

BRITISH GEOLOGICAL SURVEY

WORLD MINERAL STATISTICS 1985-89

Production: Exports: Imports

Compiled by G J Lofty, J A Hillier, S A Cooke, P I Hale, K A Linley, and
H R Singh
Research and Graphics by C D G Black

© Natural Environment Research Council 1991
© Crown copyright 1991

First published 1991

BRITISH GEOLOGICAL SURVEY

Keyworth, Nottingham NG12 5GG

☎ Plumtree (06077) 6111

Murchison House, West Mains Road, Edinburgh EH9 3LA

☎ 031-667 1000

The full range of Survey publications is available through the Sales Desks at Keyworth and Murchison House, Edinburgh. Selected items can be bought at the BGS London Information Office in the Natural History Museum Earth Galleries (071-589 4090), and orders are accepted here for all publications. The adjacent bookshop stocks the more popular books for sale over the counter. Most BGS books and reports are listed in HMSO's Sectional List 45, and can be bought from HMSO and through HMSO agents and retailers. Maps are listed in the BGS Map Catalogue and the Ordnance Survey's Trade Catalogue, and can be bought from Ordnance Survey agents as well as from BGS.

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, Minerals Group, British Geological Survey, Keyworth, Nottingham NG12 5GG ☎ Plumtree (06077) 6111.

The compilations presented in this book are Crown copyright and may not be reproduced in any form without the permission of the Director, British Geological Survey.

Bibliographical reference

BRITISH GEOLOGICAL SURVEY. 1991. *World mineral statistics 1985-89: production: exports: imports.* (Keyworth, Nottingham: British Geological Survey.)

Compilers

Staff of the Minerals Group
British Geological Survey, Keyworth

Typeset and printed in England by Derry & Sons Ltd,
Nottingham

ISBN 0 85272 190 0

PREFACE

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

The first volume in this series was published in 1978 but publication by the British Geological Survey, and its precursors, of descriptive statistics encompassing the mineral industry world-wide dates back to 1913 in the well-known *Statistical Summary of the Mineral Industry*. The current volume is therefore the latest in a continuous series encompassing seventy-seven years. We advise our subscribers that we will not be publishing a volume of preliminary production statistics for 1986–90.

This volume includes a production-price graph for magnesium metal in addition to the graphs for the twenty-four commodities previously featured. The US dollar has been used as the unit of currency for all these commodities and all prices have been indexed to a base year of 1985.

Comparing total world production of minerals in 1988 with the figures for 1989, just over half show increased production, continuing the recovery noted in 1988; the remainder are unchanged or have fallen. Notable in the latter category are cobalt metal with a 12% drop from 1988 and production of tantalum/niobium minerals which fell to a more sustainable level. Phosphate, potash, salt and sulphur all fell away from the peak production reached in 1988. It remains to be seen if this is a minor event for these minerals or if the long-term production growth rates are declining further. Perhaps more significant is the observation that apart from iron, cobalt, manganese and lead, prices of the major non-fuel commodities fell in 1990 as the world economy entered recession.

The appendix showing reconstructed trade data which has been a feature of the previous five volumes has not been included this year. The research required to produce this data is ongoing however and the reconstructed figures do appear in the commodity tables where they are shown as estimates.

The change-over to Harmonised System commodity descriptions, and related Combined Nomenclature coding, has now been effectively implemented by most trading nations. The new system has been utilised in the compilation of world trade data in the current volume for the years 1988 and 1989.

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

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

The mineral industry is integrated on a world-wide scale. Access to reliable information becomes ever more important as the pace of change quickens and as concern increases about the environmental impact of the industry. For many years it has been the remit of the statistics section of the BGS, now a part of the Minerals Group, to make available for our customers a

reliable, comprehensive and continuous set of data covering most of the minerals which enter into manufacturing and international trade. It is our view that such a time series is a pre-requisite for informed analysis by those who are concerned with the current situation and future developments in the mineral industry.

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

Peter J Cook
Director

British Geological Survey
Keyworth
Nottingham NG12 5GG
England

12 July 1991

INDEX

Alumina 3	Magnesium 307
Aluminium 2	Manganese 172
Antimony 16	Mercury 178
Arsenic 22	Mica 182
Asbestos 26	Molybdenum 186
Barytes 30	Natural gas 203
Bauxite 2	Nepheline syenite 307
Bentonite 33	Nickel 192
Beryl 305	Niobium 265
Bismuth 39	Perlite 307
Borates 305	Petroleum 200
Bromine 42	Phosphates 208
Cadmium 44	Platinum 212
Chromium 48	Potash 218
Coal 54	Pyrites 250
Cobalt 64	Rare earths 227
Copper 70	Salt 231
Diamond 82	Selenium 308
Diatomite 88	Sillimanite 238
Feldspar 92	Silver 242
Ferro-alloys 127	Strontium 308
Fluorspar 95	Sulphur 250
Fuller's earth 33	Talc 261
Germanium 305	Tantalum 265
Gold 98	Tellurium 308
Graphite 105	Tin 268
Gypsum 108	Titanium 276
Iodine 115	Tungsten 282
Iron ore 118	Uranium 309
Iron and steel 123	Vanadium 288
Kaolin 149	Vermiculite 309
Lead 154	Wollastonite 309
Lithium 163	Zinc 292
Magnesite & Magnesia 166	Zirconium 302

PRODUCTION—PRICE GRAPHS

Figure

1 Aluminium	Facing Primary Aluminium production table
2 Antimony	Facing Antimony mine production table
3 Cadmium	Facing Cadmium production table
4 Chrome	Facing Chromium Ores and Concentrates production table
5 Coal	Facing Coal production table
6 Cobalt	Facing Cobalt mine production table
7 Copper	Facing Copper mine production table
8 Gold	Facing Gold mine production table
9 Iron	Facing Iron Ore production table
10 Steel	Facing Steel Ingots and Castings production table
11 Lead	Facing Lead mine production table
12 Manganese	Facing Manganese Ore production table
13 Mercury	Facing Mercury production table
14 Molybdenum	Facing Molybdenum mine production table
15 Nickel	Facing Nickel mine production table
16 Petroleum	Facing Crude Petroleum production table
17 Phosphate	Facing Phosphate Rock production table
18 Potash	Facing Potash production table
19 Silver	Facing Silver mine production table
20 Sulphur	Facing Sulphur and Pyrites production table
21 Tin	Facing Tin mine production table
22 Tungsten	Facing Tungsten mine production table
23 Vanadium	Facing Vanadium mine production table
24 Zinc	Facing Zinc mine production table
25 Magnesium	Facing Primary Magnesium Metal production table

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 Minerals Group 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 exclude remelted material.

Canada With effect from 1987, Canadian production figures, previously shown throughout as 'shipments', are shown as mine production where the data are available.

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 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 3) 689.1, 8 & 9, and 699.8 & 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 prices 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.

Indexed prices, around the base year 1985, have been derived by applying the US producer price index to the actual US dollar prices. Exceptionally the gold and silver prices have been indexed using the GDP deflator for the USA with 1985 as the base year. These indexes are quoted in the *International Financial Statistics Yearbook* published by the IMF.

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 Cathy Melia of the NERC Computer Services and run on the NCS VAX cluster at BGS, Keyworth.

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 UK Iron and Steel Statistics Bureau, the International Fertilizer Industry Association Ltd, the UN Food and Agriculture Organization, and the UNCTAD. In a few instances, information on specific commodities has been obtained directly from company sources.

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

Units

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

tonnes \times 0.9842 = long tons

tonnes \times 1.1023 = short tons

kilograms \times 2.2046 = pounds

kilograms \times 32.1507 = troy ounces

cubic metres \times 35.3147 = cubic feet

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

1 metric ton unit = 10 kilograms

1 flask mercury = 34.5 kilograms

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

Symbols

... figures not available

0 quantity less than half unit shown

— nil

* estimated

BGS British Geological Survey

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

STATISTICAL TABLES

Production of Bauxite

tonnes

Country	1985	1986	1987	1988	1989
France	1 529 600	1 379 000	1 388 200	977 700	550 427
Greece	2 341 070	2 314 962	2 455 988	2 533 100	2 576 000
Italy	—	—	16 557	17 125	11 761
Spain	2 427	3 000	1 050	2 500	—
Hungary	2 814 791	3 022 297	3 101 000	2 593 000	2 644 000
Romania	460 000	500 000	480 000	435 400	345 200
Soviet Union (a)	*6 400 000	*6 275 000	*5 700 000	*5 900 000	*5 750 000
Turkey	213 752	280 401	259 075	269 437	544 401
Yugoslavia	3 249 794	3 458 917	3 394 000	3 033 794	3 252 468
Ghana	169 500	204 000	195 000	287 300	347 700
Guinea	11 750 000	12 439 000	13 500 000	15 619 000	16 523 000
Mozambique	5 037	4 248	5 114	6 548	5 501
Sierra Leone	1 184 500	1 242 000	1 391 000	1 403 000	1 548 000
Zimbabwe	20 877	24 284	—	—	—
Dominican Republic	—	—	186 671	167 800	150 813
Jamaica	6 218 900	6 953 000	7 702 000	7 316 000	9 395 000
USA (b)	674 000	510 000	576 000	588 000	670 000
Brazil (c)	5 304 697	5 418 259	6 376 650	7 727 600	7 893 800
Guyana	2 153 186	2 073 918	2 351 496	2 154 847	...
Suriname	3 738 000	3 731 000	2 522 000	3 434 000	3 457 348
Venezuela	—	1 275	245 157	521 504	701 770
China	*2 800 000	*2 900 000	*3 200 000	*3 500 000	*3 650 000
India	2 267 777	2 662 200	2 778 678	3 960 799	4 344 936
Indonesia	830 471	649 881	635 309	505 804	835 085
Iran (d)(e)	—	—	—	92 537	*100 000
Malaysia	491 904	566 170	482 125	360 798	355 174
Australia	31 838 898	32 383 773	34 101 721	36 192 000	38 584 000
World total	86 500 000	89 000 000	93 000 000	99 600 000	106 400 000

Note(s):

(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
- (d) Alunite
- (e) Years ended 20 March following that stated

Production of Alumina

Country	1985	1986	1987	1988	1989
United Kingdom	109 700	109 940	109 800	114 000	116 200
France	734 200	740 000	712 000	551 000	478 000
Germany, Federal Republic of	1 656 579	1 559 804	1 312 828	1 162 786	1 173 993
Greece	248 366	307 190	518 415	514 650	533 300
Irish Republic	555 400	685 490	777 974	842 800	864 510
Italy	363 000	404 200	457 600	460 500	472 000
Spain	476 000	489 000	524 000	576 000	620 000
Czechoslovakia	138 100	153 345	149 917	182 651	204 615
German Democratic Republic	46 695	46 350	50 880	64 000	69 000
Hungary	798 000	856 333	857 612	873 232	881 505
Romania	548 000	555 000	584 000	620 100	610 800
Soviet Union	*4 300 000	*4 400 000	*4 400 000	*4 600 000	*4 550 000
Turkey	113 304	144 396	95 232	181 670	200 560
Yugoslavia	1 138 026	1 116 716	1 113 000	1 060 041	1 170 463
Guinea	565 000	555 400	543 000	590 000	617 000
Canada	1 019 000	1 015 000	952 690	992 576	1 048 400
Jamaica	1 511 800	1 578 000	1 622 000	1 520 000	2 221 070
USA	*3 465 000	*3 105 000	*4 150 000	*4 575 000	*4 670 000
Brazil	1 095 900	1 196 800	1 365 000	1 487 850	1 632 000
Suriname	1 242 000	1 471 000	1 363 000	1 632 200	1 567 051
Venezuela	1 110 000	1 268 745	1 360 012	1 284 036	1 293 219
China	*1 300 000	*1 400 000	*1 450 000	*1 530 000	*1 650 000
India	373 000	383 000	425 000	776 000	927 000
Japan	873 000	644 000	465 000	508 000	564 000
Australia	8 791 501	9 423 220	10 109 290	10 510 514	10 823 000
World total	32 600 000	33 600 000	35 500 000	37 200 000	39 000 000

Note(s):

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

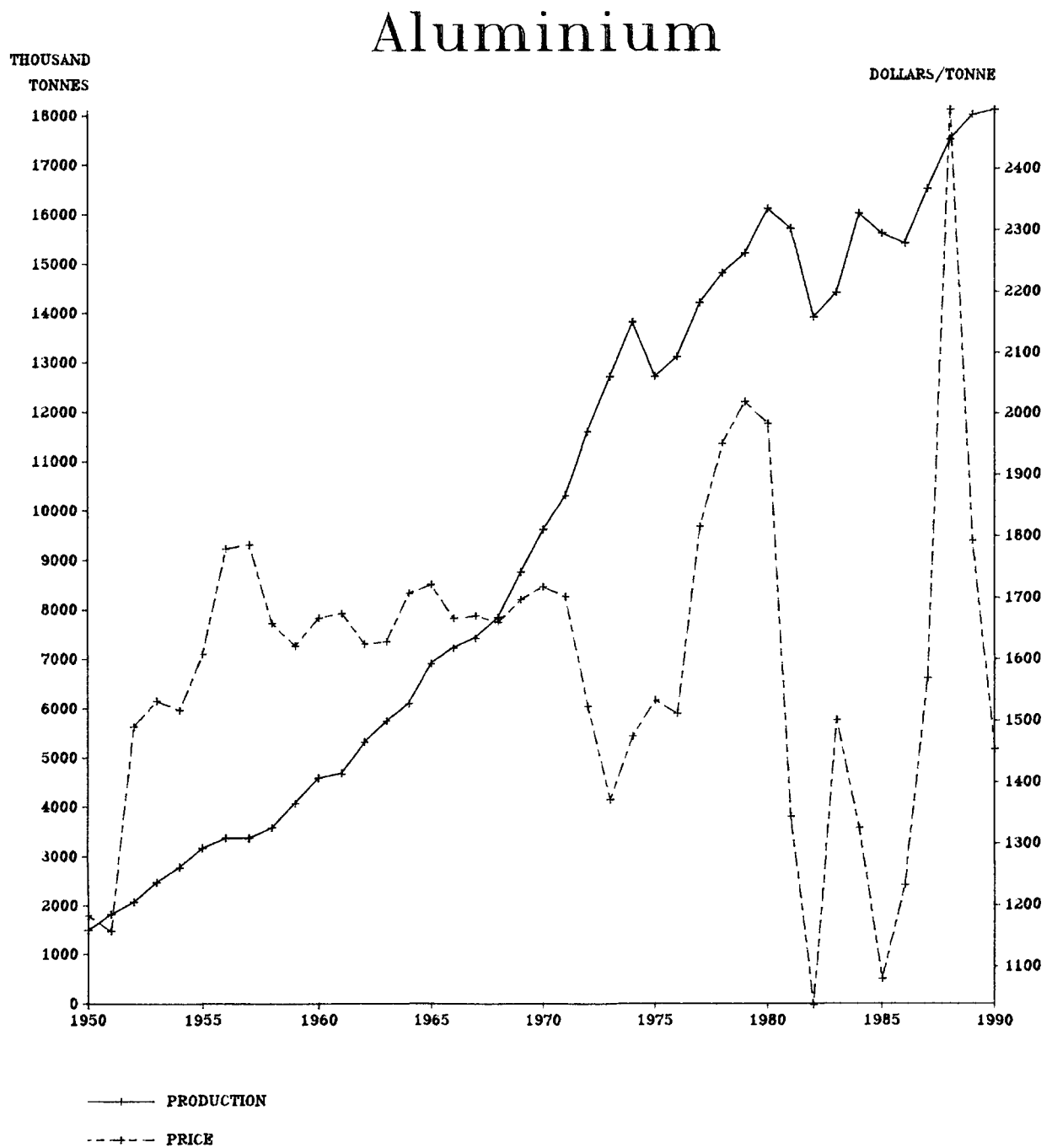


Figure 1 World production of primary aluminium compared with the UK price of ingot (99.5%) and, from 1979, the LME high grade cash price, expressed in 1985 constant US dollars.

Production of Primary Aluminium

Country	1985	1986	1987	1988	1989
United Kingdom	275 373	275 876	294 382	300 166	297 313
France	293 196	321 793	322 500	327 856	329 253
Germany, Federal Republic of	745 373	552 218	792 628	752 927	733 703
Greece	125 222	126 000	126 751	150 801	148 300
Italy	224 120	242 632	232 600	226 300	219 500
Netherlands	250 603	265 768	275 939	278 198	279 243
Spain	370 100	354 700	341 000	293 900	352 400
Austria	94 106	92 453	93 414	95 494	92 933
Czechoslovakia	31 725	33 078	32 366	31 435	32 576
German Democratic Republic	65 700	*66 000	*67 000	61 200	53 900
Hungary	73 859	73 877	73 500	74 692	75 195
Iceland	73 403	75 929	83 485	82 034	88 477
Norway (a)	742 686	725 813	853 213	838 224	863 354
Poland	47 000	47 500	47 500	47 700	47 800
Romania	247 000	253 000	260 000	266 000	269 100
Soviet Union	*2 300 000	*2 350 000	*2 370 000	*2 440 000	*2 380 000
Sweden	82 783	77 882	79 462	98 597	96 982
Switzerland	72 742	80 259	73 169	71 816	71 308
Turkey	54 150	60 017	41 685	56 500	58 564
Yugoslavia	306 346	309 206	280 633	317 300	331 011
Cameroon	81 600	81 100	71 500	80 000	87 300
Egypt	174 666	176 760	179 200	173 460	180 931
Ghana	48 500	124 600	150 300	163 500	168 600
South Africa	164 600	169 600	170 600	170 400	165 900
Canada	1 282 316	1 355 161	1 540 439	1 534 499	1 554 753
Mexico	42 744	39 946	63 260	68 337	71 691
USA	3 500 000	3 037 000	3 343 000	3 944 000	4 030 000
Argentina	139 861	150 642	155 107	157 407	164 154
Brazil	549 400	757 375	843 500	873 500	887 432
Suriname	28 785	28 715	1 913	9 760	28 407
Venezuela	403 503	420 660	430 230	443 305	546 021
Bahrain	174 800	178 194	180 344	182 804	186 395
China	*500 000	*570 000	*640 000	*713 000	744 400
Dubai	153 200	154 838	155 876	162 500	168 250
India	266 496	257 096	253 372	334 861	423 250
Indonesia	216 820	218 772	201 402	185 112	196 869
Iran	43 000	40 000	45 000	40 000	45 000
Japan	226 547	140 187	40 691	35 347	35 014
Korea, Dem. P.R. of	*10 000	*10 000	*10 000	*10 000	*10 000
Korea, Republic of	17 122	18 259	16 777	16 101	15 683
Australia	851 286	881 910	1 003 947	1 149 000	1 244 000
New Zealand	240 835	236 332	252 000	265 700	258 800
World total	15 600 000	15 400 000	16 500 000	17 500 000	18 000 000

(a) May include some super purity aluminium

Exports of Bauxite, Alumina and Aluminium

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Bauxite	2 286	1 221	2 148	4 120	10 951
Alumina	7 546	8 793	8 031	7 453	9 614
Alumina hydrate	37 575	38 213	34 335	41 695	45 492
Unwrought	65 342	50 409	69 108	79 378	73 816
Unwrought alloys	63 782	66 348	64 447	75 672	95 379
Scrap	90 803	89 886	87 372	114 286	99 334
Belgium-Luxembourg					
Bauxite	1 992	2 873	2 416	3 648	1 713
Alumina	1 353	1 237	1 102	1 202	2 143
Unwrought	8 942	9 134	8 278	4 996	4 566
Unwrought alloys	14 094	15 277	19 277	27 922	30 785
Scrap	46 950	51 888	60 186	77 770	74 729
Denmark					
Bauxite	2 042	—	1	8	—
Unwrought	37	10	73	309	574
Unwrought alloys	12 094	10 213	12 581	10 703	7 629
Scrap	16 659	20 545	25 186	26 645	28 003
France					
Bauxite	200 733	116 060	187 433	13 487	28 916
Alumina	200 445	113 046	93 276	84 106	104 355
Alumina hydrate	97 304	81 280	101 992	127 969	138 981
Unwrought	38 838	59 515	41 028	36 704	49 703
Unwrought alloys	76 531	83 760	78 254	76 436	71 932
Scrap	90 938	99 522	109 206	160 811	155 886
Germany, Federal Republic of					
Bauxite	42 212	25 979	33 385	57 050	71 666
Alumina	435 349	324 858	312 760	330 355	287 282
Alumina hydrate	233 705	248 489	252 435	270 136	269 317
Unwrought	66 050	71 378	91 826	68 866	53 299
Unwrought alloys	215 644	230 370	241 764	254 938	272 717
Scrap	89 691	104 453	134 983	141 019	164 157
Greece					
Bauxite	1 332 536	1 133 487	1 224 490	416 811	1 680 000
Alumina	187 400	135 565	348 700	178 762	206 716
Unwrought (a)	43 198	45 855	73 494	51 415	57 038
Scrap	1 115	317	1 466	785	4 129
Irish Republic					
Alumina	571 986	669 362	741 487	901 093	915 349
Unwrought (a)	585	1 478	1 475	1 902	2 574
Scrap	5 190	8 093	8 468	11 147	11 028
Italy					
Bauxite	7 273	4 502	21 141	14 333	23 134
Alumina	265 282	308 006	561 315	388 535	410 382
Alumina hydrate	18 139	30 354	29 509	14 078	14 967
Unwrought	17 013	9 611	11 298	5 069	6 155
Unwrought alloys	26 783	24 696	40 338	33 341	23 660
Scrap	5 816	4 240	6 049	8 061	10 365
Netherlands					
Bauxite	5 063	3 983	9 283	17 913	22 351
Alumina	59 124	46 404	61 934	87 557	101 045
Alumina hydrate	51	89	105	1 497	2 379
Unwrought	149 398	144 277	156 306	90 836	101 842
Unwrought alloys	147 369	156 983	158 083	238 950	246 992
Scrap	87 062	96 045	105 385	138 871	149 824
Portugal					
Scrap	3 970	3 899	5 705	8 052	6 923
Spain					
Bauxite	807	1 120	1 849	2 066	2 987
Alumina	27	21 953	124 132	283 368	207 186
Alumina hydrate	16 498	20 790	35 655	26 863	48 521
Unwrought	135 623	86 118	34 436	31 666	14 348
Unwrought alloys	72 760	60 268	72 043	58 223	96 966
Scrap	42	556	810	2 807	3 348
Austria					
Unwrought (a)	31 072	31 317	39 447	44 894	42 985
Scrap	33 248	43 387	63 587	46 911	35 508
Bulgaria					
Unwrought (a) (f)	*4 000	*4 100	*3 600	*2 700	*3 600
Scrap (f)	*3 100	*5 100	*4 900	*5 400	*1 900

Exports of Bauxite, Alumina and Aluminium

tonnes

Country	1985	1986	1987	1988	1989
Czechoslovakia					
Unwrought (a)(f)	*21 100	*15 300	*11 200	*14 800	*15 900
Finland					
Unwrought (a)	16 171	16 974	24 286	25 291	24 023
German Democratic Republic					
Unwrought (a)(f)	*23 000	*28 400	*30 700	*28 500	*26 700
Scrap (f)	*9 200	*7 400	*6 000	*8 000	*8 900
Hungary					
Bauxite	382 335	461 473	437 987	378 533	338 428
Alumina	593 758	664 845	665 226	715 214	676 892
Alumina hydrate	5 594	4 200	2 729	1 513	—
Unwrought	50 528	61 200	63 354	59 135	76 479
Scrap	6 928	7 002	8 748	9 868	9 534
Iceland					
Unwrought (a)	70 600	77 490	89 081	81 071	89 657
Norway					
Alumina	915	12 642	17 764	16 241	27
Unwrought	307 311	298 122	326 307	241 612	240 743
Unwrought alloys	336 479	348 417	431 308	513 051	529 603
Scrap	28 725	31 126	38 156	50 536	52 079
Poland					
Unwrought (a)	2 980	3 023	2 595	2 647	2 638
Romania					
Unwrought	130 900	156 200	157 300	193 700	108 100
Soviet Union					
Unwrought (a)(f)	*549 500	*654 400	*610 300	*638 300	*725 400
Scrap (f)	*21 500	*43 300	*57 600	*43 200	*33 100
Sweden					
Alumina	513	8 226	676	356	210
Unwrought	1 452	4 345	8 056	25 654	25 125
Unwrought alloys	40 635	35 008	35 509	34 233	33 689
Scrap	8 758	13 459	11 259	11 069	13 665
Switzerland					
Alumina	1 445	423	459	1 313	830
Unwrought (a)	(i)49 570	(i)54 583	(i)60 991	32 872	32 476
Scrap	...	...	...	35 776	39 143
Turkey					
Bauxite	22 675	57 325	104 525	79 997	58 243
Alumina	22 648	23 900	17 746	66 450	...
Yugoslavia					
Bauxite	795 476	765 127	584 714	639 528	600 084
Alumina	414 521	561 153	389 531	165 866	580 085
Alumina hydrate	26 118	21 137	29 231	58 966	99 890
Unwrought	128 828	121 516	128 610	129 110	140 930
Unwrought alloys	13 871	20 711	28 613	23 851	22 325
Scrap	265	1 420	1 702	1 594	1 388
Cameroon					
Unwrought & scrap	50 834	41 739	47 356	63 100	62 400
Ghana					
Bauxite	124 453	226 461	229 415	299 939	300 000
Unwrought (a)	19 877	107 819	140 000	125 700	...
Guinea					
Bauxite	8 600 000	11 600 000	(f)*13 200 000	(f)*13 900 000	(f)*13 600 000
Alumina	500 000	500 000	500 000	600 000	600 000
Sierra Leone					
Bauxite	718 797	1 550 608	1 391 000	1 379 000	...
South Africa					
Unwrought (a)	92 621	94 695	94 000	68 000	53 415
Scrap (f)	*8 800	*7 700	*2 600	*2 500	*2 300
Canada					
Alumina	(b)52 794	(b)45 434	(b)45 624	139 094	128 256
Unwrought	(a)1 051 007	(a)1 163 875	(a)1 171 887	659 922	615 238
Unwrought alloys	...	...	...	495 096	544 445
Scrap	114 674	125 018	127 181	165 216	164 493
Cuba					
Scrap (e)	4 551	4 100	3 778	2 498	1 524

Exports of Bauxite, Alumina and Aluminium

tonnes

Country	1985	1986	1987	1988	1989
Dominican Republic					
Bauxite	—	—	(h)328 046	(h)199 933	(h)174 871
Jamaica					
Bauxite	2 325 359	2 939 593	3 711 396	3 494 440	4 189 739
Alumina	1 620 338	1 580 462	1 557 008	1 561 349	2 140 885
Mexico					
Unwrought & scrap	4 979	12 116	9 649	19 126	...
USA					
Bauxite	74 246	99 161	203 711	68 252	65 022
of which: Re-exports	18 152	30 056	2 214	5 321	21 278
Alumina	299 911	475 360	1 108 975	1 021 372	1 295 075
Alumina hydrate	25 890	18 925	29 004	24 160	51 404
Unwrought	306 893	158 964	249 563	362 559	481 293
Unwrought alloys	40 982	52 125	35 345	40 111	112 116
Scrap	376 136	347 946	369 745	487 714	575 890
Argentina					
Unwrought	98 065	74 000	73 009	83 473	80 600
Brazil					
Bauxite	3 317 341	3 059 736	2 813 587	4 660 509	4 636 700
Alumina	94 214	41 994	52 903	70 429	175 995
Unwrought (a)	179 130	323 703	426 893	514 898	470 266
Guyana					
Bauxite	1 530 000	1 345 000	1 315 000	1 209 000	...
Suriname					
Bauxite	1 132 000	897 000	340 900	7 460	—
Alumina	1 265 000	1 343 000	1 342 100	1 629 980	1 445 088
Unwrought	28 000	29 000	3 200	7 620	26 111
Venezuela					
Alumina	454 881	508 971	516 969	363 115	148 900
Unwrought	382 921	277 877	302 515	269 753	380 141
Bahrain					
Unwrought (a)	126 773	182 342	122 551	94 817	85 000
China					
Bauxite (j)	(f)*641 700	(f)*632 800	785 003	1 250 502	1 491 702
Unwrought (a)	(f)*5 400	(f)*500	60 680	130 378	13 411
Dubai					
Unwrought (a)	148 650	148 841	146 000	154 000	165 100
Scrap	3 168	3 635	...	...	...
Hong Kong					
Bauxite (g)	16 566	19 987	25 971	15 010	16 654
Alumina (g)	61 572	678	788	20 077	132 560
Alumina hydrate (g)	2 589	3	405	60	1 169
Unwrought (g)	48 903	26 085	36 181	77 616	26 412
Scrap	18 423	22 081	27 656	31 929	30 240
India (c)					
Bauxite	36 436	85 148	147 402	93 547	...
Alumina	42 788	42 079	10 637	404 170	...
Indonesia					
Bauxite	631 763	525 811	583 900	466 517	843 476
Unwrought (a)	238 708	174 048	163 337	125 628	142 885
Israel					
Unwrought (a)(f)	*4 600	*4 100	*2 600	*4 500	*5 900
Scrap (f)	*1 000	*600	*2 600	*2 800	*2 400
Japan					
Alumina	372 317	282 714	101 057	126 353	151 192
Alumina hydrate	109 219	101 759	96 789	71 917	98 273
Unwrought	528	971	854	665	307
Unwrought alloys	1 711	1 050	1 073	2 768	2 640
Scrap	2 317	1 914	8 707	7 334	9 893
Jordan					
Scrap	3 245	3 240	3 133	7 162	3 006
Korea, Dem. P.R. of					
Unwrought (a)(f)	*8 700	*11 400	*7 400	*5 800	*5 800
Korea, Republic of					
Unwrought (a)	680	782	2 850	7 643	3 819
Malaysia					
Bauxite	362 100	412 400	199 000	222 100	321 750
Scrap	7 115	8 993	6 548	11 249	...

Exports of Bauxite, Alumina and Aluminium

Country	1985	1986	1987	1988	1989
Saudi Arabia					
Scrap	22 828	20 603	27 552	52 266	54 544
Singapore					
Alumina	17 665	119 180	31 102	32 414	29 300
of which: Re-exports	17 650	118 947	30 090	32 297	28 617
Unwrought	7 634	6 444	13 107	106 582	65 907
of which: Re-exports	6 274	5 886	11 193	104 842	63 571
Scrap	10 707	12 434	15 770	20 386	21 779
Taiwan					
Alumina	4 734	6 384	3 721	562	3 459
Unwrought	5 830	12 504	17 254	(a)34 753	(a)30 204
Scrap	2 661	3 096	7 969	5 211	4 412
Australia					
Bauxite	*4 800 000	*4 260 000	*4 500 000	*4 900 000	...
Alumina	7 169 102	7 687 099	8 299 277	8 558 000	8 396 000
Unwrought (a)	563 716	579 528	710 425	815 500	924 000
Scrap	18 320	45 700	42 583	42 121	...
New Zealand (d)					
Unwrought (a)	228 044	207 761	211 521	227 259	243 992
Scrap	2 963	3 681	5 659	10 013	8 299

Note(s):

- (1) Except where alumina hydrate is separately specified, national trade figures for alumina can be considered as inclusive of hydrate
 - (2) In this table the term 'unwrought' aluminium corresponds to item 684.1 of the Standard International Trade Classification (Revision 3) and comprises ingots, blocks, unwrought bars, etc.
 - (3) Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys
- (a) Including alloys
 - (b) Officially described as 'Aluminium ores and concentrates' but believed to be mostly alumina
 - (c) Years ended 31 March following that stated
 - (d) Years ended 30 June of that stated
 - (e) Imports into the Netherlands
 - (f) BGS estimates, based on known imports into certain countries
 - (g) Re-exports
 - (h) Some material believed to come from stocks
 - (i) Including scrap
 - (j) Including alumina

Imports of Bauxite, Alumina and Aluminium

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Bauxite, uncalcined	174 778	185 719	292 340	330 572	280 896
Bauxite, calcined	156 255	170 511	137 050	160 908	162 641
Alumina	563 359	546 330	609 630	601 850	655 396
Alumina hydrate	9 434	12 714	19 549	17 646	21 409
Unwrought	48 783	62 435	65 257	119 757	129 134
Unwrought alloys	98 332	119 731	110 566	115 263	106 317
Scrap	4 818	7 811	12 621	18 664	24 138
Belgium-Luxembourg					
Bauxite	36 650	29 130	26 534	37 841	25 077
Alumina	8 769	8 824	8 029	9 032	10 650
Alumina hydrate	19 129	20 066	28 842	23 858	30 841
Unwrought	223 568	231 442	238 168	208 265	196 711
Unwrought alloys	84 300	75 979	77 346	146 873	161 407
Scrap	62 708	71 291	90 872	112 805	120 849
Denmark					
Bauxite	723	554	1 024	1 414	1 675
Alumina	737	411	1 606	688	648
Alumina hydrate	3 666	4 173	3 350	4 866	5 196
Unwrought	732	1 172	872	914	984
Unwrought alloys	27 644	33 108	26 961	29 235	28 202
Scrap	9 234	5 321	7 162	8 790	4 575
France					
Bauxite	1 002 750	909 241	894 330	1 069 102	1 348 886
Alumina	118 012	103 056	121 762	230 645	371 255
Alumina hydrate	20 913	21 592	24 030	36 502	38 924
Unwrought	222 789	217 803	186 105	203 915	208 744
Unwrought alloys	172 920	210 252	221 015	257 960	275 506
Scrap	53 273	58 818	70 185	96 994	122 986
Germany, Federal Republic of					
Bauxite	4 033 965	3 658 891	2 879 377	2 576 992	2 879 675
Alumina	661 435	717 930	857 845	851 658	1 033 220
Alumina hydrate	3 303	3 768	7 201	106 588	22 865
Unwrought	460 651	492 912	448 670	467 538	569 135
Unwrought alloys	260 967	290 751	285 363	339 184	374 056
Scrap	202 881	215 152	205 285	283 217	271 198
Greece					
Bauxite	1 406	102	5 616	—	...
Alumina	331	505	261	235	260
Unwrought (a)	3 644	7 180	14 259	5 504	13 178
Irish Republic					
Bauxite	1 322 262	1 079 908	1 440 106	1 746 828	1 606 158
Alumina	4 684	4 414	4 234	4 355	5 142
Unwrought (a)	2 597	3 789	2 252	2 812	3 711
Italy					
Bauxite	1 277 110	1 395 994	1 380 836	1 394 092	1 465 981
Alumina	224 977	298 607	266 522	240 880	243 024
Alumina hydrate	66 368	78 294	69 951	88 875	148 762
Unwrought	196 627	214 678	215 962	270 397	306 670
Unwrought alloys	123 249	133 012	160 962	147 721	154 334
Scrap	148 473	182 088	159 707	184 202	207 982
Netherlands					
Bauxite	162 384	162 760	141 702	160 273	142 971
Alumina	557 748	600 988	612 071	642 945	530 875
Alumina hydrate	31 368	40 597	35 066	44 301	40 697
Unwrought	98 604	105 830	97 818	105 308	114 755
Unwrought alloys	36 606	45 301	47 718	62 423	62 563
Scrap	67 179	76 325	81 662	105 655	138 241
Portugal					
Bauxite	8 374	2 282	1 793	1 836	1 658
Alumina	6 280	8 195	8 562	...	...
Unwrought	12 220	13 664	5 825	(a)45 127	(a)47 105
Unwrought alloys	21 878	26 239	38 225	...	...
Spain					
Bauxite	1 589 476	1 431 284	1 663 191	1 389 690	1 725 327
Alumina	25 222	22 296	27 295	30 885	35 560
Unwrought	7 138	14 410	5 623	38 638	6 629
Unwrought alloys	3 518	7 363	7 772	11 235	7 378
Scrap	9 133	19 129	16 103	16 088	22 339

Imports of Bauxite, Alumina and Aluminium

Country	1985	1986	1987	1988	1989
Austria					
Bauxite	46 342	36 889	32 661	49 223	54 922
Alumina	295 374	275 911	282 983	298 833	224 419
Alumina hydrate	8 141	7 483	8 227	8 139	8 226
Unwrought (a)	78 148	93 413	81 133	108 266	130 428
Scrap	53 109	61 863	54 621	56 043	47 231
Bulgaria					
Unwrought (a)(f)	*20 800	*14 800	*14 400	*29 600	*13 000
Czechoslovakia					
Bauxite	356 000	399 000	453 000	445 000	478 000
Alumina (f)	*24 800	*25 400	*30 500	*3 200	*400
Unwrought (a)	80 000	78 000	76 000	108 000	106 000
Finland					
Bauxite	3 368	1 687	5 633	2 043	236
Alumina	1 173	1 285	1 372	1 447	1 717
Alumina hydrate	28 244	28 863	32 186	26 207	32 296
Unwrought	16 814	18 564	18 825	18 127	17 528
Unwrought alloys	3 524	3 037	4 697	5 452	6 208
Scrap	33 317	46 177	57 677	69 811	70 477
German Democratic Republic					
Bauxite	208 400	178 100	141 600	148 300	152 900
Alumina (f)	*97 400	*100 200	*100 900	*83 000	*83 100
Unwrought (a)(f)	*132 600	*124 000	*120 500	*119 200	*128 600
Hungary					
Unwrought	165 294	205 007	189 961	197 577	204 974
Iceland					
Alumina	197 129	138 028	142 335	140 525	160 761
Norway					
Bauxite	5 590	5 871	5 792	14 746	9 463
Alumina	1 445 268	1 458 718	1 604 669	1 287 319	1 334 530
Alumina hydrate	33 788	36 931	40 467	277 169	232 489
Unwrought	6 902	3 374	19 444	71 541	86 300
Unwrought alloys	27 780	31 743	37 702	18 654	15 804
Scrap	2 127	3 211	1 417	2 085	4 371
Poland					
Bauxite	37 862	49 311	52 248	51 891	44 236
Alumina	206 591	225 216	221 042	193 457	185 179
Unwrought	86 391	88 207	88 631	88 755	96 415
Romania					
Bauxite (f)	*715 200	*657 300	*529 100	*463 300	*462 600
Alumina (f)	*41 200	*42 200	*72 100	*16 800	*20 000
Soviet Union					
Bauxite (f)	*4 827 600	*5 008 600	*4 823 500	*4 759 000	*4 646 000
Alumina (f)	*752 900	*1 142 800	*928 500	*815 600	*1 133 900
Sweden					
Bauxite	48 280	50 056	46 425	51 108	56 593
Alumina	180 328	127 453	184 283	189 820	189 818
Alumina hydrate	62 405	60 130	86 615	63 896	63 699
Unwrought	26 557	33 639	21 725	28 191	27 030
Unwrought alloys	19 729	20 652	21 399	30 628	29 111
Scrap	1 515	1 621	2 526	3 592	5 193
Switzerland					
Bauxite	44	512	2 625	3 852	1 747
Alumina	146 751	160 374	156 382	140 614	146 529
Unwrought	(b)78 745	(b)88 274	(b)90 239	59 738	78 598
Unwrought alloys	...	...	...	35 088	39 003
Scrap	...	...	...	4 042	5 734
Turkey					
Bauxite	19 408	43 366	40 461	55 684	...
Alumina	628	1 004	1 499	2 293	...
Unwrought (a)	59 154	38 355	89 638	59 193	21 901
Yugoslavia					
Bauxite	162 968	184 697	132 797	364 761	691 925
Alumina	118 366	151 460	118 165	128 230	196 112
Unwrought	38 561	31 486	32 478	17 250	13 196
Unwrought alloys	755	492	119	2 407	646

Imports of Bauxite, Alumina and Aluminium

tonnes

Country	1985	1986	1987	1988	1989
Algeria					
Alumina	372	795	186	...	...
Unwrought (a)	5 797	6 636	7 665	5 000	...
Cameroon					
Alumina	149 601	150 744	161 945	170 000	...
Ghana					
Alumina	65 396	225 284	182 461	198 000	...
Kenya					
Alumina	2 445	2 943	1 984	3 926	...
Morocco					
Bauxite	3 220	4 000	4 575	5 118	...
Alumina	2 149	2 081	2 885	3 029	...
Unwrought (a)	1 017	1 645	1 139	1 717	...
Nigeria					
Unwrought (a)	6 557	1 234	11 306	5 000	...
South Africa					
Bauxite	21 068	10 804	21 765	4 983	5 591
Alumina	350 615	307 253	322 058	339 264	378 206
Scrap	766	490	536	273	359
Tanzania					
Unwrought (a)	—	254	3 909	1 061	...
Tunisia					
Alumina	20 642	26 859	21 285	28 707	37 773
Unwrought	1 596	1 956	936	1 296	2 189
Canada					
Bauxite	2 074 171	2 112 874	2 019 119	2 351 595	2 540 694
Alumina	1 543 980	1 724 569	2 068 390	1 875 546	2 040 947
Unwrought	(a)59 739	(a)64 459	(a)53 479	23 973	20 037
Unwrought alloys	...	...	...	35 342	44 941
Scrap	53 376	69 945	56 959	62 161	58 203
Costa Rica					
Unwrought (a)	2 005	1 544	506	3 436	3 496
Mexico					
Bauxite	46 708	35 086	40 264	53 040	51 237
Alumina	165 714	70 139	137 192	150 178	...
Alumina hydrate	31 943	39 860	27 668	44 441	...
Unwrought & scrap (a)	99 285	48 410	38 065	48 155	49 897
Panama					
Unwrought (a)	1 308	1 366	1 989	546	1 013
USA					
Bauxite, crude dried	7 257 819	6 854 063	9 819 080	10 502 783	11 346 182
Bauxite, calcined	340 590	303 783	338 589	393 699	759 000
Alumina	3 834 490	3 613 263	4 078 048	4 647 390	4 330 405
Unwrought	432 690	766 220	706 200	514 037	422 416
Unwrought alloys	435 940	580 110	539 385	512 786	502 970
Scrap	127 473	162 276	188 614	200 498	206 380
Argentina					
Bauxite	23 665	25 739	31 525	20 457	*25 000
Alumina	296 763	345 794	226 437	261 862	291 938
Alumina hydrate	6 528	11 044	12 787	9 137	...
Brazil					
Bauxite	8 801	1 020	2 998	2 028	129 259
Alumina	136 637	285 470	393 438	378 243	311 348
Unwrought	200	106	118	33	1 287
Unwrought alloys	2 418	1 308	2 191	67	1 259
Scrap	684	3 119	4 931	759	2 579
Chile					
Unwrought	1 848	3 420	3 010	3 728	...
Colombia					
Bauxite	8 090	5 071	*4 500	7 658	...
Alumina	4 103	4 151	*2 500	3 096	...
Unwrought (a)	11 641	21 290	17 900	8 714	...
Ecuador					
Unwrought	5 023	5 144	4 773	4 947	4 256
Peru					
Bauxite	900	283	1 874	2 504	3 021
Alumina	1 862	1 302	1 636	2 301	735
Unwrought	2 941	5 290	5 082	4 190	759

Imports of Bauxite, Alumina and Aluminium

tonnes

Country	1985	1986	1987	1988	1989
Uruguay					
Bauxite	4 170	3 951	8 455	4 071	...
Alumina	617	1 202	1 102	1 120	...
Unwrought	1 614	1 991	2 693	2 306	...
Venezuela					
Bauxite	2 404 199	2 855 125	3 023 945	3 086 100	...
Alumina	6 478	5 068	6 832	*10 000	...
Alumina hydrate	964	1 290	2 249	...	...
Unwrought	114	3 725	1 816	...	...
Abu Dhabi					
Scrap	2 099	2 418	5 017	9 197	...
Bahrain					
Alumina	335 006	332 417	346 191	363 151	...
China					
Alumina	(f)*81 000	(f)*107 800	322 149	159 535	298 006
Unwrought (a)	487 862	266 241	148 130	75 381	175 510
Scrap (f)	*500	*1 100	*1 600	*4 100	*8 000
Dubai					
Alumina	326 904	294 626	284 000	315 000	...
Hong Kong					
Bauxite	18 773	20 526	25 815	16 471	17 289
Alumina	31 022	—	474	84 000	181 969
Alumina hydrate	1 796	57	469	29	881
Unwrought	76 071	46 950	70 480	111 187	52 889
Scrap	888	1 301	3 072	5 512	5 660
India (c)					
Unwrought (a)	41 651	81 227	52 276	12 145	35 900
Indonesia					
Alumina	118 320	251 225	226 509	287 585	372 591
Alumina hydrate	107 544	52 271	36 499	44 590	59 238
Unwrought (a)	11 987	9 551	12 086	6 818	7 324
Iran (e)					
Alumina	959	81 532	26 980	27 100	...
Unwrought	1 383	13 600	9 500	3 532	...
Israel					
Alumina (f)	*1 400	*1 700	*1 800	*1 100	*1 100
Unwrought (a)	13 848	15 899	18 180	17 698	15 932
Japan					
Bauxite	3 518 991	2 307 459	1 872 020	2 148 590	2 269 477
Alumina	41 732	63 489	26 984	44 092	28 294
Alumina hydrate	2 273	2 564	14 791	27 956	48 667
Unwrought	1 273 187	1 076 353	1 435 037	1 716 070	1 745 362
Unwrought alloys	302 315	289 662	400 253	575 926	617 828
Scrap	361 053	358 813	430 642	399 154	400 226
Jordan					
Alumina	4 536	455	11 529	22 174	20 820
Unwrought	5 330	4 536	5 319	3 883	3 651
Korea, Dem. P.R. of					
Alumina (f)	*28 200	*11 500	*7 600	*12 400	*6 600
Unwrought (a)(f)	*1 600	*3 300	*150	*200	*1 300
Korea, Republic of					
Bauxite	9 177	15 571	30 359	24 733	31 320
Alumina	34 923	36 008	38 603	43 242	42 144
Alumina hydrate	42 564	57 119	68 406	75 233	96 032
Unwrought	124 457	159 860	480 535	217 744	442 379
Unwrought alloys	75 932	24 652	32 955	48 831	43 179
Scrap	5 563	8 799	43 240	27 840	55 601
Malaysia					
Alumina	5 438	12 300	12 030	18 661	16 298
Unwrought	8 759	10 576	11 724	15 072	19 700
Unwrought alloys	12 994	15 873	19 812	18 636	22 410
Scrap	1 272	1 339	849	3 462	2 448
Pakistan (d)					
Alumina	1 853	2 586	2 487	2 500	...
Unwrought	6 674	5 250	8 921	14 471	...
Scrap	13 388	16 421	26 688	26 451	...
Philippines					
Bauxite	5 005	5 379	933	4 637	7 669
Alumina	3 532	5 380	8 257	5 775	7 798
Unwrought (a)	4 881	6 271	10 808	10 222	13 771

Imports of Bauxite, Alumina and Aluminium

tonnes

Country	1985	1986	1987	1988	1989
Saudi Arabia					
Bauxite	244 096	162 837	77 602	147 531	214 534
Unwrought	9 316	14 300	18 625	14 405	14 662
Singapore					
Alumina	38 403	52 877	12 093	1 215	1 064
Alumina hydrate	10 299	50 260	63 131	84 780	69 124
Unwrought	14 435	15 653	40 628	125 646	38 576
Scrap	771	845	1 525	3 101	4 452
Syria					
Unwrought & scrap	3 747	1 077	537	...	...
Taiwan					
Bauxite	19 518	47 261	36 235	39 635	31 297
Alumina	5 744	2 219	4 888	9 097	23 065
Alumina hydrate	1 936	3 506	7 215	11 685	13 579
Unwrought	147 204	155 956	195 095	(a)193 404	(a)222 825
Scrap	6 237	13 055	23 211	64 115	71 711
Thailand					
Bauxite	7 506	11 491	21 714	30 426	...
Alumina	2 051	3 258	7 842	6 151	...
Alumina hydrate	11 296	14 347	12 117	19 592	...
Unwrought	39 972	42 206	43 804	1 036 106	...
Unwrought alloys	4 666	5 606	9 932	26 601	...
Australia					
Bauxite	6 128	3 800	10 107	21 429	35 000
Alumina	5 050	4 966	5 639	10 939	12 000
Unwrought (a)	1 079	754	1 060	2 800	3 400
Scrap	3 105	1 931	1 587	2 264	...
New Zealand (d)					
Alumina	463 273	475 486	472 601	520 223	471 467
Unwrought (a)	719	534	1 565	6 942	5 172

Note(s):

- (1) Except where alumina hydrate is separately specified, national trade figures for alumina can be considered as inclusive of hydrate
- (2) In this table the term 'unwrought' aluminium corresponds to item 684.1 of the Standard International Trade Classification (Revision 3) and comprises ingots, blocks, unwrought bars, etc.
- (3) Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys

(a) Including alloys

(b) Including alloys and scrap

(c) Years ended 31 March following that stated

(d) Years ended 30 June of that stated

(e) Years ended 20 March following that stated

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

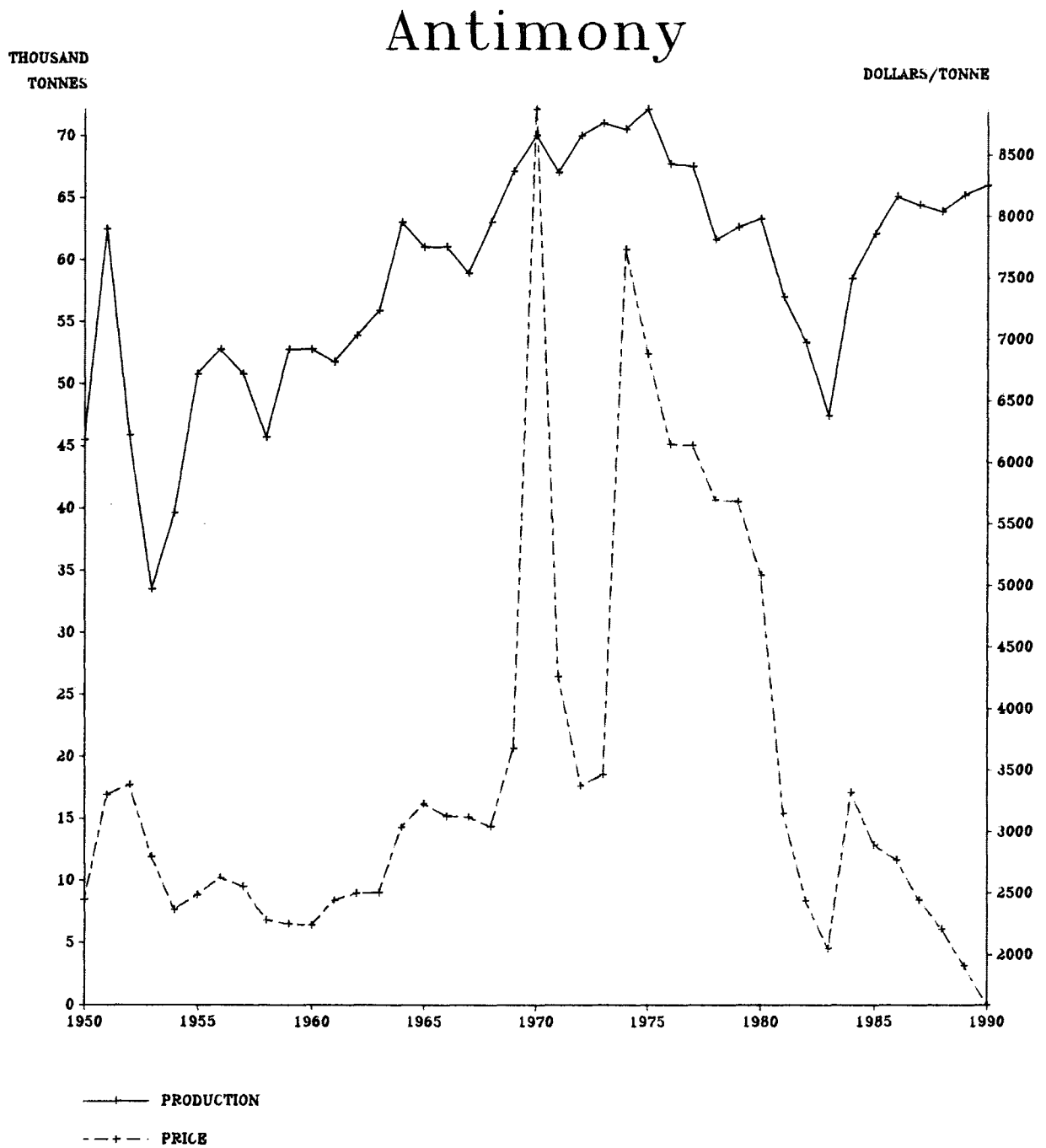


Figure 2 World mine production of antimony compared with the annual average ordinary grade US price and, from 1980, the New York dealer price (99.5%–99.6%) according to *Metals Week*, expressed in constant 1985 US dollars.

