands	590	20	20	20	-
Portugal	2 196	2 582	3 587	2 618	1 573
Spain	18 097	28 367	14 626	23 592	5 188
Austria	3 390	3 058	428	380	-
Finland	2 021	1 736	2 438	83	-
Sweden	-	92	-	-	1 106
Switzerland	75	-	-	-	-
Turkey	-	-	-	-	4 409
Malawi	-	4	-	-	-
Zimbabwe	-	114	-	260	-
USA	8 754	28 566	27 673	29 886	-
Hong Kong	-	-	1 955	-	-
Indonesia	-	-	6 436	4	-
Japan	17 801	19 902	299 991	541 387	314 348
Sri Lanka	18	18	18	36	36
Taiwan	6 430	7 021	28 128	9 489	39 268
Australia	-	-	3 401	-	-
Total	75 633	122 369	407 702	629 429	388 460

Iron & steel ingots, blooms, billets

South Africa Exports

	tonnes				
Importing Countries	1983	1984	1985	1986	1987
United Kingdom	263	387	1 032	886	476
Belgium-Luxembourg	-	-	-	497	-
Germany, Federal Republic of	-	-	-	497	-
Spain	-	-	14 879	-	-
Austria	-	-	333	286	133
Turkey	72 087	74 449	188 044	181 085	224 828
Malawi	-	1			
Mauritius	6 608		17 240		
Zimbabwe		4	16	18	46
Canada	913	-	130	-	-
USA	35 917	-	49 821	56 134	-
Chile	2 361	3 316	3 566	14 167	
Paraguay	22				
Hong Kong	7 004	37 000	22 992	100 624	58 948
Israel	26 908	15 185	10 018	20 388	12 772
Sri Lanka	81	-	4 990	5 088	7 007
Taiwan	46 414	17 351	75 297	113 108	359 700
Total	198 578	147 693	388 358	492 778	663 910

Iron & steel scrap

South Africa Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom	303	319	704	320	22
Belgium-Luxembourg	-	75	181	123	1
France	123	65	120	117	208
Germany, Federal Republic of	4 520	541	1 695	72	-
Italy	-	-	-	528	-
Netherlands	147	1 456	3 364	1 722	318
Spain	96	501	350	47	108
Turkey	-	-	15 601	2 489	40 395
Zimbabwe		817	237	-	-
Argentina	12	4			
Chile	-	-	69	61	
Japan	38 463	40 600	30 894	101 450	231
Taiwan	2 741	3 268	14 326	38 872	29 156
Total	46 405	47 646	67 541	145 801	70 439

South Africa Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom	-	16	21	-	36
Belgium-Luxembourg	-	50	-	-	-
Denmark	18	101	-	-	-
France	993	-	-	102	-
Germany, Federal Republic of	-	-	-	1 368	61
Greece	-	-	500	-	-
Italy	11 469	2 758	504	4 739	11 876
Netherlands	-	-	-	75	-
Portugal	-	-	306	3 630	969
Spain	-	-	-	162	8
Austria	1 062	-	1 156	5 550	5 330
Switzerland	-	-	-	-	125
Mauritius	46	-	-	-	-
Zimbabwe	-	15	146	158	408
Hong Kong	40	-	-	-	40
Indonesia	10	-	-	-	-
Japan	3 542	7 190	2 613	250	-
Korea, Republic of	-	139	916	718	-
Taiwan	507	359	1 001	-	-
Total	17 687	10 628	7 163	16 752	18 853

Lead scrap

South Africa Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom	-	118	146	138	125
Belgium-Luxembourg	-	-	69	82	-
Denmark	563	214	-	-	-
France	-	-	18	-	-
Germany, Federal Republic of	-	124	-	217	-
Italy	53	-	-	497	-
Netherlands	-	14	60	-	-
Sweden	-	109	305	-	-
Turkey	-	-	-	999	999
Zimbabwe	-	-	819	14	34
USA	-	496	-	-	-
Japan	51	-	-	-	-
Taiwan	18	281	-	377	319
Total	685	1 356	1 417	2 324	1 477

Lithium minerals

South Africa Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
Spain	-	269	100	-	98
USA	-	-	3 026	1 510	-
Total	-	269	3 126	1 510	98

Nickel slurry, mattes, sinters etc.