Mine Production of Antimony

tonnes (metal content)

Country	1985	1986	1987	1988	1989
Italy	495	286	91	119	—
Spain	248	45	—	—	—
Austria	550	558	399	270	412
Czechoslovakia	782	782	931	947	839
Romania	*600	*600	*600	*600	*500
Soviet Union	*6 500	*6 000	*6 000	*6 000	*5 800
Turkey	1 909	2 752	2 344	1 876	*1 500
Yugoslavia	1 088	859	834	725	798
Morocco	735	584	440	243	140
South Africa	7 390	6 816	6 301	5 917	5 201
Zimbabwe	194	175	153	164	210
Canada	1 075	3 805	3 531	3 387	2 821
Guatemala	1 102	1 469	1 696	846	1 222
Honduras	87	118	72	19	44
Mexico	4 266	3 337	2 839	2 185	1 906
USA (c)	*250	*250	—	*150	*2 500
Bolivia	8 925	10 243	10 635	9 943	9 189
Peru (a)	594	*670	590	420	400
China	*22 000	*23 000	*25 000	*28 000	*29 000
Malaysia	26	129	22	—	—
Pakistan	24	—	45	—	33
Thailand	1 809	1 486	596	650	723
Australia (b)	1 458	1 131	1 231	1 377	*1 400
World total	62 100	65 100	64 400	63 800	64 600

Note(s):

- (1) This table includes antimony content of antimonial lead alloys
- (2) In addition to the countries listed, Afghanistan, Hungary and Iran 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

Exports of Antimony

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Metal	27	98	59	33	167
Oxide (a)	*3 600	*3 600	*4 400	*4 300	*5 200
Belgium-Luxembourg					
Oxide (a)	*3 200	*3 400	*3 100	*3 800	*3 900
France					
Ore	209	19	58	144	73
Metal	125	91	45	158	69
Oxide	5 360	4 630	6 019	5 458	5 479
Germany, Federal Republic of					
Metal	104	53	57	237	289
Oxide	592	747	803	822	689
Italy					
Ore	582	30	—	—	—
Metal	1	24	4	9	13
Oxide	362	115	79	36	52
Netherlands					
Metal	59	7	—	45	—
Oxide	243	220	453	467	527
Spain					
Metal	240	43	5	1	—
Austria					
Ore	5	5	3	77	138
Sulphide (b)	46	53	4	24	58
Soviet Union					
Metal (a)	...	*600	*1 200	*300	*600
Oxide (a)	*400	*300	*200	*300	*200
Turkey					
Ore	1 860	2 190	4 084	1 644	...
Metal	274	447	665	12 384	...
Morocco					
Ore	1 766	1 384	999	465	...
South Africa					
Ore (c)	1 452	822	112	76	...
Oxide	5 120	6 170	3 940	4 802	...
Zimbabwe					
Ore	170	—	—	...	...
Canada					
Ores & concentrates	...	...	...	3 833	2 371
Guatemala					
Ores & concentrates	1 130	...	...	...	...
Mexico					
Ores & concentrates	3 337	3 876	3 108	3 980	...
Metal	185	140	63	109	...
USA					
Metal	328	626	816	626	311
Oxide	973	638	854	1 478	2 268
Bolivia					
Ore	*11 500	18 813	17 351	*11 900	*12 900
Metal	*400	578	1 029	*500	*150
Oxide	*500	900	870	*700	*1 300
Peru					
Ores & concentrates	376	361	274	241	76
Metal (a)	*220	*50	...	...	...

Exports of Antimony

Antimony
tonnes

Country	1985	1986	1987	1988	1989
China					
Ores & concentrates (a)	*14 400	*12 100	*12 200	*6 300	*10 800
Metal	15 988	21 567	29 573	29 276	32 993
Oxide (a)	*5 400	*6 800	*7 400	*11 300	*13 000
Sulphide (a)	*20	*490	*100	*260	...
Thailand					
Ore	5 417	2 774	3 627	3 617	...
Australia					
Ores & concentrates	2 834	1 549	1 427	2 276	...

(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	1985	1986	1987	1988	1989
United Kingdom					
Ore	(c)*5 800	...	...	(b)*2 900	(b)*1 800
Metal	559	454	389	410	558
Oxide	1 043	1 320	1 416	1 637	1 890
Belgium-Luxembourg					
Ore	5 851	5 188	6 086	5 341	6 048
Metal	215	385	878	1 260	2 435
Oxide	776	792	786	945	665
Denmark					
Oxide	32	68	72	79	104
France					
Ore	12 074	11 783	14 886	9 269	12 806
Metal	431	377	2 821	1 046	2 729
Oxide	662	640	735	989	772
Germany, Federal Republic of					
Ore	1 630	1 845	319	—	36
Metal	782	977	1 399	1 727	1 386
Oxide	4 806	4 581	4 792	4 922	5 411
Greece					
Metal	71	13	80	35	...
Italy					
Metal	247	222	155	581	845
Oxide	893	1 163	1 669	2 069	2 116
Netherlands					
Metal	99	64	45	111	82
Oxide	1 115	1 125	1 652	1 805	1 807
Portugal					
Metal	33	28	79	84	134
Spain					
Ore	587	630	684	129	8
Metal	41	177	235	171	203
Oxide	200	273	411	596	456
Austria					
Ore	182	678	970	0	—
Metal	80	84	63	45	64
Oxide	173	261	163	115	200
Sulphide	25	35	27	203	—
Finland					
Metal	6	8	49	7	5
German Democratic Republic					
Oxide (b)	*100	*100	*50	*60	*70
Norway					
Metal	22	26	55	10	12
Oxide	...	...	...	155	163
Sweden					
Metal	23	13	12	112	65
Oxide	...	...	...	652	561
Switzerland					
Metal	27	62	90	65	30
Oxide	...	...	...	464	316
Yugoslavia					
Ores & concentrates	2 401	2 732	2 907	—	—
Metal	234	1	—	66	66
Algeria					
Metal	—	55	115	...	...
Canada					
Metal	139	241	209	123	243
Oxide	1 189	1 278	1 526	1 760	1 322
USA					
Ore	12 933	9 861	10 332	8 109	8 613
Liquated	151	523	92	163	—
Metal	4 889	7 583	9 011	17 733	10 557
Oxide	9 666	12 266	12 378	11 548	12 041
Argentina					
Ore	202	483	680	743	550

Imports of Antimony

Country	1985	1986	1987	1988	1989
Brazil					
Ore	398	817	768	765	...
Metal	484	854	1 010	730	...
Oxide	49	30	44	71	...
Sulphide	13	21	23	24	...
Venezuela					
Metal	102	116	134	103	...
India (a)					
Metal	1 089	975	852	1 283	...
Oxide	123	107	156	149	...
Japan					
Ores & concentrates	5 091	6 400	5 886	6 376	4 978
Metal	4 269	3 985	4 743	5 817	6 225
Oxide	2 672	3 609	4 368	6 202	7 268
Sulphide	56	126	69	134	208
Korea, Republic of					
Ores & concentrates	883	4 655	5 266	3 780	2 238
Metal	58	298	725	416	645
Oxide	337	644	616	416	527
Malaysia					
Metal	60	69	99	152	221
Pakistan (d)					
Metal	32	75	66	92	...
Taiwan					
Metal	99	77	618	580	1 242
Oxide	380	765	1 079	1 197	987
Thailand					
Ores & concentrates	3 700	3 002	4 284	6 045	...
Metal	20	12	10	0	...
Australia					
Metal	90	211	130	213	...

(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

Production of White Arsenic

tonnes

Country	1985	1986	1987	1988	1989
France	9 400	10 000	7 000	7 000	7 000
Germany, Federal Republic of	*360	*360	*360	*360	*360
Portugal	204	197	217	214	199
Soviet Union	*8 100	*8 100	*8 100	*8 100	*8 100
Sweden	*10 000	*10 000	*10 000	*10 000	*10 000
Namibia (a)	2 471	2 208	1 864	2 984	2 399
Canada	*5 000	*2 000	*5 000	*2 000	*2 000
Mexico (b)	6 312	7 016	7 001	6 816	7 063
USA	2 200	—	—	—	—
Bolivia	311	84	132	191	350
Chile (c)	*4 000	3 375	5 028	7 292	4 596
Peru	1 257	1 273	1 757	828	563
Japan	*500	*500	*500	*500	*500
Philippines	*5 000	*5 000	*5 000	*5 000	*5 000

Note(s):

- (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
- (c) Exports

Exports of Arsenic

Arsenic
tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
White arsenic	91	131	342	...	...
Metallic arsenic	(a)54	(a)204	(a)87	29	30
Belgium-Luxembourg					
Metallic arsenic	(a)53	(a)53	(a)78	0	7
France					
White arsenic	10 223	—	—	...	...
Metallic arsenic	80	186	251	128	1 058
Germany, Federal Republic of					
White arsenic	304	216	284	...	...
Metallic arsenic	(a)17	(a)16	(a)11	9	2
Italy					
White arsenic	24	16	5	...	...
Netherlands					
Metallic arsenic	(a)89	(a)44	(a)56	24	—
Portugal					
White arsenic	150	139	76	...	...
Namibia					
White arsenic	2 418	1 936	2 219	2 890	2 331
Mexico					
White arsenic	3 399	4 330	4 547	*3 500	...
Bolivia					
White arsenic	311	241	132	191	338
Chile					
White arsenic	*4 000	3 375	5 028	7 292	4 596
China					
White arsenic (b)	*400	*700	*1 400	*400	*400
Metallic arsenic (b)	*140	*360	*680	*560	*860
Hong Kong					
White arsenic (c)	66	308	441	554	208
Korea, Republic of					
White arsenic	307	41	268	133	125

Note(s):

- (1) This table does not purport to be comprehensive: data relating to arsenic are not fully recorded by many countries
- (a) May include some tellurium
- (b) BGS estimates, based on known imports into certain countries
- (c) Re-exports

Arsenic

Imports of Arsenic

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
White arsenic	5 766	4 298	3 804	...	...
Metallic arsenic	(a)156	(a)153	(a)152	58	70
Belgium-Luxembourg					
White arsenic	3	0	...	—	—
Metallic arsenic	(a)83	(a)79	(a)194	100	107
Denmark					
White arsenic	15	10	29	—	—
France					
White arsenic	50	125	1 635	...	...
Metallic arsenic	91	258	104	71	250
Germany, Federal Republic of					
White arsenic	290	253	195	...	...
Metallic arsenic	(a)74	(a)103	(a)111	34	11
Greece					
White arsenic	74	51	14	...	...
Italy					
White arsenic	416	494	564	...	...
Metallic arsenic	(a)59	(a)65	(a)92	71	...
Netherlands					
Metallic arsenic	(a)96	(a)37	(a)58	38	—
Spain					
White arsenic	118	182	280	...	...
Metallic arsenic	13	12	20	12	33
Finland					
White arsenic (d)	1 022	1 604	1 373	...	...
Sweden					
Metallic arsenic	0	0	—	143	5
Turkey					
White arsenic	160	103	55	95	...
Yugoslavia					
White arsenic	120	148	112	...	...
Metallic arsenic	60	53	50	39	67
South Africa					
Metallic arsenic	15	30	43	28	28
USA					
White arsenic	16 473	25 730	26 934	28 056	28 347
Metallic arsenic	407	394	631	600	928
Argentina					
White arsenic	71	228	115	94	...
Brazil					
White arsenic	281	656	428	314	...
Colombia					
White arsenic	47	0	...	...	...
Uruguay					
White arsenic	21	39	35	51	...
Hong Kong					
White arsenic	99	116	375	348	326
India (b)					
White arsenic	495	348	857	527	...
Metallic arsenic	43	16	374	312	...
Indonesia					
White arsenic	57	101	84	93	43
Japan					
White arsenic	144	161	325	104	315
Malaysia					
White arsenic	1 083	554	1 368	...	...
Philippines					
White arsenic (d)	14	16	52	65	108

Imports of Arsenic

Country	1985	1986	1987	1988	1989
Taiwan					
White arsenic	368	563	646	511	165
Thailand					
White arsenic (d)	61	79	134	51	...
Australia					
White arsenic	...	...	1 442	...	...
New Zealand (c)					
White arsenic (d)	2 091	2 101	930	1 242	857

Note(s):

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

- (a) May include some tellurium
- (b) Years ended 31 March following that stated
- (c) Years ended 30 June of that stated
- (d) Including pentoxide and/or arsenic acid

Production of Asbestos

tonnes

Country	1985	1986	1987	1988	1989
Greece	46 839	51 355	60 135	*71 000	73 300
Italy	136 006	115 208	100 834	94 549	55 000
Bulgaria	400	300	400	300	*300
Czechoslovakia	...	247	194	196	147
Soviet Union	*2 500 000	*2 500 000	2 555 000	*2 600 000	*2 600 000
Turkey	29 039	30 981	10 097	500	*500
Yugoslavia	6 918	8 596	10 964	17 030	9 111
Egypt	229	476	209	166	312
South Africa					
Amosite	37 856	36 009	26 026	20 325	26 124
Crocidolite	64 731	63 203	20 682	11 885	23 689
Chrysotile	92 318	91 001	101 722	113 468	115 452
Swaziland					
Chrysotile	25 130	24 475	25 925	22 804	27 291
Zimbabwe					
Chrysotile	173 500	163 600	193 295	186 581	187 066
Canada					
Chrysotile	750 190	662 381	650 000	664 000	732 000
USA (a)	57 457	51 437	50 600	18 233	17 427
Argentina	1 244	1 697	332	2 328	225
Brazil	165 446	205 806	231 543	227 653	206 195
Colombia	12 435	12 916	13 272	10 477	10 950
China	150 000	150 712	144 673	157 478	*160 000
Cyprus					
Chrysotile	16 360	13 011	18 070	14 586	—
India					
Amphibole	29 450	26 713	27 019	31 123	36 502
Iran (b)	*2 500	*3 000	3 300	3 410	*3 000
Japan					
Chrysotile	2 971	3 593	3 143	*3 000	*3 000
Korea, Republic of	4 703	2 983	2 518	2 428	2 361
Taiwan	625	—	—	—	—
World total	4 300 000	4 200 000	4 200 000	4 300 000	4 300 000

Note(s):

(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

(b) Years ended 20 March following that stated

Exports of Unmanufactured Asbestos

Country	1985	1986	1987	1988	1989
United Kingdom	308	432	463	289	274
Belgium-Luxembourg	254	660	141	551	222
France	979	438	406	557	411
Germany, Federal Republic of	3 064	777	1 219	1 193	293
Greece	29 387	44 468	38 491	53 906	...
Italy	66 244	44 459	51 541	50 936	37 302
Netherlands	50	177	238	—	—
Spain	189	194	23	302	76
Hungary	...	*1 900	(a)*1 000	(a)*1 800	1 934
Soviet Union (a)	*309 800	*268 500	*271 400	*250 000	*226 600
Yugoslavia	2 018	1 526	1 179	204	1 119
South Africa	175 929	157 541	154 061	169 091	171 892
Swaziland	24 791	25 055	27 929	22 565	...
Zimbabwe	158 633	167 970	195 828	...	...
Canada	721 560	717 703	648 843	684 905	707 816
USA	45 656	47 282	60 092	31 545	27 096
Brazil	23 248	32 550	35 725	41 568	58 711
China	(a)*1 700	(a)*600	473	571	1 889
Cyprus	16 948	11 781	22 340	15 776	...
Japan	292	163	121	72	50
Saudi Arabia	985	28	480	9 829	1 586
Singapore	7 117	4 276	848	263	250
of which: Re-exports	1 025	4 276	848	263	250

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

Imports of Unmanufactured Asbestos

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom	37 639	26 766	23 865	24 266	19 702
Belgium-Luxembourg	25 138	25 017	27 357	20 507	24 139
Denmark	10 362	10 269	4 381	1 078	1 109
France	63 873	65 067	70 206	76 365	66 556
Germany, Federal Republic of	63 172	64 944	55 411	44 585	37 161
Greece	4 653	1 271	964	1 773	...
Irish Republic	5 243	5 546	5 045	5 752	4 529
Italy	47 952	47 896	48 864	46 315	60 594
Netherlands	5 625	7 087	8 718	6 594	9 148
Portugal	9 932	9 208	14 247	14 742	13 575
Spain	38 022	43 873	45 652	47 408	48 509
Albania (d)	*1 500	*1 500	*1 200	*600	*1 200
Austria	21 595	15 148	17 749	14 858	15 750
Bulgaria	35 472	24 406	...	...	...
Czechoslovakia	46 783	46 203	46 879	43 664	40 360
Finland	2 479	2 165	962	853	1
German Democratic Republic	54 600	55 700	53 200	55 200	41 200
Hungary	33 596	31 059	28 440	27 681	29 663
Poland	81 690	81 038	71 983	63 366	52 026
Romania (d)	*4 700	*4 100	*3 400	*3 100	*4 400
Sweden	1 042	1 069	937	972	967
Switzerland	5 058	3 923	5 778	5 894	2 877
Turkey	25 544	34 112	33 340	38 058	35 581
Yugoslavia	54 373	44 212	45 600	38 456	36 613
Algeria	31 752	11 125	18 260	...	...
Burundi	422	163	400	285	...
Egypt	13 090	1 949	9 300	...	...
Ghana	1 760	3 693	14	...	...
Kenya	766	387	478	713	...
Morocco	1 110	4 991	1 885	5 691	...
Mozambique	3	890	25	...	...
Nigeria	10 778	8 640	38 156	...	...
Senegal	708	341	742	573	584
South Africa	11 528	11 289	11 437	12 903	13 618
Tunisia	5 852	9 207	7 057	5 825	6 181
Zaire	*200	*200	*600	...	...
Zambia	...	2 263	1 267	1 595	...
Canada	374	325	238	365	1 174
Cuba (c)	1 658	2 374	1 212	1 024	2 013
Dominican Republic	641	344	...	...	...
El Salvador	1 769	1 536	...	2 805	1 135
Guatemala	1 101	1 105	...	725	...
Honduras	1 202	1 619	784	2 277	1 375
Mexico	54 868	28 339	38 450	34 055	36 190
Nicaragua	3 676	1 212	...	...	...
Panama	225	303	164	121	210
USA					
Crocidolite	4 795	1 988	1 692	1 252	593
Chrysotile	130 212	102 418	88 821	78 967	51 514
Other unmanufactured	7 422	3 948	3 828	5 108	3 199
Argentina	5 864	12 701	14 324	8 109	6 647
Brazil	2 591	3 658	4 134	5 566	...
Chile	8 387	(d)*7 700	(d)*7 700	10 557	(d)*7 800
Colombia	14 185	16 155	...	16 614	...
Ecuador	5 031	5 682	3 743	7 036	...
Peru	3 242	6 083	9 922	3 506	1 172
Uruguay	596	1 003	1 193	1 320	...
Venezuela	4 669	9 519	15 560	8 572	...
China	(d)*1 700	(d)*300	1 243	466	500
Dubai	6 624	4 768	...	...	...
India (e)	78 075	73 633	79 454	104 033	...
Indonesia	8 149	11 185	12 205	18 698	20 986
Iran (a)	20 451	14 590	20 612	13 285	...
Israel	3 621	4 158	5 111	2 889	3 214

Imports of Unmanufactured Asbestos

Country	1985	1986	1987	1988	1989
Japan	261 648	255 732	277 238	320 393	295 168
Korea, Republic of	57 143	68 017	77 595	87 470	77 475
Kuwait	...	1 999	...	...	...
Malaysia	19 064	16 947	20 153	21 050	28 276
Myanmar (e)	1 348	—	—	...	...
Pakistan (b)	2 028	3 685	5 606	7 258	...
Philippines	1 190	1 151	1 911	2 074	2 111
Saudi Arabia	4 547	4 457	1 810	2 780	2 941
Singapore	6 078	3 987	2 194	1 701	1 733
Sri Lanka	8 590	5 586	8 156	9 898	...
Syria	5 928	2 486	3 860	...	...
Taiwan	24 519	39 735	36 469	32 680	29 464
Thailand	71 516	49 663	71 407	109 103	...
Australia	12 194	9 245	3 536	2 118	...
New Zealand (b)	1 304	1 553	154	2	—

- (a) Years ended 20 March following that stated
- (b) Years ended 30 June of that stated
- (c) Exports from Canada
- (d) BGS estimates, based on known exports from certain countries
- (e) Years ended 31 March following that stated

Production of Barytes

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom	107 344	86 754	77 000	76 253	70 026
Belgium	*40 000	*40 000	*40 000	*35 000	...
France	120 700	116 350	104 500	104 400	111 840
Germany, Federal Republic of	171 269	201 565	173 356	165 317	144 106
Greece	3 283	2 227	4 799	1 316	...
Irish Republic	213 800	127 500	70 000	83 500	82 000
Italy	127 226	112 540	81 643	85 650	75 640
Portugal	1 094	120	660	1 740	1 730
Spain	67 572	49 678	7 776	6 168	...
Czechoslovakia	*60 000	*60 000	*60 000	60 794	62 438
Finland	6 969	8 690	11 000	11 000	2 000
German Democratic Republic	*34 000	*34 000	*32 000	*32 000	...
Poland	91 215	97 993	59 300	53 000	...
Romania	*75 000	*75 000	*72 000	*72 000	...
Soviet Union	*540 000	*540 000	*540 000	*540 000	*540 000
Turkey	230 497	330 758	291 913	405 017	364 320
Yugoslavia	35 488	42 789	19 270	23 350	23 558
Algeria	58 000	60 300	43 900	42 797	49 000
Egypt	2 010	3 385	4 530	15 651	7 295
Kenya	407	34	50	48	210
Morocco	463 380	179 881	126 817	321 562	370 000
South Africa	4 387	8 653	8 617	8 735	8 570
Tunisia	2 200	14 400	18 000	31 300	36 800
Zimbabwe	400	298	191	3 400	1 900
Canada	71 049	40 335	41 000	49 000	47 000
Guatemala	3 703	750	1 202	2 415	3 995
Mexico	467 693	321 186	401 336	534 954	326 000
USA (b)	670 000	269 000	406 000	404 000	290 000
Argentina	55 753	58 617	33 462	48 972	57 558
Bolivia	1 282	129	1 337	—	...
Brazil (d)	142 575	103 072	158 083	*100 000	*100 000
Chile	54 494	53 121	2 109	43 135	59 873
Colombia	5 050	4 198	3 792	4 550	5 460
Peru (e)	69 780	28 163	20 019	47 731	55 012
Afghanistan (c)	*1 800	*1 800	*1 800	*1 800	*1 800
China	*1 000 000	*820 000	*900 000	*1 400 000	*1 250 000
India	574 767	336 858	211 726	445 604	548 103
Iran (c)	*90 000	*90 000	*90 000	*90 000	*90 000
Japan	75 844	53 547	30 379	...	...
Korea, Republic of	2 785	3 768	2 942	2 573	3 735
Malaysia	23 394	16 105	17 008	17 280	16 250
Myanmar (a)	8 148	11 578	17 242	12 678	9 144
Pakistan	29 932	39 047	10 031	21 926	29 718
Philippines	—	—	371	349	...
Thailand	230 970	142 232	33 370	40 587	87 052
Australia	22 423	5 819	10 363	20 649	...
World total	6 100 000	4 600 000	4 200 000	5 500 000	5 200 000

Note(s):

- (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
- (e) Exports

Exports of Barytes

Country	1985	1986	1987	1988	1989
United Kingdom	17 108	6 720	8 214	17 104	14 572
Belgium-Luxembourg	86 620	55 378	64 985	51 297	72 044
France	95 170	98 185	82 963	93 888	89 037
Germany, Federal Republic of	55 989	39 947	32 180	36 829	35 460
Greece	14 000	22 109	40	30	50
Irish Republic	198 933	121 585	77 707	69 969	74 767
Italy	27 136	3 992	1 741	10 018	8 740
Netherlands	64 442	42 091	62 765	80 545	75 756
Spain	58 957	41 892	22 346	2 334	2 822
Bulgaria	129 095	138 188	...	...	...
Czechoslovakia (b)	*2 000	*1 500	*500	*500	*100
Norway	8 801	10 053	22 613	10 574	3 699
Turkey	191 934	193 667	231 026	233 899	301 096
Yugoslavia	19 790	37 095	9 277	10 095	9 136
Algeria	2 500	1 000	1 000	...	...
Ivory Coast	931	1 290	...	-	...
Morocco	487 982	257 381	254 463	398 090	...
Tunisia	3 000	—	4 822	3 851	1 116
Canada	1 677	6 621	6 052	9 312	6 214
Mexico	34 675	29 792	65 939	44 633	54 237
USA	5 414	12 502	14 005	288	17 120
Bolivia	1 365	239	1 445	—	...
Brazil	7 303	6 000	...	6 445	6 334
Chile	68 828	26 553	...	25 076	26 929
Peru	69 780	28 163	20 019	47 731	55 012
China	972 899	531 195	813 800	1 095 854	1 031 302
Hong Kong (c)	16	120	2 396	5 941	5 400
India (a)	374 927	25 614	123 508	433 068	...
Indonesia	3 591	—	1 716	2 178	7 695
Malaysia	8 155	9 664	7 171	1 438	...
Singapore	32 431	12 939	12 870	17 624	8 401
of which: Re-exports	11 975	11 485	10 878	6 835	5 806
Thailand	213 870	79 680	47 704	74 561	68 446
Australia	2 022	1 240	381	395	...

Note(s):

(1) Trade in barytes is reported under item 278.92 of the Standard International Trade Classification (Revision 3) 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

Imports of Barytes

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom	120 346	90 386	112 042	157 892	113 018
Belgium-Luxembourg	8 193	8 439	7 084	7 694	9 565
Denmark	1 914	14 556	17 379	13 030	7 934
France	43 660	35 552	34 620	34 250	45 440
Germany, Federal Republic of	221 614	198 558	188 872	216 526	218 489
Greece	2 590	5 175	1 234	1 375	1 071
Irish Republic	391	875	2 652	4 737	2 379
Italy	19 388	24 615	42 985	40 300	61 779
Netherlands	94 843	62 341	88 147	107 033	150 665
Portugal	1 282	1 466	1 428	627	1 428
Spain	259	1 237	7 243	10 657	17 492
Austria	5 034	9 067	3 112	6 555	2 668
Finland	1 721	1 769	1 883	1 845	2 036
Hungary	11 663	10 184	12 333	15 958	9 753
Norway	124 048	116 489	111 194	162 357	219 642
Poland (b)	*5 000	*5 500	*13 500	*5 100	...
Romania (b)	*45 100	*64 500	...	...	...
Soviet Union (b)	*175 000	*181 800	*198 800	*108 600	...
Sweden	5 606	6 858	6 489	5 440	5 006
Switzerland	1 348	885	985	3 068	4 228
Yugoslavia	270	2 365	327	2 979	7 069
Algeria	674	50	—	...	...
Cameroon	8 114	347	301	...	...
Gabon	8 125	2 716	...	...	...
Ivory Coast	6 952	124	...	1 071	...
South Africa	1 464	2 000	2 093	2 761	2 343
Tunisia	154	90	20	147	0
Canada	26 589	10 525	4 573	4 736	5 577
Trinidad & Tobago	19 809	19 081	18 027	28 684	48 304
USA	1 929 663	695 778	759 331	1 146 422	1 034 150
Argentina	1 403	259	1 577	212	...
Colombia	9 019	10 847	...	12 095	...
Ecuador	440	132	3 007	91	...
Venezuela	85 807	102 679	35 970	...	...
Abu Dhabi	27 522	6 367	12 983	16 993	...
Dubai	2 722	3 592	...	...	...
Hong Kong	227	425	3 060	6 450	6 703
Indonesia	67 536	57 959	15 364	33 197	61 484
Japan	50 356	30 962	68 996	91 355	129 383
Korea, Republic of	1 113	1 436	3 241	3 533	4 148
Malaysia	12 725	10 437	15 992	737	700
Philippines	1 247	43	2 257	1 298	757
Saudi Arabia	12 680	475	664	567	3 922
Singapore	18 116	14 382	12 766	14 488	10 056
Syria	8 525	3 072	239	...	...
Taiwan	4 131	6 636	1 586	1 619	1 719
Australia	1 770	2 306	1 181	13 534	...
New Zealand (a)	6 014	3 337	2 029	3 279	1 880

Note(s):

(1) Trade in barytes is reported under item 278.92 of the Standard International Trade Classification (Revision 3) 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	1985	1986	1987	1988	1989
United Kingdom					
Fuller's earth (a)	216 000	202 033	213 055	213 000	210 000
France					
Bentonite	14 900	*10 000	*8 000	*8 000	*8 000
Germany, Federal Republic of					
Bentonite	169 000	179 000	167 000	197 000	200 000
Fuller's earth	701 000	680 000	677 000	670 000	636 000
Greece					
Bentonite	1 054 234	1 317 825	1 300 525	*1 200 000	*1 200 000
Italy					
Bentonite	299 272	305 622	313 094	301 434	220 000
Fuller's earth	30 400	30 960	40 150	38 955	43 550
Spain					
Bentonite	90 239	114 972	103 420	103 753	*100 000
Attapulгите	59 697	67 820	40 818	43 585	*45 000
Sepiolite	267 393	369 351	374 758	383 649	...
Czechoslovakia					
Bentonite	...	25 081	152 656	157 284	156 719
Hungary					
Bentonite	59 853	79 888	102 000	65 000	58 000
Poland					
Bentonite	85 200	94 200	88 600	100 000	93 098
Romania					
Bentonite	*180 000	*185 000	*180 000	*180 000	*180 000
Soviet Union					
Bentonite	*2 900 000	*2 900 000	*2 900 000	*2 900 000	*2 900 000
Turkey					
Bentonite	42 040	62 367	89 262	80 218	90 336
Yugoslavia					
Bentonite	148 752	141 726	154 288	125 069	139 693
Algeria					
Bentonite	36 400	32 300	24 600	26 000	39 200
Fuller's earth	*3 500	*3 500	*3 500	*3 500	*3 500
Egypt					
Bentonite	3 785	5 129	3 978	3 166	3 629
Morocco					
Bentonite	2 876	3 834	2 948	3 445	3 970
Fuller's earth (f)	24 425	35 100	46 271	52 697	48 820
Mozambique					
Bentonite	361	1 112	936	986	126
Senegal					
Attapulгите	88 017	77 108	117 873	323 470	98 882
South Africa					
Bentonite	43 472	48 265	48 953	66 750	62 987
Attapulгите	5 885	10 125	6 026	7 161	6 609
Canada					
Bentonite	65 129	72 026	70 281	88 800	...
Guatemala					
Bentonite	2 727	3 836	24 781	976	8 236
Mexico					
Bentonite	267 695	136 478	129 596	168 146	*188 500
Fuller's earth	58 000	52 200	49 112	40 727	*44 400
USA					
Bentonite (c)	2 898 710	2 551 950	2 545 772	2 870 971	3 112 365
Fuller's earth (c)	1 868 149	1 732 703	1 865 890	1 792 232	1 881 511
Argentina					
Bentonite	147 065	146 191	108 595	173 930	150 000
Fuller's earth	1 743	*2 000	*2 000	*2 000	*2 000
Brazil					
Bentonite	236 368	229 371	216 591	110 893	146 550
Peru					
Bentonite	2 017	33 080	16 194	*20 000	*20 000

Production of Bentonite and Fuller's Earth

tonnes

Country	1985	1986	1987	1988	1989
Cyprus					
Bentonite	52 000	55 000	79 600	90 300	59 744
India					
Bentonite	161 000	104 000	119 000	226 000	...
Fuller's earth	23 000	32 000	20 000	26 000	...
Indonesia					
Bentonite	6 658	5 730	7 962	8 266	3 863
Iran (g)					
Bentonite	27 000	*27 000	*27 000	37 028	*37 000
Israel					
Bentonite (e)	*6 000	*6 000	*6 000	*6 000	*6 000
Japan					
Bentonite	461 530	408 864	415 806	455 137	526 131
Korea, Republic of					
Bentonite	13 200	16 800	12 600	16 600	24 400
Myanmar (d)					
Bentonite	851	853	297	418	711
Pakistan					
Bentonite	1 611	1 362	2 537	4 370	5 466
Fuller's earth	10 647	15 228	17 945	15 282	15 436
Philippines					
Bentonite	25 026	1 800	2 021	2 030	2 782
Australia					
Bentonite	29 070	39 933	30 392	35 671	*35 000
Fuller's earth	*15 000	*15 000	10 960	*15 000	*15 000
New Zealand					
Bentonite	7 400	3 140	—	1 255	1 342
World total Bentonite	9 540 000	9 350 000	9 460 000	9 830 000	10 090 000
World total Fuller's earth (b)	3 370 000	3 330 000	3 490 000	3 630 000	3 460 000

Note(s):

- (1) Bentonites consist of montmorillonite (one of the smectite group of clay minerals) and occur in two main varieties, calcium bentonite, the most commonly occurring, and sodium bentonite, industrially the more important
- (2) Calcium bentonite can be converted to sodium bentonite by a sodium-exchange process
- (3) In some countries, such as the United Kingdom, calcium bentonite is known as fuller's earth, a term which is also used to refer to attapulgite, a mineralogically distinct clay mineral but exhibiting similar properties
- (4) In addition to the countries listed, Austria, Bulgaria, China 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
- (g) Years ended 20 March following that stated

Exports of Bentonite and Fuller's Earth

Country	1985	1986	1987	1988	1989
United Kingdom					
Bentonite	40 256	33 695	35 605	39 027	49 012
Fuller's earth	23 111	22 577	24 824	31 091	33 663
Belgium-Luxembourg					
Bentonite	2 041	280	86	453	553
Fuller's earth	482	661	82	547	1 220
France					
Bentonite	8 296	8 019	7 419	9 006	19 315
Fuller's earth	5 459	2 546	2 507	3 971	4 113
Germany, Federal Republic of					
Bentonite	34 444	33 063	31 097	43 388	59 087
Fuller's earth	4 854	5 301	5 093	4 735	2 970
Greece					
Bentonite	453 714	460 875	511 351	391 781	85 390
Italy					
Bentonite	28 063	20 780	24 155	37 919	59 523
Netherlands					
Bentonite	30 572	30 405	28 045	39 936	35 010
Fuller's earth	301	575	991	—	502
Spain					
Bentonite	29 045	33 258	36 914	49 814	59 789
Fuller's earth	2 817	3 336	2 702	3 956	6 087
Bulgaria					
Bentonite	86 757	113 005	...	...	...
Hungary					
Bentonite	10 338	11 423	10 875	12 496	...
Turkey					
Bentonite	29 325	42 199	24 740	26 227	...
Yugoslavia					
Bentonite	292	79	4 799	2 792	11 633
Morocco					
Fuller's earth (a)	32 720	30 495	42 002	75 000	...
Senegal					
Fuller's earth (b)	11 224	2 022	8 171	71 714	10 350
South Africa					
Bentonite	1 445	1 609	580	808	505
Canada					
Bentonite	(e)941	(e)1 795	(e)1 522	1 120	2 398
Mexico					
Bentonite	7 170	11 488	11 846	3 075	...
USA					
Bentonite	580 659	527 767	489 209	569 071	671 437
Fuller's earth	96 244	109 604	96 991	112 265	96 897
Argentina					
Bentonite	8 665	12 821	6 489	6 375	8 753
Colombia					
Bentonite	850	1 350	...	...	...
China					
Bentonite (c)	*900	*20 000	*1 400	*8 600	*17 100
Fuller's earth (c)	*500	*800	*1 000	*1 800	*200
India (d)					
Bentonite	21 344	6 843	39 312	68 472	...
Fuller's earth	150	125	148	382	...

Exports of Bentonite and Fuller's Earth

tonnes

Country	1985	1986	1987	1988	1989
Indonesia					
Bentonite	3 009	4 206	25 832	5 544	12 114
Korea, Republic of					
Bentonite	—	346	1 682	4 608	3 727
Philippines	34 897	—	—	—	—
Singapore					
Bentonite	13 823	7 376	11 985	19 365	21 327
of which: Re-exports	11 463	7 376	11 985	19 365	21 327
Fuller's earth	6 335	2 105	960	6 179	3 636
of which: Re-exports	6 321	2 105	960	6 179	3 636

Note(s):

- (1) See notes 1—3 to production table
 - (2) The figures in this table refer to natural and sodium-exchanged bentonite, and fuller's earth, Standard International Trade Classification (Revision 3) 278.27
 - (3) Activated bentonite and fuller's earth, Standard International Trade Classification (Revision 3) 598.65 are excluded
 - (4) Some countries are believed to include sodium-exchanged bentonite, often referred to as activated bentonite, under Standard International Trade Classification (Revision 3) 598.65, 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
 - (e) Exports to the USA

Imports of Bentonite and Fuller's Earth

Country	1985	1986	1987	1988	1989
United Kingdom					
Bentonite	83 982	102 648	98 133	115 114	117 483
Fuller's earth	2 013	1 437	1 284	3 068	3 582
Belgium-Luxembourg					
Bentonite	20 166	20 007	19 893	37 102	28 112
Fuller's earth	1 520	1 173	800	481	307
Denmark					
Bentonite	2 669	4 779	5 608	7 884	10 280
Fuller's earth	1 129	749	540	691	599
France					
Bentonite	98 366	88 061	77 629	114 725	125 749
Fuller's earth	1 922	2 978	1 405	1 142	2 618
Germany, Federal Republic of					
Bentonite	114 610	116 903	119 114	187 642	252 864
Fuller's earth	6 905	9 769	10 809	11 672	14 875
Greece					
Bentonite	358	371	566	353	415
Italy					
Bentonite	20 731	31 615	39 228	38 493	72 727
Fuller's earth	3 065	2 575	2 143	3 631	...
Netherlands					
Bentonite	74 619	85 191	67 407	85 396	99 267
Fuller's earth	3 455	4 882	5 451	11 534	8 283
Portugal					
Bentonite	22 453	21 767	23 064	...	...
Fuller's earth	980	883	436	...	...
Spain					
Bentonite	30 413	27 460	28 692	35 913	34 675
Austria					
Bentonite	2 432	5 250	6 361	12 620	15 042
German Democratic Republic					
Bentonite (c)	*12 300	*13 000	*11 700	*12 400	*11 000
Fuller's earth (c)	*700	*1 400	*1 700	*900	*1 000
Norway					
Bentonite	40 600	33 683	28 446	23 362	16 778
Fuller's earth	4 131	10 286	12 022	197	126
Poland					
Bentonite (c)	*16 900	*27 100	*24 700	*17 700	*14 500
Sweden					
Bentonite	6 005	9 228	11 958	7 693	9 961
Fuller's earth	...	...	...	7 570	6 595
Switzerland					
Bentonite	...	...	...	8 566	12 288
Fuller's earth	...	...	...	609	1 329
Algeria					
Bentonite (b)	436	1 019	33	...	...
Ivory Coast					
Bentonite	776	421	...	65	...
Morocco					
Bentonite	200	20	547	62	...
Senegal					
Bentonite	336	710	1 684	603	1 570
Tunisia					
Bentonite	3 032	4 891	563	1 102	1 562
Zimbabwe					
Fuller's earth (b)	2 896	2 748	1 413	...	...
Canada					
Bentonite	346 013	326 024	318 071	334 872	294 267
Fuller's earth	4 970	5 438	10 787	6 477	7 377
Mexico					
Bentonite	739	612	1 319	2 950	...
USA					
Bentonite	7 352	2 509	3 665	3 200	2 427
Fuller's earth	3 461	75	239	487	16
Brazil					
Bentonite	12 774	21 185	13 518	16 989	29 290
Chile					
Bentonite	(c)*1 000	4 936	(c)*3 500	3 843	(c)*9 800

Imports of Bentonite and Fuller's Earth

tonnes

Country	1985	1986	1987	1988	1989
Colombia					
Bentonite	15 071	3 700	...	...	...
Peru					
Bentonite	893	806	915	294	583
Uruguay					
Bentonite	142	199	417	221	...
Venezuela					
Bentonite	13 505	25 340	10 897	...	...
Indonesia					
Bentonite	28 189	23 005	2 157	13 532	11 707
Fuller's earth	918	529	18	35	15
Israel					
Bentonite (c)	*2 100	*3 900	*2 600	*3 000	*3 900
Japan					
Bentonite	...	...	...	128 280	169 298
Fuller's earth	...	...	...	4 781	6 321
Korea, Republic of					
Bentonite	5 062	5 414	3 749	10 728	6 892
Malaysia					
Bentonite	50 833	83 798	56 192	27 278	64 748
Fuller's earth	1 814	803	2 145	14 180	7 402
Pakistan (a)	283	7 486	1 522	15 854	...
Philippines	3 374	1 883	2 322	4 601	7 461
Singapore					
Bentonite	30 132	36 360	9 431	44 902	27 750
Fuller's earth	9 946	5 301	1 467	5 848	4 531
Taiwan					
Bentonite	16 623	18 624	20 051	23 712	26 533
Thailand					
Bentonite	2 914	3 243	5 369	11 474	...
Australia					
Bentonite	30 531	24 942	8 654	22 269	...

Note(s):

- (1) See notes 1—3 to production table
 - (2) The figures in this table refer to natural and sodium-exchanged bentonite, and fuller's earth, Standard International Trade Classification (Revision 3) 278.27
 - (3) Activated bentonite and fuller's earth, Standard International Trade Classification (Revision 3) 598.65 are excluded
 - (4) Some countries are believed to include sodium-exchanged bentonite, often referred to as activated bentonite, under Standard International Trade Classification (Revision 3) 598.65, 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	1985	1986	1987	1988	1989
France	70	95	100	100	110
Italy	54	66	44	32	46
Romania	*80	*80	*75	*65	*60
Soviet Union	*83	*84	*85	*85	*85
Yugoslavia	68	21	73	23	40
Canada (a)	201	153	167	212	205
Mexico	925	749	1 012	958	883
USA	*400	*400	*400	*400	*400
Bolivia	159	43	1	13	41
Peru (a)	785	605	438	386	687
China	*260	*260	*260	*275	*275
Japan	642	640	546	524	502
Korea, Republic of	135	136	145	132	96
Australia	*1 400	*1 000	*350	*400	*400
World total	5 300	4 300	3 700	3 600	3 800

Note(s):

- (1) The figures in this table are in some instances derived from reported bismuth content of refined and impure metal plus recoverable bismuth in ores and concentrates exported
 - (2) Production for some countries may include bismuth produced from imported ores but it is thought that any resulting duplication is insignificant in the countries shown
 - (3) In addition to the countries listed, Belgium, Brazil, Bulgaria, German Democratic Republic and Namibia are also believed to produce bismuth
- (a) Including Bi content of bullion and concentrates exported

Bismuth

Exports of Bismuth

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Metal	(a)*370	(a)*310	(a)*460	566	413
France					
Compounds	62	43	35	163	113
Metal	11	1	40	73	88
Germany, Federal Republic of					
Compounds	39	45	81	104	24
Metal	251	77	146	144	168
Italy					
Metal	40	25	80	23	31
Netherlands					
Metal	12	27	17	30	18
Spain					
Compounds	21	7	6	32	36
Canada					
Metal	...	...	...	103	28
Mexico					
Metal	495	673	1 993	1 514	1 186
USA					
Metal	226	45	38	154	124
Peru					
Metal	399	538	1 047	425	424
China					
Metal (a)	*50	*60	*130	*500	*300
Japan					
Metal	230	257	55	68	16
Korea, Republic of					
Metal	139	178	152	180	161

Note(s):

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

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

Imports of Bismuth

Country	1985	1986	1987	1988	1989
United Kingdom					
Metal	402	370	550	678	414
France					
Compounds	1	0	3	59	59
Metal	207	304	327	427	273
Germany, Federal Republic of					
Compounds	9	6	14	9	11
Metal	385	434	688	659	602
Italy					
Compounds	18	18	10	14	17
Metal	88	111	61	96	80
Netherlands					
Compounds	48	1	—	246	40
Metal	46	21	25	28	25
Spain					
Metal	59	82	83	77	73
Turkey					
Compounds	4	4	6	3	...
Yugoslavia					
Compounds	2	4	8	0	0
Metal	18	4	—	30	22
USA					
Metal	928	1 228	1 693	1 749	1 880
Argentina					
Metal	15	31	20	28	...
Brazil					
Compounds (a)	9	16	9	6	...
Metal	35	72	72	55	...
Japan					
Metal	...	...	...	326	408
Australia					
Metal	6	9	16	11	...

Note(s):

(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	1985	1986	1987	1988	1989
United Kingdom	29 851 000	26 000 000	26 184 000	27 128 000	29 907 000
France	*20 000 000	*19 000 000	*18 500 000	*18 000 000	*18 000 000
Germany, Federal Republic of	3 077 000	*2 500 000	*2 500 000	*2 500 000	*3 000 000
Italy	*600 000	*450 000	*450 000	*450 000	*500 000
Spain	*350 000	*280 000	*300 000	*300 000	*300 000
Soviet Union	*70 000 000	*65 000 000	*65 000 000	*65 000 000	*65 000 000
USA (a)	145 000 000	141 000 000	152 000 000	163 000 000	175 000 000
India	1 089 300	1 229 400	1 181 600	1 241 900	1 272 200
Israel	*100 000 000	*105 000 000	*110 000 000	*118 000 000	*120 000 000
Japan	*12 000 000	*15 000 000	*15 000 000	*15 000 000	*15 000 000
World total	382 000 000	375 500 000	391 100 000	410 600 000	428 000 000

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

Exports of Bromine

kilograms

Country	1985	1986	1987	1988	1989
United Kingdom	1 970 929	2 307 258	2 556 122	2 146 979	2 690 302
Belgium-Luxembourg	—	5 000	17 800	17 200	33 200
Germany, Federal Republic of	6 200	3 200	219 200	7 100	69 000
Italy	72 900	86 056	4 900	7 000	...
Netherlands	2 030 000	616 000	686 000	724 000	691 000
German Democratic Republic (a)	*1 358 000	*1 491 000	*1 826 000	*2 416 000	*1 710 000
USA	2 836 000	8 119 000	3 348 000	4 328 000	3 557 291
Israel	(a)*27 700 000	(a)*25 000 000	(a)*29 200 000	(a)*32 100 000	43 119 000

Note(s):

(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

Country	1985	1986	1987	1988	1989
United Kingdom	9 275 204	8 453 307	8 968 048	9 725 931	9 592 918
Belgium-Luxembourg	1 280 900	1 660 500	1 842 700	2 121 700	2 273 200
Denmark	130 000	76 500	104 500	52 000	95 400
France	6 782 500	4 800 000	5 799 500	6 967 000	8 314 000
Germany, Federal Republic of	7 443 600	7 026 100	6 959 700	6 677 300	6 917 100
Italy	1 614 300	2 612 707	2 140 000	2 232 500	...
Netherlands	8 007 000	7 627 000	8 267 000	9 332 000	8 125 000
Portugal	700	...	200	...	...
Spain	165 000	45 000	59 000	107 000	59 000
Hungary	649 000	655 000	843 000	521 000	...
Turkey	187	230	2 029	344	...
Yugoslavia	2 000	1 000	2 000	12 000	12 000
South Africa	72 700	50 000	31 500	59 781	28 740
Mexico	156 000	119 920	146 000	*180 000	...
USA	5 003	154 926	248 306	256 696	459 881
Argentina	20 000	19 000	24 000	20 000	...
Brazil	14 479	13 431	17 099	30 397	...
Colombia	219	626	...	...	...
Peru	200	549	92	339	...
Venezuela	4 481	2 443	5 775	...	...
India (a)	504 675	94 280	—	469 792	...
Israel (c)	...	*97 800	*62 700	*91 300	*90 800
Korea, Republic of	356 117	228 360	162 856	285 682	192 125
Pakistan (b)	7 133	11 088	2 016	4 032	...
Taiwan	14 428	121	796	80	259

Note(s):

(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

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



Figure 3 World production of cadmium compared with the *Metals Week* New York producer price expressed in constant 1985 US dollars.

Production of Cadmium

Country	1985	1986	1987	1988	1989
United Kingdom	370	379	498	399	395
Belgium	1 252	1 380	1 308	1 836	1 761
France	337	431	457	558	790
Germany, Federal Republic of	1 095	1 218	1 125	1 156	1 208
Italy	360	300	320	700	770
Netherlands	594	557	517	655	505
Spain	268	247	297	438	361
Austria	52	52	26	26	49
Bulgaria	*175	*170	*170	*165	*160
Finland	565	532	428	808	570
German Democratic Republic	69	*60	28	28	27
Norway	150	154	147	169	206
Poland	*610	500	620	642	485
Romania	*55	*55	*50	*48	*46
Soviet Union	*2 750	*2 700	*2 600	*2 650	*2 600
Turkey	*32	*6	*11	*22	*54
Yugoslavia	279	259	284	405	475
Algeria	128	124	102	55	46
Namibia	59	61	51	106	88
Zaire	295	364	299	281	224
Canada (a)	1 696	1 552	1 571	1 694	1 620
Mexico (b)	888	963	1 139	1 235	1 316
USA (a)	1 603	1 486	1 515	1 885	1 550
Argentina	46	47	53	54	60
Brazil	224	233	214	161	190
Peru	420	387	353	316	352
China	*540	*650	*750	*840	874
India	194	160	214	237	275
Japan	2 555	2 542	2 374	2 614	2 724
Korea, Dem. P.R. of	*350	*360	*380	*380	*350
Korea, Republic of	*450	*455	*470	*490	*470
Australia	910	909	950	855	696
World total	19 400	19 300	19 300	21 900	21 300

(a) Including cadmium sponge and/or secondary metal

(b) Including oxides

Cadmium

Exports of Cadmium

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom	104	85	62	147	570
Belgium-Luxembourg					
Metal	804	633	583	1 032	1 643
Sulphide	55	60	86	56	162
France	275	411	316	544	679
Germany, Federal Republic of					
Metal (a)	296	439	991	...	...
Oxide	38	15	23	—	—
Italy	322	224	221	560	741
Netherlands	615	541	842	703	717
Spain	209	230	230	438	254
Austria	45	55	40	20	120
Bulgaria (b)	*50	*40	*40	*40	*110
Finland	569	567	609	784	591
Norway	143	162	135	140	229
Soviet Union	*400	*400	*200	*100	*100
Sweden	15	46	—	2	—
Yugoslavia	55	23	81	120	318
Algeria	—	225	224	...	...
Namibia	38	106	45	107	73
Zaire	224	293	174	...	...
Canada	1 477	1 383	1 157	1 113	1 433
Mexico	561	600	782	1 408	1 093
USA	160	38	270	626	790
Peru	296	658	138	200	299
China (b)	*150	*340	*290	*690	*370
Japan	382	452	201	158	141
Korea, Republic of					
Metal	145	104	163	731	828
Oxide	179	465	292	—	—
Australia	669	682	2 343	1 499	...

(a) Including rhenium

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

Imports of Cadmium

Country	1985	1986	1987	1988	1989
United Kingdom	878	1 095	1 093	1 157	943
Belgium-Luxembourg					
Metal	1 174	1 509	1 586	2 096	1 991
Sulphide	27	6	18	6	29
Denmark					
Sulphide	...	...	...	82	157
France					
Metal	892	888	1 137	1 180	1 746
Sulphide	42	39	58	76	70
Germany, Federal Republic of					
Metal	546	531	511	658	791
Oxide	532	556	660	—	—
Sulphide	9	6	14	59	8
Italy					
Metal	54	105	90	84	64
Sulphide	6	6	3	6	8
Netherlands					
Metal	129	53	115	102	65
Sulphide	2	4	3	7	7
Spain	49	92	87	65	105
Czechoslovakia	164	170	146	93	137
Finland	0	0	242	68	0
German Democratic Republic (a)	*110	*180	*130	*50	*10
Soviet Union (a)	*300	*100	*110	...	*20
Sweden	260	201	122	177	181
USA	1 988	3 174	2 701	2 482	2 787
Brazil					
Metal	1	3	208	22	...
Oxide	76	121	155	74	...
India (b)	64	52	116	2	...
Japan	...	...	...	2 546	2 908
Taiwan					
Oxide	249	476	341	282	274

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

(b) Years ended 31 March following that stated

Chrome

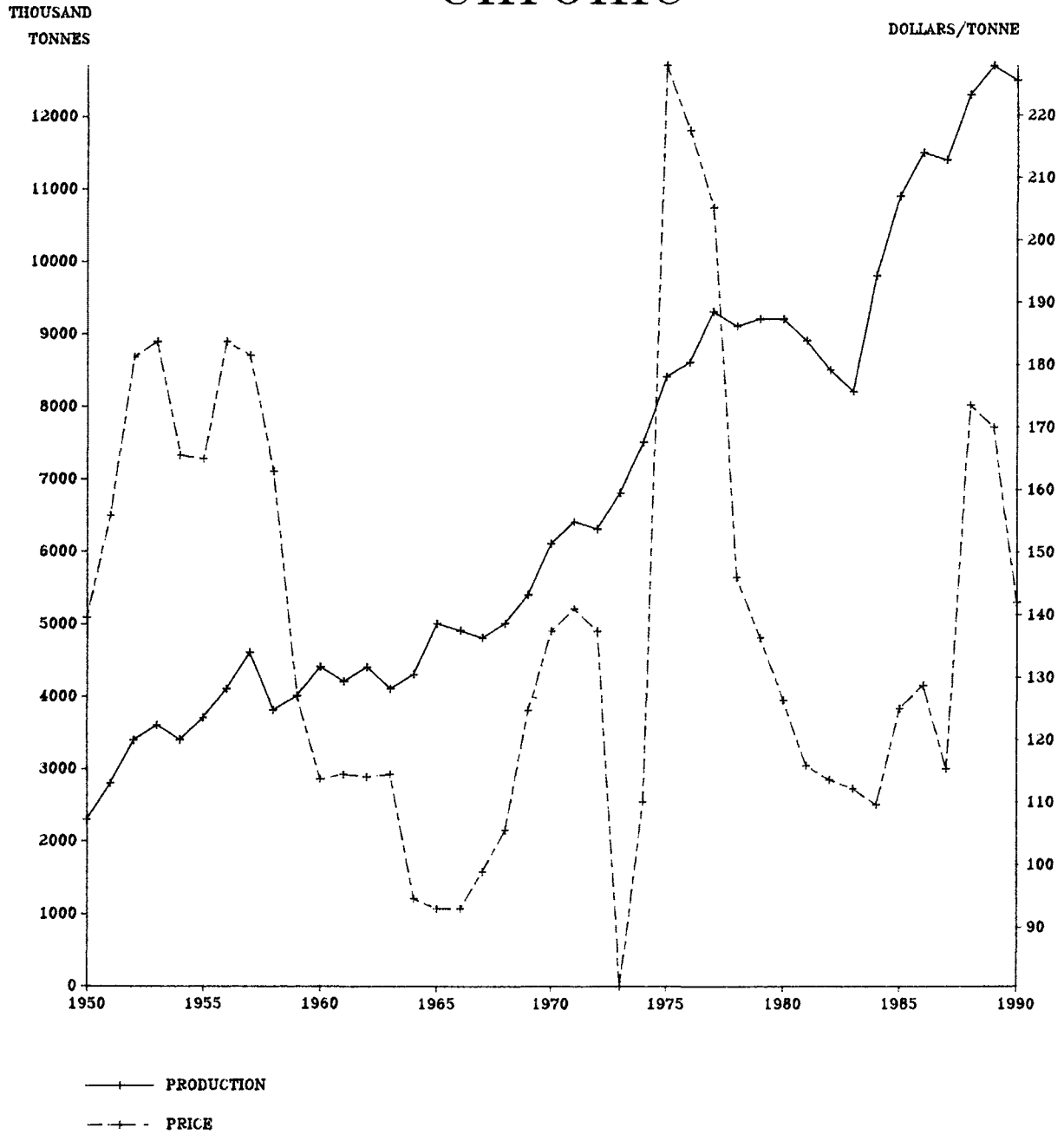


Figure 4 World production of chrome ore compared with the price of Turkish (48% Cr₂O₃) ore f.o.b. US ports expressed in constant 1985 US dollars.
Trend-line analysis of the production data indicates a growth rate of approximately 4% per annum.

Production of Chromium Ores and Concentrates

Country	1985	1986	1987	1988	1989
Greece	58 948	60 063	63 825	49 535	56 000
Albania	1 111 000	1 159 000	1 072 000	1 109 000	1 101 000
Finland (b)	506 018	492 094	503 159	536 309	573 715
Soviet Union	3 360 000	3 640 000	3 570 000	*3 700 000	*3 800 000
Turkey (a)	588 576	617 652	762 071	851 425	*850 000
Madagascar	126 697	89 300	106 773	171 484	165 397
South Africa	3 698 679	3 907 473	3 784 402	4 244 632	4 950 854
Sudan	16 000	18 000	10 000	25 000	...
Zimbabwe	526 500	553 106	570 298	561 630	627 500
Cuba	37 700	50 000	52 400	52 200	50 600
Brazil (a)	189 504	222 990	191 033	*240 000	*225 000
India	567 056	629 671	623 591	820 863	1 002 659
Iran (c)	56 000	*56 000	*56 000	60 289	*60 000
Japan	11 920	10 642	11 815	9 508	11 674
Oman	*6 000	4 820	*4 000	*4 000	12 810
Pakistan	5 188	8 299	9 963	4 924	*10 000
Philippines (b)	272 031	202 214	188 647	165 710	379 521
Vietnam	*4 000	*4 000	*4 000	*4 000	*4 000
New Caledonia	78 820	72 207	61 832	70 341	60 281
World total	11 200 000	11 800 000	11 600 000	12 700 000	14 000 000

Note(s):

(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

(c) Years ended 20 March following that stated

Chromium

Exports of Chromium

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Ores & concentrates	171	405	217	207	64
Metal	4 071	3 828	3 733	3 469	3 409
Belgium-Luxembourg					
Ores & concentrates	36	0	85	1 484	290
Metal	301	121	123	133	82
France					
Ores & concentrates	3 124	951	1 368	3 113	9 676
Metal	1 615	1 797	1 659	2 205	2 358
Germany, Federal Republic of					
Ores & concentrates	8 909	12 061	11 392	14 419	16 237
Metal	197	132	143	189	364
Greece					
Ores & concentrates	8 830	10 964	7 089	6 484	200
Italy					
Ores & concentrates	1 544	3 710	2 053	13 475	2 999
Metal	139	211	307	28	817
Netherlands					
Ores & concentrates	27 379	30 070	28 005	31 902	39 777
Metal	2	75	6	5	65
Albania					
Ores & concentrates	761 000	755 000	677 000	639 000	605 000
Austria					
Ores & concentrates	953	555	—	213	94
Finland					
Ores & concentrates	177 153	161 387	144 017	200 693	109 976
Soviet Union					
Ores & concentrates	471 000	474 000	521 000	632 000	741 000
Turkey					
Ores & concentrates	478 069	451 384	569 733	843 116	882 627
Yugoslavia					
Ores & concentrates	13 150	7 919	10 589	2 459	3 124
Madagascar					
Ores & concentrates	*115 000	130 244	83 842	148 500	152 591
South Africa					
Ores & concentrates	1 739 336	1 133 625	1 442 747	1 461 713	1 541 011
Sudan					
Ores & concentrates	2 500	24 000	...	...	...
Cuba					
Ores & concentrates	41 607	37 771	49 664	...	...
USA					
Ores & concentrates	94 789	84 820	5 982	4 964	42 820
of which: Re-exports	3 335	1 322	4 837	1 033	2 375
Metal	202	293	379	322	1 503
Brazil					
Ores & concentrates	6	...	8	29 931	41 863
China					
Metal (b)	*500	*1 100	*1 300	*1 200	*1 100
India (c)					
Ores & concentrates	229 729	119 084	185 196	588 700	...
Iran (a)					
Ores & concentrates	12 600	...	(b)*13 500	(b)*7 500	(b)*26 000
Japan					
Ores & concentrates	756	283	309	298	2 429
Metal	...	...	...	2 014	2 322
Philippines					
Ores & concentrates	159 435	130 164	105 676	163 499	201 683
New Caledonia					
Ores & concentrates	86 156	61 104	72 112	71 646	64 651

Note(s):

(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

Imports of Chromium

Country	1985	1986	1987	1988	1989
United Kingdom					
Ores & concentrates	137 675	138 572	124 318	199 043	170 461
Metal	357	367	504	391	709
Belgium-Luxembourg					
Ores & concentrates	5 231	3 846	2 581	3 404	3 861
Metal	457	536	406	374	392
Denmark					
Ores & concentrates	1 323	1 473	667	697	6 481
France					
Ores & concentrates	25 093	24 610	24 771	80 910	81 288
Metal	196	232	253	264	506
Germany, Federal Republic of					
Ores & concentrates	384 473	275 307	258 912	272 541	343 779
Metal	1 461	180	1 144	1 347	2 147
Greece					
Ores & concentrates	35 980	65 152	27 354	42 600	73 812
Irish Republic					
Ores & concentrates	11	29	3 010	13	22
Italy					
Ores & concentrates	229 118	152 169	218 974	304 149	383 158
Metal	193	197	223	376	289
Netherlands					
Ores & concentrates	40 239	38 247	17 229	34 477	42 777
Metal	120	67	82	155	137
Portugal					
Ores & concentrates	1 281	1 098	779	1 136	1 055
Spain					
Ores & concentrates	79 042	92 194	76 902	104 254	87 766
Metal	29	40	143	80	104
Austria					
Ores & concentrates	46 607	47 867	39 282	58 712	60 936
Czechoslovakia					
Ores & concentrates	174 000	188 000	188 000	171 000	171 000
German Democratic Republic					
Ores & concentrates (b)	52 300	49 600	41 000	47 400	41 600
Hungary					
Ores & concentrates	(a)*15 200	(a)*15 200	(a)*20 100	(a)*27 500	18 315
Norway					
Ores & concentrates	110	520	760	558	64 663
Poland					
Ores & concentrates	151 093	145 790	190 731	168 081	159 110
Romania					
Ores & concentrates	101 400	155 100	130 100	115 500	146 700
Sweden					
Ores & concentrates	376 575	377 786	314 495	432 148	398 811
Metal	248	321	216	220	271
Yugoslavia					
Ores & concentrates	281 066	286 965	225 856	288 006	330 979
Canada					
Ores & concentrates (b)	16 550	23 348	19 797	32 529	33 843
Mexico					
Ores & concentrates	63 761	27 781	45 016	39 019	...
USA					
Ores & concentrates	375 958	444 753	489 900	625 490	525 044
Metal	3 587	4 069	3 957	4 104	4 184
Argentina					
Ores & concentrates	18 281	15 572	27 558	14 776	26 060
Brazil					
Ores & concentrates	14 685	10 756	14 380	8 649	17 908
Chile					
Ores & concentrates	4 506	4 490	6 084	12 233	...
Peru					
Ores & concentrates	3 427	4 144	2 658	3 246	2 006
Venezuela					
Ores & concentrates	11 307	7 041	20 149	7 072	...

Chromium

Imports of Chromium

tonnes

Country	1985	1986	1987	1988	1989
China					
Ores & concentrates	364 719	385 156	230 375	429 808	595 783
Japan					
Ores & concentrates	987 240	670 625	674 743	976 168	1 043 468
Metal	...	...	...	725	830
Korea, Dem. P.R. of					
Ores & concentrates (a)	*16 000	*25 000	*24 000	*21 000	*18 000
Korea, Republic of					
Ores & concentrates	3 875	3 274	41 147	7 408	3 250
Philippines					
Ores & concentrates	29 947	17	12 000	52 111	46 541
Singapore					
Ores & concentrates	...	...	...	4 045	7 010
Taiwan					
Ores & concentrates	10 726	19 048	20 899	12 238	35 709
Thailand					
Ores & concentrates	1 400	2 755	174	4 492	...
Australia					
Ores & concentrates	3 353	8 523	1 369	4 835	...

Note(s):

- (1) Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys
- (a) BGS estimates, based on known exports from certain countries
- (b) Cr₂O₃ content

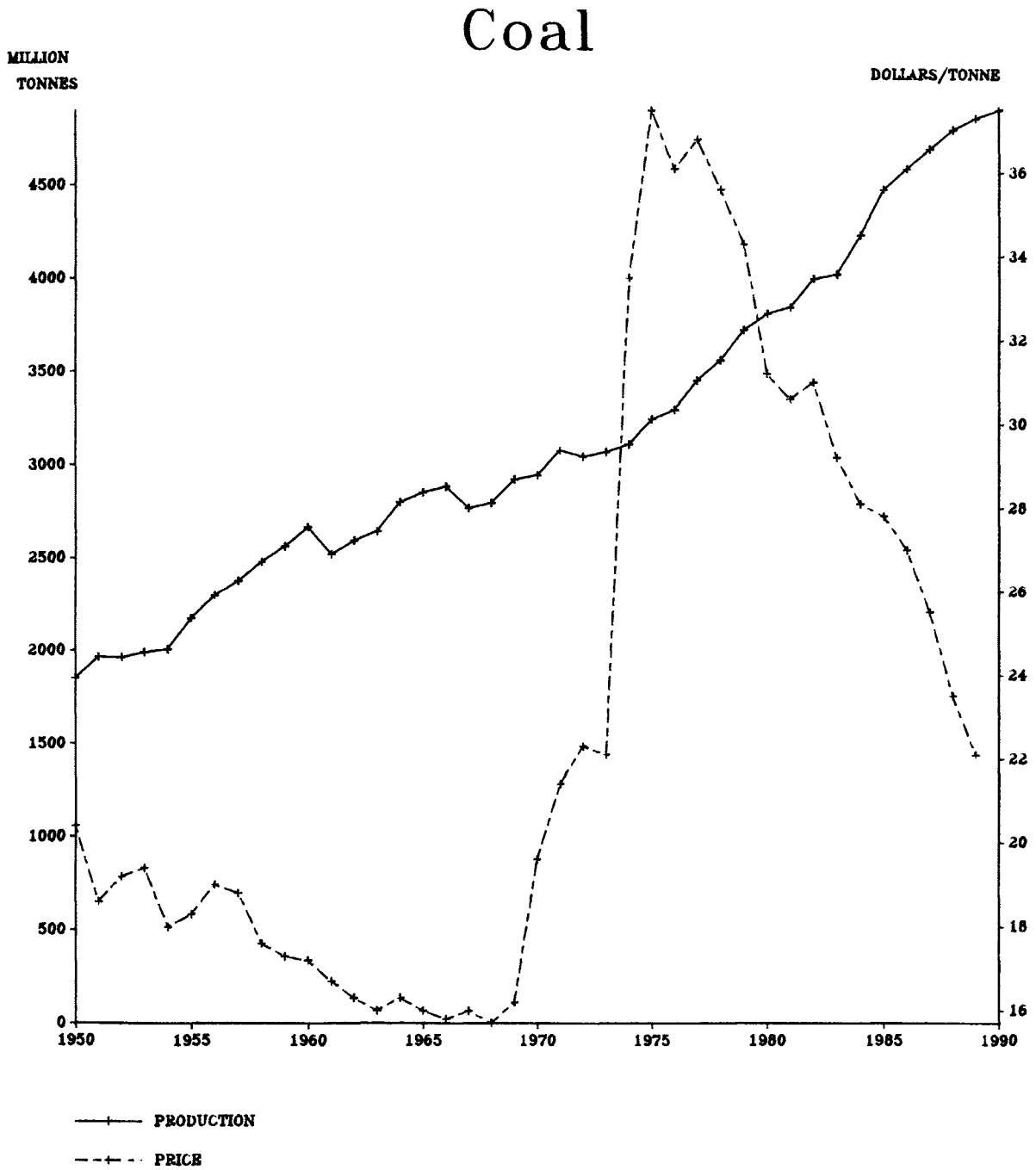


Figure 5 World production of coal compared with the annual average price of bituminous coal f.o.b. US mines expressed in constant 1985 US dollars.

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

Production of Coal

Coal
tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Anthracite	2 142 000	1 985 000	2 091 000	1 827 000	2 067 000
Bituminous	91 969 000	106 114 000	102 442 000	102 239 000	99 068 000
Belgium					
Bituminous	6 211 471	5 589 208	4 356 455	2 487 217	1 892 689
France					
Anthracite & bituminous	15 124 000	14 394 000	13 743 000	12 142 000	11 471 000
Lignite	1 839 000	2 142 000	2 051 000	1 653 000	2 168 000
Germany, Federal Republic of					
Anthracite & bituminous	82 398 000	80 801 000	76 300 000	73 304 000	71 428 000
Brown coal	120 667 000	114 310 000	108 799 000	108 563 000	110 081 000
Greece					
Lignite	35 875 089	39 014 076	40 944 576	48 323 000	51 879 000
Irish Republic					
Anthracite & semi-bituminous	56 700	53 500	45 200	41 700	42 900
Italy					
Lignite	1 892 436	1 541 218	1 641 745	1 600 363	1 532 740
Portugal					
Anthracite	238 414	209 501	228 648	227 188	257 985
Spain					
Anthracite	5 810 392	5 609 873	5 361 395	4 682 000	5 134 000
Bituminous	16 560 429	16 183 459	13 602 604	14 316 000	14 545 000
Lignite	17 292 434	16 527 183	15 626 963	12 959 000	17 277 000
Albania					
Lignite	2 100 000	*2 200 000	*2 100 000	2 184 000	2 193 000
Austria					
Brown coal & lignite	3 081 086	2 968 978	2 785 616	2 129 264	2 065 815
Bulgaria					
Anthracite & bituminous	223 000	207 000	198 000	196 000	193 000
Brown coal & lignite	30 657 000	35 015 000	36 621 000	33 951 000	34 095 000
Czechoslovakia					
Bituminous	26 223 000	25 658 000	25 736 000	25 503 000	25 070 000
Lignite	3 682 000	3 607 000	3 639 000	3 558 000	3 348 000
Brown coal	98 634 000	99 131 000	98 347 000	96 361 000	90 915 000
German Democratic Republic					
Brown coal	312 156 000	311 260 000	308 976 000	310 314 000	301 058 000
Hungary					
Bituminous	2 639 103	2 324 722	2 360 056	2 254 882	2 127 359
Lignite	7 387 123	6 982 645	7 223 032	5 633 577	5 882 957
Brown coal	14 016 288	13 821 330	13 261 262	12 986 323	12 019 527
Norway					
Spitzbergen (d)					
Bituminous	507 000	437 089	398 745	263 717	413 404
Poland					
Bituminous	191 642 000	192 080 000	193 012 000	193 015 000	177 633 000
Brown coal	57 746 000	67 259 000	73 194 000	73 489 000	71 815 000
Romania					
Anthracite & bituminous	10 472 000	11 174 000	11 693 000	11 568 000	11 583 000
Lignite	38 513 000	39 400 000	43 109 000	50 439 000	53 980 000
Brown coal	834 000	858 000	897 000	910 000	899 000
Soviet Union					
Anthracite & bituminous	569 000 000	588 000 000	595 000 000	599 000 000	577 000 000
Lignite	157 000 000	163 000 000	165 000 000	172 000 000	164 000 000
Turkey					
Bituminous	7 260 013	7 015 292	7 084 479	6 687 948	6 258 987
Lignite	39 437 271	45 469 889	46 481 173	39 025 028	52 369 000
Yugoslavia					
Bituminous	400 321	407 203	379 444	362 000	292 588
Lignite	56 635 336	56 359 304	59 359 000	60 352 000	62 276 291
Brown coal	12 460 541	13 098 668	12 135 000	11 876 611	12 062 544
Botswana	437 053	499 373	579 409	612 873	663 045
Morocco					
Anthracite	774 500	775 000	634 200	636 700	504 300

Coal

Production of Coal

tonnes

Country	1985	1986	1987	1988	1989
Mozambique					
Bituminous	20 400	3 895	43 319	23 856	62 010
Niger	150 635	148 111	164 313	*150 000	171 434
Nigeria					
Sub-bituminous	139 744	144 411	117 917	82 488	57 379
South Africa					
Anthracite	4 909 923	4 989 799	5 251 945	4 950 988	4 208 058
Bituminous	168 605 954	171 729 605	171 293 841	176 408 771	172 214 305
Swaziland					
Bituminous	166 079	172 199	165 371	164 845	165 122
Zaire					
Bituminous	120 582	119 296	121 866	...	...
Zambia					
Bituminous	471 114	557 099	463 072	523 651	394 839
Zimbabwe					
Bituminous	3 114 000	4 047 000	4 831 000	5 065 000	5 112 000
Canada					
Bituminous	34 195 000	32 199 000	32 650 000	38 586 000	38 794 000
Sub-bituminous	16 871 000	17 331 000	18 537 000	19 910 000	20 918 000
Lignite	9 672 000	8 281 000	10 020 000	12 148 000	10 816 000
Mexico					
Bituminous	9 770 751	10 157 998	11 137 054	10 586 000	9 767 368
USA					
Anthracite	4 300 000	3 900 000	3 300 000	3 300 000	3 000 000
Bituminous & lignite	797 300 000	803 800 000	830 300 000	858 800 000	886 700 000
Argentina					
Bituminous	400 232	370 000	380 855	505 000	441 052
Brazil					
Bituminous & lignite (e)	7 934 784	7 491 495	6 741 984	7 428 000	7 186 000
Chile					
Bituminous	1 236 590	1 323 020	1 305 250	1 436 151	1 267 456
Lignite	133 170	118 000	430 900	1 034 265	1 136 088
Colombia					
Bituminous	8 974 000	10 800 000	14 594 000	15 101 000	18 902 000
Peru					
Anthracite	92 750	90 000	*90 000	*90 000	...
Bituminous	32 691	61 077	107 501	67 000	...
Venezuela					
Bituminous	41 427	56 644	237 608	1 099 133	2 113 301
Afghanistan (c)					
Bituminous	*151 000	*160 000	*150 000	*150 000	...
China	872 000 000	894 039 000	927 965 000	980 000 000	1 054 000 000
India					
Bituminous	149 712 000	162 647 000	177 220 000	189 023 000	199 054 000
Lignite	7 849 000	7 991 000	8 311 000	12 588 000	12 571 000
Indonesia					
Anthracite & bituminous	1 942 135	2 572 340	2 813 533	2 854 470	3 068 150
Iran (c)					
Bituminous	1 252 000	1 262 000	1 100 000	1 625 214	...
Japan					
Anthracite & bituminous	16 339 028	16 012 870	13 034 465	11 223 396	10 187 309
Lignite	15 491	12 947	12 154	12 600	14 240
Korea, Dem. P.R. of					
Anthracite	*39 000 000	*39 500 000	*39 500 000	*45 000 000	*55 000 000
Lignite	*12 000 000	*12 500 000	*12 500 000	*13 000 000	*13 000 000
Korea, Republic of					
Anthracite	24 542 700	24 252 700	24 273 100	24 294 700	20 785 000
Mongolia					
Anthracite	480 000	497 000	655 000	692 000	*1 000 000
Lignite	6 043 000	6 567 000	7 110 000	7 914 000	*7 000 000

Production of Coal

Coal
tonnes

Country	1985	1986	1987	1988	1989
Myanmar (b)	43 800	38 100	39 334	30 258	37 594
Pakistan (a)	2 197 853	2 047 142	2 418 875	2 696 000	2 642 489
Philippines					
Bituminous	1 258 872	1 235 503	1 169 167	1 335 687	1 342 891
Taiwan					
Bituminous	1 857 858	1 725 024	1 499 240	1 225 487	784 409
Thailand					
Lignite	5 146 150	5 542 247	6 929 212	7 273 647	8 899 195
Vietnam					
Anthracite	5 624 000	6 392 000	6 839 000	6 900 000	...
Australia					
Bituminous (f)	158 256 000	170 067 000	178 399 000	176 604 000	190 085 000
Brown coal	36 985 000	37 604 000	44 877 000	43 450 000	48 252 000
New Zealand					
Bituminous	650 500	678 800	(a)(f)2 401 956	(a)(f)2 400 556	773 015
Sub-bituminous	1 668 800	1 767 200	...	...	1 780 694
Lignite	228 500	194 700	...	...	159 289
World total	4 456 000 000	4 567 000 000	4 669 000 000	4 788 000 000	4 882 000 000

Note(s):

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

(a) Including lignite

(b) Years ended 31 March following that stated

(c) Years ended 20 March following that stated

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

(e) Including beneficiated and directly shipped material

(f) Including sub-bituminous

Coal

Exports of Coal

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Anthracite	213 894	352 197	200 905	286 298	336 862
Other coal	2 343 979	2 396 213	2 140 982	1 450 667	1 735 043
Briquettes	98 812	154 710	114 018	78 860	129 750
Belgium-Luxembourg					
Anthracite	69 771	85 903	112 601	122 089	83 189
Other coal	1 393 706	1 170 047	836 194	830 587	875 041
Lignite	17 684	23 137	1 907	3 635	11 693
Briquettes	46 478	13 506	13 900	23 847	14 958
Denmark					
Coal	71 183	53 346	52 004	89 464	44 397
of which: Re-exports	71 155	53 275	50 499	83 417	44 289
France					
Anthracite	82 387	60 545	33 038	38 001	62 562
Other coal	958 307	643 339	718 672	1 643 901	745 379
Lignite	1 748	2 166	1 574	20	264
Briquettes	63 923	33 436	90 805	13 799	14 119
Germany, Federal Republic of					
Coal (b)	8 957 013	7 190 136	6 295 396	5 020 570	5 921 642
Brown coal	455 917	441 676	426 669	365 660	410 623
Briquettes	1 286 379	952 547	791 281	738 730	672 258
Irish Republic (b)	16 637	12 360	50 122	30 455	23 165
Italy (b)	40 437	5 588	15 587	84 631	27 521
Netherlands					
Anthracite	322 113	215 300	291 512	330 853	230 634
Other coal	1 463 254	2 165 804	1 746 868	1 416 406	928 530
Briquettes	6 562	4 754	2 545	2 734	1 337
Spain					
Coal (b)	4 975	64	75	7 117	7 351
Austria					
Brown coal	8 493	5 301	4 295	3 557	3 285
Czechoslovakia					
Coal	2 676 000	2 539 000	1 999 000	2 147 000	2 202 000
Brown coal	2 832 000	2 814 000	2 281 000	1 968 000	2 303 000
German Democratic Republic					
Briquettes	3 313 000	3 485 000	3 088 000	3 352 000	3 059 000
Hungary					
Brown coal	293 978	—	—	...	...
Norway (b)	235 498	122 726	203 239	254 941	246 956
Poland					
Coal	36 155 000	34 315 000	30 961 000	32 177 000	28 900 000
Brown coal	201 000	1 000	—	—	—
Soviet Union					
Coal (b)	(c)*25 870 000	33 536 000	35 454 000	39 385 000	37 514 000
Brown coal (c)	*141 000	*144 700	*145 800	*109 000	*119 800
Sweden (b)	112 014	58 400	104 255	35 380	7 331
Switzerland (b)	2 204	1	12 567	26 289	18 426
Turkey					
Coal	2 000	—	—	154	1 703
Lignite	—	1 900	3 350	3 364	...
Yugoslavia					
Lignite	243 692	129 763	5 296	...	...
Brown coal	260 602	279 909	61 927	(e)45 625	(e)29 747
Morocco					
Anthracite	62 433	49 534	20 070	10 655	...
South Africa					
Anthracite	3 875 564	4 405 577	3 211 682	2 938 789	3 267 669
Other coal	41 033 738	41 080 626	39 231 329	40 059 056	43 525 458
Swaziland	101 057	153 664	157 108	160 239	...
Zimbabwe (b)	120 526	64 847	57 667	...	...
Canada	27 572 325	25 899 685	25 466 258	29 449 199	31 779 902
USA					
Anthracite	1 166 752	1 324 594	1 071 346	817 129	677 200
Other coal	82 881 376	76 219 485	70 439 178	85 287 394	90 791 738
Lignite	29 739	37 262	32 771	109 037	24 971
Briquettes	77 182	64 056	88 093	44 104	7 443

Exports of Coal

Coal
tonnes

Country	1985	1986	1987	1988	1989
Colombia	3 129 634	5 083 566	9 587 000	10 081 000	13 298 000
China	7 770 000	9 820 000	13 514 670	15 625 509	15 338 150
India (a)	190 262	102 135	150 215	166 407	...
Indonesia					
Anthracite	115 876	57 041	60 530	198 995	742 611
Other coal	964 862	942 405	832 056	1 162 085	1 649 505
Japan	4 242	1 167	1 281	1 304	989
Korea, Dem. P.R. of (c)	*1 887 000	*1 906 000	*2 033 000	*2 095 000	*1 948 000
Australia	87 902 000	92 022 000	101 979 000	99 821 000	137 515 000
New Zealand (d)	392 799	368 972	318 879	331 437	428 670

Note(s):

(1) This table excludes bunker shipments

(a) Years ended 31 March following that stated

(b) Including anthracite

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

(d) Years ended 30 June of that stated

(e) Including lignite

Imports of Coal

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Anthracite	1 207 002	595 267	573 106	803 736	765 182
Other coal	11 525 071	9 958 292	9 207 810	10 881 160	11 371 897
Briquettes	230 390	109 419	137 107	167 942	140 317
Belgium-Luxembourg					
Anthracite	1 418 617	1 662 811	1 214 710	1 020 753	1 009 006
Other coal	8 096 674	7 092 103	8 536 441	10 334 943	11 413 679
Brown coal	264 131	265 294	255 758	221 441	245 294
Briquettes	295 668	193 246	166 227	123 138	93 127
Denmark					
Coal	12 715 760	12 153 136	12 054 761	10 306 160	10 876 410
Briquettes	47 636	34 226	30 135	14 683	5 930
France					
Anthracite	1 283 734	1 462 793	997 098	1 987 932	1 807 936
Other coal	17 131 546	15 780 308	12 060 312	10 866 117	14 067 060
Lignite	18 293	41 389	38 352	48 674	61 902
Briquettes	253 107	227 510	179 961	161 503	172 897
Germany, Federal Republic of					
Anthracite	32 899	29 722	27 423	75 517	72 803
Other coal	9 827 923	9 966 747	8 140 454	7 092 646	6 335 453
Brown coal	2 452 321	2 475 185	2 163 504	1 882 968	2 091 051
Briquettes	1 477 124	1 310 697	1 051 426	983 620	930 281
Greece					
Anthracite	18	9 295	5 369	15	...
Other coal	1 549 893	1 823 557	1 131 583	774 635	...
Irish Republic					
Anthracite	86 883	60 248	73 634	96 526	109 099
Other coal	1 823 653	2 562 144	2 860 951	3 478 429	3 221 436
Briquettes	20 462	35 457	7 179	11 448	12 081
Italy					
Anthracite	674 473	883 766	144 267	2 847 819	2 875 271
Other coal	20 124 350	19 209 148	19 844 210	16 237 229	17 370 830
Lignite	63 562	5 511	2 732	4 706	398 295
Briquettes	156 526	291 624	135 236	148 379	123 844
Netherlands					
Anthracite	388 001	344 366	322 434	400 968	346 112
Other coal	11 106 174	11 943 606	12 265 969	14 766 903	13 548 665
Brown coal	106 276	112 655	78 400	64 264	64 100
Briquettes	54 889	23 160	18 346	14 417	10 042
Portugal					
Anthracite	97 467	383 714	535 079	...	...
Other coal	1 371 069	1 508 759	2 015 262	(c)3 115 713	(c)3 529 728
Spain					
Coal (c)	8 417 508	8 714 966	8 879 153	8 761 633	10 725 955
Lignite	1 748	2 092	1 566	1 525	1 213
Briquettes	138 169	143 536	70 296	73 071	136 236
Albania (e)	*275 000	*159 000	*202 000	*246 000	*178 000
Austria					
Anthracite	55 084	26 689	28 789	16 716	17 692
Other coal	3 522 148	3 703 909	4 103 845	3 843 570	3 703 417
Brown coal	341 149	206 854	50 416	38 520	24 225
Briquettes	507 387	501 111	465 791	359 213	41 952
Bulgaria					
Anthracite	2 526 043	1 972 230	1 658 000	1 112 000	...
Other coal	5 527 640	5 321 579	5 600 000	5 339 000	...
Czechoslovakia					
Coal	4 686 000	4 896 000	4 235 000	4 781 000	4 503 000
Briquettes	736 000	658 000	702 000	977 000	766 000
Finland					
Anthracite	78 971	77 006	62 436	43 486	24 605
Other coal	5 010 236	5 376 721	5 008 427	4 756 402	5 540 412
Briquettes	6 591	5 861	6 237	6 921	0
German Democratic Republic (c)	5 098 000	7 014 000	7 166 000	5 802 000	4 311 000
Hungary					
Coal (c)	2 517 775	2 316 774	1 955 028	2 076 309	1 697 415
Briquettes	676 275	818 076	707 137	917 931	936 554
Iceland	68 618	73 520	59 919	66 167	71 534
Malta	212 081	184 235	181 275	191 579	303 101

Imports of Coal

Coal
tonnes

Country	1985	1986	1987	1988	1989
Norway (a)					
Anthracite	97 093	102 349	97 078	110 264	126 477
Other coal	815 964	667 214	629 434	662 906	520 972
Poland					
Anthracite	25 000	22 000	20 000	21 000	...
Other coal	1 060 000	1 150 000	1 092 000	1 108 000	929 000
Romania	6 048 500	6 324 100	7 082 800	8 085 700	6 831 700
Soviet Union (e)	*10 373 000	*11 693 000	*9 583 000	*11 735 000	*9 957 000
Sweden					
Anthracite	30 437	19 304	23 895	28 219	26 454
Other coal	4 837 865	4 432 866	3 942 080	3 811 143	3 662 581
Switzerland					
Coal (c)	473 541	613 799	521 212	436 555	333 358
Briquettes	45 314	35 560	28 479	24 910	16 020
Turkey					
Coal	2 139 261	2 644 583	3 442 858	4 460 192	2 854 353
Lignite	173 939	262 155	392 885	228 644	...
Yugoslavia					
Anthracite	246 578	210 984	174 089	225 661	186 579
Other coal	4 033 498	3 812 619	3 818 760	3 631 351	3 282 876
Brown coal	115 414	56 821	34 381	2 444	12 892
Briquettes	46 657	129 884	125 821	22 709	13 510
Algeria	1 138 456	1 009 325	1 371 465	...	...
Botswana	27 076	27 414	...	...	...
Egypt	1 266 273	1 185 127	1 311 107	...	...
Ghana	2 062	77	—	...	...
Kenya	96 423	74 707	91 784	130 791	...
Madagascar	439	11 988	11 686	...	13 371
Malawi	32 850	27 746	26 000	...	...
Morocco	420 743	755 041	1 040 745	1 018 299	...
Mozambique	57 790	7 857	39 416	...	...
Tanzania	20 290	13 099	28 009	4 130	...
Tunisia	20 661	12 258	11 951	28 505	11 588
Zaire	*60 000	*65 000	*62 000	...	...
Zimbabwe	41 169	51 321	47 708	...	...
Canada					
Anthracite	235 228	342 143	277 913	407 199	422 178
Other coal	14 781 199	13 026 147	13 872 312	15 258 058	15 020 145
Cuba	89 718	83 113	58 814	60 819	...
Mexico					
Coal	1 064 014	239 870	20 163	76 242	...
Lignite	6 744	3 592	3 180	4 232	...
USA					
Anthracite	...	...	...	...	382 847
Other coal	(c)1 771 204	(c)2 006 425	(c)1 611 769	(c)1 935 959	2 111 797
Briquettes	72 896	19 242	142 541	74 002	99 262
Argentina	763 838	1 091 563	1 110 223	1 252 053	...
Brazil					
Anthracite	26 622	34 716	30 709	156 866	...
Other coal	8 233 640	8 910 793	10 559 811	10 554 775	(c)10 535 000
Chile	370 950	487 616	499 288	417 559	...
Peru	51 364	26 573	26 450	53 517	61 504
Venezuela	46 821	51 980	29 169	40 973	...
China	2 310 000	2 470 000	1 942 185	1 692 902	2 191 274
Cyprus	61 748	54 638	151 423	...	...
Hong Kong	5 523 189	6 392 528	8 009 570	9 266 528	9 927 839
India (c)(d)	2 396 808	2 345 848	2 861 023	4 488 209	...
Indonesia	45 833	335 600	2 076 520	1 035 432	1 299 378
Iran (b)	100 895	134 781	267 410	120 605	...
Israel	3 063 000	3 084 000	3 518 000	...	...
Japan					
Anthracite	1 950 132	1 970 840	1 876 376	2 453 917	2 272 209
Other coal	91 039 940	89 376 192	90 678 010	101 726 899	102 729 332
Lignite	31 585	25 415	42 541	32 455	26 737
Korea, Dem. P.R. of	*2 500 000	*2 500 000	*2 500 000	...	...

Coal

Imports of Coal

tonnes

Country	1985	1986	1987	1988	1989
Korea, Republic of					
Anthracite	2 658 937	4 482 657	3 432 671	2 803 007	1 516 883
Other coal	17 131 446	16 436 470	18 385 997	21 913 035	23 499 690
Briquettes	75 465	54 206	39 272	20 990	31 087
Malaysia					
Anthracite	15 722	4 787	42 416	13 450	...
Other coal	476 107	375 625	477 427	694 832	1 021 454
Lignite	...	...	...	127 647	186 180
Myanmar	*40 000	*40 000	*40 000	...	...
Pakistan (f)	715 569	797 750	832 196	814 459	...
Philippines	1 152 634	960 102	469 990	1 255 437	883 983
Taiwan	10 270 099	11 003 486	13 381 901	17 887 678	17 013 984
Thailand					
Coal (c)	245 646	182 584	254 408	292 300	...
Australia	26 640	1 654	1 562	26 665	...
New Caledonia	220 855	202 885	149 691	163 507	199 200

- (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

Cobalt

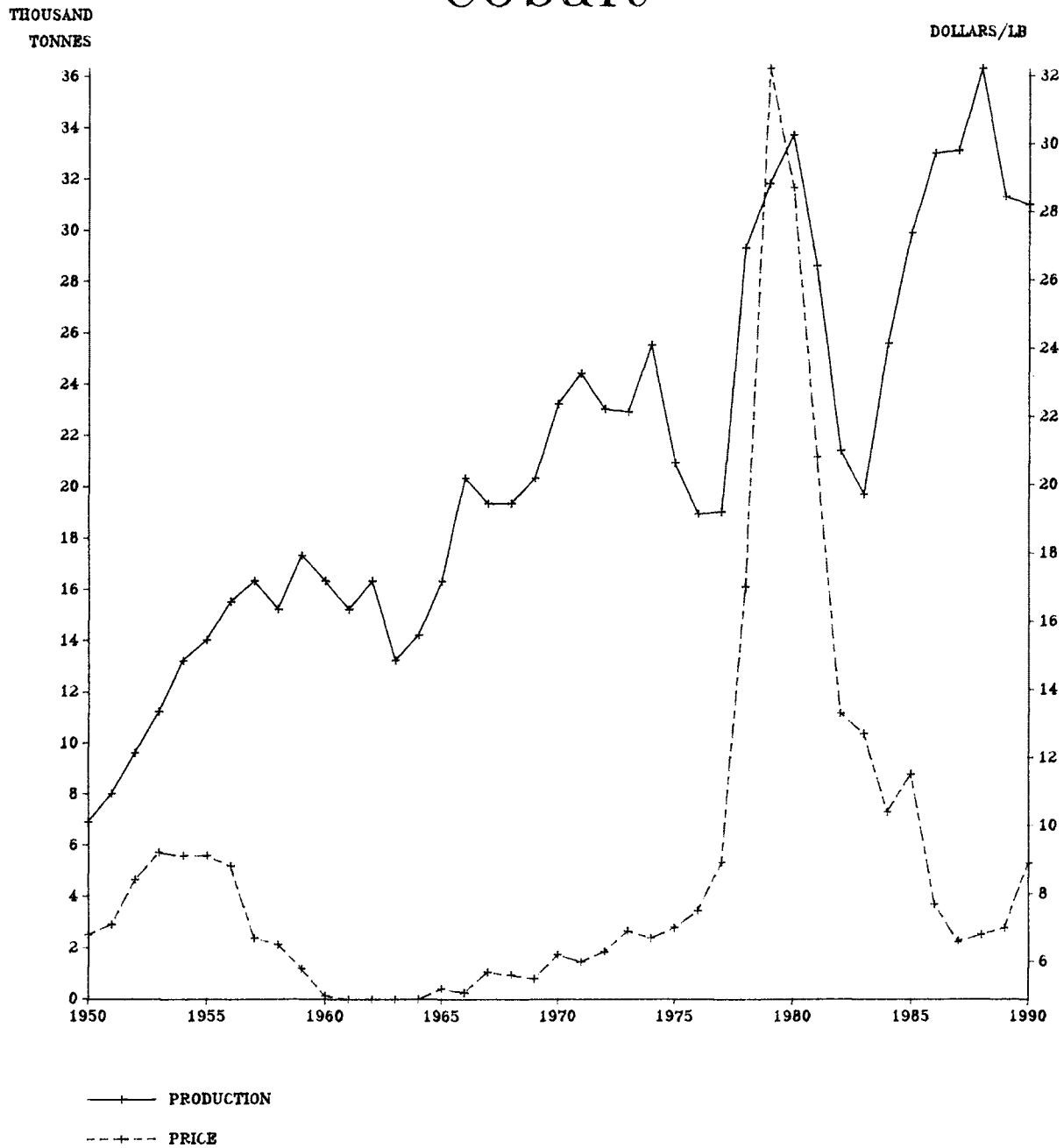


Figure 6 World mine production of cobalt compared with the annual average US producer price and, from 1984, the annual average New York spot cathode price, expressed in constant 1985 US dollars.