South Africa Exports

	tonnes				
Importing Countries	1983	1984	1985	1986	1987
United Kingdom	-	173	-	24	-
Belgium-Luxembourg	86	220	115	118	132
Greece	-	7	130	-	-
Italy	68	-	-	-	-
Austria	12	12	140	7	58
Finland	-	5	-	-	-
Norway	4 424	4 391	12 640	29 014	29 510
Turkey	-	3	-	-	-
USA	31 566	* 41 200	* 29 800	-	-
Chile	3	3	-	2	-
Total	36 159	46 014	42 825	29 165	29 700

Unwrought nickel & alloys

South Africa Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom	360	1 046	1 483	1 993	2 080
Belgium-Luxembourg	485	268	162	118	124
France	1 762	2 402	1 797	2 282	2 389
Germany, Federal Republic of	2 800	3 250	3 958	4 515	3 263
Greece	-	-	85	45	
Italy	1 249	1 356	2 751	2 165	1 731
Netherlands	230	19	41	166	106
Portugal	59	-	60	121	65
Spain	352	250	115	192	132
Austria	544	386	639	929	621
Finland	-	257	312	-	-
Sweden	1 123	1 712	1 506	1 043	712
Switzerland	68	122	260	297	161
Turkey	-	-	-	40	6
Canada	1 313	238	13	34	-
USA	4 086	3 664	2 084	2 711	2 268
Argentina	75	54	-	5	
Peru	-	8	-		
Hong Kong	225	129	3	178	141
Japan	639	795	759	674	979
Taiwan	131	411	57	381	58
Australia	-	36	37		
Total	15 501	16 403	16 122	17 889	14 836

South Africa Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom	14	124	63	135	271
Belgium-Luxembourg	-	5	-	-	-
Germany, Federal Republic of	49	135	108	24	79
Italy	-	17	17	-	-
Netherlands	-	68	39	61	-
Spain	-	-	-	2	5
Austria	27	9	20	-	-
Switzerland	24	-	-	-	-
USA	-	-	170	-	-
Japan	-	-	8	2	-
Australia	-	-	3		
Total	114	358	428	224	355

Platinum & platinum metals

South Africa Exports

kilograms

Importing Countries	1983	1984	1985	1986	1987
United Kingdom	1 529	1 069	1 114	3 295	2 916
Belgium-Luxembourg	11	0	-	8	-
Denmark	1	-	-	-	-
France	866	1 128	1 672	1 715	2 159
Germany, Federal Republic of	4 093	4 258	3 907	4 957	10 375
Greece	3	4	2	1	-
Italy	554	322	458	491	352
Netherlands	157	171	164	191	228
Spain	50	65	107	139	181
Austria	4	-	-	-	50
Greenland	-	-	-	1	-
Norway	-	-	-	168	-
Sweden	* 40	* 5	-	* 10	-
Switzerland	2 923	1 889	1 590	1 021	2 578
Turkey	-	-	19	20	-
Zimbabwe	-	-	-	1	2
Canada	-	-	-	280	-
USA	37 737	58 394	56 528	59 590	54 881
Hong Kong	-	-	-	-	510
Japan	25 910	23 798	29 465	27 881	37 697
Australia	36	-	-	-	-
Total	73 914	91 103	95 026	99 769	111 929

Platinum & platinum metals, waste & scrap

South Africa Exports

					kilograms
Importing Countries	1983	1984	1985	1986	1987
United Kingdom	2 037	255	908	659	23
Germany, Federal Republic of	14	20	26	18	3 413
Italy	-	-	-	-	100
Spain	-	-	16	-	-
USA	165	204	107	100	-
Total	2 216	479	1 057	777	3 536

Antimony oxide

United Kingdom Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
Belgium-Luxembourg	138	105	127	106	30
Denmark	33	38	24	59	57
France	149	129	58	58	29
Germany, Federal Republic of	1 143	966	870	797	1 010
Greece	19	4	10	9	
Irish Republic	10	10	17	43	-
Italy	285	257	221	243	355
Netherlands	178	166	151	171	136
Portugal	10	11	13	7	
Spain	98	36	16	60	62
Austria	5	-	-	-	-
Turkey	-	-	15	3	
South Africa	39	-	-		
Canada	576	676	570	481	809
USA	261	286	187	219	144
Brazil	20	5	5		
Venezuela	-	-	-	11	21
Japan	518	1 000	1 212	1 117	1 578
Korea, Republic of	146	74	53	2	-
Taiwan	-	-	-	83	65
Australia	209	121	90	* 100	
Total	3 837	3 884	3 639	3 569	4 296