Mine Production of Cobalt

tonnes (metal content)

Country	1985	1986	1987	1988	1989
Albania	*600	*600	*600	*600	*600
Finland	724	631	187	—	—
Soviet Union	*2 700	*2 800	*2 800	*2 850	*2 850
Botswana	222	162	182	298	215
Morocco	—	—	259	278	287
South Africa	*500	*650	*720	*750	*750
Zaire	10 571	14 518	11 871	13 200	9 311
Zambia	4 415	4 344	4 479	5 025	4 488
Zimbabwe	91	76	111	122	111
Canada	2 067	2 297	5 490	6 234	6 167
Cuba	1 513	1 578	1 613	1 783	1 824
Brazil	600	500	500	500	400
China	*270	*270	*270	*270	*270
Philippines	911	92	—	—	—
Australia	3 036	2 914	2 715	2 443	*2 400
New Caledonia	2 171	1 936	1 724	2 137	2 885
World total	30 400	33 400	33 500	36 500	32 600

Note(s):

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

Production of Cobalt Metal

tonnes

Country	1985	1986	1987	1988	1989
Belgium (a)	...	...	...	...	...
France	123	...	...	...	...
Germany, Federal Republic of	...	502	475	656	733
Albania	...	...	*230	*350	*500
Czechoslovakia (b)	...	...	...	...	...
Finland	2 230	947	516	436	403
Norway	1 525	1 528	1 578	1 851	1 946
Soviet Union	*4 800	*5 300	*5 300	*5 300	*5 300
South Africa (c)	*500	*500	*520	*520	*500
Zaire	10 571	14 518	11 871	13 200	9 311
Zambia	4 415	4 344	4 479	5 025	4 488
Canada	2 054	2 283	2 527	2 356	2 109
China	*270	*270	*270	*270	*270
Japan	1 320	1 340	124	109	102
World total	27 800	31 500	27 900	30 100	25 700

Note(s):

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

Exports of Cobalt

Country	1985	1986	1987	1988	1989
United Kingdom					
Metal	754	711	928	820	1 089
Oxides	430	601	780	1 004	1 200
Belgium-Luxembourg (a)					
Metal	*1 600	*1 800	*1 500	*1 900	*2 900
Oxides	*1 000	*1 400	*1 500	*1 500	*1 400
France					
Metal	964	682	580	617	966
Oxides	9	7	31	33	55
Germany, Federal Republic of					
Metal	913	1 589	1 182	1 236	1 084
Oxides	87	57	40	37	50
Italy					
Metal	56	86	82	74	123
Oxides	20	43	1	213	218
Netherlands					
Metal	286	35	39	47	91
Oxides	48	78	123	41	24
Spain	104	63	29	1	6
Austria					
Oxides	31	16	22	29	—
Finland					
Metal	1 108	925	481	282	288
Oxides	535	522	676	1 772	1 539
Norway	1 529	1 638	1 613	1 740	1 962
Sweden					
Metal	125	78	76	325	217
Oxides	0	0	0	155	141
Morocco					
Ore	—	...	...	2 148	...
South Africa (d)	*150	*100	*100	*500	*300
Zaire	9 298	13 800	9 367	8 700	...
Zambia	1 505	743	9 909	5 891	...
Canada					
Metal	1 552	1 805	1 875	3 062	3 245
Oxides	268	374	440	953	371
Cuba					
Oxide, sinter & sulphide (b)	*1 500	*1 600	*1 600	*1 800	*1 800
USA					
Metal	648	845	683	903	538
Oxides	424	358	378	419	606
China					
Oxides (d)	*10	*40	*40	*60	*70
Hong Kong					
Oxides (c)	29	31	21	14	33
Japan					
Metal	...	...	...	207	355
Oxides	12	24	21	48	21
Korea, Republic of					
Oxides	31	21	42	16	47

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

(b) Co content

(c) Re-exports

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

Cobalt

Imports of Cobalt

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Metal	1 692	2 387	2 253	2 898	2 588
Oxides	377	526	636	645	500
Belgium-Luxembourg					
Metal	13	161	494	417	202
Oxides	35	64	89	146	142
Denmark					
Metal	25	23	22	24	20
Oxides	6	9	30	53	9
France					
Metal	1 376	1 242	1 144	1 563	1 518
Oxides	202	281	389	286	357
Germany, Federal Republic of					
Metal	2 122	2 848	2 476	2 773	2 690
Oxides	441	374	311	383	387
Italy					
Metal	415	612	613	539	604
Oxides	230	235	290	454	473
Netherlands					
Metal	177	66	156	24	50
Oxides	253	280	372	321	285
Portugal					
Oxide	8	15	20	65	13
Spain					
Metal	131	194	208	264	238
Oxides	97	113	140	179	214
Austria					
Metal	...	...	...	347	388
Oxides	6	11	30	28	28
German Democratic Republic (b)	*100	*100	*100	*10	*20
Norway					
Metal	491	370	1	9	1
Oxides	9	1	1	33	163
Sweden					
Metal	488	437	335	585	599
Oxides	8	10	10	12	5
Turkey					
Oxides	35	54	54	49	...
Yugoslavia					
Metal	...	...	...	51	73
Oxides	43	33	47	50	47
South Africa					
Metal	177	157	115	115	241
Oxides	17	...	15	21	17
Canada	...	...	...	768	716
Mexico					
Metal	125	71	58	112	96
Oxides	100	151	158	136	...
USA					
Metal	7 526	5 291	8 443	6 562	6 011
Oxide	111	232	361	337	380
Argentina	25	31	41	36	...
Brazil					
Metal	405	585	508	511	...
Oxide	10	15	26	29	...
Venezuela					
Oxides	24	13	34	...	...
Hong Kong					
Oxide	19	49	20	32	164
India (a)	141	263	148	273	...
Indonesia					
Oxides	33	27	64	24	27

Imports of Cobalt

Country	1985	1986	1987	1988	1989
Japan					
Metal	2 323	3 468	4 775	4 934	3 377
Oxide	259	460	432	455	449
Korea, Republic of					
Metal	148	444	276	404	436
Oxides	8	29	56	64	74
Malaysia					
Metal	90	367	168	346	431
Oxides	22	12	8	24	21
Saudi Arabia					
Oxides	—	130	575	364	106
Taiwan					
Metal	...	...	...	159	118
Oxides	23	66	99	109	102
Australia					
Metal	34	29	27	29	...
Oxide	46	33	46	94	...

(a) Years ended 31 March following that stated

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

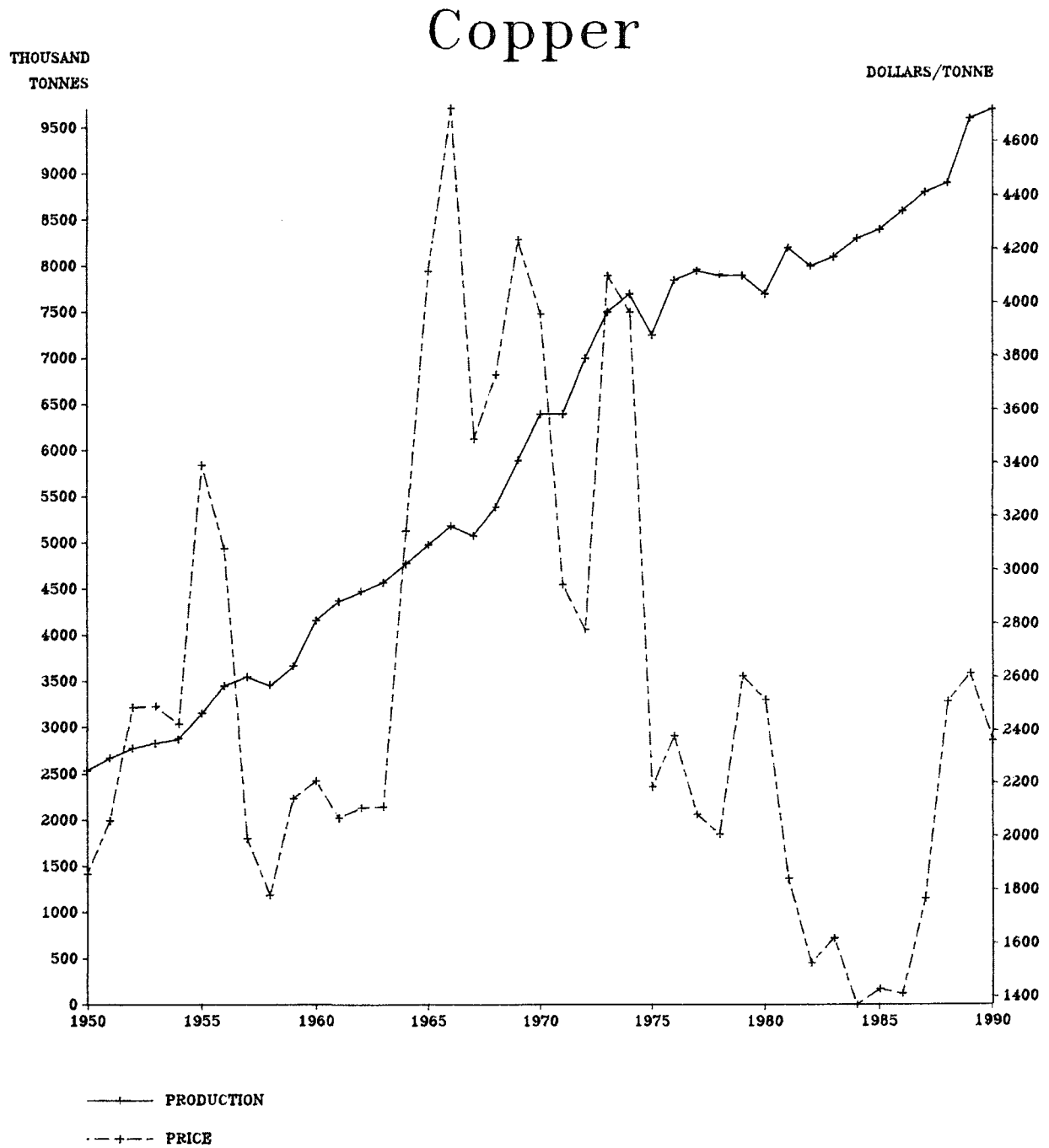


Figure 7 World mine production of copper compared with the annual average LME price of electrolytic wirebars and, from 1982, the LME price of copper higher grade, expressed in constant 1985 US dollars.

Mine Production of Copper

tonnes (metal content)

Country	1985	1986	1987	1988	1989
United Kingdom	592	602	750	732	508
France	253	294	291	509	1 027
Germany, Federal Republic of	900	800	1 500	700	100
Greece	300	300	1 000	—	—
Italy	127	—	—	—	—
Portugal	314	271	203	8 221	98 017
Spain	60 960	51 084	16 213	13 830	14 165
Albania	10 300	12 500	13 800	14 000	15 800
Bulgaria	*58 000	*60 000	*60 000	*50 000	50 000
Czechoslovakia	10 100	8 500	9 400	9 700	8 000
Finland	30 415	27 463	21 593	18 420	23 820
German Democratic Republic	12 600	11 500	10 000	6 400	4 500
Norway	19 252	29 572	23 235	18 655	16 497
Poland	432 000	435 000	438 000	459 000	401 000
Romania	*30 000	*35 000	*38 000	*40 000	42 900
Soviet Union	*1 030 000	*1 030 000	*1 010 000	*990 000	*950 000
Sweden	91 867	87 871	86 113	75 032	71 238
Turkey	29 860	26 085	31 531	37 746	45 400
Yugoslavia	142 479	138 544	130 470	103 523	139 631
Algeria	200	200	200	—	—
Botswana	21 692	21 337	18 934	24 428	23 403
Congo	100	700	320	520	—
Morocco	19 678	18 599	13 944	13 284	14 100
Mozambique	124	273	151	139	88
Namibia	43 128	47 111	37 993	42 899	32 792
South Africa	205 052	192 936	197 913	178 171	191 577
Zaire	504 235	502 600	501 864	465 074	440 600
Zambia	510 800	512 858	527 000	518 062	540 079
Zimbabwe	20 700	20 600	18 800	16 116	15 800
Canada	(a)738 637	(a)698 527	802 181	776 482	723 052
Cuba	3 076	3 257	3 461	2 951	2 759
Honduras	3 329	424	306	538	244
Mexico	167 977	174 558	230 573	268 359	249 328
USA	1 102 600	1 144 200	1 243 600	1 419 700	1 497 500
Argentina	391	317	379	492	653
Bolivia	1 665	338	9	153	298
Brazil	40 999	40 183	40 332	44 845	44 440
Chile	1 356 200	1 401 100	1 418 100	1 451 000	1 609 300
Peru	385 000	386 060	406 430	298 332	364 073
China	*270 000	*300 000	*350 000	*370 000	*380 000
Cyprus	1 065	559	97	383	485
India	48 000	49 160	54 085	51 463	53 342
Indonesia	88 750	100 490	105 346	126 200	135 035
Iran	*40 000	*50 000	*40 000	*51 000	*68 000
Japan	43 208	34 924	23 817	16 666	14 650
Korea, Dem. P.R. of	*10 000	*10 000	*12 000	*12 000	*12 000
Korea, Republic of	308	215	249	36	4
Malaysia	30 506	28 301	29 861	22 014	23 565
Mongolia	*100 000	*120 000	*120 000	*130 000	*135 000
Myanmar	16 700	10 100	10 600	4 700	5 000
Oman	17 600	16 700	16 900	18 100	16 600
Philippines	222 189	217 023	214 103	216 465	196 422
Australia	259 765	248 368	232 695	243 800	296 000
Papua New Guinea	175 048	178 913	217 699	218 633	201 025
World total	8 400 000	8 500 000	8 800 000	8 800 000	9 200 000

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

Copper

Smelter Production of Copper

tonnes

Country	1985	1986	1987	1988	1989
Belgium	*900	*900	*100	*200	—
Germany, Federal Republic of	152 400	161 900	168 900	162 500	176 900
Portugal	1 000	*1 000	200	—	—
Spain	88 000	103 500	104 700	*115 000	*120 000
Albania	11 000	13 000	14 000	15 000	15 000
Bulgaria	50 000	50 000	60 000	60 000	57 000
Czechoslovakia	33 400	31 686	34 415	34 792	36 832
Finland	71 285	90 085	101 955	95 745	99 147
German Democratic Republic	63 500	64 000	64 000	61 000	62 000
Hungary	3 318	3 552	3 524	3 593	4 287
Norway	37 828	35 202	30 101	31 730	34 980
Poland	380 000	366 400	367 300	469 560	460 519
Romania	39 871	40 977	37 970	38 697	39 397
Soviet Union	*1 140 000	*1 155 000	*1 140 000	*1 110 000	*1 075 000
Sweden	74 668	83 358	92 909	93 653	69 977
Turkey	33 884	35 466	19 247	12 910	21 129
Yugoslavia	137 073	127 236	103 399	106 457	101 606
Namibia	47 611	50 145	37 653	42 163	37 978
South Africa	168 400	184 000	189 800	180 600	184 800
Zaire (a)	471 536	476 003	472 303	439 500	424 500
Zambia (a)	544 176	514 090	523 226	466 756	485 199
Zimbabwe	24 400	29 600	30 000	27 500	23 100
Canada	489 649	450 219	473 979	478 300	459 400
Mexico	75 758	84 978	133 850	138 700	188 625
USA	940 681	908 087	972 141	1 042 954	1 479 500
Brazil	93 880	115 990	146 969	147 880	153 376
Chile	1 088 400	1 123 900	1 106 900	1 189 400	1 266 600
Peru	354 021	313 700	311 800	239 151	309 348
China	*265 000	*350 000	*417 000	*425 000	*430 000
India	33 557	39 291	32 923	44 284	42 456
Iran	*40 000	*50 000	*40 000	*52 000	76 000
Japan	932 560	962 128	980 191	994 045	1 005 534
Korea, Dem. P.R. of	*30 000	*30 000	*30 000	*29 000	*30 000
Korea, Republic of	112 700	123 200	143 800	123 500	159 600
Oman	18 800	19 600	20 600	21 700	19 600
Philippines	133 826	143 678	164 476	159 218	156 268
Taiwan	60 600	63 800	61 500	56 400	61 900
Australia	167 669	169 622	172 873	177 669	203 000
World total	8 400 000	8 600 000	8 800 000	8 900 000	9 600 000

Note(s):

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

(a) Including leach cathodes

Production of Refined Copper

Country	1985	1986	1987	1988	1989
United Kingdom	125 426	125 574	122 287	123 958	119 033
Belgium	412 600	414 200	407 500	392 900	397 000
France	43 699	41 294	39 323	43 239	43 163
Germany, Federal Republic of	414 165	421 918	572 348	596 153	645 207
Italy	64 300	65 400	65 000	75 400	83 300
Portugal	4 500	5 300	5 300	5 400	—
Spain	151 700	155 075	151 410	158 756	165 700
Albania	*12 000	11 000	11 000	13 000	13 000
Austria	33 627	32 580	32 924	38 378	46 267
Bulgaria	53 000	54 000	56 000	*58 000	55 800
Czechoslovakia	26 414	26 182	27 202	27 076	26 920
Finland	58 766	64 235	59 538	55 846	55 751
German Democratic Republic	95 400	*90 000	*85 000	85 000	80 000
Hungary	23 018	22 097	23 251	15 627	13 137
Norway	31 074	30 459	29 387	31 730	34 980
Poland	387 000	388 000	390 200	400 560	390 268
Romania	*42 000	*40 000	*41 000	*42 000	48 000
Soviet Union	*1 400 000	*1 400 000	*1 410 000	*1 380 000	*1 355 000
Sweden	57 229	84 500	91 905	90 292	94 745
Turkey	60 600	75 100	75 600	68 400	75 600
Yugoslavia	135 442	140 393	138 867	145 376	151 035
Egypt	4 013	3 671	1 141	8 427	*4 000
South Africa	145 500	143 200	146 500	136 700	144 200
Zaire	221 483	217 959	210 218	202 790	203 800
Zambia	479 446	460 437	483 040	422 252	450 910
Zimbabwe	22 500	25 300	23 000	27 500	24 000
Canada	499 626	493 445	491 124	528 723	515 216
Mexico	81 039	75 478	118 040	137 300	140 305
USA	1 429 000	1 479 900	1 541 600	1 852 000	1 953 800
Argentina	*13 000	*11 000	*13 000	*12 500	11 000
Brazil	93 880	115 990	146 969	147 880	153 376
Chile	884 300	942 300	970 300	1 012 700	1 071 000
Peru	227 000	229 200	224 808	174 746	224 260
China	*340 000	*350 000	*450 000	*460 000	*470 000
India	28 948	36 888	30 807	40 100	41 843
Iran	*12 000	*12 000	*30 000	*32 000	*40 000
Japan	935 977	943 037	980 349	955 108	989 566
Korea, Dem. P.R. of	*38 000	*40 000	*40 000	*40 000	*40 000
Korea, Republic of	159 242	177 841	157 922	170 541	178 665
Oman	14 323	14 561	15 490	16 267	14 963
Philippines	130 300	134 547	132 112	132 183	132 193
Taiwan	46 734	50 439	46 961	43 333	43 237
Australia	194 339	185 071	207 768	222 707	255 000
World total	9 600 000	9 800 000	10 300 000	10 600 000	11 000 000

Note(s):

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

Exports of Copper

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Ore & matte	3 432	6 376	2 990	4 310	1 401
Unwrought	14 990	15 765	18 685	13 800	11 050
Unwrought alloys	16 561	14 147	15 581	19 585	19 400
Scrap	109 108	125 322	123 013	125 557	127 878
Belgium-Luxembourg					
Ore	532	573	727	263	113
Burnt cupreous pyrites	3 935	27	3 672	...	...
Unwrought	207 177	232 517	249 270	...	...
Unwrought alloys	10 032	10 666	8 913	7 850	11 005
Scrap	30 411	28 288	32 485	46 016	65 906
Denmark					
Unwrought	521	400	53	209	273
Unwrought alloys	1 044	1 666	1 674	494	1 731
Scrap	15 786	14 199	18 857	23 775	23 924
France					
Ore	341	608	409	1 707	996
Matte & cement	2 042	1 171	436	578	215
Unwrought					
Unrefined	7 318	4 045	7 508	5 638	7 971
Refined	7 188	9 220	3 900	6 195	7 036
Alloys	2 404	2 046	1 878	12 082	13 651
Scrap	128 625	121 832	139 481	174 213	188 955
Germany, Federal Republic of					
Matte & cement	627	828	194	7	1 644
Unwrought					
Unrefined	18 475	14 018	5 109	822	1 497
Refined	72 294	72 945	89 977	73 849	83 396
Alloys	14 798	15 133	11 981	14 987	13 542
Scrap	77 294	70 084	96 068	120 925	143 471
Irish Republic					
Unwrought	1 062	825	209	280	74
Scrap	6 928	6 312	9 783	10 121	10 061
Italy					
Ore	1 685	25	—	521	974
Matte & cement	1 192	11	751	156	101
Unwrought	11 100	5 074	4 436	13 078	15 175
Unwrought alloys	3 011	3 712	4 994	8 326	6 912
Scrap	14 814	10 927	16 476	19 447	26 324
Netherlands					
Unwrought	1 379	602	2 577	1 657	2 517
Unwrought alloys	8 082	5 464	4 793	5 115	8 146
Scrap	73 072	63 208	83 853	96 744	105 708
Portugal					
Ore	—	1	8 211	49 412	442 029
Unwrought	4 187	1 565	4	3 081	1 577
Scrap	575	1 715	1 387	5 402	3 903
Spain					
Ore	74 975	59 397	47 402	24 009	24 910
Burnt cupreous pyrites	2 210	—	3 274	...	...
Matte	1 959	3 133	3 778	4 486	4 458
Unwrought	69 447	65 361	42 525	39 642	41 794
Unwrought alloys	3 049	1 101	1 601	1 059	476
Scrap	569	605	967	11 741	17 112
Austria					
Unwrought	21 113	19 512	18 200	18 254	28 203
Unwrought alloys	5 646	4 816	5 647	6 180	5 243
Scrap	19 525	18 655	16 534	25 360	15 717
Bulgaria					
Unwrought (f)	*600	*500	*800	*2 400	*500
Scrap (f)	*400	*600	*700	*1 500	*1 200
Czechoslovakia					
Scrap (f)	*1 000	*1 600	*5 000	*5 700	*3 400
Finland					
Ore	—	—	—	5 243	16 701
Unwrought					
Unrefined	8 564	15 676	20 869	23 811	22 675
Refined	8 481	4 867	8 693	15 241	18 873
Alloys	1 714	2 219	2 509	1 642	1 828
Scrap	2 275	1 162	1 650	3 596	4 621

Exports of Copper

Copper
tonnes

Country	1985	1986	1987	1988	1989
German Democratic Republic					
Unwrought (f)	*11 200	*14 700	*13 300	*12 700	*12 600
Hungary					
Scrap	2 457	1 704	1 528	1 223	4 077
Norway					
Ore	82 851	106 237	115 880	71 858	94 482
Unwrought					
Unrefined	5 949	5 288	705	10 236	24
Refined	28 360	29 270	30 160	29 075	33 706
Scrap	5 257	7 316	9 683	10 709	12 233
Poland					
Unwrought	181 948	169 431	161 632	166 520	157 247
Soviet Union					
Unwrought (f)	*91 500	*103 100	*141 100	*135 100	*172 700
Scrap (f)	*33 900	*27 200	*22 800	*27 100	*15 200
Sweden					
Ore	108 609	83 164	72 584	55 190	75 144
Unwrought					
Unrefined	38 623	18 461	13 113	4 929	20
Refined	12 209	37 887	40 161	41 737	33 151
Alloys	3 374	2 304	3 400	4 031	7 551
Scrap	3 642	4 866	8 059	3 658	6 347
Switzerland					
Unwrought					
Refined	2 593	60	3 715	4 425	1 457
Alloys	5 790	5 249	5 202	6 588	5 870
Scrap	13 268	12 244	17 723	23 721	27 701
Turkey					
Unwrought	5 717	4 614	6 554	5 458	...
Yugoslavia					
Ore	85 391	15 000	24 500	11 722	6 191
Matte	933	—	3 137	4 902	2 245
Unwrought	3 392	13 682	19 387	26 520	35 079
Scrap	2 436	1 634	20 828	4 326	1 672
Algeria					
Scrap	3 228	5 290	1 760	...	...
Botswana					
Matte (b)	19 400	17 400	18 800	25 400	21 000
Ivory Coast					
Matte & scrap	1 308	943	...	780	...
Morocco					
Ore	60 615	61 509	50 854	44 675	41 300
Matte	2 524	1 169	2 235	2 738	...
Scrap	2 361	1 934	...	3 312	...
Namibia					
Unwrought	41 281	41 951	37 147	39 049	33 306
Senegal					
Scrap	999	713	612	2 085	853
South Africa					
Ores & concentrates (b)	29 999	25 897	27 507	14 824	18 078
Unwrought	98 408	93 534	97 359	88 010	103 406
Scrap (f)	*17 000	*11 900	*7 700	*6 000	*12 500
Tunisia					
Scrap	1 655	1 051	2 088	6 916	5 735
Zaire					
Ores & concentrates	59 060	59 227	38 884	*47 000	*26 000
Unwrought					
Unrefined (e)	236 321	275 733	254 329	233 376	221 400
Refined	226 354	222 785	204 867	198 307	201 600
Zambia					
Unwrought, refined	471 249	466 346	543 525	417 416	456 365
Zimbabwe					
Unwrought	35 598	21 660	20 912	19 800	...
Canada					
Ores & concentrates (b)	(i)320 617	(i)341 392	(i)381 123	334 159	342 378
Matte & cement (b)	...	...	...	10 952	18 796
Unwrought	280 043	306 892	288 811	264 045	322 017
Unwrought alloys	...	...	...	5 909	4 262
Scrap	62 995	70 753	72 102	76 959	67 327

Copper

Exports of Copper

tonnes

Country	1985	1986	1987	1988	1989
Cuba					
Concentrates (b)	3 118	2 593	3 378	3 108	...
Scrap (a)	7 450	6 165	7 932	4 213	1 804
Mexico					
Concentrates	341 800	298 709	367 400	346 684	220 800
Unwrought, unrefined	11 536	21 967	10 209	28 270	48 811
USA					
Ores & concentrates (b)	116 310	174 348	124 751	192 406	360 494
Unwrought					
Unrefined	17 984	15 967	12 339	33 337	5 475
Refined	52 820	12 477	9 196	60 633	145 769
Alloys	11 895	3 838	9 787	8 856	6 641
Scrap	281 574	299 667	301 971	320 751	369 697
Bolivia					
Ore	*2 200	1 668	45	...	...
Chile					
Ores & concentrates (b)	271 200	273 900	280 800	241 700	317 800
Matte & cement (b)	900	—	—	2 300	7 900
Unwrought					
Unrefined	189 900	199 400	139 900	161 900	168 600
Refined	891 900	899 800	942 500	975 500	1 061 300
Scrap	1 800	2 900	3 800	3 100	2 800
Colombia					
Ore	300	1 705	...	...	...
Peru					
Ore (f)	*159 200	*273 500	*269 300	*208 000	*202 600
Unwrought					
Unrefined	126 705	94 731	87 033	54 989	89 777
Refined	182 588	193 028	179 795	147 377	167 538
China					
Unwrought	(f)*600	(f)*300	5 565	49 144	11 770
Scrap (f)	*1 000	*2 100	*7 100	*17 300	*14 800
Cyprus					
Cement copper	1 692	1 148	304	600	955
Dubai					
Scrap	4 920	6 025	...	...	...
Hong Kong					
Unwrought (h)	4 001	1 630	3 791	32 887	6 599
Scrap	24 444	27 948	39 955	62 367	69 626
India (g)					
Ores & concentrates	45 350	7 900	18 000	14 000	...
Indonesia					
Ores & concentrates	204 421	298 584	250 770	299 665	321 745
Iran (c)					
Ore	8 000	...	30 000	...	...
Unwrought (f)	...	*25 500	*12 200	*10 000	*16 200
Israel					
Scrap	2 115	2 288	1 006	2 949	4 961
Japan					
Unwrought	58 621	85 084	73 067	78 494	68 625
Scrap	549	5 163	5 831	6 933	18 816
Jordan					
Scrap	1 224	1 060	238	1 529	...
of which: Re-exports	20	457	238	563	...
Korea, Republic of					
Unwrought	4 035	5 756	3 663	20 979	35 225
Scrap	751	1 180	443	1 274	2 080
Malaysia					
Ore	125 767	118 930	122 103	85 872	102 298
Scrap	12 354	14 637	14 551	17 922	...
Myanmar (g)					
Ores & concentrates	20 500	46 003	37 000	*37 400	...
Oman					
Unwrought	12 725	16 309	15 300	16 300	15 100
Pakistan (d)					
Scrap	21 671	1 010	181	1 295	...

Exports of Copper

Country	1985	1986	1987	1988	1989
Philippines					
Ores & concentrates	344 201	359 781	361 952	450 330	426 191
Unwrought	129 901	131 218	106 529	126 731	114 273
Scrap	6 979	8 150	8 150	2 702	3 960
Saudi Arabia					
Unwrought	889	2 277	3 189	2 911	3 192
Scrap	21 437	19 453	23 961	23 224	22 830
Singapore					
Unwrought	4 525	7 086	12 499	60 654	53 903
of which: Re-exports	4 515	6 999	12 403	60 603	53 591
Scrap	21 726	23 757	29 639	37 356	40 426
Taiwan					
Unwrought	89	49	664	2 972	2 983
Scrap	7 452	6 187	10 073	16 395	15 665
Australia					
Ores & concentrates	269 898	233 263	149 156	195 798	196 900
Matte & cement	8 000	—	—	1 310	...
Unwrought					
Unrefined	40	—	3 502	1 009	3 733
Refined	71 482	66 820	81 580	92 743	125 722
Alloys	1 525	1 525	1 775	4 514	...
Scrap	318	175	439	44	...
New Zealand (d)					
Unwrought	9	32	1	2	288
Scrap	1 339	744	1 260	2 499	2 567
Papua New Guinea					
Ores & concentrates (b)	168 712	178 774	216 731	221 891	226 000

Note(s):

- (1) In this table the term 'unwrought' copper corresponds to item 682.1 of the Standard International Trade Classification (Revision 3) and includes both unrefined (including blister) and refined copper
 - (2) The term 'unwrought' as used here includes alloys unless these are separately specified. The term 'scrap' includes scrap alloys
- (a) Imports into the Netherlands
 - (b) Cu content
 - (c) Years ended 20 March following that stated
 - (d) Years ended 30 June of that stated
 - (e) Including leach cathodes
 - (f) BGS estimates, based on known imports into certain countries
 - (g) Years ended 31 March following that stated
 - (h) Re-exports
 - (i) Including matte and cement

Copper

Imports of Copper

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Ore & matte	1 245	10	68	801	950
Unwrought					
Unrefined	65 366	79 522	72 642	61 754	65 293
Refined	247 875	263 454	239 214	246 103	259 584
Alloys	887	1 141	1 331	4 610	1 508
Scrap	13 328	10 540	14 344	18 893	23 123
Belgium-Luxembourg					
Ore	3 315	3 722	912	1 434	2 368
Burnt cupreous pyrites	1 331	24	—	...	...
Unwrought					
Matte, cement & unrefined	215 520	239 974	179 036	...	...
Refined	199 548	215 181	209 646	...	...
Alloys	6 415	8 940	5 837	5 561	16 920
Scrap	152 481	119 423	147 257	208 488	191 150
Denmark					
Unwrought	125	72	50	205	340
Unwrought alloys	1 876	1 933	1 892	1 402	1 972
Scrap	4 487	7 172	7 215	11 585	16 558
France					
Ore	283	79	93	4 566	137
Burnt cupreous pyrites	4 834	4 564	11 082	—	—
Matte & cement	—	946	20	5 446	91
Unwrought					
Unrefined	21 284	22 301	19 025	15 137	20 732
Refined	325 429	334 529	353 544	379 216	411 534
Alloys	4 717	4 832	4 125	6 681	6 548
Scrap	34 412	43 114	43 973	52 634	67 093
Germany, Federal Republic of					
Ore	549 080	581 423	435 670	553 600	621 619
Burnt cupreous pyrites	40 852	45 961	32 289	...	...
Matte & cement	7 086	8 543	12 064	12 892	8 543
Unwrought					
Unrefined	77 989	69 778	49 038	43 722	55 586
Refined	442 128	447 922	395 982	433 407	459 577
Alloys	41 928	35 958	43 848	40 682	52 923
Scrap	269 855	248 067	248 301	295 279	364 619
Greece					
Matte & cement	9 959	12 486	6 803	...	...
Unwrought	22 614	28 217	38 677	51 200	49 900
Unwrought alloys	167	129	394	...	...
Scrap	0	8	452	...	...
Irish Republic					
Unwrought	246	179	185	551	194
Scrap	380	152	86	127	437
Italy					
Unwrought					
Unrefined	13 810	5 182	8 176	4 020	992
Refined	332 813	349 116	371 763	377 363	389 998
Alloys	16 822	15 648	21 085	16 199	17 559
Scrap	120 860	145 097	134 278	136 953	163 875
Netherlands					
Unwrought	19 669	23 095	24 086	22 036	20 508
Unwrought alloys	1 613	1 006	1 038	1 130	2 166
Scrap	62 001	57 512	62 487	57 453	71 478
Portugal					
Ore	3 052	0	0	—	0
Unwrought	13 793	12 146	29 943	25 833	24 105
Scrap	109	309	1 546	264	1 399
Spain					
Ore	125 318	249 641	346 867	381 180	367 532
Matte & cement	3 126	2 216	226	24	897
Unwrought					
Unrefined	23 570	18 290	2 301	25	2 173
Refined	23 346	31 471	13 597	7 554	21 460
Alloys	1 277	1 995	3 697	5 203	3 829
Scrap	31 075	29 976	32 943	49 944	50 704

Imports of Copper

Country	1985	1986	1987	1988	1989
Austria					
Unwrought					
Unrefined	9 724	5 021	4 373	3 850	2 824
Refined	2 292	5 777	2 813	6 023	2 817
Alloys	1 299	1 700	1 715	1 539	1 651
Scrap	44 156	31 960	45 299	49 652	32 225
Bulgaria					
Unwrought (a)	*2 000	*1 000	*3 700	...	*500
Czechoslovakia					
Unwrought	67 000	65 000	69 000	35 000	32 000
Finland					
Ore	152 619	187 820	236 919	249 107	209 136
Unwrought					
Refined	21 873	15 909	26 714	30 995	39 013
Alloys	483	686	524	1 030	2 111
Scrap	438	114	2 299	7 462	3 392
German Democratic Republic					
Ores & concentrates (a)	*10 700	*11 400	*17 400	*20 800	*16 600
Unwrought (a)	*50 900	*51 800	*58 500	*76 400	*58 400
Scrap (a)	*25 800	*24 000	*25 200	*24 900	*25 300
Hungary					
Unwrought (c)	28 129	36 600	41 953	32 038	21 275
Scrap	6 051	6 041	4 286	4 721	2 951
Norway					
Matte	2 488	584	27	12	228
Unwrought	330	290	133	343	105
Unwrought alloys	2 387	2 791	2 498	1 904	2 276
Scrap	526	56	309	71 509	715
Poland					
Unwrought	19 991	18 211	18 846	14 021	7 993
Romania					
Unwrought (a)	*10 700	*11 000	*3 900	*2 700	*2 500
Soviet Union					
Ore (a)	*11 000	*4 000	*400	...	...
Unwrought	*7 000	*1 000	*1 000	*1 000	...
Sweden					
Ore	88 957	37 710	56 037	83 977	47 017
Matte & cement	4 963	7 012	5 219	3 423	1 957
Unwrought	57 857	57 149	46 551	61 405	65 512
Unwrought alloys	3 417	5 086	4 968	5 204	7 869
Scrap	19 706	10 559	19 951	15 945	9 195
Switzerland					
Unwrought					
Refined	11 637	13 707	7 594	6 583	7 695
Alloys	1 403	1 512	1 148	1 189	1 248
Scrap	6 845	6 263	4 064	4 106	5 288
Turkey					
Ore	33 168	42 614	150	812	89
Unwrought	35 452	54 346	73 108	47 978	...
Scrap	619	3	223	1 715	3 120
Yugoslavia					
Unwrought	33 032	19 519	20 929	20 219	20 522
Unwrought alloys	6 217	4 383	553	37	72
Scrap	947	206	403	11	508
Algeria					
Unwrought	480	1 158	418	500	...
Egypt					
Unwrought (b)	6	1 750	16	...	...
Morocco					
Unwrought	664	605	676	662	...
South Africa					
Ores & concentrates	...	100	110	5 555	8 329
Matte & cement	...	...	...	3 642	8 660
Unwrought	665	320	975	451	703
Unwrought alloys	56	120	121	136	228
Scrap	877	6 930	4 194	1 222	1 596
Zambia					
Ores & concentrates (d)	30 521	29 417	23 007	32 822	16 272

Imports of Copper

tonnes

Country	1985	1986	1987	1988	1989
Canada					
Ores & concentrates (d)	76 136	70 673	50 510	46 694	47 935
Unwrought	19 128	20 894	16 584	7 719	17 290
Unwrought alloys	11 424	13 283	16 795	1 953	1 694
Scrap	85 200	65 768	69 322	91 107	97 174
Cuba					
Unwrought	8 380	6 445	7 641	7 446	...
Mexico					
Unwrought & scrap	99 214	26 418	40 442	45 889	49 405
USA					
Ores & concentrates (d)	3 957	4 722	4 712	4 332	46 516
Matte (d)	3 906	668	6 787	5 738	2 251
Unwrought					
Unrefined	29 025	48 936	45 218	132 735	80 866
Refined	381 088	491 690	505 283	382 320	300 109
Alloys	12 989	16 781	15 084	11 281	4 745
Scrap	55 227	111 626	77 285	87 180	110 897
Argentina					
Unwrought, refined	28 046	48 188	50 889	31 949	15 108
Brazil					
Ores & concentrates	164 015	261 304	340 529	378 252	*350 000
Unwrought					
Unrefined	17 314	10 072	11 191	15 075	6 500
Refined	60 037	100 826	113 567	37 935	50 600
Scrap	3 227	8 884	19 346	3 622	...
Colombia					
Unwrought	2 401	711	300	359	...
Venezuela					
Unwrought					
Refined	6 402	11 274	24 681	27 225	*20 000
Alloys	221	910	1 152	2 144	...
China					
Ores & concentrates	(a)*212 100	(a)*244 700	(f)199 572	(f)172 999	(f)178 166
Unwrought	355 649	171 106	75 482	84 368	70 082
Scrap (a)	*7 300	*5 200	*8 000	*20 100	*51 900
Hong Kong					
Unwrought	5 391	2 356	9 577	30 542	9 207
Scrap	9 148	6 784	12 732	22 408	33 758
India (e)					
Unwrought	83 681	52 767	83 180	67 740	82 360
Scrap	29 021	40 198	31 836	67 783	29 676
Indonesia					
Unwrought	16 065	17 903	32 430	30 639	39 305
Unwrought alloys	231	391	289	382	293
Japan					
Ores & concentrates	3 009 571	3 036 896	2 981 054	3 435 547	3 372 960
Matte & cement	132	33	21	65	179
Unwrought	390 634	300 215	375 944	443 872	509 130
Unwrought alloys	2 517	2 819	4 481	4 979	6 084
Scrap	81 660	79 467	97 841	108 438	82 247
Korea, Republic of					
Ore	355 210	389 143	553 628	346 370	463 175
Matte & cement	33 127	18 897	9 941	25 114	13 086
Unwrought	60 275	99 682	120 011	147 960	115 233
Scrap	32 592	74 949	215 933	129 098	126 010
Malaysia					
Unwrought	20 745	8 827	19 027	32 878	48 495
Philippines					
Concentrates	—	—	22 005	107 030	119 691
Unwrought	5	8	544	2 483	2 331
Saudi Arabia					
Unwrought	4 105	14 381	17 406	9 902	4 722

Imports of Copper

Copper
tonnes

Country	1985	1986	1987	1988	1989
Singapore					
Unwrought	2 250	5 660	12 775	77 952	55 594
Scrap	3 587	7 401	7 873	13 367	12 646
Taiwan					
Ores & concentrates	160 931	179 704	153 155	118 023	152 261
Unwrought	47 665	109 475	166 902	176 690	278 665
Scrap	28 401	42 507	49 693	30 479	30 445
Thailand					
Unwrought	19 223	20 228	27 303	29 594	...
Scrap	49	10	530	2 087	...
Australia					
Scrap	1 161	1 247	2 295	2 769	...
New Zealand (g)					
Unwrought	3 427	1 627	1 481	3 195	6 007

Note(s):

- (1) In this table the term 'unwrought' copper corresponds to item 682.1 of the Standard International Trade Classification (Revision 3) and includes both unrefined (including blister) and refined copper
 - (2) The term 'unwrought' as used here includes alloys unless these are separately specified. The term 'scrap' includes scrap alloys
- (a) BGS estimates, based on known exports from certain countries
 - (b) Including matte and scrap
 - (c) Including semi-manufactures
 - (d) Cu content
 - (e) Years ended 31 March following that stated
 - (f) Including cement copper
 - (g) Years ended 30 June of that stated

Production of Diamond

carats

Country	1985	1986	1987	1988	1989
Soviet Union	*10 800 000	*10 800 000	*10 800 000	*11 000 000	*11 000 000
Angola	717 028	266 184	871 391	1 044 551	1 200 000
Botswana	12 634 000	13 138 000	13 225 344	15 229 000	15 252 000
Central African Republic	353 481	356 707	413 087	359 752	447 676
Ghana	636 000	559 200	442 100	215 900	290 945
Guinea	87 800	187 960	195 000	146 440	148 000
Ivory Coast (a)	5 000	13 581	67 365	116 543	...
Liberia (a)	137 572	242 152	294 996	167 030	154 554
Namibia	909 500	1 009 600	1 030 092	974 565	926 765
Sierra Leone	349 000	315 000	360 000	300 000	300 000
South Africa	10 205 936	10 226 963	9 050 992	8 504 016	9 115 880
Swaziland	21 128	39 144	*40 000	72 676	55 264
Tanzania	255 736	173 972	122 824	81 883	*100 000
Zaire	19 975 254	23 232 663	19 650 310	18 162 555	17 652 206
Brazil	*450 000	*625 000	*500 000	*533 000	*500 000
Guyana	11 868	9 379	7 469	4 357	8 054
Venezuela	215 272	211 731	112 812	128 405	254 570
China	*1 000 000	*1 000 000	*1 000 000	*1 000 000	*1 000 000
India	16 271	16 116	18 915	14 191	15 451
Indonesia	*27 000	*28 000	*29 000	*29 000	*32 000
Australia	7 070 062	29 232 453	30 331 701	34 826 000	35 079 000
World total	65 900 000	91 700 000	88 600 000	92 900 000	93 600 000

Note(s):

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

(a) Exports

Exports of Diamond

Country	1985	1986	1987	1988	1989
United Kingdom					
Industrial	6 463 161	7 835 713	9 811 635	15 218 700	23 245 260
Other	32 308 258	37 187 999	43 516 160	52 687 892	53 362 812
Belgium-Luxembourg					
Rough	44 561 153	55 514 230	61 175 323	69 309 541	73 010 340
Cut	3 932 737	3 889 064	4 297 277	4 716 709	4 683 881
Industrial	9 761 317	10 908 673	12 297 579	17 715 358	20 844 348
Dust	8 355 565	6 855 000	6 985 440	9 620 000	14 506 840
France					
Rough	79 648	3 878	6 675	7 932	12 298
Cut	75 929	24 083	45 342	31 013	43 982
Industrial	270 584	248 381	184 013	178 948	142 454
Dust	661 550	896 390	773 915	...	...
Germany, Federal Republic of					
Industrial	452 399	236 063	321 105	302 117	296 042
Other	127 319	174 259	173 268	186 461	188 724
Irish Republic					
Industrial	685 000	—	—	685 000	9 760 000
Italy					
Industrial	49 029	1 108	5 083	10 784	...
Other	1 954	2 341	250	18 928	...
Netherlands					
Rough	170 555	249 931	417 832	231 191	150 773
Cut	202 676	142 686	97 536	163 343	77 318
Industrial	762 316	1 183 953	1 023 087	898 393	783 373
Portugal	66 708	19 678	87 155	...	...
Spain					
Industrial	£794 000	£39 000	£27 000	£61 000	£165 000
Other	£2 706 000	£160 000	£310 000	£197 000	£406 000
Austria					
Industrial	20 000	5 000	240 000	65 000	100 000
Other	10 000	25 000	5 000	150 000	25 000
Malta	£2 697 000	£2 312 000	£2 189 000	£1 068 000	£1 521 000
Soviet Union (e)	*687 200	*1 033 000	*1 096 200	*894 000	*831 800
Sweden					
Industrial	£57 000	£33 000	£47 000	£53 000	£43 000
Other	£1 948 000	£1 243 000	£1 736 000	£1 360 000	£1 112 000
Switzerland					
Industrial	...	...	...	145 000	175 000
Other	...	...	...	13 770 000	12 970 000
Central African Republic					
Gem	238 800	353 316	410 938	356 852	458 727
Industrial	104 100	685	—	—	—
Ghana					
Industrial	642 000	561 618	397 000	...	...
Ivory Coast	5 000	13 581	67 365	116 543	...
Kenya	95 000	17 500	25 000	20 090	...
Liberia	137 572	242 152	294 996	167 030	154 554
Mauritius					
Industrial	—	—	£1 150	£1 572 900	£1 230 900
Other	£5 850 000	£8 216 000	—	£12 936 100	£12 929 400
Namibia	1 041 892	1 471 557	1 058 586	924 998	923 407
Sierra Leone					
Industrial	129 805	136 905	...	...	...
Other	91 046	168 377	...	...	...
South Africa (c)					
Industrial	£9 098 000	£1 292 000	£1 776 000	£238 209 000	£141 144 000
Other	£752 240 000	£714 917 000	£890 847 000	£449 250 000	£781 315 000
Tanzania	285 710	194 635	120 390	101 417	...
Tunisia					
Industrial	155 000	265 000	255 000	295 000	310 000
Other	445 000	780 000	655 000	805 000	680 000
Zaire	19 617 000	23 304 000	19 651 000	18 445 000	...
Canada					
Cut	55 134	49 414	47 669	59 740	175 352
of which: Re-exports	55 134	49 414	47 669	47 264	126 074
Industrial	342 232	539 194	187 413	249 981	195 252
of which: Re-exports	342 232	539 194	187 413	209 539	71 310
Dust	1 211 990	648 844	1 748 415	2 714 739	2 801 820
of which: Re-exports	1 211 490	647 138	1 738 250	2 244 108	2 794 020

Diamond

Exports of Diamond

carats

Country	1985	1986	1987	1988	1989
USA					
Rough	1 807 846	1 800 589	1 684 400	1 367 803	1 877 191
of which: Re-exports	1 805 471	1 797 509	1 684 200	1 367 597	1 866 832
Cut	572 452	726 420	845 868	767 275	778 548
of which: Re-exports	134 407	168 441	258 671	176 863	88 601
Industrial	3 291 223	3 563 727	2 539 863	2 993 356	2 755 240
of which: Re-exports	1 734 890	1 894 607	1 538 122	1 163 513	1 233 902
Dust	...	...	...	...	5 433 109
of which: Re-exports	...	...	...	...	1 539 757
Brazil					
Rough	—	205 385	233 325	95 265	251 900
Gem	1 625	19 380	36 335	50 360	47 480
Venezuela					
Rough	190 000	190 000	—	...	...
China					
Industrial	(e)*66 700	(e)*163 800	(e)*100 100	9 365	110 535
Other	(e)*276 900	(e)*196 300	(e)*311 400	280 135	233 300
Hong Kong					
of which: Re-exports	697 648	858 030	883 666	1 370 457	1 708 062
	695 023	855 556	878 732	1 367 357	1 701 741
India (d)					
Gem	£857 219 000	£1 050 679 000	£1 156 637 000	£1 656 391 000	...
Israel					
Cut	3 139 000	3 827 000	4 376 000	...	4 378 000
Japan					
Industrial	4 694	89 188	89 000	38 820	109 076
Other	1 192	15 513	9 267	3 797	2 411
Korea, Republic of					
	£860 000	£1 133 000	£356 000	£520 000	£572 000
Malaysia					
Cut	£6 277 000	(b)£8 314 000	£15 386 000	£4 528 000	...
Other	£1 158 000	...	£702 000	£12 003 000	...
Singapore					
Rough	—	£21 000	£57 000	£401 000	£469 000
of which: Re-exports	—	—	£57 000	£401 000	£469 000
Cut	£11 668 000	£5 800 000	£11 676 000	£11 393 000	£20 669 000
of which: Re-exports	£11 332 000	£5 314 000	£11 234 000	£9 841 000	£19 555 000
Industrial	£342 000	£180 000	£134 000	£177 000	£6 885 000
of which: Re-exports	£166 000	£180 000	£104 000	£165 000	£6 669 000
Sri Lanka					
Industrial	5 554	331 715	—	—	...
Other	279 811	348 915	316 288	268 622	...
Taiwan					
Industrial	9 800 000	12 440 000	32 060 000	12 710 000	57 225 000
Other	6 600 000	12 340 000	29 660 000	10 625 000	13 170 000
Thailand					
	99 952	133 692	228 251	387 034	...
Australia					
Gem	(f)2 670 546	(a)1 563 129	(a)25 333	(a)631 392	(a)1 242 000
Industrial	561 451	1 813 194	145 137	1 572 718	144 000

Note(s):

- (1) Carats have been used as the unit in this table except where the only obtainable figure is the value. In these cases the national currency figure has been converted to £ sterling
 - (2) See explanatory notes at the front of the volume regarding currency conversion
- (a) Excluding unsorted rough diamonds
(b) Including other diamonds
(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) Including some rough, unsorted industrial diamonds

Imports of Diamond

Country	1985	1986	1987	1988	1989
United Kingdom	£1 376 511 719	£1 711 289 733	£1 624 878 505	£2 083 926 304	£2 079 872 000
Belgium-Luxembourg					
Rough	42 855 082	55 831 368	66 204 960	66 154 145	74 616 865
Cut	2 662 239	3 508 531	3 543 728	4 060 064	4 402 608
Industrial	18 750 532	18 232 730	18 592 351	21 943 039	24 380 043
Dust	22 618 135	14 400 000	15 560 140	16 545 000	26 218 635
France					
Rough	23 950	15 025	15 173	48 512	29 709
Cut	236 638	300 679	372 972	443 950	314 179
Industrial	1 347 679	253 252	280 955	360 430	554 106
Dust	5 284 730	5 598 255	5 863 980	...	...
Germany, Federal Republic of					
Rough	20 405	11 325	9 224	14 104	10 798
Cut	401 563	479 011	563 920	601 688	650 622
Industrial	1 166 858	1 180 203	1 155 651	983 250	1 255 480
Greece					
Industrial	33 875	29 413	38 608	...	...
Other	9 370	19 202	23 645	...	...
Irish Republic					
Industrial	3 015 000	2 930 000	110 000	185 000	925 000
Other	...	...	...	1 475 000	1 365 000
Italy					
Industrial	187 880	153 921	169 003	316 734	...
Other	219 958	222 140	231 400	1 476 352	...
Netherlands					
Rough	456 201	332 423	485 550	421 154	227 864
Cut	205 906	161 756	135 534	314 466	162 003
Industrial	567 090	1 130 572	1 325 000	848 112	773 027
Dust	...	...	...	729 325	1 350 635
Portugal	154 911	155 718	139 144	...	...
Spain					
Rough	£99 000	£28 000	£70 000	£11 000	£48 000
Industrial	£1 399 000	£939 000	£949 000	£937 000	£988 000
Other	£19 647 000	£4 234 000	£5 317 000	£6 328 000	£9 655 000
Austria					
Industrial	55 000	50 000	10 000	10 135 000	5 060 000
Other	80 000	80 000	110 000	60 000	45 000
Bulgaria (a)	*179 200	*138 500	*25 200	*18 700	*16 000
Czechoslovakia (a)	*52 900	*55 600	*180 200	*29 200	*21 800
Finland					
Industrial	15 000	425 000	15 000	210 000	245 000
Other	35 000	30 000	640 000	125 000	20 000
German Democratic Republic (a)	*25 700	*68 900	*39 300	*89 900	*39 700
Hungary					
Industrial	21 474	30 386	29 149	120 487	21 647
Malta					
Rough	£2 487 000	£2 892 000	£2 094 000	£1 638 000	£2 600 000
Industrial	£73 000	£225 000	£4 000	£36 000	£1 000
Norway					
Industrial	35 000	245 000	15 000	15 000	25 000
Other	65 000	15 000	80 000	30 000	20 000
Romania (a)	*387 200	*376 700	*614 100	*560 200	*591 400
Sweden					
Industrial	£577 000	£414 000	£347 000	£545 000	£499 000
Other	£7 167 000	£5 193 000	£7 344 000	£5 742 000	£5 957 000
Switzerland					
Industrial	...	...	...	465 000	310 000
Other	...	...	...	15 850 000	11 195 000
Turkey					
Industrial	260 000	270 000	140 000	65 000	240 000
Other	115 000	75 000	50 000	35 000	...
Yugoslavia					
Industrial	£756 000	£762 000	£461 000	£494 000	£640 000
Other	£238 000	£192 000	£228 000	£124 000	£460 000
Algeria					
Industrial	£311 000	£235 000	£151 000	...	...
Mauritius					
Industrial	—	—	£23 700	£1 029 000	£2 222 000
Other	—	—	£7 112 000	£9 995 000	£2 082 000

Diamond

Imports of Diamond

carats

Country	1985	1986	1987	1988	1989
South Africa					
Rough	230 500	258 000	343 500	418 420	256 275
Cut	37 000	20 000	22 500	3 845	44 405
Industrial	359 000	1 450 000	596 500	802 105	498 290
Tunisia					
Industrial	270 000	35 000	5 000	115 000	1 465 000
Other	665 000	720 000	625 000	750 000	860 000
Zambia					
Industrial	6 250 000	2 040 000	70 000	1 280 000	...
Canada					
Cut	297 961	296 740	273 018	91 934	104 501
Industrial	1 360 396	1 733 857	3 348 200	2 110 586	1 331 724
Dust	2 647 489	4 128 282	2 457 987	6 576 190	6 364 302
Costa Rica					
Industrial	330 000	160 000	210 000	5 000	45 000
Mexico					
Industrial	...	365 000	...	240 000	...
Dust	6 740 000	2 685 000	...	3 405 000	...
USA					
Rough	1 042 183	1 288 018	1 369 360	1 644 298	1 818 742
Cut	7 108 435	7 884 765	7 752 028	8 752 889	8 870 080
Industrial	9 334 533	8 947 358	3 833 816	6 908 427	12 661 094
Bort	390 389	251 608	326 548	515 145	...
Dust	6 753 549	7 260 957	12 677 384	12 479 416	12 086 560
Argentina					
Industrial	135 000	115 000	870 000	115 000	...
Dust	500 000	455 000	600 000	260 000	...
Brazil					
Cut	260	1 870	100	—	...
Industrial	88 730	132 250	128 370	171 455	...
Dust	3 355 145	4 221 980	4 698 335	6 068 840	...
Colombia					
Industrial	25 000	95 000	...	...	...
Other	55 000	85 000	...	...	...
Venezuela					
Industrial	1 190 000	415 000	725 000	...	...
Abu Dhabi	1 175 000	30 000	110 000	60 000	...
China					
Industrial	551 052	759 872	106 148	1 044 235	408 415
Other	(a)*68 900	(a)*123 700	119 183	342 575	478 320
Cyprus	£984 000	£847 000	£1 053 000	...	...
Dubai	26 295	16 440	...	...	...
Hong Kong					
Rough	90 611	105 825	99 698	216 690	267 007
Cut	1 343 518	1 984 785	2 472 936	2 791 158	2 848 252
Industrial	234 076	427 305	355 698	653 788	227 070
India (c)					
Rough	39 808 594	58 620 165	58 813 329	72 452 779	...
Industrial	715 000	590 000	5 170 000	125 000	...
Israel					
Rough	8 123 000	9 717 000	10 757 000	12 521 000	10 296 000
Cut	444 000	478 000	601 000	810 000	851 000
Industrial	5 779 000	6 778 000	8 529 000	...	...
Japan					
Rough	18 129	151 272	23 431	40 279	108 629
Cut	1 177 040	1 571 921	2 356 713	3 344 661	3 243 934
Industrial	721 704	737 530	519 349	631 311	654 918
Dust	1 267 595	1 305 535	1 541 830	1 810 015	2 072 354
Korea, Republic of					
Cut	£767 000	£959 000	£435 000	£532 000	...
Industrial	£682 000	£772 000	£1 083 000	£1 535 000	£1 700 000
Dust	62 900	106 335	96 590	1 243 200	153 750
Other	£951 000	£521 000	£193 000	£325 000	£1 781 000
Malaysia					
Rough	£222 000	£7 351 000	£13 335 000	£17 075 000	£31 094 000
Cut	£18 770 000	£9 037 000	£6 945 000	£7 060 000	£9 685 000
Industrial	£36 000	£17 000	£44 000	£883 000	£226 000

Imports of Diamond

Country	1985	1986	1987	1988	1989
Philippines					
Industrial	178 802	1 067 311	226 862	132 950	107 751
Qatar	14 215	125	1 500	...	205 000
Saudi Arabia					
Industrial	40 000	6 090 000	2 340 000	380 000	105 000
Other	90 000	60 000	305 000	1 895 000	165 000
Singapore					
Rough	£101 000	£136 000	£62 000	£240 000	£173 000
Cut	£23 437 000	£27 022 000	£30 724 000	£40 463 000	£49 729 000
Industrial	£1 174 000	£439 000	£223 000	£454 000	£2 610 000
Sri Lanka					
Industrial	3 704	251 980	81 169	166 231	...
Other	168 737	303 194	329 633	437 343	...
Taiwan					
Industrial	620 000	1 580 000	5 085 000	265 000	490 000
Dust	7 075 000	4 455 000	7 085 000	9 825 000	27 925 000
Other	105 000	1 250 000	25 000	...	250 000
Thailand					
Rough	318 261	511 943	612 143	3 542 997	...
Cut	134 235	259 998	443 824	6 405 575	...
Industrial	12 965	7 255	6 927	787 404	...
Australia					
Rough	3 736	—	90 554	313 343	8 000
Gem	114 185	112 121	113 639	127 555	148 000
Industrial	1 787 148	2 249 893	2 749 365	2 176 931	1 577 000
New Zealand (b)					
Industrial	£251 000	£220 000	£182 000	£129 000	£63 000
Other	£2 380 000	£2 434 000	£4 670 000	£3 934 000	£4 375 000

Note(s):

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

Production of Diatomite

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom	200	300	350	320	270
Denmark (a)					
Moler (d)	(e)72 029	92 975	94 995	*95 000	*95 000
France (b)	269 900	269 000	*250 000	*250 000	*250 000
Germany, Federal Republic of	48 400	49 500	47 200	47 200	46 800
Italy	*30 000	*27 000	*28 000	*28 000	*28 000
Portugal	1 600	2 120	2 890	2 070	2 990
Spain (b)	96 251	128 050	66 217	*80 000	*80 000
Iceland	29 388	22 897	23 345	25 142	24 900
Romania	*290 000	*300 000	*280 000	*280 000	*260 000
Soviet Union	*245 000	*250 000	*255 000	*260 000	*260 000
Turkey	*3 000	*3 000	5 149	*1 000	*1 000
Yugoslavia	7 927	10 749	5 458	5 364	6 081
Algeria	2 600	4 000	3 300	3 087	4 400
Kenya	1 420	1 450	616	712	783
South Africa	947	1 800	194	199	133
Canada	2 632	*3 000	*3 000	*3 000	*3 000
Costa Rica	...	4 200	5 200	5 200	6 000
Mexico	45 781	36 022	34 708	35 365	45 000
USA (c)	576 000	570 000	597 000	629 000	617 000
Argentina	9 929	14 362	5 098	7 122	6 301
Brazil (f)	12 731	11 856	16 011	14 000	16 000
Chile	2 317	2 684	3 218	2 919	3 315
Colombia	—	—	2 800	3 000	3 600
Peru	14 854	10 390	6 090	*15 000	*15 000
Korea, Republic of	53 613	54 841	64 783	71 852	75 019
Thailand	410	204	177	470	1 424
Australia	7 587	9 048	10 263	11 279	*11 000
World total	1 820 000	1 880 000	1 810 000	1 880 000	1 860 000

Note(s):

(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	1985	1986	1987	1988	1989
United Kingdom	177	521	484	679	707
Belgium-Luxembourg	...	...	537	730	3 480
Denmark					
Diatomite	73 113	74 267	77 890	81 552	81 866
Moler bricks	19 956	19 125	15 795	23 705	...
France	32 337	31 730	31 741	36 309	36 767
Germany, Federal Republic of	1 510	1 247	1 409	2 274	2 398
Italy	4 114	3 014	2 942	2 543	2 894
Netherlands	1 796	486	831	586	860
Spain	3 250	4 087	7 780	8 739	8 096
Austria	2 471	2 203	2 653	2 811	3 671
Czechoslovakia (a)	*4 200	*4 800	*4 900	*5 300	*5 300
Hungary (a)	*2 800	*5 000	*1 700	*1 800	*1 200
Iceland	27 123	23 423	23 214	25 840	23 553
Sweden	611	46	95	125	112
Switzerland	40	50	60	70	23
Turkey	62	4	2 692	513	314
Yugoslavia	1 504	655	369	712	687
Kenya	208	428	414	530	...
Mexico	4 467	5 460	5 824	6 145	...
USA	108 944	119 298	126 394	147 324	137 131
Chile	432	613	*700	721	857
Hong Kong (b)	254	442	624	1 440	1 972
Japan	2 599	1 506	1 400	1 986	2 541
Korea, Republic of	—	167	422	100	228
Singapore (b)	202	115	223	661	543
Taiwan	60	34	731	22	136

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

(b) Re-exports

Imports of Diatomite

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom	23 915	26 412	25 689	42 718	39 211
Belgium-Luxembourg	8 463	8 304	13 252	13 670	16 015
Denmark	5 526	5 575	5 669	5 867	5 547
France	7 212	5 756	10 568	11 688	14 130
Germany, Federal Republic of	39 162	38 856	39 326	37 903	38 857
Greece	1 693	2 145	1 529	1 793	...
Irish Republic	364	146	224	149	269
Italy	5 044	8 916	5 883	6 662	7 475
Netherlands	64 815	77 143	22 034	20 749	22 435
Portugal	4 172	3 807	4 352	3 780	4 361
Spain	2 704	3 338	3 173	3 448	4 435
Austria	12 931	14 721	13 049	14 342	14 080
Czechoslovakia (b)	*2 900	*1 900	*1 200	*1 700	*1 500
Finland	4 739	5 506	4 910	2 785	3 443
German Democratic Republic (b)	*1 100	*1 600	*1 700	*1 900	*2 100
Norway	2 177	1 986	2 020	1 835	2 067
Poland (b)	*2 200	*1 500	*2 300	*2 300	*3 200
Romania (b)	*1 000	*1 100	*400	*500	*400
Sweden	2 826	2 318	2 884	2 810	2 656
Switzerland	6 920	6 303	6 308	7 196	7 047
Turkey	81	147	147	131	232
Yugoslavia	1 144	1 187	1 150	1 352	1 051
Algeria	277	79	54	...	...
Cameroon	*300	*400	*600	*700	*500
Gabon	348	384	...	...	...
Ivory Coast	129	214	...	142	...
Morocco	53	98	126	341	...
South Africa	6 039	4 399	1 568	2 671	2 673
Tunisia	189	167	436	795	763
Zaire	*900	*400	*100	...	...
Zambia	139	277	100	242	...
Zimbabwe	451	437	291	...	...
Canada	24 226	26 338	24 482	19 592	21 041
Costa Rica	271	264	291	186	315
Dominican Republic	648	785	...	...	...
El Salvador	366	488	199	527	215
Guatemala	416	184	289	340	...
Honduras	502	555	...	314	501
Mexico	143	546	422	594	...
Nicaragua	187	277	...	...	...
Panama	314	433	575	316	471
USA	4 491	710	6 022	2 761	838
Argentina	2 032	2 300	1 822	2 038	...
Brazil	1 401	1 310	1 750	1 200	...
Colombia	1 005	1 585	...	1 612	...
Ecuador	449	501	688	355	...
Peru	842	1 460	2 631	1 097	292
Venezuela	9 670	4 656	14 664	...	...
China (b)	*1 300	*900	*2 200	*2 500	*2 700
Cyprus	156	203	186	...	...
Hong Kong	602	984	1 227	2 330	2 716
Indonesia	637	769	1 323	2 045	1 298
Iran (c)	707	1 545	431	343	...
Israel (b)	*1 000	*800	*700	*1 200	*1 100
Japan	3 164	3 901	5 006	6 860	5 327
Malaysia	489	788	688	937	1 062
Pakistan (a)	198	254	194	408	...

Imports of Diatomite

Country	1985	1986	1987	1988	1989
Philippines	148	408	795	628	405
Saudi Arabia	4 252	2 586	698	1 867	4 785
Singapore	866	963	1 139	1 956	1 645
Sri Lanka	15	83	60	41	...
Taiwan	3 544	4 296	4 623	7 150	11 039
Thailand	36	153	373	105	...
Australia	12 479	10 637	12 004	6 763	...
Fiji	58	67	56	...	...
New Zealand (a)	1 067	1 353	1 870	2 466	2 549

(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	1985	1986	1987	1988	1989
United Kingdom	5 934	7 304	5 692	6 422	6 470
France	171 500	274 000	216 000	322 000	360 500
Germany, Federal Republic of	261 400	246 500	310 400	308 800	332 600
Italy	1 116 375	1 141 542	1 188 700	1 367 776	1 350 733
Portugal	29 011	35 281	40 917	51 903	65 855
Spain (c)	136 190	135 526	161 631	195 668	*155 000
Austria	13 570	2 850	4 692	8 222	7 351
Finland	49 219	55 750	45 817	54 170	39 777
Norway (d)	80 095	87 257	80 016	90 338	*80 000
Poland	60 100	57 200	57 600	*50 000	*50 000
Romania	*86 000	*86 000	*82 000	*82 000	59 960
Soviet Union	*330 000	*330 000	*330 000	*330 000	*330 000
Sweden (e)	41 720	35 160	34 226	*36 000	*36 000
Turkey	*20 000	12 180	30 336	82 225	90 751
Yugoslavia	49 480	47 909	45 000	35 614	48 276
Egypt	19 073	18 020	15 963	6 131	5 527
Kenya	879	—	—	—	1 112
Morocco	*1 000	*1 000	*1 000	*1 000	*1 000
Nigeria	*1 000	803	535	75	945
South Africa	31 819	41 232	50 930	61 440	56 220
Zambia	185	214	45	120	20
Zimbabwe	2 300	2 027	2 962	3 730	2 697
Guatemala	5 582	5 446	7 079	7 200	7 000
Mexico	*100 000	85 019	106 490	86 258	113 438
USA (e)	635 000	667 000	653 000	649 000	653 000
Argentina	27 066	24 087	29 282	39 469	23 688
Brazil (f)	110 150	120 572	118 608	*150 000	*150 000
Chile	2 565	2 275	705	4 569	8 081
Colombia	34 348	35 722	33 760	30 500	40 850
Ecuador	3 405	5 192	7 876	10 562	7 463
Peru	—	19 467	14 552	*20 000	*20 000
Uruguay	1 541	1 632	3 016	2 787	...
Venezuela	42 440	37 000	43 000	97 000	83 557
Hong Kong	26 777	35 208	22 853	11 050	5 152
India	44 303	48 264	49 663	57 656	56 690
Iran (b)	32 000	*32 000	*32 000	*32 000	*32 000
Japan	526 502	483 948	480 584	539 048	506 594
Jordan	...	...	63	200	10 300
Korea, Republic of	145 414	130 895	180 269	241 511	232 607
Myanmar (a)	2 861	3 077	5 620	4 938	4 257
Pakistan	5 633	11 575	6 675	9 510	7 703
Philippines	5 866	6 661	11 996	9 199	*6 500
Sri Lanka	2 878	7 270	7 442	7 278	6 656
Taiwan	11 055	26 290	28 116	19 101	9 806
Thailand	104 586	115 163	168 881	293 686	515 206
Australia	6 704	10 006	11 499	25 373	*16 000
World total	4 400 000	4 500 000	4 700 000	5 400 000	5 600 000

Note(s):

(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) Unground: production of ground withheld

(e) Sold or used by producers

(f) Including beneficiated and directly shipped material

Exports of Feldspar

Country	1985	1986	1987	1988	1989
United Kingdom	316	357	450	823	2 350
France	53 004	46 847	62 775	77 857	119 843
Germany, Federal Republic of	20 312	26 313	27 329	29 131	32 335
Italy	39 139	29 413	29 632	34 557	29 989
Netherlands	1 421	1 114	1 364	1 216	1 608
Portugal (a)	1 895	7 267	22 706	...	...
Spain	(a)4 739	(a)2 578	(a)3 382	2 413	3 060
Finland	(a)35 209	(a)40 301	(a)32 964	34 050	32 328
Norway	86 708	74 185	74 953	69 059	71 763
Sweden	(a)21 803	(a)22 273	(a)16 047	26 386	20 070
Turkey	2 911	17 050	17 898	20 094	(c)43 751
Yugoslavia	6 722	2 228	3 026	3 576	4 635
South Africa	—	913	3 475	4 514	5 797
Guatemala (a)(c)	3 041	2 731	3 946	3 665	...
Mexico	477	688	3 845	5 591	...
USA	(a)8 435	(a)11 596	(a)8 773	(a)12 510	9 705
Brazil	5	10	2 500	6 925	2 242
China (a)(b)(c)	*35 400	*52 400	*89 200	*108 100	*145 300
Hong Kong (c)	38 571	50 555	77 515	79 524	105 673
of which: Re-exports	28 721	28 165	51 805	56 324	84 473
India (d)	16 781	20 033	44 811	28 593	...
Japan	27 646	32 822	31 281	28 841	34 369
Korea, Republic of	22 746	16 759	19 258	24 101	6 611
Singapore (a)	4 314	3 585	1 597	4 002	7 950
of which: Re-exports	4 306	3 585	1 597	4 002	7 950
Thailand	35 198	46 064	96 644	263 370	290 650

(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	1985	1986	1987	1988	1989
United Kingdom	55 879	59 337	53 985	50 756	46 375
Belgium-Luxembourg	17 806	18 372	19 853	23 799	25 607
Denmark	6 558	4 932	3 837	4 595	3 938
France	23 497	23 627	28 331	29 021	32 008
Germany, Federal Republic of	46 213	55 193	62 299	66 710	78 046
Greece	1 529	4 446	3 357	3 497	...
Irish Republic	(a)(c)7 612	(a)(c)8 119	(a)(c)3 668	3 262	71
Italy	12 453	7 019	10 917	23 020	70 866
Netherlands	20 167	19 749	14 425	11 203	9 157
Portugal	253	322	424	...	...
Spain	(a)18 403	(a)19 829	(a)32 607	42 837	70 048
Austria	(a)4 474	(a)4 466	(a)4 716	4 767	4 386
German Democratic Republic (a)(b)	*22 700	*10 600	*20 300	*18 100	*16 200
Hungary	337	352	625	545	590
Norway	231	187	82	1 362	751
Poland	10 034	11 630	15 578	12 401	...
Sweden	(a)11 860	(a)13 392	(a)12 431	10 035	8 410
Switzerland	(a)17 301	(a)11 691	(a)14 994	16 207	16 459
Yugoslavia	910	490	1 676	2 373	1 139
Algeria (a)	3 407	3 000	1 627	...	...
Egypt (a)(c)	990	8 331	9 079	...	...
Morocco (a)	749	358	1 022	1 095	...
Tunisia	1 934	1 561	1 462	2 041	2 049
Canada	(e)4 267	(e)3 497	(e)1 691	13 235	3 961
Costa Rica (c)	2 229	2 954	3 907	3 521	4 702
Mexico	705	610	206	522	...
Panama (a)(c)	712	3 400	209	1 517	38
USA	864	1 136	4 384	6 705	12 003
Venezuela	837	981	1 841	1 077	...
Hong Kong (c)	23 989	37 396	69 976	85 947	126 087
Indonesia (a)	6 872	12 504	14 193	16 000	18 977
Israel (a)(b)	*100	*3 500	*6 200	*2 500	...
Japan	(a)7 802	(a)6 766	(a)17 977	11 709	4 298
Jordan (a)(c)	640	928	805	1 382	549
Korea, Republic of	804	771	1 905	2 849	2 329
Malaysia	(a)(c)24 247	(a)(c)20 867	(a)(c)25 846	31 668	41 821
Philippines (a)(c)	1 633	1 535	6 516	3 423	7 724
Saudi Arabia (a)(c)	890	275	560	619	617
Singapore (a)	5 992	4 413	1 613	5 686	13 385
Syria (a)(c)	878	1 879	937	...	...
Taiwan	(a)(c)140 593	(a)(c)158 131	(a)(c)224 733	(a)(c)338 580	479 824
Thailand (a)	1 196	531	2 910	879	...
Australia	(a)1 643	(a)5 441	(a)10 019	40	...
New Zealand (a)(c)(d)	1 139	832	758	912	354

(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

(e) Imports from the USA

Production of Fluorspar

Country	1985	1986	1987	1988	1989
United Kingdom	167 390	133 420	120 000	103 797	122 057
France	273 100	238 500	184 300	185 400	208 200
Germany, Federal Republic of	83 100	88 800	85 200	77 700	73 800
Greece	35	150	*200	*200	*200
Italy	152 212	145 537	134 400	139 857	126 279
Spain	305 609	282 460	151 427	156 034	121 640
Czechoslovakia	*95 000	*95 000	*95 000	*95 000	*95 000
German Democratic Republic	*100 000	*100 000	*90 000	*90 000	*90 000
Romania	*20 000	*20 000	*18 000	*18 000	*16 000
Soviet Union	*410 500	410 500	*410 500	*410 500	*410 000
Sweden	3 169	265	220	225	150
Turkey	9 804	1 604	*10 000	13 240	*13 000
Egypt	60	80	502	1 849	1 611
Kenya	57 949	50 851	60 190	67 351	95 181
Morocco	74 350	83 000	78 500	100 500	105 000
Namibia	—	—	—	3 989	25 679
South Africa	349 207	333 885	316 606	328 421	368 340
Tunisia	42 200	36 300	43 300	56 000	53 700
Canada	—	—	*10 000	*40 000	*50 000
Mexico	730 447	766 822	817 635	838 000	861 000
USA	*60 000	*71 000	*64 000	*64 000	*66 000
Argentina	30 612	39 076	54 975	18 052	23 317
Brazil (a)	83 102	83 680	88 944	89 998	95 531
China	*850 000	*900 000	*1 000 000	*1 400 000	*1 700 000
India	20 270	18 574	18 457	20 392	28 065
Iran (b)	3 300	*3 300	*5 000	6 483	*6 000
Korea, Dem. P.R. of	*40 000	*40 000	*40 000	*40 000	*40 000
Korea, Republic of	705	243	63	261	856
Mongolia	787 000	790 000	*800 000	*800 000	*800 000
Pakistan	3 175	4 353	3 673	375	4 741
Thailand	298 899	167 909	102 398	76 321	98 375
World total	5 100 000	4 900 000	4 800 000	5 200 000	5 700 000

Note(s):

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

(a) Including beneficiated and directly shipped material

(b) Years ended 20 March following that stated

Fluorspar

Exports of Fluorspar

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom	7 504	5 137	4 732	8 115	8 439
Belgium-Luxembourg	237	20	—	3 069	3 715
France	56 187	45 701	47 046	38 564	57 842
Germany, Federal Republic of	15 833	13 100	20 463	24 897	27 207
Italy	44 786	11 743	37 732	19 674	1 381
Netherlands	224	408	461	1 863	964
Spain	148 978	174 148	90 970	72 720	51 600
German Democratic Republic (b)	*41 800	*36 000	*33 500	*27 700	*25 100
Sweden	4 939	557	1 458	2 108	1 576
Kenya	60 726	41 132	45 681	98 105	...
Morocco	64 245	79 944	87 708	89 694	...
South Africa	283 023	288 070	281 427	313 186	323 410
Tunisia	7 250	6 100	8 536	15 000	11 070
Canada	(c)903	(c)223	(c)5 596	38 301	40 123
Mexico	736 685	437 591	474 774	509 444	554 384
USA	9 060	14 730	2 679	3 163	6 486
China	734 182	700 130	775 848	911 976	1 183 533
Japan	(a)157	(a)157	(a)245	1 558	506
Thailand	199 640	137 619	114 542	25 487	...

(a) May include some leucite and nepheline

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

(c) Exports to the USA

Imports of Fluorspar

Country	1985	1986	1987	1988	1989
United Kingdom	*18 000	(b)*28 200	(b)*17 900	(b)*26 700	(b)*22 000
Belgium-Luxembourg	7 773	7 662	10 643	17 663	17 109
Denmark	499	486	491	420	445
France	13 151	12 990	14 554	14 220	21 852
Germany, Federal Republic of	233 280	208 860	190 138	242 761	254 641
Greece	9 642	11 720	13 839	4 597	1 050
Italy	91 645	82 274	67 317	65 528	104 246
Netherlands	27 152	23 148	30 330	35 963	26 045
Portugal	571	437	2 716	...	...
Spain	158	43	1 387	7 628	4 924
Albania (b)	*700	*1 000	*1 000	*200	...
Austria	13 090	12 356	13 919	11 387	16 779
Bulgaria (b)	*850	*200	*300	*700	*500
Finland	8 605	6 382	8 260	7 548	7 851
Hungary	7 715	6 481	5 912	4 124	5 454
Norway	47 089	47 021	46 804	48 942	44 238
Poland	20 561	23 907	22 898	17 685	...
Romania (b)	*12 600	*4 200	*4 800	...	...
Soviet Union (b)	*123 200	*51 000	...	...	...
Sweden	9 929	10 648	10 956	11 832	13 915
Switzerland	...	...	...	696	860
Turkey	636	100	80	436	...
Yugoslavia	9 298	9 223	8 280	10 349	4 838
Algeria	1 049	1 900	26	...	...
Egypt (a)(c)	990	8 331	9 079	...	...
Tunisia	—	6 629	2 840	2 798	1 805
Canada	111 726	164 114	134 567	194 057	162 664
Costa Rica (c)	2 229	2 954	3 907	3 521	4 702
Panama (a)(c)	712	3 400	209	1 517	38
USA	552 576	483 208	542 319	693 412	655 410
Chile (b)	*3 000	*100	*4 300	*3 400	...
Peru	240	2 268	279	382	184
Venezuela	649	302	1 203	1 209	...
Hong Kong (c)	23 989	37 396	69 976	85 947	126 087
India (e)	8 807	24 921	19 431	23 346	...
Japan	570 656	527 236	527 545	609 113	708 957
Jordan (a)(c)	640	928	805	1 382	549
Korea, Republic of	46 093	28 598	61 752	50 453	74 503
Malaysia	(a)(c)20 673	(a)(c)13 399	(a)(c)16 799	1 660	1 784
Philippines (a)(c)	1 633	1 535	6 516	3 423	7 724
Saudi Arabia (a)(c)	890	275	560	619	617
Syria (a)(c)	878	1 879	937	...	...
Taiwan	(a)(c)140 593	(a)(c)158 131	(a)(c)224 733	(a)(c)338 580	14 587
Thailand	983	392	754	2	...
Australia	26 192	23 640	13 374	29 227	...
New Zealand (d)	(a)(c)1 139	(a)(c)832	(a)(c)758	(a)(c)912	91

(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

Gold

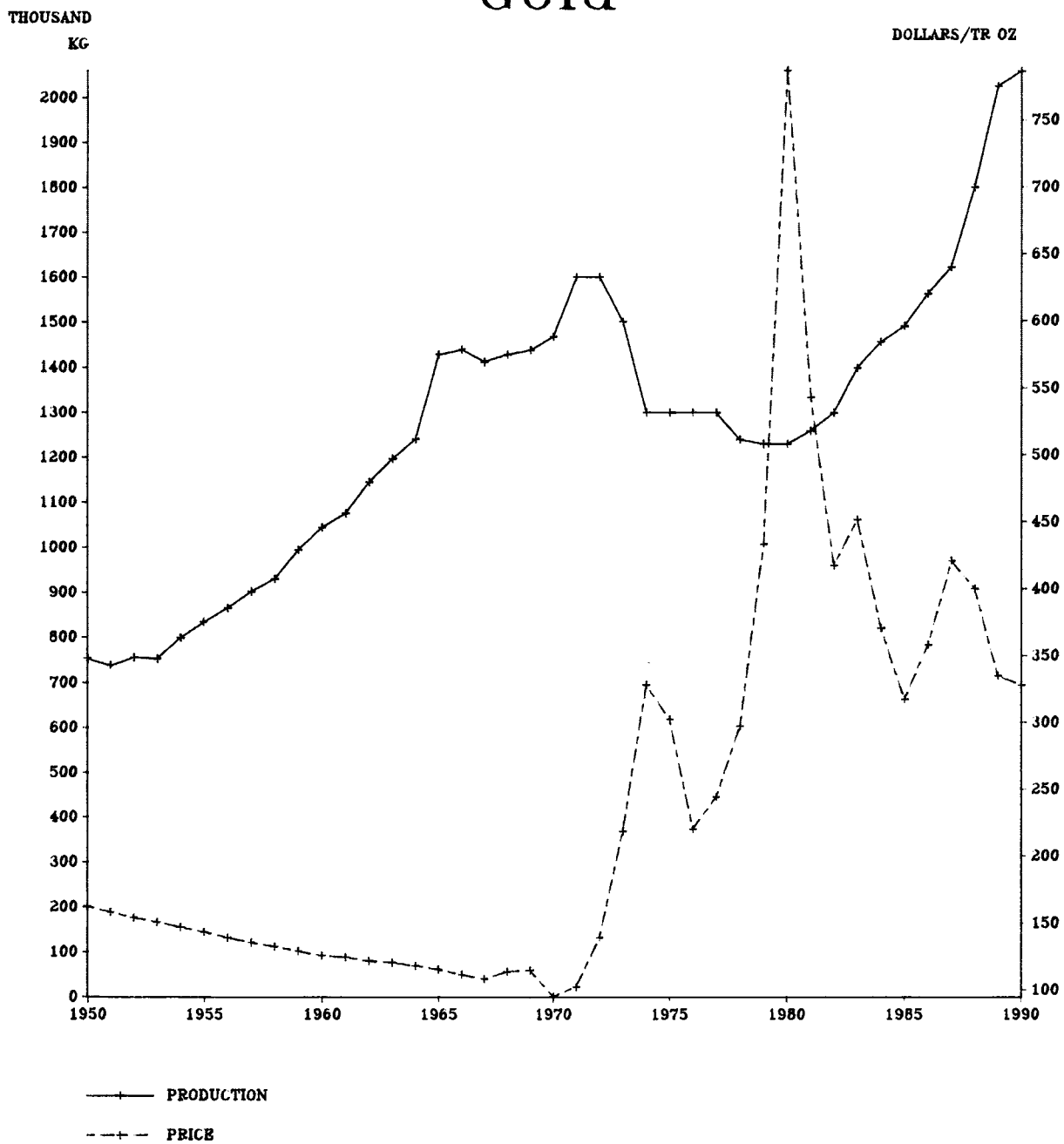


Figure 8 World mine production of gold compared with the annual average London price expressed in constant 1985 US dollars.

Mine Production of Gold

kilograms (metal content)

Country	1985	1986	1987	1988	1989
France	2 380	2 360	2 225	2 525	3 303
Germany, Federal Republic of	*60	*60	*30	*30	*15
Portugal	229	303	320	317	294
Spain	10 254	8 949	13 044	...	...
Finland	996	501	708	594	1 786
German Democratic Republic	2 472	*2 500	*2 500	*2 500	*2 500
Hungary	*600	*600	*600	*600	*500
Romania	*5 000	*5 000	*5 000	*5 000	6 000
Soviet Union	271 000	*275 000	*275 000	*280 000	*285 000
Sweden	4 631	4 514	4 108	3 590	5 120
Yugoslavia (d)	4 460	4 498	5 348	4 620	4 349
Botswana	13	25	32	21	56
Burkina Faso	*1 600	*2 500	2 272	2 825	*2 000
Burundi	25	31	30	*30	18
Central African Republic	249	212	224	382	329
Congo	13	9	6	5	0
Ethiopia (b)	918	923	643	728	745
Gabon	49	55	79	138	81
Ghana	9 311	8 951	10 227	11 631	13 358
Guinea	—	—	74	800	2 053
Kenya	11	73	14	17	15
Liberia (a)	147	610	657	677	734
Mali	500	*500	337	483	*500
Namibia	194	184	172	240	336
Rwanda	8	6	8	16	*25
Sierra Leone	591	370	373	404	226
South Africa	672 944	640 026	600 229	620 177	607 474
Sudan	52	53	76	50	...
Tanzania	55	85	201	164	116
Zaire	2 266	1 958	4 365	3 301	2 041
Zambia (c)	246	58	350	262	149
Zimbabwe	14 691	14 853	14 693	14 965	16 003
Canada	87 561	102 899	117 227	135 889	159 527
Costa Rica (e)	1 073	362	336	368	387
Dominican Republic	10 219	8 879	7 798	6 335	5 355
Honduras	157	85	92	123	75
Mexico	7 524	7 795	7 988	9 098	8 613
Nicaragua	753	893	948	881	1 399
USA	75 497	116 299	153 874	200 919	265 541
Argentina	882	944	982	962	1 150
Bolivia	561	763	2 806	4 889	3 602
Brazil	29 673	23 361	35 780	56 447	52 378
Chile	17 240	17 947	17 035	20 614	22 559
Colombia	35 547	39 996	26 546	29 020	29 506
Ecuador	2 400	9 870	9 400	*9 500	9 333
French Guiana	407	326	520	522	544
Guyana	321	436	666	585	539
Peru	6 621	8 846	8 486	9 164	10 555
Venezuela	2 214	2 511	3 417	3 399	3 867
China	*60 600	*65 300	*71 500	*77 800	*85 000
India	1 850	1 931	1 864	1 942	1 827
Indonesia	2 619	3 304	3 752	4 731	5 573
Iran	...	...	*400	*400	*400
Japan	5 309	10 280	8 590	7 308	6 097
Korea, Dem. P.R. of	*5 000	*5 000	*5 000	*5 000	*5 000
Korea, Republic of (d)	2 403	4 649	7 600	11 121	14 270
Malaysia	2 768	2 749	3 516	2 928	2 860
Philippines	33 063	35 430	32 780	30 482	30 627
Taiwan (d)	953	910	536	237	269

Gold

Mine Production of Gold

kilograms (metal content)

Country	1985	1986	1987	1988	1989
Australia	58 521	75 079	110 696	156 950	203 563
Fiji	1 888	2 856	2 866	4 274	4 222
New Zealand	886	1 265	1 148	2 404	4 963
Papua New Guinea	31 025	37 305	35 937	38 089	31 137
Solomon Islands	29	98	74	50	36
World total	1 492 000	1 565 000	1 624 000	1 803 000	1 939 000

Note(s):

- (1) In several countries substantial amounts of gold produced in small operations are not recorded in the official statistics used when compiling this table
 - (2) In addition to the countries listed, Bulgaria, Cameroon, Czechoslovakia, Greece, Myanmar, Norway, Oman, Saudi Arabia 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	1985	1986	1987	1988	1989
United Kingdom					
Metal					
Refined	425 395	474 642	367 532	615 999	811 331
Other	4 990	6 239	6 102	5 204	22 091
Waste & scrap	25 392	2 954	3 747	2 862	156 276
Belgium-Luxembourg					
Metal	28 003	18 762	16 279	19 088	36 046
Waste & scrap	£3 001 000	£3 378 000	£3 455 000	£4 560 000	£4 564 000
Denmark					
Metal	198	293	391	684	972
of which: Re-exports	91	251	375	426	248
Waste & scrap	11 072	8 045	40 855	6 777	4 964
of which: Re-exports	3 825	3 835	4 084	3 988	969
France					
Metal	19 536	24 911	26 044	28 773	40 779
Waste & scrap	124 186	122 384	78 681	370 010	535 107
Germany, Federal Republic of					
Metal	46 541	65 608	33 925	45 665	46 980
Waste & scrap	49 836	15 892	30 727	135 140	88 894
Irish Republic					
Metal	£642 000	£646 000	£35 000	£21 000	£119 000
Waste & scrap	£608 000	£650 000	£1 046 000	£1 282 000	£1 206 000
Italy					
Metal	5 169	2 774	30 561	4 719	11 846
Netherlands					
Metal	1 935	1 331	2 556	23 293	4 693
Waste & scrap	20 000	35 000	9 000	11 000	17 000
Spain					
Metal	1 845	3 793	1 404	183	903
Austria					
Metal	510	542	528	1 015	622
Finland					
Metal	757	892	1 367	1 405	1 699
Norway					
Metal	273	318	726	696	607
Waste & scrap	318	155	145	65	78
Soviet Union					
Metal (c)	*28 800	*64 400	*38 100	*165 400	*45 400
Sweden					
Metal	5 000	7 000	8 000	6 000	7 000
Waste & scrap	13 000	24 000	49 000	21 000	41 000
Switzerland					
Metal	929 893	921 911	671 605	841 276	1 111 541
Waste & scrap	...	...	...	63 351	374 894
Ghana					
Metal	8 966	8 364	10 092	...	...
Liberia					
Metal	147	610	657	677	734
Namibia					
Metal	201	184	179	205	312
Sierra Leone					
Metal	80	193	...	...	...
South Africa					
Metal	£5 399 000 000	£5 210 000 000	£5 265 000 000	£4 888 000 000	£4 684 000 000
Zaire					
Metal	1 687	1 952	3 352	2 910	...
Zimbabwe					
Metal	12 115	21 642	18 052	...	...
Canada					
Ores & concentrates (b)	6 035	7 302	8 604	...	...
Metal	113 230	165 632	69 876	126 937	161 986
Dominican Republic					
Metal	10 219	8 879	7 798	6 335	5 355

Gold

Exports of Gold

kilograms

Country	1985	1986	1987	1988	1989
USA					
Ore (b)	76	221	1 395	1 386	16
Metal					
Unrefined	2 984	14 898	20 446	20 614	43 071
Refined	92 662	359 817	78 838	300 965	124 938
Other	37 062	2 374	3 886	4 459	11 297
Waste & scrap	31 566	30 657	28 199	36 037	44 559
Bolivia					
Ores & concentrates (b)	513	248	1 226	1 873	1 251
Metal	20	362	1 370	2 380	2 350
Chile					
Metal	8 690	17 161	32 648	15 507	37 035
Colombia					
Ore	174 200	215 000	...	304 300	...
Peru					
Metal	5 465	662	66	24	—
Hong Kong					
Metal (a)	2 117	47 959	15 815	23 333	15 112
Waste & scrap (a)	1 304	5 068	2 337	1 470	1 038
Indonesia					
Metal	1	1 425	19 818	21 764	19 474
Japan					
Metal	4 463	5 827	11 525	11 241	18 136
Jordan					
Metal (a)	939	1 809	4 630	3 695	...
Korea, Dem. P.R. of					
Metal (c)	*7 300	*4 800	*7 700	*7 500	*1 300
Korea, Republic of					
Metal	15	1 413	3 395	6 551	11 282
Malaysia					
Metal	814	...	999	1 104	...
Waste & scrap	231	...	315	431	...
Philippines					
Ores & concentrates (b)	10 338	12 273	6 596	8 529	9 181
Singapore					
Metal	1 981	4 129	4 555	4 624	5 176
of which: Re-exports	317	793	1 536	778	808
Waste & scrap	759	1 280	1 749	2 213	1 697
Taiwan					
Waste & scrap	21 446	19 462	197	12 339	41 621
Australia					
Ores, concentrates & unrefined metal (b)	1 921	2 796	1 403	(d)4 362	(d)5 800
Refined metal	47 958	55 889	84 999	(e)138 353	(e)171 681
Fiji					
Metal	1 863	2 899	2 992	...	...
Papua New Guinea					
Metal	31 025	37 305	35 937	38 089	31 137

Note(s):

(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) Excluding unrefined metal

(e) Including unrefined metal

Imports of Gold

Gold
kilograms

Country	1985	1986	1987	1988	1989
United Kingdom					
Ores & concentrates	852	1 930	2 879	12 892	2 031
Metal					
Unrefined	4 786	9 654	19 751	8 455	14 991
Refined	347 880	487 986	354 971	571 458	610 634
Other	19 228	28 075	33 060	23 709	57 616
Waste & scrap	162 774	161 604	205 799	165 158	282 175
Belgium-Luxembourg					
Metal	65 353	53 012	45 014	53 114	22 536
Waste & scrap	£1 903 000	£1 805 000	£1 463 000	£3 371 000	£2 147 000
Denmark					
Metal	824	1 128	1 054	1 017	1 024
Waste & scrap	634	597	8 211	534	1 062
France					
Metal	31 426	51 030	92 643	134 364	124 270
Waste & scrap	1 604	27 107	1 548	64 789	255 308
Germany, Federal Republic of					
Metal	83 125	100 310	78 855	165 884	123 074
Waste & scrap	176 469	187 094	158 364	783 171	286 692
Greece					
Metal	2 572	2 643	1 635	1 986	...
Irish Republic					
Metal	£4 138 000	£4 128 000	£4 021 000	£4 030 000	£3 320 000
Italy					
Metal	231 954	217 097	199 393	350 224	284 821
Netherlands					
Metal	5 869	5 040	3 621	3 936	3 858
Waste & scrap	6 000	10 000	7 000	1 000	1 000
Portugal					
Metal	228	649	348	900	2 100
Spain					
Metal	1 723	3 769	5 932	9 436	11 957
Waste & scrap	72 501	2 000	25	406	1 000
Austria					
Metal	3 345	4 522	3 105	13 459	3 482
Finland					
Metal	892	756	745	753	1 133
Malta					
Metal	1 263	2 355	3 424	1 792	720
Norway					
Metal	632	753	554	702	566
Waste & scrap	15	61	175	240	519
Sweden					
Metal	£4 639 000	£8 364 000	£12 589 000	£12 556 000	£12 897 000
Waste & scrap	£202 000	£295 000	£511 000	£454 000	£337 000
Switzerland					
Metal	883 081	1 195 002	909 709	968 810	1 202 144
Waste & scrap	...	...	...	64 199	35 840
Algeria					
Metal	2 751	16	5	...	...
Reunion					
Metal	52	375	217	2 973	...
South Africa					
Metal	420	200	150	184	100
Waste & scrap	—	—	—	—	496
Tunisia					
Metal	387	290	115	—	183
Bermuda					
Metal	1 704	...	160	1 887	...
Canada					
Ores & concentrates (c)	475	704	1 060	...	...
Metal	95 872	115 148	59 940	51 525	52 627
USA					
Ore (c)	2 489	2 288	2 259	3 976	2 427
Metal					
Unrefined (a)	56 969	59 731	43 058	32 672	54 818
Refined	197 853	429 252	75 367	57 597	96 967