Bismuth metal

United Kingdom Exports

					tonnes
Importing Countries	1983	1984	1985	1986	1987
Belgium-Luxembourg			-	2	1
Denmark			-	1	2
France			84	56	60
Germany, Federal Republic of			52	58	183
Greece			-	1	
Italy			74	74	49
Portugal				4	
Spain			* 30	30	20
USA			127	81	144
Malaysia			-	1	1
Total			367	308	460

Manganese metal

United Kingdom Exports

					tonnes
Importing Countries	1983	1984	1985	1986	1987
Belgium-Luxembourg			6	26	2
France			6	7	40
Greece			-	31	
Italy			-	119	-
Netherlands			-	37	-
Spain			150	240	89
Norway			297	52	131
Sweden			-	-	28
Turkey			41	20	
Canada			76	10	120
Malaysia			-	1	4
Taiwan			5	14	16
Thailand			14	6	8
Total			595	563	438

Mercury

USA Exports

kilograms

Importing Countries	1983	1984	1985	1986	1987
United Kingdom	9 437	1 148	17 526	28 021	68 433
Belgium-Luxembourg	6 000	4 100	1 400	400	-
France	1 000	-	* 7 000	0	-
Germany, Federal Republic of	99 400	-	2 500	-	-
Italy	1 407	3	-	1 725	-
Spain	52	30	96	33	-
Austria	2 600	-	-	-	-
Sweden	1 000	-	-	-	-
Yugoslavia	10 000	3 000	* 3 000	* 25	2 000
Algeria	2	-	-	1	-
Kenya	2	26	-	-	-
Morocco	-	-	925	-	-
Canada	56 000	55 000	23 000	52 000	33 000
Mexico	33	24	3 420	-	-
St Lucia	-	1	-	-	-
Argentina	13	-	3 000	14 000	-
Brazil	4 179	22 372	5 983	* 5 000	-
Colombia	42 431	* 40 000	* 40 000	-	-
Ecuador	1 000	-	-	-	-
Peru	-	4 000	-	5 461	-
Venezuela	-	27 000	4 609	7 715	-
Abu Dhabi	377	-	-	-	-
Bahrain	3	-	-	-	-
Brunei	23	4	5	-	-
Dubai	-	-	23	-	-
Hong Kong	-	50	-	-	-
India	-	-	12 620	-	-
Indonesia	27	33	1	1	2
Korea, Republic of	-	1 463	612	1 610	2 271
Malaysia	-	350	60	100	1 020
Pakistan	11 316	156	-	-	-
Philippines	11	710	172	16	4
Saudi Arabia	3 476	-	-	2 004	-
Singapore	8 101	7 404	12 020	13 266	10 138
Taiwan	1	1 074	5 036	4 695	3 088
Thailand	25	-	-	0	12
Total	257 916	167 948	143 008	136 073	119 968

USA Exports

tonnes

Importing Countries	1983	1984	1985	1986	1987
United Kingdom	4 085	3 101	6 268	8 691	6 434
Belgium-Luxembourg	155	161	165	220	1 717
Denmark	86	-	69	-	-
France	1 787	1 930	1 296	1 510	2 110
Germany, Federal Republic of	51 244	60 760	56 627	35 924	40 618
Greece	-	-	16	1	-
Irish Republic	86	17	-	-	-
Italy	1 248	1 180	1 499	1 150	1 854
Netherlands	86	132	191	180	240
Portugal	20	-	-	-	-
Spain	298	275	-	451	284
Austria	84	55	86	221	270
Mexico	1 281	1 456	1 531	* 1 000	
Argentina	248				
India			8		
Indonesia	-	2	-	254	104
Japan	4 922	7 272	4 344	7 302	4 299
Korea, Republic of	588	706	1 082	1 268	1 555
Thailand	-	-	17	-	17
Australia	160	337	352	* 300	
Total	66 378	77 384	73 551	58 472	59 502

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