Gold

Imports of Gold

kilograms

Country	1985	1986	1987	1988	1989
Brazil					
Metal	78	58	62	4	197
Brunei					
Metal	429	673	183	...	...
China					
Metal (d)	*700	*650	*2 700	*9 900	*4 100
Cyprus					
Metal	1 307	1 480	1 555	...	...
Hong Kong					
Metal	162 627	51 259	157 268	464 257	439 173
Waste & scrap	41	61	459	287	609
Indonesia					
Metal	340	20	—	2	6
Israel					
Metal	£104 853 000	£104 863 000	£100 356 000	£47 904 000	£57 098 000
Japan					
Metal	196 815	607 830	239 217	293 784	284 272
Waste & scrap	1 011	1 666	1 821	2 246	2 260
Jordan					
Metal	13 664	3 647	1 042	3 304	1 527
Korea, Republic of					
Ores & concentrates	—	4 783 444	4 007 468	417 259	5 292 311
Metal	11 545	5 895	24 467	7 396	13 755
Macao					
Metal	2 600	17	93	1 680	1 927
Malaysia					
Metal	7 721	7 507	6 324	22 592	71 274
Philippines					
Metal	267	298	103	117	133
Saudi Arabia					
Metal	18 140	3 458	13 534	13 400	70 299
Singapore					
Metal	3 295	3 878	4 850	6 466	7 817
Waste & scrap	241	561	800	398	411
Taiwan					
Metal	34 496	27 565	87 575	362 686	156 605
Thailand					
Metal	4 360	4 063	6 648	11 211	...
Australia					
Metal	7 972	7 184	7 420	3 692	...
New Zealand (b)					
Metal	1 745	549	141	51	388

Note(s):

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

Production of Graphite

Country	1985	1986	1987	1988	1989
Germany, Federal Republic of (b)	12 800	13 200	9 900	9 700	10 600
Austria (a)	30 764	36 167	39 391	7 577	15 307
Czechoslovakia	*15 000	13 686	12 763	14 304	14 676
Norway	2 684	—	—	—	1 800
Romania	*12 000	*12 000	*12 000	*12 000	10 000
Soviet Union	*82 000	*83 000	84 000	*84 000	*84 000
Turkey	...	3 586	11 760	12 911	11 302
Madagascar	14 700	16 188	13 569	14 564	15 865
Zimbabwe	10 450	15 004	13 530	11 441	16 888
Mexico	35 378	37 856	38 461	43 831	40 000
Brazil (d)	43 664	47 660	41 919	52 700	45 600
China	*185 000	*185 000	*185 000	*200 000	*200 000
India	33 586	40 483	26 864	57 325	47 731
Korea, Dem. P.R. of	*25 000	*25 000	*25 000	*25 000	*25 000
Korea, Republic of	71 479	97 218	107 345	108 445	101 468
Myanmar (c)	234	722	—	—	—
Sri Lanka	7 472	7 453	6 718	6 394	3 992
World total	586 000	634 000	628 000	660 000	644 000

Note(s):

- (1) This table includes all forms of amorphous and crystalline graphite but excludes synthetic material
- (2) In addition to the countries listed, Canada, Egypt, Namibia and the USA 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	1985	1986	1987	1988	1989
United Kingdom	2 563	3 739	3 184	3 250	3 416
France	808	497	567	616	726
Germany, Federal Republic of	11 522	9 844	10 287	9 981	13 175
Italy	445	244	342	426	913
Netherlands	89	87	514	1 283	1 890
Austria	11 826	10 284	8 330	8 926	8 723
Czechoslovakia (a)	*3 100	*2 800	*3 100	*2 900	*3 400
Norway	6 161	954	56	24	818
Sweden	128	5	4	69	32
Madagascar	16 125	13 707	11 141	...	15 049
Zimbabwe	15 440	14 700	12 503	...	...
Canada	...	...	...	6 101	999
Mexico	19 298	18 918	19 598	22 843	...
USA	9 240	13 089	11 700	28 201	21 583
Brazil	8 725	9 213	9 986	12 706	13 006
China (a)	*71 800	*80 600	*87 700	*104 700	*141 000
Hong Kong (c)	508	3 036	3 781	3 930	3 840
India (b)	1 043	1 027	312	247	...
Japan	2 553	2 666	2 019	1 767	2 059
Korea, Dem. P.R. of (a)	*5 800	*4 600	*6 600	*9 200	*12 200
Korea, Republic of	48 353	30 969	56 827	51 537	52 629
Sri Lanka	9 170	9 824	10 388	8 958	...
Taiwan	188	204	178	70	144

Note(s):

(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	1985	1986	1987	1988	1989
United Kingdom	23 460	23 101	19 729	23 437	28 447
Belgium-Luxembourg	827	951	824	578	1 288
Denmark	1 316	1 388	1 068	1 599	1 445
France	5 277	5 572	5 864	5 707	6 424
Germany, Federal Republic of	33 998	37 793	30 504	30 264	43 061
Greece	765	791	741	656	1 351
Italy	5 955	6 867	7 465	6 792	10 840
Netherlands	636	1 204	1 726	2 306	3 392
Portugal	123	148	541	241	281
Spain	2 519	3 993	4 692	4 108	5 161
Austria	3 280	4 966	2 083	3 291	8 362
Bulgaria (d)	*2 000	*1 400	*1 700	*1 000	*1 100
Czechoslovakia (d)	*300	*400	*300	*300	*400
Finland	84	82	115	77	301
German Democratic Republic	6 634	5 289	4 947	5 338	5 643
Hungary	993	1 302	2 270	4 690	1 602
Norway	495	441	233	61	146
Poland	6 082	3 929	4 066	4 957	...
Sweden	743	570	789	599	456
Switzerland	108	237	187	158	150
Turkey	555	440	509	453	725
Yugoslavia	2 267	2 234	2 415	2 560	2 458
Algeria	632	161	25	...	...
Egypt	518	165	1 365	...	...
Mauritius	1 030	714	...	1 813	737
South Africa	3 834	2 751	3 182	3 894	4 471
Canada	(e)3 688	(e)3 645	(e)8 621	9 237	6 047
USA	47 842	38 817	43 334	53 830	69 597
Argentina	183	391	435	553	...
Venezuela	927	681	1 014	1 560	...
Hong Kong	1 499	3 685	4 104	2 995	4 593
India (c)	620	389	423	457	...
Indonesia	150	968	704	448	766
Iran (a)	160	734	653	144	...
Japan	78 857	58 645	94 268	96 611	119 251
Korea, Republic of	1 084	3 180	3 784	5 942	6 341
Malaysia	908	510	734	697	718
Pakistan (b)	1 566	845	2 630	2 433	...
Philippines	73	122	365	328	213
Singapore	427	407	314	587	715
Taiwan	8 428	8 513	8 390	14 890	10 106
Thailand	722	827	1 138	665	...
Australia	1 199	1 460	2 069	3 427	...
New Zealand (b)	36	108	121	75	23

Note(s):

(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

(e) Imports from the USA

Production of Gypsum

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Gypsum	3 130 000	3 363 000	*3 500 000	*3 700 000	*4 000 000
Anhydrite	59 000	53 000	...	...	...
France					
Gypsum	5 286 000	5 259 000	5 409 000	5 628 000	5 684 000
Anhydrite	935 075	...	...	...	...
Germany, Federal Republic of					
Gypsum	1 396 400	1 482 600	1 397 300	1 451 300	1 367 300
Anhydrite	607 000	505 000	309 700	291 400	*300 000
Greece	467 794	556 098	665 144	*650 000	...
Irish Republic	304 100	288 700	284 200	326 500	314 400
Italy	1 281 328	1 219 823	1 233 000	1 300 000	*1 400 000
Luxembourg	*400	*400	*400	*400	*400
Portugal	241 893	265 301	323 035	338 029	...
Spain	5 524 511	5 062 941	6 684 653	5 499 000	*5 500 000
Austria					
Gypsum	569 671	586 432	578 614	624 101	693 711
Anhydrite	124 322	115 317	86 437	97 644	111 943
Bulgaria					
Gypsum	388 000	395 000	306 000	*350 000	(a)*499 600
Anhydrite	113 000	99 000	103 000	*100 000	...
Czechoslovakia (a)	771 600	743 100	771 998	774 133	796 000
German Democratic Republic (d)	311 700	304 500	299 300	302 400	292 400
Hungary	*20 000	*20 000	84 438	117 845	...
Poland (d)	235 900	264 000	260 900	279 000	...
Romania	*1 620 000	*1 600 000	*1 500 000	*1 600 000	*1 600 000
Soviet Union	4 223 000	4 599 000	4 781 000	*4 800 000	*4 800 000
Switzerland	*220 000	*200 000	*230 000	*230 000	*230 000
Turkey	78 058	128 051	301 743	231 218	223 485
Yugoslavia	600 000	595 000	553 000	555 231	543 819
Algeria	*250 000	*275 000	*275 000	*275 000	...
Angola	*20 000	18 000	22 000	*20 000	...
Egypt (f)	841 000	905 688	1 088 472	1 337 000	1 309 426
Ethiopia	*7 000	*7 000	1 800	2 700	*2 100
Kenya	74 078	11 060	38 819	37 565	36 478
Libya	*180 000	*180 000	*180 000	*180 000	*180 000
Mauritania	5 470	12 642	19 402	6 033	10 000
South Africa	458 399	404 205	349 079	372 169	406 743
Sudan	6 400	50 000	8 500	10 000	10 000
Tanzania	14 411	14 144	29 646	19 570	5 900
Tunisia	*60 000	*65 000	*75 000	*100 000	...
Canada (a)	(g)7 760 783	(g)8 802 805	9 949 000	9 430 000	9 179 000
Cuba	*130 000	*130 000	*130 000	*130 000	*130 000
Dominican Republic	310 000	132 000	59 777	66 261	*70 000
Guatemala	16 888	30 608	53 323	34 448	57 268
Honduras	*22 000	*22 000	*22 000	*22 000	*22 000
Jamaica	179 000	117 000	176 300	145 500	78 000
Mexico	4 602 796	4 232 805	4 575 416	4 125 825	4 812 920
Nicaragua	8 310	*8 000	7 299	*7 000	*7 000
USA	13 076 000	13 973 000	14 163 000	14 869 000	15 988 000
Argentina	460 816	462 195	618 817	520 153	402 399
Brazil (e)	529 613	628 479	659 217	*650 000	*650 000
Chile	195 911	192 847	235 173	315 904	277 276
Colombia	251 038	295 042	302 100	307 236	553 025
Ecuador	1 348	4 127	30 666	8 118	10 670
Paraguay	2 500	2 800	3 100	3 600	4 500
Peru	28 640	172 619	34 218	*150 000	*160 000
Uruguay	118 334	114 162	142 629	145 105	*145 000
Venezuela	188 754	258 000	247 000	221 000	318 242

Production of Gypsum

Country	1985	1986	1987	1988	1989
Afghanistan	*3 000	*3 000	*3 000	*3 000	*3 000
China	*5 700 000	*6 500 000	*7 200 000	*8 100 000	*8 100 000
Cyprus	16 100	30 000	45 700	32 710	10 980
India	1 289 307	1 640 443	1 733 720	1 424 674	1 539 276
Iran (c)	8 384 000	*8 400 000	*8 400 000	7 648 470	...
Iraq	*300 000	*300 000	*350 000	*350 000	...
Israel	*45 000	45 999	35 000	31 181	*30 000
Jordan	91 965	70 083	114 560	84 866	132 400
Laos	*110 000	98 000	*110 000	80 000	104 000
Lebanon	*3 000	*3 000	*3 000	*3 000	*3 000
Mongolia	*32 000	*32 000	*32 000	*32 000	*32 000
Myanmar (b)	39 000	25 858	22 895	31 716	31 534
Pakistan (a)	409 550	373 096	449 013	384 000	466 969
Philippines	300	13 080	16 299	2 250	2 500
Saudi Arabia	155 482	140 736	134 976	151 722	160 766
Syria	106 250	*160 000	248 000	*179 000	...
Taiwan	2 199	2 447	1 378	2 438	3 904
Thailand	1 273 459	1 665 557	3 030 919	4 549 010	5 477 237
Vietnam	*25 000	*25 000	*25 000	*25 000	*25 000
Yemen Arab Republic	25 000	53 000	150 000	60 000	...
Australia	1 744 470	1 671 001	1 580 331	1 655 956	...
World total	78 100 000	81 400 000	87 800 000	88 500 000	91 800 000

(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

(g) Excluding shipments to Canadian cement manufacturers

Gypsum

Exports of Gypsum

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Crude	4 295	2 569	1 951	1 378	1 903
Calcined	12 060	14 852	10 195	12 176	15 128
Belgium-Luxembourg					
Crude	40 453	17 077	37 366	25 970	20 551
Calcined	76 460	77 128	94 073	102 402	98 677
Denmark					
Crude & calcined	2 001	3 134	3 886	4 716	1 349
of which: Re-exports	1 471	2 858	3 189	3 994	164
France					
Crude	1 061 618	1 083 869	941 296	915 105	769 463
Calcined	232 434	225 556	228 276	241 979	235 425
Germany, Federal Republic of					
Crude	120 921	115 991	188 384	184 425	164 413
Calcined	153 666	163 929	189 072	227 885	270 874
Greece	61	24	95 430	4 928	2 069
Irish Republic					
Crude	1 439	1 387	5 557	20 239	33 864
Calcined	61 184	54 809	46 359	35 776	35 268
Italy					
Crude	4 054	7 378	8 488	658	2 654
Calcined	12 718	6 425	4 799	12 735	13 133
Netherlands					
Crude	36 231	35 874	97 978	74 852	44 191
Calcined	5 922	17 788	11 945	9 759	44 085
Spain					
Crude & calcined	2 192 552	2 486 269	2 595 372	2 814 537	2 469 174
Austria					
Crude	84 167	64 024	64 217	66 137	74 290
Calcined	57 293	55 271	53 062	61 612	77 047
German Democratic Republic					
Calcined	105 498	97 812	83 596	95 051	76 646
Poland	50 596	(a)*4 000	...	...	*5 500
Romania (a)	*18 500	*12 300	*12 700	*11 100	...
Soviet Union (a)	*23 400	*13 700	*18 300	*21 900	*19 500
Sweden					
Crude & calcined	377	409	326	281	636
Switzerland					
Crude & calcined	11 970	15 143	18 972	13 827	15 283
Turkey					
Crude & calcined	3 657	5 539	1 280	14 227	610
Yugoslavia	8 826	10 556	9 125	16 158	8 163
Kenya	812	1 623	72	4 003	...
Morocco					
Crude	140 350	183 770	...	203 250	...
Calcined	4 506	2 636	...	662	...
South Africa	1 599	663	—	—	—
Zimbabwe					
Crude	2 149	1 380	6 000	...	...
Canada					
Crude	5 879 660	5 942 849	5 723 359	5 680 756	5 195 621
Calcined	...	...	...	20 037	18 637
Dominican Republic	13 243	23 079	71 887	105 739	88 020
Guatemala	9 091	16 141	33 186	15 252	...
Jamaica	160 548	100 143	117 577	89 497	37 584
Mexico	3 898 762	2 337 521	2 183 696	2 241 219	2 603 739
USA					
Crude	4 085	13 155	3 417	4 423	98 152
Calcined	70 835	127 758	111 899	241 718	96 611
Argentina	8 676	10 065	12 350	20 334	13 404
Venezuela	8 750	—	—	...	...
Abu Dhabi					
Crude & calcined	404	546	3 513	2 167	...
China (a)	*12 200	*19 400	*30 500	*32 200	*34 400
Cyprus					
Crude	4 449	10 659	11 749	17 500	4 400
Calcined	1 342	1 565	4 158	...	...

Exports of Gypsum

Country	1985	1986	1987	1988	1989
Hong Kong (c)	7 307	4 709	4 960	2 928	19 859
India (b)	3 449	724	5 879	5 785	...
Indonesia					
Crude	1 839	83 935	80 421	116 213	110 753
Japan					
Crude	689	694	866	1 061	780
Calcined	5 453	4 143	4 166	4 835	5 166
Korea, Republic of					
Crude	34	34	12	11 205	16 220
Calcined	19 000	35	70	83	345
Laos	70 410	90 490	...	...	...
Philippines					
Crude	—	5 250	61 227	60 790	94 638
Saudi Arabia					
Crude & calcined	16 085	14 414	18 593	25 228	31 394
Singapore					
Crude & calcined	2 666	2 739	5 040	7 279	9 215
of which: Re-exports	2 563	2 543	4 656	6 386	7 515
Syria	11 563	76 713	72 606	...	...
Taiwan	553	726	741	1 747	3 068
Thailand					
Crude	892 243	1 226 606	1 147 271	3 833 944	...
Calcined	14 025	90 766	324 888	20 734	...
Australia					
Crude & calcined	520 761	428 584	200 230	120 594	...

Note(s):

(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	1985	1986	1987	1988	1989
United Kingdom					
Crude	52 042	34 148	88 461	169 119	132 501
Calcined	57 213	52 043	55 645	64 501	71 304
Belgium-Luxembourg					
Crude	265 187	345 419	436 366	516 063	459 122
Calcined	136 607	162 542	148 755	179 578	217 474
Denmark					
Crude	150 825	199 781	248 719	293 946	323 213
Calcined	8 000	9 026	10 357	23 836	19 764
France					
Crude	27 818	60 572	120 361	169 547	138 025
Calcined	11 401	30 177	38 765	59 784	47 525
Germany, Federal Republic of					
Crude	775 736	760 252	698 306	590 642	483 064
Calcined	101 124	94 389	86 260	154 656	206 096
Greece					
Crude	111	125	164	156	129
Calcined	803	1 298	780	742	1 038
Irish Republic					
Crude	1 487	3 832	4 896	1 550	562
Calcined	3 160	7 124	3 348	5 335	5 624
Italy					
Crude	254	777	4 875	12 258	11 272
Calcined	13 189	14 692	11 782	15 122	28 551
Netherlands					
Crude	269 597	251 780	316 316	340 126	330 515
Calcined	156 792	202 425	192 993	207 383	248 017
Portugal					
Crude	38 022	47 619	48 095	(c)63 997	(c)75 732
Calcined	1 241	1 566	5 675	...	...
Spain					
Crude & calcined	1 000	704	1 107	144 944	53 174
Austria					
Crude	6 117	6 471	5 160	5 002	4 758
Calcined	5 709	6 279	7 222	5 515	7 149
Czechoslovakia	26 000	23 000	20 000	24 000	23 000
Finland					
Crude	166 283	183 044	218 806	203 648	258 410
Calcined	2 748	2 729	3 374	4 786	7 094
Hungary					
Calcined	82 133	77 830	69 686	76 984	...
Iceland	7 124	4 555	6 683	9 993	5 739
Norway					
Crude	146 742	146 727	130 280	38 208	13 245
Calcined	56 812	64 591	100 525	221 321	247 905
Sweden					
Crude	286 282	284 810	406 680	492 098	521 192
Calcined	6 163	6 858	11 532	9 969	10 230
Switzerland					
Crude	31 898	30 456	132 730	65 281	59 933
Ground & calcined	38 198	38 751	48 379	49 923	62 025
Turkey	—	20 523	35 173	35 890	...
Algeria					
Crude & calcined	181	1 927	1	...	...
Cameroon					
Crude & calcined	19 940	12 417	36 491	...	...
Egypt	2 591	1 759	1 126	...	...
Gabon					
Crude & calcined	1 466	808	...	...	...
Ghana	9 269	20 175	18 468	...	...
Ivory Coast					
Crude	26 888	19 703	...	27 622	...
Calcined	4 014	1 869	...	3 897	...
Kenya	1 832	2 140	2 148	18 803	...
Liberia					
Crude & calcined	5 234	439	5 049	...	...
Madagascar					
Crude & calcined	5 491	4 001	—	...	60

Imports of Gypsum

Gypsum

tonnes

Country	1985	1986	1987	1988	1989
Reunion					
Crude & calcined	7 730	10 151	11 660	8 121	...
Senegal					
Crude	22 264	14 210	8 574	12 282	15 930
Calcined	611	500	1 160	1 575	1 013
South Africa					
Crude & calcined	7 331	6 407	12 215	38 338	35 397
Tunisia					
Crude & calcined	848	520	478	679	393
Zaire					
Crude & calcined	*200	*5 900	*13 300	...	...
Zimbabwe	1 796	765	31	...	...
Bahamas	2 230	930	404	2 925	511
Canada					
Crude	121 803	221 647	217 624	275 362	291 033
Calcined	24 632	21 307	25 898	*30 000	32 901
Costa Rica					
Crude & calcined	24 686	20 574	15 420	26 880	29 697
El Salvador					
Crude & calcined	8 741	22 390	21 029	11 547	16 151
Guadeloupe	9 967	10 690	10 918	17 651	9 192
Martinique	8 257	9 749	12 459	17 833	11 039
Mexico					
Crude	6 318	4 810	1 581	29 449	...
Calcined	5 082	3 735	4 079	4 874	...
Panama	9 011	9 757	9 532	13 045	...
Trinidad & Tobago					
Crude & calcined	3 410	10 973	6 815	12 224	8 892
USA					
Crude	9 001 399	8 671 930	8 815 373	8 780 753	8 440 848
Ground & calcined	1 961	22 011	2 344	2 638	2 346
Colombia	62 047	65 043	...	34 838	...
Ecuador	16 307	16 700	31 874	65 820	30 790
Paraguay					
Crude & calcined	6 003	8 858	...	...	...
Uruguay					
Crude & ground	1 340	960	1 225	8 929	...
Venezuela	90 702	76 289	50 785	94 885	...
Abu Dhabi	1 380	1 212	2 947	3 684	...
Bahrain	13 186	180 473	2 891	8 719	...
Hong Kong	103 210	110 865	124 717	113 482	132 623
Indonesia	304 939	197 521	122 373	92 531	141 394
Israel (a)	*1 100	*2 100	*1 800	*5 200	*3 400
Japan					
Crude	304 834	775 279	1 468 129	2 909 802	3 245 275
Calcined	860	1 070	2 693	4 244	13 755
Jordan	2 015	1 248	2 701	686	1 887
Korea, Republic of	151 864	227 812	198 680	395 178	203 261
Kuwait	...	56 684	...	...	...
Macao	14 584	19 060	28 162	30 521	27 355
Malaysia					
Crude & calcined	185 990	152 529	137 416	178 213	223 265
Oman	20 992	33 206	...	...	...
Philippines					
Crude	127 351	145 945	122 681	170 764	210 390
Calcined	3 276	5 007	5 222	7 613	6 934
Qatar	2 285	2 801	4 186	...	6 689
Saudi Arabia	107 639	66 335	21 367	61 963	69 858
Singapore					
Crude & calcined	97 845	56 130	77 647	53 960	51 702
Sri Lanka	15 108	12 446	23 621	20 858	...
Taiwan					
Crude	333 373	322 403	155 631	412 782	480 927
Calcined	78 465	78 715	30 215	16 843	2 859

Gypsum

Imports of Gypsum

tonnes

Country	1985	1986	1987	1988	1989
Thailand					
Crude & calcined	655	933	22 231	1 862	...
Australia	1 246	2 343	2 011	2 075	...
Fiji	40	3 028	3 166	...	...
New Caledonia					
Crude & calcined	1 734	4 076	4 227	4 067	6 204
New Zealand (b)					
Crude	140 277	139 083	136 846	176 869	83 374
Calcined	334	309	218	83	0

Note(s):

- (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	1985	1986	1987	1988	1989
Soviet Union	*2 000 000	*2 000 000	*2 000 000	*2 000 000	*2 000 000
USA	*1 000 000	*1 000 000	*1 000 000	*1 000 000	1 508 000
Chile	3 020 000	3 126 500	3 100 700	4 034 900	*4 845 000
China	*500 000	*500 000	*500 000	*500 000	*500 000
Indonesia	13 416	5 790	8 227	9 753	14 275
Japan	7 251 000	7 389 000	7 014 000	7 451 000	7 592 000
World total	13 800 000	14 000 000	13 600 000	15 000 000	16 500 000

Iodine

Exports of Iodine

kilograms

Country	1985	1986	1987	1988	1989
United Kingdom	224 044	197 053	145 488	149 883	74 951
Belgium-Luxembourg	66 400	26 000	21 100	36 700	100
Denmark	33 600	133 600	144 400	—	3 100
France	60 900	98 000	75 000	68 500	30 000
Germany, Federal Republic of	63 800	47 100	71 500	123 500	138 900
Italy	1 800	14 300	3 600	10 100	...
Netherlands	14 000	12 000	6 000	7 000	168 000
Portugal	1 200	...	100	...	...
Spain	750	6 000	5 362	7 000	865 000
Chile	3 016 000	3 041 640	3 099 750	3 954 342	4 639 700
Hong Kong (b)	910	1 706	2 475	15 201	12 763
Indonesia	2 000	—	—	—	12 500
Japan	(a)6 605 257	(a)6 640 532	(a)6 091 360	6 120 490	6 136 161
Taiwan	2 379	1 400	3 350	3 601	611

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

(b) Re-exports

Imports of Iodine

Iodine
kilograms

Country	1985	1986	1987	1988	1989
United Kingdom	1 329 097	1 546 232	1 665 688	1 602 149	1 487 554
Belgium-Luxembourg	179 500	103 800	129 300	16 000	83 300
Denmark	4 200	6 200	26 700	4 300	26 400
France	893 800	866 500	1 142 700	859 700	931 000
Germany, Federal Republic of	1 879 500	1 703 600	1 087 800	916 500	1 112 000
Greece	1 000	2 000	1 000	750	1 000
Italy	538 300	557 320	726 700	991 200	...
Netherlands	458 000	376 000	355 000	547 000	809 000
Portugal	20 500	15 800	14 300	...	...
Spain	215 010	227 638	335 000	318 000	373 000
Hungary	44 500	26 600	47 500	35 400	...
Norway	...	...	...	943 000	602 000
Romania (c)	...	*16 000	*7 600	*22 900	*25 900
Turkey	4 006	5 766	5 638	3 603	...
Yugoslavia	85 000	51 000	5 000	12 000	14 000
Algeria	2 072	2 623	1 406	...	...
Morocco	512	666	...	485	...
South Africa	...	...	...	14 270	13 542
Tunisia	2 780	1 443	—	950	1 319
Canada	426 000	397 000	89 000	36 734	44 722
Dominican Republic	507	1 343	...	...	...
Mexico	322 000	140 983	207 000	173 974	...
USA	2 441 066	2 576 068	3 143 411	3 228 608	3 313 556
Argentina	19 000	20 000	16 000	13 000	...
Brazil	260 544	253 431	179 031	182 039	...
Colombia	13 164	17 502	...	...	...
Ecuador	1 740	2 750	4 000	...	...
Peru	800	2 845	1 530	1 752	1 000
Uruguay	500	1 200	10 900	900	...
Venezuela	8 631	9 611	24 364	...	...
Hong Kong	550	1 500	2 426	15 800	11 940
India (a)	347 031	544 588	593 843	726 338	...
Indonesia	35 963	13 449	16 397	20 620	20 008
Japan	...	...	...	58 915	291 352
Korea, Republic of	13 464	14 451	13 213	10 805	12 782
Pakistan (b)	16 533	15 358	12 284	29 627	...
Taiwan	34 814	22 811	33 241	27 555	32 680
Thailand	2 803	3 022	5 429	2 987	...
Australia (b)	19 460	...	...	...	21 536

(a) Years ended 31 March following that stated

(b) Years ended 30 June of that stated

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

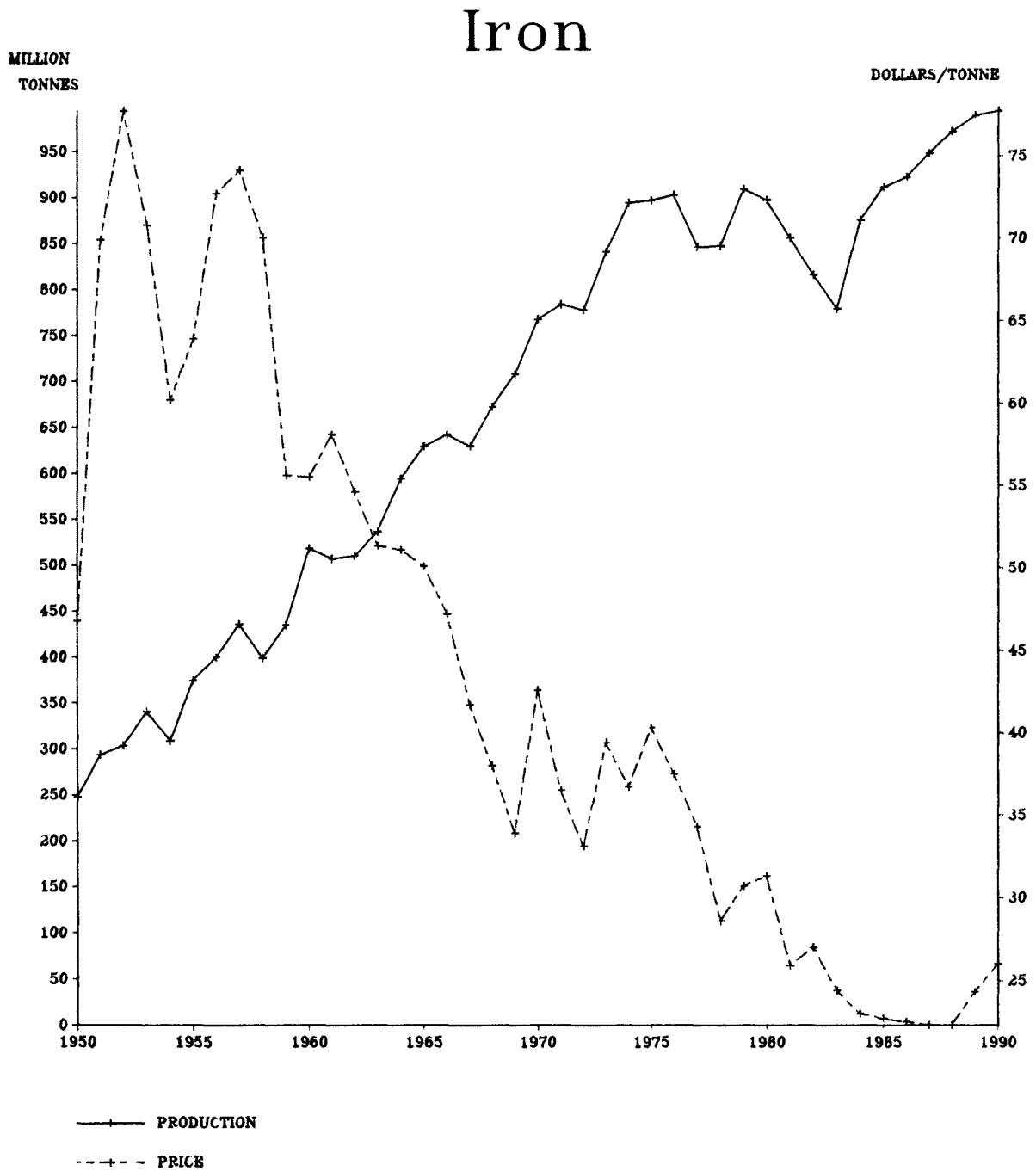


Figure 9 World production of iron ore compared with the yearly average price of Brazilian ore (64.5% Fe) f.o.b. North Sea ports, expressed in constant 1985 US dollars.

Production of Iron Ore

Country	1985	1986	1987	1988	1989
United Kingdom	274 400	289 000	262 700	224 100	34 300
France	14 459 000	12 436 000	11 225 000	9 869 000	9 187 000
Germany, Federal Republic of (f)	1 034 000	717 000	247 300	70 000	102 000
Portugal (f)	78 210	54 700	27 250	23 300	13 170
Spain	6 462 977	6 053 932	4 499 599	4 262 000	4 610 000
Albania (b)	*1 130 000	*1 150 000	*1 200 000	*1 200 000	...
Austria	3 270 000	3 120 000	3 050 000	2 300 000	2 410 000
Bulgaria	1 985 000	2 179 000	1 850 000	1 826 000	1 613 400
Czechoslovakia	1 859 000	1 784 000	1 798 000	1 773 000	1 780 000
Finland	898 810	643 000	648 000	555 550	35 000
Hungary	311 000	—	—	—	—
Norway	3 496 570	3 618 239	3 114 569	2 600 248	2 357 580
Poland	11 300	8 800	6 300	6 300	7 200
Romania	2 287 000	2 431 000	2 281 000	2 252 000	2 482 385
Soviet Union	248 000 000	250 000 000	251 000 000	250 000 000	241 000 000
Sweden	20 525 000	20 529 000	19 069 000	19 717 000	21 406 000
Turkey	3 994 534	5 248 789	5 365 794	5 480 916	4 518 000
Yugoslavia	5 478 154	6 618 122	5 983 000	5 545 155	5 079 691
Algeria	3 376 000	3 360 000	3 382 000	3 118 000	2 748 300
Egypt	2 121 717	1 998 813	2 047 578	2 112 026	2 562 351
Liberia	14 369 000	14 233 000	13 210 000	12 767 000	7 007 121
Mauritania	9 200 000	7 200 000	9 008 000	9 300 000	12 100 000
Morocco	180 028	195 600	279 378	156 416	175 600
South Africa (c)	24 414 154	24 482 538	22 008 032	25 247 678	29 958 256
Tunisia	309 338	310 000	295 000	325 117	279 994
Zimbabwe	1 098 000	1 115 000	1 328 393	1 020 900	1 142 995
Canada (g)	39 501 601	36 166 884	36 980 000	40 353 000	40 509 000
Cuba (h)	202 400	20 000	168 500	144 400	...
Mexico	7 819 900	7 299 100	7 522 900	8 431 000	8 033 000
USA	49 533 000	39 486 000	47 648 000	57 515 000	59 032 000
Argentina	638 894	809 525	567 047	673 707	635 389
Brazil (a)	128 174 116	129 376 538	134 493 672	146 001 854	153 742 600
Chile	6 509 986	7 008 975	6 690 168	7 865 712	8 760 684
Colombia	455 142	523 082	610 521	614 727	529 600
Peru	4 881 324	5 025 998	5 100 017	4 158 132	4 490 237
Venezuela	14 753 688	16 753 406	17 782 079	18 931 793	18 389 996
China	137 830 000	149 450 000	161 420 000	164 000 000	*165 000 000
India	44 186 000	51 610 000	49 411 000	49 961 000	51 434 000
Indonesia (d)	130 930	153 271	193 986	202 778	142 654
Iran (e)	2 799 000	*2 800 000	*2 800 000	2 004 832	...
Japan	336 025	289 731	263 367	99 418	41 425
Korea, Dem. P.R. of	*8 000 000	*8 000 000	*8 000 000	*8 000 000	*8 500 000
Korea, Republic of	668 100	582 300	469 500	390 000	344 000
Malaysia	181 660	207 963	161 287	128 654	105 773
Thailand	93 800	37 330	97 026	99 257	177 373
Australia	97 447 113	94 014 818	101 747 638	96 064 000	105 810 000
New Zealand (d)	2 536 462	2 601 345	2 294 370	2 351 593	2 366 635
World total	917 000 000	922 000 000	948 000 000	970 000 000	984 000 000

Note(s):

(1) In addition to the countries listed, Vietnam is 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 by-product iron ore

(h) From nickel plant waste

Iron Ore

Exports of Iron Ore

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom	5 710	1 008	1 225	2 108	1 528
Belgium-Luxembourg					
Iron ore	15 263	1 057	2 771	6 960	11 373
Burnt pyrites	149 816	149 601	190 202	186 342	95 257
Denmark					
Iron ore	6 834	4 870	2 541	1 814	1 678
Burnt pyrites	—	598	2 727	2 283	1 969
France	4 627 846	4 168 509	3 739 520	3 646 269	3 461 892
Germany, Federal Republic of					
Iron ore	2 576	4 591	5 808	20 202	6 853
Burnt pyrites	16 930	16 581	19 028	17 526	29 290
Italy					
Iron ore	35	2 520	382	297	535
Burnt pyrites	22 873	43 209	45 296	21 073	38 469
Netherlands (b)	55 203	47 741	105 180	222 890	127 896
Spain					
Iron ore	2 128 443	1 790 541	1 991 261	2 037 453	1 768 432
Burnt pyrites	1 862	4 889	20 303	30 658	36 358
Norway					
Iron ore	2 577 892	2 532 249	2 530 392	1 757 308	1 987 150
Burnt pyrites	107 445	33 109	28 230	36 385	31 807
Soviet Union	43 880 000	46 948 000	45 433 000	43 063 000	40 788 000
Sweden	18 371 000	17 219 000	16 762 000	17 626 000	17 473 000
Yugoslavia					
Burnt pyrites	59 727	29 143	67 714	62 528	46 518
Algeria	450	48 000	60 591	22 000	20 000
Liberia	12 965 737	14 383 060	13 510 130	13 779 000	12 747 000
Mauritania	9 333 000	8 929 000	9 002 000	10 005 000	11 138 000
Morocco					
Iron ore	450	337	...	84 484	82 000
Burnt pyrites	161 673	119 701	108 181	—	...
South Africa	10 226 420	8 850 166	8 802 068	11 502 939	14 565 744
Canada	32 259 299	31 030 016	29 679 324	30 523 425	30 222 343
USA (b)	5 114 168	4 553 414	5 094 233	5 289 090	5 351 255
Bolivia	—	10 586	7 490	9 357	24 553
Brazil	94 217 889	91 134 817	95 331 958	112 838 812	118 472 323
Chile	4 824 000	4 650 488	5 384 125	6 681 784	7 017 000
Peru	5 224 003	4 209 247	4 428 860	4 560 643	4 047 700
Venezuela	9 032 038	10 026 746	11 699 908	12 289 357	14 438 000
India (c)	30 149 478	28 224 843	29 409 552	33 040 098	33 479 000
Malaysia	13 134	34 797	1 849	1 429	962
Philippines					
Iron ore	4 034 354	3 603 981	4 016 908	4 873 530	4 600 000
Burnt pyrites	11 751	7 917	10 408	10 298	114
Australia	86 914 280	79 677 812	78 257 560	94 855 000	99 920 000
New Zealand (a)	2 227 140	2 408 027	1 790 950	1 831 806	1 236 274

(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	1985	1986	1987	1988	1989
United Kingdom					
Iron ore	15 404 459	14 557 610	18 027 959	17 718 174	19 179 227
Burnt pyrites	250 183	249 267	168 170	216 312	283 826
Belgium-Luxembourg					
Iron ore	18 996 516	18 056 269	18 385 542	20 795 613	19 787 055
Burnt pyrites	1 574 252	52 264	59 736	55 473	60 198
Denmark					
Iron ore	1 662	3 391	7 657	2 670	6 311
Burnt pyrites	19 710	28 981	28 690	21 820	26 996
France					
Iron ore	16 294 196	16 190 547	15 055 320	18 738 262	19 907 292
Burnt pyrites	44 487	47 390	61 121	74 272	100 876
Germany, Federal Republic of					
Iron ore	45 007 234	41 632 480	39 583 086	45 169 473	47 170 629
Burnt pyrites	35 550	31 966	34 424	102 327	112 264
Greece					
Burnt pyrites	—	—	16 397	9 732	14 436
Italy (a)	18 294 000	17 600 602	16 522 832	16 413 191	18 324 063
Netherlands (a)	8 508 191	7 066 463	7 049 135	7 561 586	8 165 012
Portugal	683 298	542 935	764 088	477 569	688 421
Spain	5 023 218	4 286 832	5 766 867	5 555 921	6 935 369
Albania (d)	*3 000	*3 700	*27 400	*14 300	...
Austria					
Iron ore	3 684 492	3 201 141	3 310 712	4 164 338	4 192 117
Burnt pyrites	19 860	12 776	27 441	11 467	12 144
Bulgaria	2 214 834	2 248 384	2 308 000	2 112 000	1 920 000
Czechoslovakia	11 268 000	11 264 000	10 366 000	10 058 000	9 765 000
Finland	1 755 577	1 986 999	2 261 376	2 336 526	3 015 823
German Democratic Republic (b)	2 681 000	2 598 000	2 525 000	2 375 000	2 343 000
Hungary	2 381 513	3 414 036	3 403 301	2 326 326	2 250 759
Iceland	23 000	24 862	17 163	22 682	16 818
Norway	230 175	17 715	20 637	193 657	23 398
Poland	16 973 000	16 644 000	17 116 000	16 643 000	13 441 000
Romania	15 207 000	16 417 000	16 410 000	13 900 000	13 626 000
Sweden	68 000	68 000	70 000	129 000	255 000
Switzerland (a)	6 418	11 240	8 860	12 551	10 890
Turkey	1 724 869	2 525 965	1 891 532	1 798 326	1 701 559
Yugoslavia	2 179 583	1 346 968	1 081 456	1 485 638	2 305 488
Nigeria (a)	371 845	340 758	6 104	143 000	*180 000
Tunisia	12 532	70 689	63 066	46 511	88 202
Canada	5 800 193	5 367 245	5 212 743	4 791 064	5 367 879
Mexico	2 137	208 617	44 872	484 449	660 000
Trinidad & Tobago	318 284	400 061	614 986	473 870	1 337 544
USA					
Iron ore	(a)16 221 626	(a)17 017 575	(a)16 867 561	(a)20 126 541	19 476 815
Burnt pyrites	...	...	...	...	120 505
Argentina	2 454 801	3 182 519	3 342 227	3 259 581	3 815 906
Abu Dhabi	—	37 073	21 000	40	...
China	10 060 000	13 720 000	10 828 812	10 540 959	12 251 557
Dubai	12 000	14 650	...	...	...
Indonesia					
Iron ore	132 850	754	90	128	273 338
Burnt pyrites	1 188 126	1 668 893	961 471	766 433	1 492 461
Japan	124 512 701	115 233 834	112 034 416	123 376 880	127 709 237
Korea, Republic of					
Iron ore	12 418 239	11 941 199	18 011 094	20 227 910	21 685 214
Burnt pyrites	—	—	9 831	—	—
Malaysia	830 524	1 026 495	819 111	449 461	912 163
Pakistan (c)	1 188 443	1 311 662	1 217 042	1 344 432	*1 500 000
Philippines	3 388 907	2 746 302	3 790 544	3 055 329	3 847 004

Iron ore

Imports of Iron ore

tonnes

Country	1985	1986	1987	1988	1989
Qatar	706 249	722 454	613 705	...	792 218
Saudi Arabia	324 637	1 384 625	1 479 835	1 245 122	1 651 680
Singapore	12 581	10 167	1 140	443	1 036
Taiwan					
Iron ore	4 896 129	5 358 016	6 140 854	8 477 333	8 370 538
Burnt pyrites	11 360	9 460	3	—	8
Australia	24 221	59 174	42 156	468 728	1 844 000

(a) Including burnt pyrites

(b) Fe content of concentrates

(c) Years ended 30 June of that stated

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

Production of Pig Iron

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom	10 381 400	9 685 500	12 017 400	13 055 900	12 637 800
Belgium	8 720 000	8 048 000	8 243 000	9 147 000	8 863 000
France	15 072 000	13 709 000	13 153 000	13 726 000	13 900 000
Germany, Federal Republic of	31 143 000	28 593 000	28 116 000	31 890 000	32 112 000
Greece	*140 000	*160 000	*160 000	*160 000	...
Italy	12 062 547	11 916 398	11 334 904	11 348 608	11 761 396
Luxembourg	2 753 800	2 649 700	2 305 100	2 519 200	2 683 800
Netherlands	4 818 700	4 628 200	4 574 700	4 993 800	5 163 100
Portugal	423 301	423 181	430 860	445 000	377 000
Spain	5 457 000	4 865 000	4 804 125	4 690 581	5 722 000
Austria	3 703 992	3 348 600	3 450 714	3 664 805	3 822 549
Bulgaria	1 713 240	1 606 287	1 657 647	1 437 000	1 484 100
Czechoslovakia	9 562 000	9 573 000	9 788 000	9 706 000	9 911 000
Finland	1 891 000	1 977 641	2 063 326	2 173 328	2 284 000
German Democratic Republic	2 578 200	2 737 600	2 754 500	2 786 000	2 732 400
Hungary	2 095 152	2 054 347	2 107 000	2 093 000	1 954 000
Norway	596 031	560 743	377 671	390 751	240 350
Poland	9 707 000	10 478 000	10 476 000	10 264 000	9 077 000
Romania	9 212 000	9 329 000	8 673 000	8 941 000	9 052 000
Soviet Union	109 977 000	113 840 000	113 877 000	114 558 000	114 000 000
Sweden	2 609 793	2 627 553	2 574 033	2 492 000	2 638 000
Switzerland	66 000	79 000	70 000	70 000	*70 000
Turkey	3 371 025	3 926 128	4 437 873	4 916 000	3 931 000
Yugoslavia	3 120 000	3 063 000	2 868 000	2 916 000	2 899 000
Algeria	1 461 900	1 246 000	1 477 500	1 500 000	1 301 000
Egypt	103 306	112 705	146 764	131 598	112 410
Nigeria	242 242	108 638	130 772	140 000	130 000
South Africa	6 574 200	5 774 000	6 317 000	6 171 000	6 513 000
Tunisia	138 600	144 600	161 700	132 300	154 400
Zimbabwe	674 219	643 735	556 624	545 000	520 000
Canada	9 665 427	9 248 530	9 719 289	9 498 264	10 138 904
Mexico	5 095 305	5 157 884	5 262 520	5 364 271	5 398 000
Trinidad & Tobago	243 200	337 200	441 200	548 000	674 800
USA	45 326 000	40 176 000	43 824 000	50 571 000	50 700 000
Argentina	2 298 744	2 557 900	2 785 326	2 662 700	3 336 325
Brazil	19 256 593	20 555 073	21 145 872	23 649 551	24 620 700
Chile	579 820	591 208	616 757	775 961	678 600
Colombia	246 171	319 797	329 387	309 040	297 300
Paraguay	—	—	50 278	62 724	61 400
Peru	206 883	271 912	235 581	214 329	275 900
Venezuela	3 073 941	3 430 915	3 624 899	3 194 734	3 262 000
China	43 840 000	50 640 000	55 030 000	57 040 000	58 200 000
India	9 722 000	10 566 000	10 893 000	11 735 000	12 080 000
Iran (a)	250 000	250 000	250 000	250 000	*250 000
Japan	80 569 000	74 651 000	73 418 000	79 295 000	80 197 000
Korea, Dem. P.R. of	*5 750 000	*5 800 000	*5 900 000	*5 900 000	*5 900 000
Korea, Republic of	8 832 718	9 016 679	10 868 949	12 577 754	14 948 751
Pakistan	803 147	895 437	903 000	926 488	*910 000
Taiwan	225 729	197 536	87 179	25 092	29 904
Australia	5 607 000	5 889 000	5 569 000	5 730 000	6 094 000
World total	502 000 000	498 500 000	510 100 000	537 300 000	544 300 000

Note(s):

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

(a) Years ended 20 March following that stated

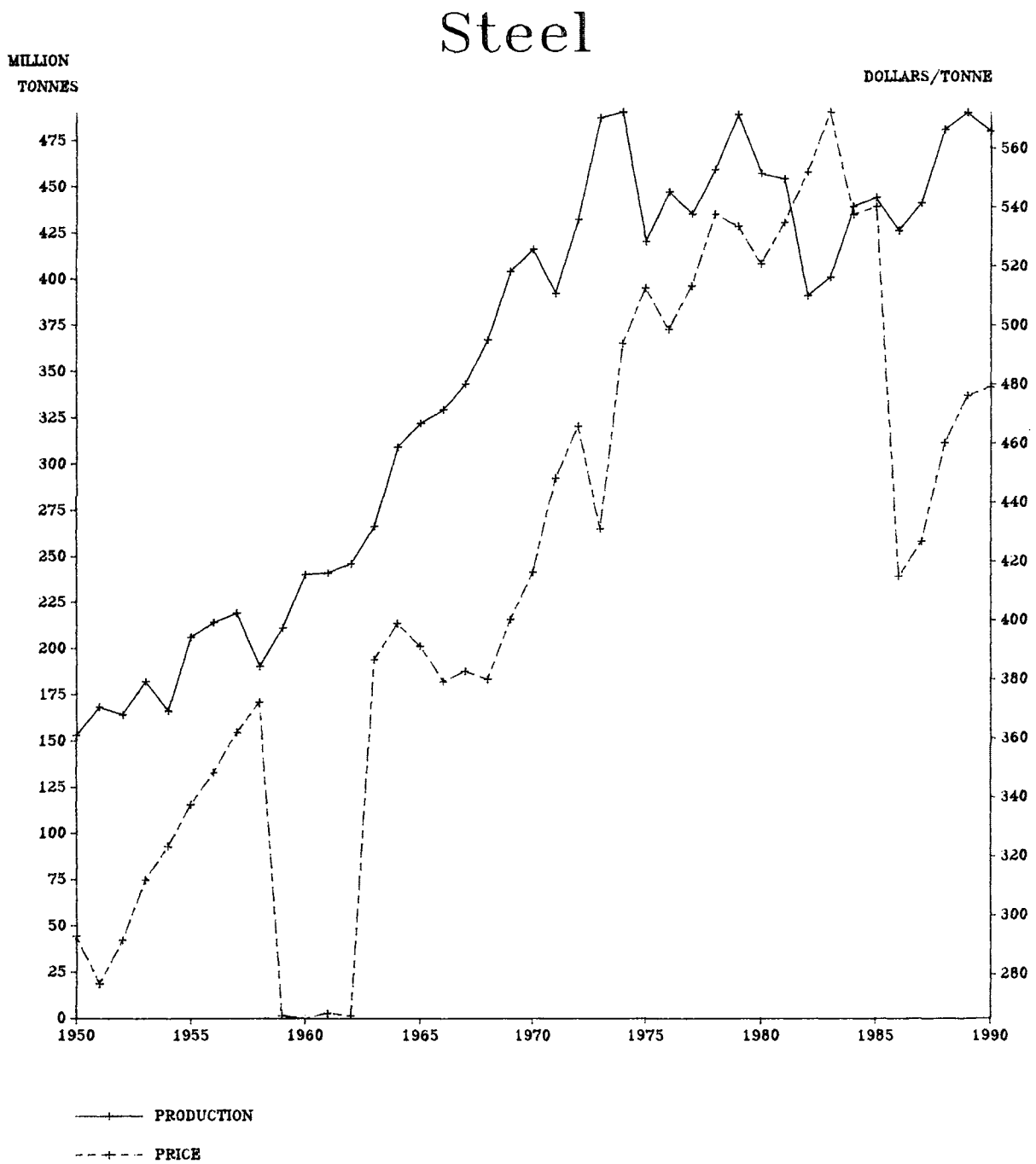


Figure 10 Production of steel ingots and castings in market economy countries compared with the annual average price of carbon steel plate, Pittsburgh, expressed in constant 1985 US dollars.

Production of Steel Ingots and Castings

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom	15 721 900	14 725 000	17 413 700	18 950 000	18 740 000
Belgium	10 687 000	9 767 551	9 786 422	11 220 797	10 952 815
Denmark	528 000	632 000	606 000	650 000	624 000
France	18 808 000	17 865 000	17 693 000	19 122 000	19 335 000
Germany, Federal Republic of	40 908 000	37 533 000	36 577 000	41 023 000	41 073 000
Greece	985 000	1 010 000	907 000	959 000	958 000
Irish Republic	203 000	208 000	220 000	271 000	324 000
Italy	23 897 592	22 883 021	22 858 742	23 760 369	25 212 942
Luxembourg	3 945 275	3 705 300	3 301 860	3 660 890	3 720 920
Netherlands	5 517 300	5 283 000	5 082 100	5 517 900	5 680 600
Portugal	703 777	738 082	749 171	832 000	736 000
Spain	14 193 000	11 882 000	11 691 441	11 886 000	12 765 000
Austria	4 660 426	4 291 895	4 301 165	4 560 072	4 717 595
Bulgaria	2 944 000	2 965 248	3 045 000	2 875 000	2 899 000
Czechoslovakia	15 036 000	15 112 000	15 356 000	15 379 000	15 465 000
Finland	1 765 279	1 700 729	1 765 872	1 802 900	1 877 641
German Democratic Republic	7 852 800	7 967 200	8 242 700	8 131 200	7 828 800
Hungary	3 646 000	3 713 000	3 621 000	3 583 000	3 356 000
Norway	964 868	836 747	848 623	897 441	677 847
Poland	16 126 000	17 144 000	17 145 000	16 873 000	15 094 000
Romania	13 795 000	14 276 000	13 885 000	14 314 000	14 415 000
Soviet Union	154 668 000	160 550 000	161 887 000	163 037 000	160 000 000
Sweden	4 840 000	4 710 000	4 703 000	4 779 000	4 697 000
Switzerland	987 000	1 075 000	866 000	988 000	916 000
Turkey	4 600 301	5 946 682	6 999 709	8 009 073	7 854 000
Yugoslavia	4 480 021	4 519 331	4 366 087	4 487 156	4 500 111
Algeria	1 245 000	1 120 000	1 378 000	1 301 000	1 041 000
Angola	*10 000	*10 000	*10 000	*10 000	...
Egypt	1 028 000	1 013 000	1 433 000	2 025 000	2 114 000
Nigeria	250 000	134 067	136 552	139 344	...
South Africa	8 444 000	8 895 000	8 693 000	8 522 000	8 973 000
Tunisia	160 300	181 400	188 200	158 600	188 000
Zimbabwe	730 841	679 989	615 507	602 000	592 000
Canada	14 630 738	14 081 405	14 737 047	14 865 714	15 458 139
Cuba	401 400	411 500	401 500	320 500	314 200
Dominican Republic	59 850	100 043	87 800	75 327	...
Mexico	7 399 150	7 225 118	7 642 259	7 778 655	7 851 000
Trinidad & Tobago	166 900	327 000	375 600	361 200	340 100
USA	80 067 000	74 032 000	80 876 000	90 650 000	88 852 000
Argentina	2 942 094	3 235 211	3 632 600	3 623 546	3 882 758
Brazil	20 454 983	21 233 346	22 227 856	24 656 918	25 055 100
Chile	688 980	706 217	726 149	908 900	812 900
Colombia	530 442	631 989	689 498	712 274	711 000
Paraguay	—	—	13 167	62 273	54 700
Peru	397 148	486 201	495 516	429 689	364 000
Uruguay	38 964	30 987	30 428	29 971	37 000
Venezuela	3 060 475	3 402 262	3 297 499	3 165 192	3 195 000
Bangladesh (b)	101 419	95 514	82 081	70 036	86 274
China	46 790 000	52 200 000	56 280 000	59 430 000	61 590 000
Hong Kong	*120 000	*120 000	*120 000	*120 000	*150 000
India	10 613 000	11 332 000	11 984 000	12 682 000	12 542 000
Indonesia	1 374 000	1 729 000	2 059 000	1 850 000	*1 850 000
Iran	850 000	850 000	875 000	978 000	1 081 000
Israel	100 000	110 000	116 000	99 000	100 000
Japan	105 279 000	98 275 000	98 513 000	105 681 000	107 908 000
Jordan	136 266	*136 000	*218 000	*218 000	...
Korea, Dem. P.R. of	*6 500 000	*6 600 000	*6 730 000	*6 830 000	*6 930 000
Korea, Republic of	13 591 136	14 501 548	16 782 000	19 118 000	21 873 000
Malaysia	400 000	400 000	550 000	550 000	*550 000
Pakistan	720 092	752 000	828 000	1 200 000	*1 200 000
Philippines	250 000	250 000	300 000	300 000	*400 000
Qatar	533 000	507 000	492 000	527 000	585 000
Saudi Arabia	1 106 000	1 100 000	1 365 000	1 614 000	1 810 000
Singapore	365 000	390 000	441 000	432 000	495 000
Syria	*70 000	*70 000	*70 000	*70 000	...

Production of Steel Ingots and Castings

tonnes

Country	1985	1986	1987	1988	1989
Taiwan	5 306 000	5 545 000	5 915 000	8 288 000	9 047 000
Thailand	425 000	450 000	534 172	535 000	689 421
Vietnam	61 600	64 400	69 500	74 100	...
Australia (a)	6 578 000	6 703 000	6 125 000	6 399 000	6 735 000
New Zealand	227 925	291 063	315 000	538 000	718 000
World total	717 000 000	711 000 000	732 000 000	776 000 000	781 000 000

Note(s):

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

(a) Including recovery from scrap

(b) Years ended 30 June of that stated

Production of Ferro-alloys

Country	1985	1986	1987	1988	1989
United Kingdom					
Ferro-manganese	76 900	99 500	92 400	107 300	142 700
Belgium					
Ferro-manganese	*90 000	*87 000	*90 000	*95 000	*95 000
France					
Blast furnace ferro-alloys					
Spiegeleisen & ferro-manganese	333 998	273 602	295 821	323 945	346 295
Electric furnace ferro-alloys (h)					
Ferro-chrome & ferro-silico-chrome	1 007	161	55	(c)...	(c)...
Ferro-silico-manganese	22 596	16 723	18 441	*22 000	*22 000
Ferro-silicon (i)	197 114	195 913	154 659	*196 000	*200 000
Ferro-titanium & Fe-W, Fe-Mo, Fe-V (a)	5 159	2 414	611	(c)...	(c)...
Other ferro-alloys	95 060	84 752	57 446	*86 000	*86 000
Silicon metal	71 300	71 557	*70 000	70 000	72 000
Germany, Federal Republic of					
Blast furnace ferro-alloys					
Spiegeleisen & ferro-manganese (g)	205 000	256 000	196 000	274 000	305 000
Electric furnace ferro-alloys					
Ferro-chrome	*50 000	*60 000	*50 000	*60 000	*60 000
Ferro-manganese & ferro-silico-manganese	*25 000	*35 000	*25 000	*35 000	*38 000
Ferro-silicon	*40 000	*50 000	*40 000	*50 000	*50 000
Other ferro-alloys	*56 000	*61 000	*57 000	*62 000	*62 000
Greece					
Electric furnace ferro-alloys					
Ferro-chrome	34 436	38 260	42 000	44 000	45 000
Ferro-nickel	*63 800	39 700	35 400	50 500	61 900
Italy					
Blast furnace ferro-alloys					
Spiegeleisen	1 001	1 151	491	251	—
Ferro-manganese	50 111	48 002	19 469	27 169	26 738
Silicon pig-iron (j)	686	968	—	37	—
Electric furnace ferro-alloys					
Ferro-chrome	57 654	55 939	59 045	77 123	81 331
Ferro-manganese	17 166	11 653	17 067	12 280	14 220
Ferro-silico-manganese	64 858	66 083	75 192	66 959	46 868
Ferro-molybdenum	1 564	—	—	—	—
Ferro-silicon	74 616	62 799	47 075	51 131	65 171
Ferro-titanium & ferro-silico-titanium	2 291	2 508	2 861	2 636	1 653
Ferro-vanadium	8	—	—	—	—
Calcium silicide	11 999	11 514	17 097	15 047	11 153
Silicon metal	17 812	18 904	16 500	*18 000	*19 000
Portugal					
Electric furnace ferro-alloys					
Ferro-manganese	*48 000	*20 000	—	*1 000	*1 000
Ferro-silico-manganese	*25 000	*10 000	—	—	—
Ferro-silicon	*9 000	*5 000	—	—	—
Ferro-tungsten	150	24	—	—	—
Silicon metal	*11 000	*7 000	—	—	—
Spain					
Electric furnace ferro-alloys					
Ferro-chrome	*17 000	*17 000	*20 000	*20 000	*20 000
Ferro-manganese	*86 000	*86 000	*90 000	*90 000	*90 000
Ferro-silico-manganese	*70 000	*70 000	*70 000	*70 000	*70 000
Ferro-silicon	*61 000	*61 000	*60 000	*60 000	*60 000
Other ferro-alloys	*4 000	*4 000	*5 000	*5 000	*5 000
Silicon metal	12 100	11 000	11 800	10 700	11 000
Albania					
Electric furnace ferro-alloys					
Ferro-chrome	11 900	*46 000	*46 000	38 700	39 000
Austria					
Electric furnace ferro-alloys	13 000	12 000	15 000	20 000	15 000
Bulgaria					
Electric furnace ferro-alloys					
Ferro-manganese & ferro-silico-manganese	*30 000	*32 000	*31 000	*31 000	*31 000
Ferro-silicon	*10 000	*15 000	*10 000	*16 000	*16 000
Other ferro-alloys	*1 000	*1 000	*1 000	*1 000	*1 000

Production of Ferro-alloys

tonnes

Country	1985	1986	1987	1988	1989
Czechoslovakia					
Electric furnace ferro-alloys					
Ferro-chrome	25 178	28 231	29 018	29 183	29 844
Ferro-manganese	62 358	57 593	59 252	60 766	63 518
Ferro-silico-manganese	*31 000	*34 000	*33 000	*31 000	*28 000
Ferro-silicon	20 765	21 090	21 030	22 730	20 997
Other ferro-alloys	*9 000	*8 000	*9 000	*10 000	*8 000
Silicon metal	*4 500	*5 000	*5 000	*5 000	*5 000
Finland					
Electric furnace ferro-alloys					
Ferro-chrome & ferro-silico-chrome	133 350	145 271	155 019	154 827	135 997
German Democratic Republic					
Electric furnace ferro-alloys					
Ferro-chrome	*19 500	*22 000	*22 000	*23 000	*22 000
Ferro-manganese & ferro-silico-manganese	*63 000	*68 000	*68 000	*69 000	*68 000
Ferro-silicon	*23 000	*26 000	*26 000	*26 000	*26 000
Other ferro-alloys	*15 250	*15 600	*15 600	*16 400	*15 600
Silicon metal	*3 250	*3 400	*3 400	*3 600	*3 400
Hungary					
Electric furnace ferro-alloys					
Ferro-silicon	10 578	10 237	9 342	10 074	10 224
Other ferro-alloys	*2 000	*2 000	*2 000	*1 000	*1 000
Silicon metal	*2 000	*2 000	*2 000	*2 000	*2 000
Iceland					
Electric furnace ferro-alloys					
Ferro-silicon	60 328	66 787	60 184	70 061	72 008
Norway					
Electric furnace ferro-alloys					
Ferro-manganese	267 670	195 257	193 748	231 903	220 591
Ferro-silico-manganese	256 457	233 490	214 456	232 465	270 315
Ferro-silicon	397 776	335 041	369 761	382 279	398 744
Silicon metal	105 552	86 838	81 460	88 854	100 026
Poland					
Blast furnace ferro-alloys					
Spiegeleisen	1 900	1 700	2 500	1 078	906
Ferro-manganese	99 400	95 500	95 300	91 117	90 267
Electric furnace ferro-alloys					
Ferro-chrome	*49 000	36 200	35 900	36 316	28 222
Ferro-manganese & ferro-silico-manganese	*4 000	3 700	4 800	4 066	1 427
Ferro-silicon	*52 000	78 500	77 100	82 114	83 210
Other ferro-alloys	*60 000	*60 000	*60 000	65 632	60 718
Silicon metal	*10 500	*10 500	*10 000	*10 000	*10 000
Romania					
Electric furnace ferro-alloys					
Ferro-chrome	*44 000	*44 000	*42 000	*42 000	*42 000
Ferro-manganese	*80 000	*82 000	*81 000	*80 000	*80 000
Ferro-silico-manganese	*39 000	*40 000	*39 000	*40 000	*40 000
Ferro-silicon	*50 000	*51 000	*50 000	*50 000	*50 000
Silicon metal	*4 500	*4 500	*4 500	*4 500	*4 500
Soviet Union					
Blast furnace ferro-alloys					
Spiegeleisen	19 000	20 000	19 000	19 000	*19 000
Ferro-manganese	574 000	601 000	593 000	*600 000	*600 000
Electric furnace ferro-alloys					
Ferro-chrome	*420 000	*425 000	*430 000	*450 000	*450 000
Ferro-silico-chrome	*12 000	*13 000	*13 500	*14 000	*14 000
Ferro-manganese	*675 000	*700 000	*700 000	*700 000	*700 000
Ferro-silico-manganese	*190 000	*200 000	*200 000	*200 000	*200 000
Ferro-phosphorus	*26 000	*26 000	*25 000	*25 000	*25 000
Ferro-silicon	*750 000	*800 000	*850 000	*850 000	*850 000
Other ferro-alloys	*230 000	*240 000	*240 000	*250 000	*250 000
Silicon metal	*60 000	*65 000	*65 000	*65 000	*65 000
Sweden					
Electric furnace ferro-alloys					
Ferro-chrome	135 701	126 388	109 352	138 646	151 697
Ferro-silico-chrome	26 243	17 024	4 029	...	...
Ferro-molybdenum	143	16	—	—	—
Ferro-silicon	26 564	20 103	19 949	20 622	20 996
Silicon metal	19 775	19 156	21 145	17 059	...

Production of Ferro-alloys

Country	1985	1986	1987	1988	1989
Switzerland					
Electric furnace ferro-alloys					
Ferro-silicon	*3 000	*3 000	*3 000	*3 000	*3 000
Silicon metal	*2 000	*2 000	*2 000	*2 000	*2 000
Turkey					
Electric furnace ferro-alloys					
Ferro-chrome	*50 000	*50 000	*53 000	54 030	59 715
Ferro-silicon	*6 900	4 876	4 400	5 200	4 970
Yugoslavia					
Electric furnace ferro-alloys					
Ferro-chrome	73 308	66 022	56 276	93 349	90 429
Ferro-silico-chrome	7 199	7 513	6 240	3 688	3 815
Ferro-manganese	35 775	39 230	38 041	45 078	33 869
Ferro-silico-manganese	43 374	41 330	42 528	46 804	52 737
Ferro-nickel	9 248	8 647	9 556	15 047	17 102
Ferro-silicon	91 702	99 625	98 843	120 522	122 153
Other ferro-alloys	5 539	6 715	8 071	11 450	11 199
Silicon metal	33 094	31 312	31 915	25 830	15 897
Egypt					
Electric furnace ferro-alloys					
Ferro-silicon	*7 500	7 221	7 702	7 806	*7 800
South Africa					
Ferro-chrome	852 338	(1)924 630	(1)965 071	(1)993 685	(1)*1 070 000
Ferro-silico-chrome	4 651	...	...	...	...
Ferro-manganese	331 302	337 213	315 110	446 894	394 045
Ferro-silico-manganese	237 864	270 521	281 790	247 701	*280 000
Ferro-silicon	75 126	83 256	82 519	87 247	90 343
Other ferro-alloys	548	626	*1 000	*1 000	*1 000
Silicon metal	35 830	34 954	34 046	38 960	36 301
Zimbabwe					
Electric furnace ferro-alloys					
Ferro-chrome	183 928	187 454	186 947	224 000	173 000
Ferro-silico-chrome	29 707	52 298	21 000	29 000	25 000
Ferro-manganese	1 953	8 029	8 500	2 620	...
Canada					
Electric furnace ferro-alloys					
Ferro-manganese	*118 000	*126 000	*128 000	*130 000	*130 000
Ferro-silicon	*77 100	*83 300	*95 200	*90 300	*88 400
Silicon metal	*25 000	*26 000	*30 000	*30 000	*30 000
Dominican Republic					
Electric furnace ferro-alloys					
Ferro-nickel	66 828	57 565	85 567	77 209	82 260
Mexico					
Electric furnace ferro-alloys					
Ferro-chrome	6 254	2 670	6 300	9 295	2 569
Ferro-silico-magnesium	2 373	1 308	420	550	...
Ferro-manganese	153 733	156 359	161 331	165 487	168 042
Ferro-silico-manganese	39 277	60 532	80 123	80 223	98 852
Ferro-silicon	27 638	17 650	18 060	16 553	9 474
Other ferro-alloys	294	102	272	107	92
USA					
Ferro-chrome	89 836	86 920	104 817	109 504	137 997
Ferro-silico-chrome (e)	9 558	8 704	1 899	10 141	8 847
Ferro-manganese (d)(f)	139 298	106 474	102 462	(c)...	(c)...
Ferro-phosphorus	56 211	52 750	36 458	60 220	(c)...
Ferro-silicon	400 679	307 936	324 096	449 328	475 272
Other ferro-alloys (b)	81 165	65 416	32 365	167 803	171 410
Silicon metal	109 738	112 394	135 559	149 094	136 531

Production of Ferro-alloys

tonnes

Country	1985	1986	1987	1988	1989
Argentina					
Electric furnace ferro-alloys					
Ferro-manganese	23 663	19 782	21 407	19 737	25 545
Ferro-silico-manganese	7 493	12 977	11 746	11 610	16 857
Ferro-silicon	18 790	22 979	23 998	30 539	28 381
Other ferro-alloys	4 892	5 272	6 790	5 952	7 461
Silicon metal	*5 000	*5 000	13 900	15 800	...
Brazil					
Electric furnace ferro-alloys					
Ferro-calcium-silicon	22 179	23 715	25 673	31 519	33 020
Ferro-chrome	127 288	109 392	105 394	130 024	113 267
Ferro-silico-chrome	8 875	9 512	8 079	9 177	8 938
Ferro-silico-magnesium	14 876	13 053	17 575	17 000	15 864
Ferro-manganese	134 835	164 093	155 252	180 588	180 668
Ferro-silico-manganese	180 271	177 568	188 022	193 490	208 262
Ferro-molybdenum	509	511	422	427	332
Ferro-nickel	33 467	34 296	35 496	33 930	34 997
Ferro-niobium	17 676	17 391	10 880	19 106	16 378
Ferro-phosphorus	1 310	1 496	1 784	1 469	1 928
Ferro-silicon	181 784	217 715	231 159	267 538	286 994
Ferro-titanium	1 372	755	80	549	430
Ferro-vanadium	905	439	88	261	302
Other ferro-alloys	639	1 025	521	926	1 414
Silicon metal	29 477	37 077	39 982	79 287	116 779
Chile					
Electric furnace ferro-alloys					
Ferro-manganese	6 516	6 225	6 614	6 899	7 250
Ferro-silico-manganese	754	1 465	1 232	681	180
Ferro-molybdenum	671	1 397	1 325	1 191	...
Ferro-silicon	4 501	3 732	4 655	5 686	5 400
Colombia					
Ferro-nickel	25 500	45 500	46 389	41 672	41 454
Venezuela					
Ferro-silico-manganese	24 109	28 573	28 000	33 760	30 000
Ferro-silicon	60 583	50 743	52 188	51 363	55 000
China					
Ferro-chrome	*125 000	*150 000	*175 000	*175 000	*175 000
Ferro-manganese	*550 000	*625 000	*675 000	*675 000	*675 000
Ferro-silicon	*375 000	*450 000	*600 000	*775 000	*775 000
Other ferro-alloys	*75 000	*100 000	*150 000	*150 000	*150 000
Silicon metal	*25 000	*50 000	*75 000	*100 000	*100 000
India					
Electric furnace ferro-alloys					
Ferro-chrome	67 032	84 096	93 944	140 262	133 522
Ferro-silico-chrome	12 215	9 493	12 321	2 769	11 384
Ferro-manganese	166 042	179 910	173 259	138 331	149 139
Ferro-silico-manganese	13 544	24 782	37 504	52 895	75 469
Ferro-silicon	43 513	50 096	50 747	46 721	73 751
Other ferro-alloys	461	617	528	445	386
Silicon metal	—	642	1 445	686	*1 000
Indonesia					
Electric furnace ferro-alloys					
Ferro-nickel	23 789	22 554	8 354	26 852	26 058
Japan					
Electric furnace ferro-alloys					
Ferro-calcium-silicon	2 496	2 005	1 419	1 360	808
Ferro-chrome	349 496	286 925	272 298	304 642	333 978
Ferro-manganese	441 703	359 044	332 286	378 351	394 055
Ferro-silico-manganese	216 916	148 429	91 896	106 970	122 192
Ferro-molybdenum	3 143	1 894	2 032	2 656	2 784
Ferro-nickel	227 043	200 311	203 143	242 276	275 341
Ferro-niobium	1 072	862	714	649	737
Ferro-silicon	150 167	107 236	73 706	73 767	74 936
Ferro-tungsten	114	122	96	91	77
Ferro-vanadium	3 353	2 867	2 639	3 776	3 127
Other ferro-alloys	2 575	2 015	1 384	1 761	3 578

Production of Ferro-alloys

tonnes

Country	1985	1986	1987	1988	1989
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	61 396	53 721	58 044	75 924	85 329
Ferro-silicon	34 840	30 939	12 646	8 909	4 582
Other ferro-alloys	54 879	66 499	90 382	89 966	101 818
Philippines					
Electric furnace ferro-alloys					
Ferro-chrome	50 815	*55 000	*57 000	*76 000	*70 000
Ferro-silicon	*20 000	*20 000	—	*9 000	*9 000
Taiwan					
Electric furnace ferro-alloys					
Ferro-manganese	18 508	20 040	16 971	25 822	30 623
Ferro-silico-manganese	34 285	31 630	28 309	30 745	26 510
Ferro-silicon	17 272	20 456	11 266	19 601	19 277
Australia					
Electric furnace ferro-alloys					
Ferro-manganese	69 000	61 000	51 000	58 000	*60 000
Ferro-silico-manganese (k)	27 000	23 000	43 000	44 000	*45 000
Ferro-silicon	18 700	19 000	18 000	*18 000	*20 000
New Caledonia					
Electric furnace ferro-alloys					
Ferro-nickel	138 614	130 492	108 170	136 203	132 261

- (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) Included with 'other ferro-alloys'
- (d) Including manganese metal
- (e) Including other chromium alloys and chromium metal
- (f) Including ferro-silico-manganese
- (g) Including ferro-silicon
- (h) Including alumino-thermic ferro-alloys
- (i) 50% Si
- (j) 10-12% Si
- (k) 60% Mn
- (l) Including ferro-silico-chrome

Exports of Iron, Steel and Ferro-alloys

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Pig iron	43 768	19 983	30 992	22 888	20 470
Sponge & powder	471	750	990	5 360	5 048
Ferro-aluminium, Fe-Si-Al & Fe-Si-Mn-Al	2 066	2 512	3 567	(c)...	(c)...
Ferro-chrome	2 421	525	953	648	850
Ferro-manganese	17 556	12 749	13 990	9 756	38 238
Ferro-silico-manganese	127	146	419	2 820	673
Ferro-molybdenum	4 274	5 172	4 298	6 661	6 853
Ferro-nickel	28	11	0	8	76
Ferro-niobium & ferro-niobium-tantalum	38	32	147	486	804
Ferro-silicon	2 016	3 301	2 547	2 387	2 072
Ferro-titanium & ferro-silico-titanium	7 059	7 277	8 390	11 857	11 241
Ferro-tungsten & ferro-silico-tungsten	167	86	11	1	21
Ferro-vanadium	241	158	146	38	60
Other ferro-alloys	2 685	2 919	3 659	5 716	5 931
Ingots, blooms, billets	741 919	1 070 498	1 664 869	1 690 357	1 485 518
Scrap	4 535 868	3 816 871	3 306 206	3 607 032	3 227 433
Belgium-Luxembourg					
Pig iron	4 254	5 756	10 629	15 065	19 596
Spiegeleisen	1 727	1 426	68	31	0
Sponge & powder	798	1 108	972	4 599	3 408
Ferro-aluminium, Fe-Si-Al & Fe-Si-Mn-Al	628	260	33	—	—
Ferro-chrome	1 338	876	2 118	3 651	4 982
Ferro-manganese	20 556	17 370	21 297	24 332	45 843
Ferro-silico-manganese, Fe-Mo & Fe-V	17 282	16 545	27 267	(a)13 529	(a)8 940
Ferro-silicon	368	900	4 370	3 121	3 802
Ferro-titanium & ferro-silico-titanium	1 424	945	834	1 321	745
Ferro-tungsten & ferro-silico-tungsten	184	91	6	7	—
Other ferro-alloys	1 354	1 426	1 484	1 183	411
Ingots, blooms, billets	594 958	626 130	751 506	665 459	579 510
Scrap	736 458	658 309	704 546	912 898	1 049 884
Denmark					
Ingots, blooms, billets	9 001	5 842	2 531	2 428	1 019
Scrap	269 573	182 773	224 017	298 246	278 990
France					
Pig iron	232 638	10 880	54 082	54 513	40 340
Spiegeleisen	835	919	189	480	356
Sponge & powder	313	193	253	1 116	2 931
Ferro-aluminium, Fe-Si-Al & Fe-Si-Mn-Al	841	553	386	(c)...	(c)...
Ferro-chrome	333	9 344	16 784	48 263	12 895
Ferro-silico-chrome	346	2	9	9	4
Ferro-silico-magnesium	7 155	7 324	9 364	9 389	10 240
Ferro-manganese	238 967	29 316	21 076	31 963	21 586
Ferro-silico-manganese	18 352	21 860	14 830	26 290	45 002
Ferro-molybdenum	1 162	990	2 388	2 199	2 433
Ferro-nickel	55 671	33 280	6 352	3 720	4 325
Ferro-silicon	75 915	67 533	54 391	46 946	40 739
Ferro-titanium & ferro-silico-titanium	542	313	312	464	490
Ferro-vanadium	1 296	706	171	2	1
Ferro-silico-zirconium	2 672	1 822	1 939	1 809	1 221
Other ferro-alloys	25 297	22 241	21 956	29 693	28 785
Ingots, blooms, billets	1 000 173	771 978	855 421	966 753	887 352
Scrap	3 962 164	3 161 685	3 228 411	3 691 713	4 260 050
Germany, Federal Republic of					
Pig iron	677 864	500 459	499 016	389 558	408 299
Spiegeleisen	182	1 970	99	—	—
Sponge & powder	35 848	33 962	37 888	40 202	38 199
Ferro-chrome	58 445	39 721	54 345	44 660	49 274
Ferro-silico-chrome	3 021	5 056	4 346	3 980	4 230
Ferro-silico-magnesium	...	...	...	5 630	6 628
Ferro-manganese	66 108	69 208	67 426	81 314	95 635
Ferro-silico-manganese	3 682	4 002	3 715	5 482	7 156
Ferro-molybdenum	503	345	196	214	261
Ferro-nickel	2 023	797	226	1 067	306
Ferro-niobium	490	515	484	927	913
Ferro-phosphorus	...	...	...	4 342	6 342
Ferro-silicon	69 445	65 658	64 482	80 618	71 482
Ferro-titanium & ferro-silico-titanium	463	396	636	1 211	1 311
Ferro-tungsten & ferro-silico-tungsten	16	25	78	33	28
Ferro-vanadium	2 245	2 463	3 020	2 977	2 672
Other ferro-alloys	10 832	10 330	8 259	2 147	3 933
Ingots, blooms, billets	1 963 995	1 569 902	1 350 840	1 818 774	1 477 699
Scrap	3 623 925	3 674 154	4 521 210	4 891 361	5 054 061

Exports of Iron, Steel and Ferro-alloys

tonnes

Country	1985	1986	1987	1988	1989
Greece					
Ferro-chrome	23 070	43 315	51 460	30 609	46 605
Ferro-nickel	89 542	67 113	52 278	—	...
Irish Republic					
Scrap	50 045	40 751	26 249	32 411	33 827
Italy					
Pig iron	21 547	60 506	17 285	34 970	48 104
Sponge & powder	2 403	982	889	3 256	8 545
Ferro-chrome & ferro-silico-chrome	24 592	24 442	19 505	26 660	35 019
Ferro-silico-magnesium	3 513	3 743	1 944	1 215	(c)...
Ferro-manganese	303	334	3 606	5 120	4 125
Ferro-silico-manganese	2 677	5 197	9 856	3 291	9 463
Ferro-molybdenum	1 119	38	21	—	...
Ferro-silicon	16 783	11 306	10 122	16 969	22 008
Ferro-titanium & ferro-silico-titanium	1 656	1 435	2 253	1 518	(c)...
Ferro-vanadium	179	18	74	—	...
Other ferro-alloys	2 426	3 817	4 737	3 567	6 766
Ingots, blooms, billets	350 443	261 791	95 047	169 148	366 385
Scrap	10 028	7 274	15 701	27 517	29 334
Netherlands					
Pig iron	17 945	17 966	9 806	3 737	2 045
Sponge & powder	75	37	502	215	586
Ferro-chrome	1 714	14 881	7 159	—	4 750
Ferro-manganese	154	103	1 125	112	3 117
Ferro-silico-manganese	—	285	279	303	—
Ferro-molybdenum	289	532	224	387	475
Ferro-nickel	92	13	—	—	—
Ferro-silicon	230	2 730	1 224	363	959
Ferro-titanium & ferro-silico-titanium	875	2 297	2 294	1 375	1 571
Ferro-vanadium	1	—	—	58	46
Other ferro-alloys	167	384	325	1 208	721
Ingots, blooms, billets	1 285 172	1 335 080	1 352 641	1 539 677	1 118 510
Scrap	1 834 659	1 991 940	2 225 779	2 649 981	2 815 350
Portugal					
Ferro-manganese	14 087	21 404	9 812	(c)...	(c)...
Ferro-silico-manganese	50 978	43 957	213	(c)...	(c)...
Ferro-silicon	6 876	5 252	12	(c)...	(c)...
Ferro-tungsten	164	28	—	(c)...	(c)...
Other ferro-alloys	—	—	2 655	4 025	266
Scrap	16 687	10 645	6 635	13 340	21 023
Spain					
Pig iron	30 125	31 460	742	61 304	62 568
Ferro-aluminium, Fe-Si-Al & Fe-Si-Mn-Al	252	123	515	—	—
Ferro-chrome	15 939	9 907	13 949	13 716	9 064
Ferro-manganese	26 781	22 083	13 103	14 268	24 190
Ferro-silico-manganese	7 074	7 076	7 132	8 470	12 386
Ferro-molybdenum	2 079	2 388	2 027	6	5
Ferro-silicon	5 980	3 620	4 579	13 700	11 392
Ferro-titanium & ferro-silico-titanium	29	249	0	2	7
Other ferro-alloys	1 239	1 189	1 284	1 219	493
Ingots, blooms, billets	1 079 805	570 874	650 790	578 933	169 533
Scrap	1 304	1 628	15 790	56 960	28 897
Albania					
Ferro-chrome	11 000	26 000	26 000	38 000	39 000
Austria					
Pig iron	1 074	502	157	44	69
Ferro-alloys	12 264	12 857	13 322	18 792	19 638
Ingots & blooms	38 293	10 026	13 870	15 145	16 801
Scrap	32 191	22 305	92 200	47 222	95 982
Bulgaria					
Pig iron	78 870	52 307	67 300	6 000	...
Ferro-alloys	12 000	12 000	15 000	8 000	16 000
Ingots, blooms, billets	288 320	375 345	...	...	...
Scrap	38 000	(f)*44 400	(f)*63 700	(f)*70 700	(f)*29 400

Exports of Iron, Steel and Ferro-alloys

tonnes

Country	1985	1986	1987	1988	1989
Czechoslovakia					
Ferro-chrome (f)	*2 800	*700	*400	*600	*2 500
Ferro-manganese (f)	*15 400	*18 900	*16 800	*13 300	*15 200
Other ferro-alloys (f)	*6 500	*4 900	*4 900	*2 000	*2 600
Blooms	468 000	533 000	610 000	676 000	615 000
Scrap (f)	*140 200	*101 500	*96 800	*77 900	*185 400
Finland					
Ferro-chrome & ferro-silico-chrome	56 311	90 199	89 530	90 148	77 338
Ingots, blooms, billets	(f)*111 300	(f)*123 800	(f)*165 400	183 501	143 228
Scrap	9 646	359	252	1 660	1 265
German Democratic Republic					
Pig iron	6 000	6 000	7 000	5 000	*5 000
Ferro-silicon (f)	*5 900	*7 600	*5 300	*10 000	*10 000
Other ferro-alloys (f)	*400	*1 600	*1 300	*500	*500
Ingots, blooms, billets (f)	*535 100	*593 100	*798 000	*970 800	*755 200
Scrap (f)	*24 100	*24 600	*40 600	*86 000	*25 900
Hungary					
Pig iron	—	—	—	—	42 484
Ingots, blooms, billets	46 180	22 798	3 893	9 969	15 528
Scrap	26 912	6 382	106 850	151 311	111 472
Iceland					
Ferro-silicon	56 845	64 990	71 656	73 236	64 192
Scrap	6 237	2 527	7 668	4 508	3 655
Malta					
Scrap	11 798	5 427	10 566	9 803	10 713
Norway					
Pig iron	32 120	22 718	13 663	31 149	52 146
Ferro-chrome	—	—	4	—	4 077
Ferro-manganese	180 018	162 265	176 850	204 475	168 475
Ferro-silico-manganese	220 087	202 090	215 810	199 570	222 649
Ferro-silicon	376 486	339 711	334 761	365 882	361 468
Other ferro-alloys	11 273	11 515	11 125	13 313	15 531
Ingots, blooms, billets	143 727	40 906	122 281	70 100	19 377
Scrap	9 300	7 704	11 897	21 373	19 977
Poland					
Ingots, blooms, billets	82 000	108 000	163 000	287 000	378 000
Scrap	79 993	73 883	96 980	346 956	439 935
Romania					
Pig iron & ferro-alloys	*8 000	*6 000	...	...	...
Ingots, blooms, billets (f)	*13 700	*12 700	*8 000	*56 200	*11 900
Soviet Union					
Pig iron	(f)*4 476 400	5 517 000	5 963 000	6 141 000	6 517 000
Ferro-alloys	(f)*760 000	770 000	756 000	850 000	871 000
Ingots, blooms, billets (f)	*1 667 200	*1 802 600	*1 572 700	*1 885 100	*1 579 000
Scrap	3 315 424	4 087 898	3 900 000	3 240 000	2 737 000
Sweden					
Pig iron	6 994	8 548	3 345	12 193	13 808
Sponge & powder	100 841	104 867	117 315	119 908	120 753
Ferro-chrome	103 161	85 276	78 862	96 031	99 346
Ferro-silico-chrome	2 226	2 073	3 774	—	—
Ferro-manganese	1 227	2 009	488	867	762
Ferro-silico-manganese	65	464	233	146	86
Ferro-molybdenum	102	58	18	27	229
Ferro-niobium	13	13	23	14	22
Ferro-silicon	21 434	11 480	12 507	14 931	13 681
Ferro-titanium	123	34	81	11	53
Ferro-vanadium	6	21	16	42	66
Other ferro-alloys	209	198	113	163	140
Ingots, blooms, billets	638 736	554 951	402 238	430 403	330 944
Scrap	21 643	28 585	44 426	87 491	141 758
Switzerland					
Pig iron	227	406	211	1 618	1 160
Sponge & powder	574	590	574	620	582
Ferro-silicon	115	133	84	81	39
Other ferro-alloys	201	158	163	278	634
Ingots, blooms, billets	4 228	26 101	26 292	25 477	7 049
Scrap	100 135	60 949	87 361	78 092	66 836

Exports of Iron, Steel and Ferro-alloys

Country	1985	1986	1987	1988	1989
Turkey					
Pig iron	500	137 348	121 762	101 548	31 890
Ferro-chrome	53 396	45 460	41 224	59 451	...
Ingots, blooms, billets	532 734	726 953	633 442	1 280 185	1 092 886
Scrap	4 132	4 797	5 169	7 407	4 431
Yugoslavia					
Pig iron	14 486	8 461	35 236	8 409	23 810
Ferro-chrome	52 752	46 404	36 657	63 365	70 656
Ferro-manganese	7 650	5 883	9 542	15 244	7 897
Ferro-silico-manganese	35 860	29 168	38 561	33 741	25 825
Ferro-nickel	(c)...	(c)...	(c)...	12 818	15 650
Ferro-silicon	52 706	58 357	69 697	77 417	83 846
Other ferro-alloys	7 266	6 537	13 195	4 228	5 037
Ingots, blooms, billets	60 365	63 326	137 188	119 740	63 273
Scrap	173 419	157 542	365 935	361 815	228 049
Algeria					
Pig iron	48 631	64 365	69 812	...	...
Scrap	84 458	148 415	150 638	...	...
Ivory Coast					
Scrap	25 286	20 317	...	11 233	...
Morocco					
Scrap	80 689	52 087	...	91 430	...
Senegal					
Scrap	13 900	11 211	7 116	7 893	13 150
South Africa					
Pig iron (f)	*407 700	*629 400	*388 500	*397 000	*198 400
Ferro-chrome	758 617	878 971	829 869	964 445	930 571
Ferro-manganese	458 164	502 247	570 170	625 500	533 028
Ferro-silicon	41 016	40 069	37 462	40 601	23 023
Other ferro-alloys	29 222	30 666	*28 000	*39 000	*35 000
Ingots, blooms, billets (f)	*388 400	*478 600	*663 900	*425 000	*395 900
Scrap (f)	*67 500	*145 800	*70 400	*55 200	*62 800
Sudan					
Scrap	949	3 510	...	...	...
Tunisia					
Scrap	2 614	1 457	244	16 198	1 805
Zimbabwe					
Pig iron	28	605	7 807	...	...
Ferro-chrome	162 108	186 397	210 636	...	...
Ferro-silico-chrome	23 376	25 041	31 329	...	...
Ingots, blooms, billets	243 528	158 547	*300 000	...	...
Scrap	49 600	6 101	8 915	...	...
Canada					
Pig iron	574 132	519 606	448 251	358 237	418 406
Sponge	36 395	37 000	52 104	(g)216 634	(g)50 524
Ferro-chrome	(c)...	(c)...	(c)...	1 661	38
Ferro-manganese	43 584	45 132	23 103	26 592	21 893
Ferro-silicon	33 224	45 953	28 316	30 249	32 505
Other ferro-alloys	4 614	11 889	10 046	6 656	2 558
of which: Re-exports	1 060	764	145	38	182
Ingots, blooms, billets	77 137	233 428	104 756	180 608	293 291
Scrap	952 376	921 367	1 086 832	1 682 288	899 642
Cuba					
Scrap	63 312	163 011	168 868	...	...
Dominican Republic					
Ferro-nickel	67 893	53 903	78 372	82 878	81 852
Mexico					
Ferro-alloys	51 049	76 127	39 643	90 159	83 221
Ingots, blooms, billets	6 886	120 265	179 960	77 400	...
Scrap	21 237	23 709	44 053	21 124	...
Trinidad & Tobago					
Sponge	61 324	53 211	70 345	151 568	233 157
Ingots, blooms, billets	1 271	28 280	17 708	47 546	13 705

Exports of Iron, Steel and Ferro-alloys

tonnes

Country	1985	1986	1987	1988	1989
USA					
Pig iron	33 475	45 795	50 642	66 539	13 962
Sponge & powder	9 822	10 586	15 469	17 157	23 217
Ferro-chrome & ferro-silico-chrome	10 506	6 674	6 166	9 913	11 413
Ferro-manganese	6 871	3 956	2 686	3 219	8 301
Ferro-silico-manganese	2 832	1 787	746	4 406	5 127
Ferro-molybdenum	601	172	75	88	128
Ferro-phosphorus	44 802	34 833	31 508	19 380	22 588
Ferro-silicon	11 801	10 345	13 880	26 684	50 460
Ferro-vanadium	423	445	442	571	512
Other ferro-alloys	14 048	9 329	17 643	11 899	7 971
Ingots, blooms, billets	85 010	54 187	67 190	55 914	355 376
Scrap	9 032 434	10 619 159	9 408 257	9 167 339	21 182 204
Argentina					
Ferro-silicon	9 009	9 041	14 121	16 202	...
Other ferro-alloys	732	799	2 390	5 414	...
Ingots, blooms, billets	295 089	369 795	132 360	177 639	...
Brazil					
Pig iron	2 479 622	2 367 010	2 047 420	2 537 107	2 992 389
Ferro-chrome	60 285	20 121	14 980	37 007	24 099
Ferro-manganese	33 594	45 508	50 049	50 727	28 985
Ferro-nickel	9 871	4 694	2 208	10 412	12 038
Ferro-niobium	14 324	12 331	11 069	14 352	15 996
Fe-silico-spiegeleisen & silico-manganese	65 327	70 300	55 208	60 419	66 859
Ferro-silicon	127 371	129 262	176 349	211 397	223 528
Other ferro-alloys	11 695	10 179	19 939	19 902	14 545
Ingots, blooms, billets	2 434 504	2 459 002	3 420 355	4 669 042	5 624 235
Chile					
Ferro-alloys	3 676	5 456	5 376	7 512	...
Ingots, blooms, billets	61 935	66 793	37 413	22 740	...
Colombia					
Ferro-nickel	28 303	32 211	...	...	...
Venezuela					
Sponge & powder	267 103	259 921	216 212	...	...
Ferro-silicon	56 067	58 173	45 459	40 305	...
Ingots, blooms, billets	200 478	98 250	217 146	140 015	...
Bahrain					
Scrap	37 029	32 852	49 983	33 164	...
Brunei					
Scrap	8 139	5 389	4 370	...	...
China					
Pig iron	(f)*2 000	(f)*9 000	561 887	2 337 078	532 537
Ferro-alloys	(f)*6 600	(f)*54 000	264 974	459 869	193 259
Ingots, blooms, billets	(f)*400	(f)*100	131	17 752	77 067
Scrap	(f)*18 500	(f)*3 000	100 072	685 994	185 007
Cyprus					
Scrap (b)	14 288	13 309	4 543	...	...
Dubai					
Scrap	53 219	56 714	...	...	...
Hong Kong					
Pig iron (b)	1 977	71	97	4 735	337
Ferro-manganese (b)	500	496	1 540	4 297	8 585
Ferro-silicon (b)	—	3 483	30 135	82 494	38 408
Other ferro-alloys (b)	563	1 662	6 524	9 753	18 697
Ingots, blooms, billets	41 920	24 842	13 174	34 934	7 444
of which: Re-exports	41 920	24 842	7 657	6 601	3 670
Scrap	319 137	275 389	345 259	428 310	474 286
India (d)					
Pig iron	221	449	606	871	...
Ferro-chrome	—	—	76 007	89 973	...
Ferro-manganese	5 330	—	1 614	3 400	...
Scrap	64 182	37 969	33 577	35 483	...
Indonesia					
Sponge & powder	86 542	96 392	75 117	138 315	53 686
Ingots, blooms, billets	—	8	26 524	41 180	31 452
Scrap	484	6 624	2 877	5 025	421

Exports of Iron, Steel and Ferro-alloys

Country	1985	1986	1987	1988	1989
Iran					
Pig iron (f)	...	...	*21 000	*75 000	*123 700
Israel					
Scrap (f)	*4 900	*5 500	*3 600	*2 500	*2 200
Japan					
Pig iron	1 066 307	1 055 582	28 598	21 787	3 536
Sponge & powder	9 318	9 166	11 520	11 771	14 986
Ferro-chrome	5 468	3 433	4 883	4 450	1 123
Ferro-manganese	25 988	6 857	19 122	12 849	15 055
Ferro-silico-manganese	170	16	—	1 000	2 498
Ferro-nickel	4 475	7 100	1 885	15	62
Ferro-silicon	913	1 091	1 345	4 868	2 764
Ferro-vanadium	10	94	67	25	188
Other ferro-alloys	2 067	3 152	4 718	5 589	5 553
Ingots, blooms, billets	323 693	221 429	250 411	159 424	146 584
Scrap	165 636	461 048	377 397	415 616	586 786
Korea, Dem. P.R. of					
Pig iron (f)	*143 100	*103 600	*96 800	*64 400	*47 600
Ingots, blooms, billets (f)	*19 000	*18 200	*37 100	*27 200	*20 900
Scrap (f)	*2 500	*25 200	*20 500	*24 800	*21 300
Korea, Republic of					
Pig iron	74	1 021	2 017	76 397	238
Ferro-manganese	30	5	5	—	2 209
Ferro-silico-manganese	—	—	—	—	1 622
Other ferro-alloys	1 057	3 051	114	302	300
Ingots, blooms, billets	373 788	167 788	193 060	353 291	804 078
Scrap	74 006	71 525	42 157	40 440	19 272
Kuwait					
Scrap	...	75 619	...	...	...
Macao					
Scrap	6 016	4 984	7 735	6 090	6 131
Malaysia					
Sponge & powder	286 369	*354 850	605 817	428 005	...
Scrap	21 530	45 990	44 419	80 913	...
Pakistan (e)					
Pig iron	58 258	119 911	235 058	—	...
Scrap	1 628	20 844	660	1 709	...
Philippines					
Ferro-silicon	22 428	10 079	10 225	8 415	3 762
Other ferro-alloys	50 379	55 971	50 821	61 514	64 695
Scrap	952	850	1 313	1 974	1 673
Saudi Arabia					
Scrap	129 743	122 511	69 381	124 161	139 781
Singapore					
Pig iron	3 263	1 100	652	922	583
of which: Re-exports	3 227	1 095	641	853	583
Ferro-alloys	1 126	549	1 119	2 682	8 484
of which: Re-exports	1 072	549	1 119	2 682	8 484
Ingots & blooms	8 621	5 014	24 169	311	1 786
of which: Re-exports	3 790	3 326	11 705	291	1 669
Scrap	166 636	90 776	155 625	265 389	238 193
Sri Lanka					
Scrap	3 535	40 988	30 941	19 423	...
Taiwan					
Pig iron	1 011	3 371	1 511	1 581	580
Ferro-chrome	7	2	3	1 186	2 568
Ferro-manganese	111	60	100	1	274
Ferro-silicon	861	458	208	318	1 694
Other ferro-alloys	1 710	915	1 448	3 494	237
Ingots, blooms, billets	104 780	31 406	50 714	280 814	302 749
Scrap	388 225	280 941	97 755	75 239	51 724
Thailand					
Scrap	3 575	5 701	4 925	6 318	*5 000

Exports of Iron, Steel and Ferro-alloys

tonnes

Country	1985	1986	1987	1988	1989
Australia					
Pig iron	26 185	26 221	164 939	24 789	24 000
Ferro-manganese	20 089	43 863	47 499	34 349	29 000
Other ferro-alloys	19 479	41 549	37 525	44 507	47 000
Ingots, blooms, billets	582 854	495 738	522 596	329 582	375 000
Scrap	485 223	557 811	873 716	999 747	957 000
Fiji					
Scrap	717	743	1 975	...	...
of which: Re-exports	359	311	722	...	...
New Caledonia					
Ferro-nickel	142 000	130 400	121 400	147 300	141 200
New Zealand (e)					
Ingots, blooms, billets	38 781	66 576	84 294	95 845	53 403
Scrap	3 061	2 612	3 308	2 412	30 265

Note(s):

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

Imports of Iron, Steel and Ferro-alloys

Country	1985	1986	1987	1988	1989
United Kingdom					
Pig iron	101 216	118 121	105 419	192 706	225 051
Sponge & powder	13 620	13 122	17 158	19 739	18 444
Ferro-chrome	77 082	95 627	110 089	103 299	112 006
Ferro-silico-chrome	1 063	21	4	35	19
Ferro-manganese	44 553	53 492	36 954	67 918	53 097
Ferro-silico-manganese	29 401	30 471	20 978	32 285	39 086
Ferro-molybdenum	374	276	663	600	638
Ferro-nickel	17 270	21 454	22 307	17 757	19 347
Ferro-niobium	864	575	559	536	459
Ferro-silicon	84 669	66 170	77 547	74 087	86 594
Ferro-titanium & ferro-silico-titanium	799	955	727	929	625
Ferro-tungsten & ferro-silico-tungsten	86	83	114	94	89
Ferro-vanadium	655	519	666	565	821
Other ferro-alloys	9 576	10 439	13 424	15 422	11 503
Ingots, blooms, billets	250 382	242 711	200 524	344 972	387 079
Scrap	51 020	44 839	72 635	91 733	102 726
Belgium-Luxembourg					
Pig iron	113 020	121 731	132 428	254 260	325 015
Spiegeleisen	1 171	1 532	425	109	54
Sponge & powder	1 914	1 631	1 859	10 331	11 047
Ferro-aluminium, Fe-Si-Al & Fe-Si-Mn-Al	464	404	540	(d)...	(d)...
Ferro-chrome	49 686	45 552	41 663	70 994	83 259
Ferro-silico-chrome	3 157	2 253	2 774	2 455	2 667
Ferro-manganese	56 037	47 342	59 331	64 233	50 938
Ferro-silico-manganese	30 594	40 049	47 411	44 216	38 859
Ferro-molybdenum	591	709	906	1 389	2 101
Ferro-nickel	7 239	5 243	3 818	9 037	13 818
Ferro-silicon	30 947	28 639	31 098	31 673	34 749
Ferro-titanium & ferro-silico-titanium	608	510	509	623	838
Ferro-vanadium	120	112	62	128	279
Other ferro-alloys	3 303	3 534	3 916	33 362	13 690
Ingots, blooms, billets	548 315	446 328	557 653	1 702 942	1 130 849
Scrap	1 489 540	1 221 785	1 583 802	1 902 586	1 974 729
Denmark					
Pig iron	58 763	75 989	77 687	113 331	120 269
Sponge & powder	1 169	1 375	887	2 073	2 550
Ferro-aluminium, Fe-Si-Al & Fe-Si-Mn-Al	811	254	533	(d)...	(d)...
Ferro-chrome & ferro-silico-chrome	144	85	73	47	149
Ferro-manganese	2 024	1 618	1 285	1 901	2 360
Ferro-silico-manganese	4 002	6 247	4 678	5 863	4 842
Ferro-silicon	2 774	3 165	2 998	3 696	4 475
Other ferro-alloys	177	199	223	578	1 288
Ingots, blooms, billets	81 510	6 707	14 187	19 460	102 633
Scrap	47 735	121 242	89 288	116 745	105 855
France					
Pig iron	479 635	370 163	385 667	278 480	272 949
Spiegeleisen	366	1 973	143	255	10
Sponge & powder	11 528	11 200	12 495	14 155	16 429
Ferro-aluminium, Fe-Si-Al & Fe-Si-Mn-Al	270	343	685	(d)...	(d)...
Ferro-chrome	160 073	168 118	195 857	181 077	180 031
Ferro-silico-chrome	493	500	1 639	225	107
Ferro-silico-magnesium	858	1 731	2 185	2 776	5 144
Ferro-manganese	35 479	64 310	59 384	64 119	86 508
Ferro-silico-manganese	39 064	58 888	53 572	51 409	45 141
Ferro-molybdenum	1 514	1 565	2 422	2 093	2 086
Ferro-nickel	107 069	79 875	41 838	54 373	47 359
Ferro-silicon	38 524	34 761	45 945	57 591	59 029
Ferro-titanium & ferro-silico-titanium	1 578	2 065	2 782	1 882	2 582
Ferro-tungsten & ferro-silico-tungsten	454	325	644	596	601
Ferro-vanadium	760	1 037	919	1 103	851
Other ferro-alloys	3 098	1 871	1 732	8 514	11 058
Ingots, blooms, billets	645 678	673 186	626 393	585 446	551 950
Scrap	461 415	354 205	518 960	800 987	866 003

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1985	1986	1987	1988	1989
Germany, Federal Republic of					
Pig iron	218 013	271 986	263 039	237 191	278 108
Spiegeleisen	89	1 109	491	384	—
Sponge & powder	19 280	21 124	25 438	29 846	30 771
Ferro-aluminium, Fe-Si-Al & Fe-Si-Mn-Al	190	153	579	(d)...	(d)...
Ferro-chrome	287 300	273 340	326 987	363 146	391 344
Ferro-silico-chrome	17 793	16 545	14 048	20 807	19 147
Ferro-silico-magnesium	...	...	...	2 527	4 414
Ferro-manganese	129 855	106 140	98 155	109 637	99 084
Ferro-silico-manganese	123 253	111 817	114 860	124 442	117 149
Ferro-molybdenum	5 795	5 962	5 954	7 285	8 098
Ferro-nickel	101 491	88 157	62 913	82 134	96 373
Ferro-niobium	2 947	3 055	2 401	2 532	2 579
Ferro-phosphorus	...	...	...	11 321	14 376
Ferro-silicon	220 079	213 950	198 127	217 871	209 066
Ferro-titanium & ferro-silico-titanium	3 717	4 510	4 603	5 434	5 390
Ferro-tungsten & ferro-silico-tungsten	819	691	645	1 343	1 400
Ferro-vanadium	2 754	2 032	1 772	2 068	2 692
Other ferro-alloys	8 531	7 346	8 940	8 445	9 480
Ingots, blooms, billets	1 327 219	1 315 906	1 449 815	1 802 890	1 971 363
Scrap	1 619 550	1 383 917	1 195 750	1 477 132	1 336 488
Greece					
Pig iron	8 074	19 761	20 187	10 000	77 000
Ferro-manganese	6 114	5 343	3 795	—	...
Ferro-silico-manganese	6 642	6 525	5 913	3 710	...
Ferro-silicon	2 807	3 901	2 897	2 200	...
Other ferro-alloys	473	452	597	1 338	...
Ingots, blooms, billets	437 262	417 482	508 589	310 000	...
Scrap	313 312	455 302	734 234	388 000	397 000
Irish Republic					
Pig iron	574	1 046	558	3 027	322
Ferro-alloys	2 662	2 984	3 469	3 904	4 793
Ingots, blooms, billets	780	467	6 817	2 412	1 868
Scrap	135 912	121 979	148 594	179 594	220 254
Italy					
Pig iron	265 842	398 276	451 190	670 820	896 957
Spiegeleisen	485	197	713	136	...
Sponge & powder	46 786	27 318	103 428	205 139	282 626
Ferro-aluminium, Fe-Si-Al & Fe-Si-Mn-Al	1 129	1 218	1 465	(d)...	(d)...
Ferro-chrome	97 833	99 031	93 267	90 748	98 759
Ferro-silico-chrome	1 114	1 826	1 706	1 488	1 237
Ferro-silico-magnesium	1 357	2 201	2 646	3 013	(d)...
Ferro-manganese	81 824	90 052	89 408	93 278	90 884
Ferro-silico-manganese	27 008	23 545	28 627	38 200	59 610
Ferro-molybdenum	1 500	2 403	2 376	2 489	(d)...
Ferro-nickel	22 085	21 719	21 329	20 595	16 441
Ferro-niobium	1 912	1 290	1 155	1 165	(d)...
Ferro-silicon	48 133	55 361	59 002	60 269	61 169
Ferro-titanium & ferro-silico-titanium	780	737	830	807	(d)...
Ferro-tungsten & ferro-silico-tungsten	95	147	264	230	(d)...
Ferro-vanadium	916	1 121	827	1 087	(d)...
Other ferro-alloys	1 280	1 299	2 096	4 976	18 729
Ingots, blooms, billets	1 090 573	1 265 566	1 222 883	2 001 890	1 799 746
Scrap	5 777 199	4 746 375	4 911 165	5 064 738	5 746 755
Netherlands					
Pig iron	41 628	49 702	48 433	63 364	67 384
Sponge & powder	2 322	1 792	2 872	2 054	4 797
Ferro-aluminium, Fe-Si-Al & Fe-Si-Mn-Al	144	213	325	(d)...	(d)...
Ferro-chrome	2 798	16 083	7 988	1 913	7 442
Ferro-silico-chrome	61	95	56	83	—
Ferro-manganese	22 664	17 046	14 274	18 764	17 969
Ferro-silico-manganese	5 737	6 486	6 987	7 261	6 360
Ferro-molybdenum	502	563	278	459	431
Ferro-nickel	86	254	67	109	36
Ferro-silicon	5 063	7 972	4 847	7 340	9 411
Ferro-titanium & ferro-silico-titanium	977	2 369	2 425	1 599	1 787
Ferro-tungsten & ferro-silico-tungsten	72	117	190	—	—
Ferro-vanadium	72	81	54	113	67
Other ferro-alloys	770	884	918	1 904	2 381
Ingots, blooms, billets	156 445	118 474	100 037	86 257	79 324
Scrap	586 431	849 807	1 014 012	768 885	1 114 052

Imports of Iron, Steel and Ferro-alloys

Country	1985	1986	1987	1988	1989
Portugal					
Pig iron	6 919	7 630	16 223	21 673	10 401
Ferro-chrome	424	271	281	(d)...	(d)...
Ferro-manganese	187	183	463	(d)...	(d)...
Ferro-silico-manganese	1 397	29	14	(d)...	(d)...
Ferro-silicon	364	991	3 253	(d)...	(d)...
Other ferro-alloys	228	416	551	12 479	12 471
Ingots, blooms, billets	2 219	4 426	3 746	8 557	12 271
Scrap	104 781	104 453	124 615	181 385	150 013
Spain					
Pig iron	86 818	140 230	114 700	138 379	175 041
Sponge & powder	88 045	62 981	47 262	35 009	36 238
Ferro-chrome	46 615	71 371	80 627	68 969	79 635
Ferro-silico-chrome	1 691	1 620	2 080	2 094	998
Ferro-manganese	1 259	6 635	14 129	9 065	8 472
Ferro-silico-manganese	1 516	11 392	14 535	9 995	4 929
Ferro-molybdenum	162	108	197	724	884
Ferro-nickel	7 908	24 850	24 632	24 597	19 459
Ferro-silicon	5 299	11 975	11 089	5 429	20 498
Ferro-titanium & ferro-silico-titanium	75	200	227	401	694
Ferro-tungsten & ferro-silico-tungsten	27	47	62	81	56
Ferro-vanadium	168	418	206	261	274
Other ferro-alloys	3 209	10 174	2 387	5 459	7 266
Ingots, blooms, billets	162 161	408 032	145 783	95 725	247 317
Scrap	6 146 278	4 341 976	4 284 658	4 472 483	4 475 559
Albania					
Ferro-alloys (g)	*2 300	*2 900	*2 300	*2 500	*2 800
Austria					
Pig iron	47 179	35 479	33 157	42 274	66 875
Sponge & powder	5 204	5 372	6 036	6 686	6 602
Ferro-chrome	20 677	19 373	17 823	22 202	21 969
Ferro-silico-chrome	(d)...	(d)...	(d)...	655	641
Ferro-manganese	22 779	18 945	18 777	23 887	23 899
Ferro-silico-manganese	(d)...	(d)...	(d)...	6 907	5 103
Ferro-molybdenum	109	175	189	191	274
Ferro-nickel	3 305	2 602	2 770	1 305	1 369
Ferro-niobium & ferro-niobium-tantalum	299	318	268	275	306
Ferro-silicon	16 215	16 966	14 085	21 452	20 732
Ferro-titanium	766	704	455	487	414
Ferro-tungsten	106	176	444	648	888
Ferro-vanadium	129	105	69	177	286
Other ferro-alloys	10 142	8 874	8 622	1 955	2 092
Ingots & blooms	75 936	163 273	100 163	222 415	204 440
Scrap	239 048	115 029	68 523	101 539	88 183
Bulgaria					
Pig iron	404 296	425 398	482 953	368 458	261 000
Ferro-chrome	8 830	8 940	(d)...	(d)...	(d)...
Ferro-manganese	3 397	3 169	4 000	3 000	6 000
Ferro-silicon	10 031	9 375	(d)...	(d)...	(d)...
Other ferro-alloys	5 578	5 323	25 000	24 000	25 000
Ingots, blooms, billets	392 000	257 000	310 000	...	232 000
Czechoslovakia					
Pig iron	869 000	808 000	717 000	675 000	671 000
Ferro-chrome & ferro-silico-chrome (g)	*3 200	*900	*1 700	*1 000	*1 200
Ferro-titanium & ferro-silico-titanium (g)	*1 200	*700	*800	*800	*700
Other ferro-alloys (g)	*119 700	*118 900	*115 400	*120 300	*120 700
Ingots, blooms, billets	318 000	165 000	113 000	153 000	14 000
Scrap (g)	*43 900	*43 200	*19 700	*13 900	*13 600
Finland					
Pig iron	15 317	14 382	12 982	8 937	18 638
Sponge & powder	953	499	327	1 696	531
Ferro-chrome & ferro-silico-chrome	1 443	1 446	1 944	1 863	1 992
Ferro-manganese	4 293	4 496	4 355	5 955	8 811
Ferro-silico-manganese	21 690	13 988	22 515	16 472	21 700
Ferro-molybdenum	692	490	624	639	784
Ferro-nickel	(d)...	(d)...	(d)...	24 091	19 704
Ferro-silicon	7 138	7 660	9 994	8 422	10 826
Ferro-titanium	399	275	487	387	343
Ferro-vanadium	105	217	205	211	199
Other ferro-alloys	18 152	15 512	31 100	979	959
Ingots, blooms, billets	10 689	5 650	30 197	76 839	162 894
Scrap	113 350	63 336	54 853	16 096	33 499

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1985	1986	1987	1988	1989
German Democratic Republic					
Pig iron	1 090 500	1 145 800	1 339 600	1 280 100	1 300 800
Sponge & powder (g)	*21 200	*15 600	*18 800	*14 100	*15 000
Ferro-manganese	75 000	74 000	73 000	...	...
Other ferro-alloys	13 000	6 000	11 000	...	...
Ingots, blooms, billets	111 000	107 000	131 000	...	...
Scrap	886 000	986 000	903 000	900 000	*900 000
Hungary					
Pig iron	272 413	254 297	261 512	351 122	344 366
Ferro-chrome	10 390	11 183	13 393	11 250	(d)...
Ferro-manganese	44 951	42 250	36 292	36 416	(d)...
Ferro-molybdenum	261	315	436	200	278
Ferro-silicon	6 742	7 424	6 871	8 146	(d)...
Other ferro-alloys	14 799	14 697	14 170	14 662	66 528
Scrap	14 000	8 330	14 307	5 046	80 103
Malta					
Ingots, blooms, billets	6 044	6 342	5 275	6 124	6 786
Norway					
Pig iron	5 458	4 693	3 460	2 249	4 415
Spiegeleisen	842	88	0	—	158
Sponge & powder	305	749	785	2 560	2 449
Ferro-chrome	840	830	652	719	1 021
Ferro-manganese	0	0	3 130	2 001	9 741
Ferro-silico-manganese	60	310	2 401	2 691	3
Ferro-silicon	1 512	995	630	1 477	2 928
Other ferro-alloys	413	255	304	399	430
Ingots, blooms, billets	5 708	5 320	3 072	7 673	61 256
Scrap	10 831	6 145	32 528	163 664	60 767
Poland					
Pig iron & ferro-alloys	1 411 338	1 477 696	1 420 314	1 369 961	1 292 699
Ingots, blooms, billets	13 000	16 000	16 000	29 000	23 000
Scrap	3 786	3 444	5 116	2 241	3 040
Romania					
Pig iron	117 400	100 100	99 800	93 000	98 000
Ferro-alloys	151 800	162 200	133 600	126 300	138 400
Ingots, blooms, billets	281 000	309 000	...	...	...
Soviet Union					
Pig iron	...	30 426	29 574	105 894	—
Sponge & powder (g)	*3 400	*1 900	*100	*300	*300
Ferro-alloys	(g)*4 200	29 163	29 726	29 340	13 528
Scrap (g)	*25 000	*44 100	*59 900	*51 500	*44 000
Sweden					
Pig iron	46 791	56 967	51 193	70 591	47 657
Sponge & powder	900	1 178	1 678	2 983	6 063
Ferro-chrome	52 098	43 258	50 593	44 625	41 714
Ferro-silico-chrome	1 645	100	2 611	2 455	2 453
Ferro-manganese	28 402	26 464	25 963	31 104	26 959
Ferro-silico-manganese	15 696	17 559	11 926	17 366	14 755
Ferro-molybdenum	1 377	1 388	1 431	2 033	3 455
Ferro-nickel	7 485	13 403	14 049	9 275	12 179
Ferro-niobium	212	213	291	266	371
Ferro-silicon	21 341	17 400	22 515	24 146	23 324
Ferro-titanium	1 059	1 442	1 475	1 886	1 391
Ferro-tungsten	639	326	372	697	860
Ferro-vanadium	1 057	1 120	1 105	1 098	1 151
Other ferro-alloys	745	1 539	1 227	2 426	2 773
Ingots, blooms, billets	35 008	48 909	136 936	122 357	119 801
Scrap	884 807	704 779	789 422	801 197	625 424
Switzerland					
Pig iron	63 011	42 237	34 282	42 596	46 556
Sponge & powder	3 785	4 858	4 478	4 941	5 255
Ferro-aluminium	301	377	557	373	573
Ferro-manganese	(d)...	(d)...	(d)...	4 568	4 646
Ferro-silico-manganese	(d)...	(d)...	(d)...	6 375	7 664
Ferro-silicon	7 219	7 963	6 814	7 157	6 691
Other ferro-alloys	15 003	15 156	14 648	2 099	2 272
Ingots, blooms, billets	80 443	51 123	14 451	97 977	121 259
Scrap	239 933	323 815	136 487	85 587	152 116

Imports of Iron, Steel and Ferro-alloys

Country	1985	1986	1987	1988	1989
Turkey					
Pig iron	139 226	116 372	127 185	149 754	*150 000
Sponge & powder	50 916	1 115	25 575	32 793	...
Ferro-manganese	25 647	21 007	41 707	35 965	...
Ferro-silico-manganese	17 163	25 502	28 049	31 892	...
Ferro-silicon	12 099	14 487	27 035	24 783	...
Other ferro-alloys	3 314	1 668	1 290	1 286	...
Ingots, blooms, billets	1 659 318	920 934	1 553 498	871 221	...
Scrap	1 147 623	1 798 755	2 831 269	3 036 709	4 422 412
Yugoslavia					
Pig iron	53 314	63 325	25 381	39 119	111 241
Sponge & powder	1 982	1 985	1 999	1 866	2 104
Ferro-chrome	1 840	1 172	232	204	287
Ferro-manganese	1 563	1 714	1 078	1 561	2 997
Ferro-molybdenum	697	989	656	—	—
Ferro-phosphorus	704	482	682	—	—
Ferro-silicon	1 074	838	1 268	959	3 066
Ferro-tungsten	96	114	197	—	—
Ferro-vanadium	267	406	332	—	—
Other ferro-alloys	1 851	2 682	880	3 488	6 023
Ingots, blooms, billets	438 612	573 493	435 382	393 589	512 194
Scrap	728 581	650 918	688 997	746 283	646 385
Algeria					
Pig iron	17 975	22 478	9 691	...	...
Ferro-chrome	691	320	—	...	...
Ferro-manganese	1 024	4 495	2 170	7 300	...
Ferro-silico-manganese	218	179	170	...	...
Ferro-niobium	219	221	440	...	...
Ferro-silicon	8 711	4 029	2 784	...	...
Ferro-vanadium	50	—	50	...	...
Other ferro-alloys	1 785	74	14	...	...
Ingots, blooms, billets	14 398	10 166	9 289	...	...
Egypt					
Pig iron	48 451	20 783	10	...	...
Ferro-alloys	11 138	5 465	16 479	11 800	...
Ingots & billets	66 307	93 930	*33 500	...	...
Scrap	2 197	1 539	1 992	...	...
Ethiopia					
Ingots, blooms, billets	5 049	6	34	369	...
Scrap	1 296	—	356	...	...
Kenya					
Ingots & blooms	19 578	39 158	48 039	52 614	...
Scrap	45	6 108	4 683	435	...
Liberia					
Pig iron	8 190	1 951	2 967	...	...
Mauritius					
Pig iron & ingots	17 240	21 034	15 905	25 410	33 073
Morocco					
Pig iron	1 146	911	2 042	3 318	...
Ferro-chrome	55	31	...	60	...
Ferro-manganese & ferro-silico-manganese	130	132	153	186	...
Ferro-silicon	210	128	192	197	...
Ingots, blooms, billets	299 517	231 273	289 084	371 698	...
Scrap	2 167	3 266	2 000	36	...
Nigeria					
Pig iron	92	167	628	...	...
Ferro-manganese	2 986	4 501	2 515	3 000	...
Other ferro-alloys	7 403	685	457	...	...
Ingots & blooms	191 567	92 176	139 614	...	...
Rwanda					
Ingots	23 904	31 017	31 336	36 578	...
South Africa					
Sponge & powder	1 275	2 314	2 148	...	...
Ferro-chrome	5 080	3 585	7 354	...	...
Ferro-silico-magnesium	646	793	524	...	...
Ferro-molybdenum	336	763	694	699	...
Ferro-silicon	32	—	324	...	...
Ferro-titanium & ferro-silico-titanium	714	300	538	...	...
Other ferro-alloys	1 123	1 451	2 370	...	...
Ingots & blooms	23 094	995	221	...	...
Scrap	7 302	9 900	10 757	...	...

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1985	1986	1987	1988	1989
Tanzania					
Pig iron & ferro-alloys	1 722	...	487	6 381	...
Ingots & blooms	1 144	4 149	3 697	3 802	...
Tunisia					
Pig iron	1 552	553	1 376	2 351	3 202
Ferro-alloys	726	1 734	871	1 719	1 829
Ingots, blooms, billets	37 696	38 415	39 386	79 214	28 188
Scrap	2 695	538	1 753	598	3 022
Zimbabwe					
Ferro-manganese	1 168	1 720	137	200	...
Ferro-silicon	1 957	1 392	867	...	...
Other ferro-alloys	235	112	138	...	...
Canada					
Pig iron	10 080	11 814	9 794	9 022	15 196
Sponge & powder	7 317	6 637	7 060	8 555	5 989
Ferro-chrome	28 266	39 038	44 118	48 879	48 550
Ferro-silico-chrome	(d)...	(d)...	(d)...	2 914	2 441
Ferro-manganese & spiegeleisen	27 481	20 283	39 606	35 346	44 840
Fe-silico-manganese & silico-spiegeleisen	6 601	6 773	13 301	17 260	13 096
Ferro-molybdenum	274	348	223	345	1 150
Ferro-nickel	(d)...	(d)...	(d)...	3 060	2 993
Ferro-niobium	(d)...	(d)...	(d)...	1 196	1 066
Ferro-silicon	12 048	13 552	12 367	20 275	20 925
Ferro-titanium & ferro-silico-titanium	388	461	545	643	438
Ferro-vanadium	192	165	208	271	371
Other ferro-alloys	49 459	13 319	14 324	10 081	7 059
Ingots, blooms, billets	144 672	254 633	725 656	1 346 115	653 858
Scrap	881 570	747 194	775 830	1 185 699	1 460 467
Costa Rica					
Ingots, blooms, billets	44 332	43 989	45 233	56 805	65 020
Cuba					
Pig iron	237 984	284 210	271 324	184 792	...
Scrap (b)	99 185	88 755	55 699	—	...
Dominican Republic					
Ingots, blooms, billets	9 869	10 342	...	...	...
Scrap	11 049	36 969	...	...	...
El Salvador					
Ingots, blooms, billets	10 394	14 885	7 396	21 119	10 361
Scrap	31	8	1 302	3 241	...
Guatemala					
Ingots, blooms, billets	25 416	11 652	26 576	23 952	...
Honduras					
Ingots, blooms, billets	6 022	2 496	220	...	...
Jamaica					
Ingots, blooms, billets	1 332	853	16 468	23 307	32 030
Mexico					
Pig iron	17 399	8 630	9 171	28 882	...
Sponge & powder	2 847	1 689	2 059	2 662	...
Ferro-alloys	6 911	4 218	6 565	10 228	15 440
Ingots, blooms, billets	326 678	139 233	3 855	7 554	...
Scrap	839 890	453 934	464 079	834 539	...
Nicaragua					
Ingots, blooms, billets	24 540	35 072	38 579	40 508	...
Panama					
Ingots, blooms, billets	16 091	12 495	24 564	...	6 946
USA					
Pig iron	317 666	269 382	323 774	640 456	443 115
Sponge & powder	93 928	88 527	56 239	176 327	226 000
Ferro-chrome	299 340	351 522	295 017	422 813	343 734
Ferro-silico-chrome	3 574	5 896	7 581	9 710	6 803
Ferro-manganese	328 232	352 072	333 531	485 566	429 982
Ferro-silico-manganese	150 335	177 419	173 618	207 098	229 687
Ferro-molybdenum	689	789	1 515	2 288	1 410
Ferro-nickel	33 138	36 713	41 178	40 440	33 889
Ferro-niobium	3 279	2 395	2 803	2 957	3 880
Ferro-silicon	139 028	204 288	209 120	210 759	174 688
Ferro-titanium & ferro-silico-titanium	438	618	1 293	1 552	2 008
Ferro-tungsten & ferro-silico-tungsten	118	244	407	899	552
Ferro-vanadium	1 144	678	385	134	697
Ferro-zirconium	703	456	182	676	443
Ingots, blooms, billets	1 659 712	1 955 161	2 096 366	2 111 496	1 977 432
Scrap	547 648	643 627	750 994	927 024	1 015 614

Imports of Iron, Steel and Ferro-alloys

Country	1985	1986	1987	1988	1989
Argentina					
Pig iron	31 871	—	—	111 282	*100 000
Ferro-chrome	1 885	2 170	3 792	2 799	(d)...
Ferro-manganese	2 272	1 302	2 912	3 917	(d)...
Ferro-silicon	79	190	61	204	(d)...
Other ferro-alloys	457	175	226	141	5 053
Blooms & billets	81 658	...	...	119 674	...
Scrap	645	1 067	670	2 507	...
Brazil					
Sponge & powder	29 339	2 061	1 789	3 182	...
Ferro-chrome	196	750	1 337	199	2 228
Other ferro-alloys	3 112	367	304	475	1 210
Ingots, blooms, billets	11	463 999	422 306	338	320
Scrap	103 997	490 596	145 919	86 587	252 000
Colombia					
Ferro-chrome	298	554	...	(d)...	...
Ferro-manganese	4 848	5 866	8 600	7 238	...
Ferro-silico-manganese	1 469	1 224	...	(d)...	...
Ferro-silicon	1 943	2 209	...	3 105	...
Other ferro-alloys	532	613	...	5 076	...
Ingots, blooms, billets	5 370	11 620	6 833	4 972	...
Scrap	58 093	90 021	...	157 009	...
Ecuador					
Ingots, blooms, billets	156 568	140 386	121 167	155 198	153 139
Peru					
Ferro-chrome	470	480	454	167	523
Ferro-manganese	1 361	1 962	1 869	1 821	1 306
Ferro-silico-manganese	462	812	1 896	607	3
Ferro-silicon	753	880	402	565	275
Scrap	58 873	64 396	90 151	...	...
Suriname					
Ferro-alloys	6 051	3 024	5 907	2 125	5 099
Ingots, blooms, billets	1 956	2 212	1 793	2 058	2 712
Scrap	4 623	3 360	8 197	2 600	6 759
Uruguay					
Ferro-alloys	634	817	644	598	...
Ingots, blooms, billets	450	12 520	19 507	9 551	...
Venezuela					
Sponge & powder	33 685	53 871	128 066	...	...
Ferro-manganese	37 953	35 416	41 028	37 948	...
Ferro-silico-manganese	2 667	3	—	7	...
Other ferro-alloys	1 366	2 046	2 864	2 320	...
Ingots, blooms, billets	1 597	4 342	30 977	46 623	...
Scrap	495 936	539 226	277 273	...	...
Bahrain					
Blooms & billets	52 011	34 903	30 468	30 122	...
China					
Pig iron	(g)*2 560 700	(g)*2 515 100	1 472 680	869 911	686 053
Ferro-alloys	(g)*7 600	(g)*1 200	993	710	5 499
Ingots, blooms, billets	1 979 454	1 612 340	364 781	151 137	193 479
Scrap	(g)*497 400	(g)*649 500	497 583	154 393	119 923
Cyprus					
Pig iron	1 740	1 519	502	...	...
Hong Kong					
Pig iron	4 471	3 768	6 961	7 892	3 711
Ferro-manganese	1 848	1 998	2 442	8 731	8 923
Ferro-silicon	1 690	4 677	34 911	96 300	35 836
Other ferro-alloys	1 670	3 220	7 770	13 433	21 319
Ingots, blooms, billets	128 827	173 778	127 032	189 684	108 297
Scrap	20 093	33 669	43 600	86 071	76 445

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1985	1986	1987	1988	1989
India (e)					
Pig iron	21 587	44 810	87 322	164 771	164 000
Sponge & powder	41 535	67 654	55 255	157 716	...
Ferro-chrome & ferro-silico-chrome	11 390	4 600	833	48	...
Ferro-manganese & ferro-silico-manganese	962	267	241	95	...
Ferro-nickel	23 324	29 854	55 370	20 545	...
Ferro-silicon	300	7 342	442	858	...
Other ferro-alloys	1 432	1 298	481	1 295	...
Ingots, blooms, billets	120 298	360 857	161 350	39 109	...
Scrap	1 331 719	2 103 291	1 870 497	2 120 305	2 047 000
Indonesia					
Pig iron	79 795	72 239	18 287	125 082	176 604
Sponge & powder	456	21 491	54 130	75 903	105 593
Ferro-manganese	13 465	15 696	13 647	6 760	21 438
Ferro-silico-manganese	(d)...	5 248	6 493	9 754	11 298
Ferro-silicon	9 650	3 847	3 933	331	1 401
Other ferro-alloys	1 651	5 621	6 266	355	343
Ingots, blooms, billets	42 286	92 912	206 872	321 261	362 889
Scrap	190 903	475 559	461 513	584 708	703 413
Iran (f)					
Pig iron	6 229	9 754	525	...	...
Ferro-alloys	14 910	1 143	3 130	5 743	...
Ingots, blooms, billets	512 930	532 132	681 774	307 003	...
Israel					
Pig iron (g)	*800	*400	*100	*500	*1 200
Ferro-alloys (g)	*1 600	*1 000	*1 000	*700	*700
Ingots, blooms, billets	50 101	68 920	81 899	41 537	63 703
Scrap (g)	*2 100	*4 800	*6 000	*1 400	*1 200
Japan					
Pig iron	604 462	920 870	1 301 780	2 823 811	2 212 128
Sponge & powder	142 151	46 091	137 217	39 395	48 563
Ferro-chrome	317 595	372 513	427 711	473 707	477 080
Ferro-silico-chrome	10 026	10 356	7 166	17 511	14 018
Ferro-manganese	5 878	7 125	27 425	27 383	21 786
Ferro-silico-manganese	121 600	176 821	150 740	158 410	274 282
Ferro-molybdenum	988	1 065	1 018	1 486	1 322
Ferro-nickel	46 155	38 700	29 935	48 664	52 073
Ferro-niobium	2 869	1 925	1 779	3 360	3 590
Ferro-silicon	306 830	350 069	387 454	539 846	406 901
Ferro-tungsten & ferro-silico-tungsten	100	160	368	488	743
Ferro-vanadium	457	366	186	595	238
Other ferro-alloys	7 413	9 485	10 201	25 076	22 930
Ingots, blooms, billets	353 195	335 399	437 507	559 218	727 731
Scrap	3 253 534	3 223 714	2 358 164	1 790 558	1 157 107
Jordan					
Pig iron	16 005	21 399	16 647	3 348	14 952
Ingots, blooms, billets	94 281	173 742	131 856	169 992	136 463
Scrap	2 073	1 810	3 797	1 256	1 244
Korea, Dem. P.R. of					
Ferro-manganese (g)	*7 500	*800	*6 700	*1 500	*2 000
Other ferro-alloys (g)	*8 600	*11 500	*18 200	*16 300	*7 600
Korea, Republic of					
Pig iron	99 452	386 108	672 919	2 780 749	1 063 395
Sponge & powder	19 282	4 083	5 837	7 510	18 983
Ferro-chrome	7 529	10 431	13 752	16 290	60 775
Ferro-manganese	1 818	1 124	4 409	3 743	4 296
Ferro-molybdenum	313	582	541	946	1 030
Ferro-nickel	780	725	364	946	18 882
Ferro-silicon	9 094	15 834	43 395	68 440	63 890
Ferro-vanadium	228	262	319	492	226
Other ferro-alloys	2 987	3 857	4 878	6 847	6 410
Ingots & blooms	75 812	393 137	927 978	631 587	394 082
Scrap	2 395 299	3 115 164	3 518 698	3 892 465	4 062 390

Imports of Iron, Steel and Ferro-alloys

Country	1985	1986	1987	1988	1989
Malaysia					
Pig iron	3 105	1 087	917	46 597	66 165
Spiegeleisen	23	226	2 059	3 015	4 070
Ferro-manganese	6 578	5 927	5 193	17 221	7 611
Ferro-silico-manganese	(d)...	(d)...	(d)...	5 396	5 851
Ferro-silicon	2 408	4 088	2 345	4 424	6 074
Other ferro-alloys	1 312	4 282	5 416	1 047	2 199
Ingots, blooms, billets	350 369	46 575	129 454	127 858	149 860
Scrap	33 507	4 218	221 707	488 551	718 172
Pakistan (a)					
Pig iron	417	738	689	1 431	...
Ferro-manganese	4 616	6 896	9 650	16 611	...
Ferro-silicon	5 053	4 084	5 007	10 775	...
Other ferro-alloys	13 211	1 265	54 370	1 503	...
Ingots, blooms, billets	546	6 144	29 279	25 905	...
Scrap	92 524	168 286	255 039	659 009	...
Philippines					
Pig iron	—	21 989	69 810	73 395	55 660
Ferro-manganese	591	1 431	2 297	3 963	5 674
Ferro-silico-manganese	—	—	—	1 219	3 373
Ferro-silicon	14	108	554	159	329
Other ferro-alloys	53	184	563	325	720
Ingots, blooms, billets	219 868	281 008	466 537	552 892	843 766
Scrap	751	85 243	108 994	93 803	152 045
Qatar					
Scrap	1 372	8 060	9 973	...	13 041
Saudi Arabia					
Pig iron	98 862	17 998	7 927	1 850	45 728
Sponge & powder	231	369	—	...	196
Ferro-alloys	30 967	—	153	155	416
Ingots, blooms, billets	51 895	28 732	6 180	11 166	5 758
Scrap	637	1 052	36 263	540 553	191 021
Singapore					
Pig iron	41 503	53 909	72 285	115 846	174 822
Sponge & powder	3 981	4 781	467	2 117	4 440
Ferro-manganese	6 186	3 183	1 960	1 184	3 876
Ferro-silicon	1 940	2 718	3 958	4 347	11 995
Other ferro-alloys	1 542	4 898	5 627	9 890	330
Ingots & blooms	161 503	240 236	169 840	172 602	260 686
Scrap	65 402	209 091	126 698	182 054	196 577
Sri Lanka					
Ingots, blooms, billets	8 049	20 291	41 888	32 358	...
Syria					
Pig iron	3 826	3 601	1 731	...	...
Ingots, blooms, billets	39 340	60 660	14 425	...	...
Scrap	35 658	18 369	23 502	...	...
Taiwan					
Pig iron	170 484	303 244	629 122	738 696	583 082
Sponge & powder	3 613	10 636	8 278	9 028	16 063
Ferro-chrome	10 186	29 886	15 904	51 194	41 341
Ferro-manganese	3 593	8 936	18 865	23 895	18 982
Ferro-silicon	1 768	11 894	19 406	33 591	23 556
Other ferro-alloys	612	824	887	1 454	6 350
Ingots, blooms, billets	233 934	454 773	966 982	2 130 564	2 251 534
Scrap	694 665	1 225 472	943 592	1 255 740	1 552 971
Thailand					
Pig iron	11 707	6 971	38 655	92 954	...
Sponge & powder	6 153	9 046	4 567	18 242	...
Ferro-manganese	4 015	2 980	3 586	6 769	...
Ferro-silico-manganese	1 644	2 265	1 321	1 277	...
Ferro-silicon	3 967	3 525	4 870	7 609	...
Other ferro-alloys	1 516	712	558	922	...
Ingots, blooms, billets	43 760	55	47 247	160 568	...
Scrap	657 950	555 114	903 323	1 158 249	*1 200 000

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1985	1986	1987	1988	1989
Australia					
Ferro-chrome	12 930	16 387	11 734	7 706	(d)...
Ferro-manganese (c)	6 060	6 734	3 925	4 906	(d)...
Ferro-silico-manganese	940	392	656	433	(d)...
Ferro-molybdenum	132	108	271	293	(d)...
Ferro-nickel	1 129	945	1 085	381	(d)...
Ferro-silicon	13 890	11 469	12 897	9 095	(d)...
Other ferro-alloys (c)	1 600	1 480	1 655	1 936	55 000
Ingots & billets	25 821	24 729	122 794	132 649	185 000
Scrap (a)	618	...	...	...	1 967
Fiji					
Ingots, blooms, billets	9 227	10 813	3 963	...	...
New Zealand (a)					
Pig iron	308	577	117	100	96
Ferro-manganese	248	434	1 260	1 388	1 018
Ferro-silicon	1 001	1 191	1 636	1 806	2 353
Other ferro-alloys	2 876	2 426	1 642	1 677	2 021
Ingots, blooms, billets	3 743	558	44	10 350	116
Scrap	3 147	5 120	3 366	3 066	71

Note(s):

- (1) In this table the term 'ingots, blooms, billets' corresponds to items 672.4,6,7 and 8 of the Standard International Trade Classification (Revision 3) which includes those of alloy and high carbon steel
- (a) Years ended 30 June of that stated
- (b) Exports from the Soviet Union
- (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

Production of Kaolin

Kaolin

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom (a)	2 870 034	2 912 607	3 058 821	3 276 795	3 139 672
Belgium	37 000	*40 000	*45 000	*40 000	*35 000
Denmark	*15 000	10 404	9 304	39 554	16 029
France	313 300	356 000	309 000	337 000	281 000
Germany, Federal Republic of (g)	342 000	477 000	553 000	612 000	673 000
Greece	89 833	141 210	144 634	127 395	*145 000
Italy	59 856	35 132	57 074	70 585	69 267
Portugal	104 055	70 567	116 687	101 365	101 029
Spain (c)	413 719	573 666	450 968	438 160	*440 000
Austria	93 889	97 136	91 537	89 491	85 310
Bulgaria	257 000	265 000	281 000	220 000	*280 000
Czechoslovakia (h)	548 000	546 000	581 000	579 000	592 000
Finland	4 060	4 017	4 754	5 494	5 718
German Democratic Republic	*175 000	*165 000	*150 000	*165 000	*150 000
Hungary (c)	35 523	38 869	38 468	34 901	28 612
Poland	55 200	55 500	60 300	69 530	61 604
Romania	*410 000	*410 000	*400 000	*400 000	*400 000
Soviet Union	*2 000 000	*2 000 000	*2 000 000	*2 000 000	*2 000 000
Turkey	69 870	91 893	126 119	204 478	257 389
Yugoslavia	243 826	214 561	255 772	218 673	254 949
Algeria	13 100	14 200	15 700	17 800	18 700
Burundi	4 360	5 113	5 290	4 021	4 305
Egypt (d)	108 000	127 800	125 256	124 122	121 515
Kenya	1 851	560	40	42	—
Madagascar	6 367	*6 000	1 427	365	1 315
South Africa	128 899	126 129	151 730	175 033	139 711
Tanzania	1 636	2 270	1 446	1 600	1 600
Zimbabwe	1 104	901	780	95	17
Mexico	282 337	276 427	151 104	159 041	197 500
USA (e)	7 069 984	7 755 961	8 007 911	8 973 088	8 973 668
Argentina	73 802	117 378	100 128	93 871	45 598
Brazil (b)	655 205	706 017	742 825	*850 000	*900 000
Chile	48 537	42 170	44 533	54 464	58 512
Colombia (j)	312 350	346 580	366 300	408 141	540 000
Ecuador	1 616	6 189	7 120	3 399	11 018
Paraguay	60 000	60 000	72 000	76 000	74 000
Peru	210	6 328	626	*600	*600
Venezuela	18 660	15 000	30 000	24 000	16 076
Bangladesh (d)	4 178	2 695	12 272	10 097	7 092
China	*500 000	*500 000	*500 000	*500 000	*500 000
Hong Kong	9 602	850	—	—	—
India (i)	118 227	100 647	93 720	107 381	110 505
Indonesia	106 869	132 240	122 046	147 109	157 122
Iran	*70 000	*70 000	*70 000	*70 000	*80 000
Israel	*27 000	*27 000	*27 000	*27 000	*27 000
Japan	145 870	131 563	112 477	120 389	128 575
Jordan	15 848	15 697	11 336	23 452	38 600
Korea, Republic of	612 000	791 000	587 000	774 000	1 311 000
Malaysia	82 576	85 052	96 882	116 869	108 347
Pakistan	6 644	37 056	32 208	40 422	39 907
Philippines	10 843	16 620	5 370	4 730	...
Sri Lanka	6 346	6 260	6 769	7 097	7 761
Taiwan	76 605	63 228	67 525	81 879	98 115
Thailand (h)	106 704	116 037	184 179	223 252	176 558

Production of Kaolin

tonnes

Country	1985	1986	1987	1988	1989
Australia (c)(f)	165 827	185 617	176 958	159 067	*185 000
New Zealand	24 471	28 464	25 548	29 649	26 324
World total	19 000 000	20 400 000	20 700 000	22 400 000	23 100 000

Note(s):

(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) Beneficiated; excludes directly used natural kaolin

(j) Crude

Exports of Kaolin

Country	1985	1986	1987	1988	1989
United Kingdom	2 574 959	2 523 713	2 600 398	2 902 034	2 708 127
Belgium-Luxembourg	38 642	37 002	41 019	77 279	96 598
Denmark	602	688	648	598	551
France	136 225	172 114	168 310	248 253	267 080
Germany, Federal Republic of	104 303	117 216	134 928	191 564	207 572
Greece	15 341	27 585	27 839	22 855	...
Italy	50 304	23 117	29 833	46 940	44 291
Netherlands	119 020	132 208	143 393	140 380	124 064
Portugal	906	1 140	2 594	2 538	10
Spain	109 218	127 840	160 924	165 960	130 312
Austria	45 193	52 029	48 860	48 568	50 040
Bulgaria	44 782	60 975	...	...	...
Czechoslovakia	386 000	383 000	391 000	414 000	388 000
German Democratic Republic	148 704	137 876	126 578	136 668	138 340
Hungary	8 098	7 443	6 904	6 888	...
Soviet Union (a)	*46 600	*31 200	*31 300	*30 000	*25 900
Sweden	4 466	1 558	2 807	1 706	639
Turkey	17 796	11 895	25 726	12 113	...
South Africa	1 297	1 566	682	193	554
Mexico	2 527	2 012	88	53	...
USA	1 251 539	1 436 563	1 838 498	2 143 157	2 338 688
Brazil	196 402	207 848	213 756	315 003	307 768
China (a)	*50 800	*78 700	*191 400	*290 800	*448 800
Hong Kong	10 655	73 866	176 647	263 611	325 633
of which: Re-exports	9 453	72 366	170 796	251 611	321 788
India (b)	8 329	5 715	16 637	9 068	...
Indonesia	34 908	44 807	76 405	82 682	121 468
Japan	2 824	9 318	6 151	7 061	7 145
Korea, Republic of	60 331	55 819	49 296	48 180	46 854
Malaysia	36 756	46 913	47 905	52 621	84 099
Thailand	1 103	3 601	4 718	7 218	3 747

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

(b) Years ended 31 March following that stated

Kaolin

Imports of Kaolin

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom	4 202	4 678	7 654	8 265	9 061
Belgium-Luxembourg	297 481	310 426	369 848	489 747	430 852
Denmark	36 182	29 749	28 311	24 776	28 727
France	310 456	309 698	340 115	373 662	378 275
Germany, Federal Republic of	871 793	893 504	919 567	100 595	1 070 985
Greece	41 181	52 864	54 109	25 879	...
Italy	635 996	617 589	684 532	675 185	696 289
Netherlands	454 237	460 099	471 362	465 546	451 417
Portugal	8 976	15 728	17 261	25 763	29 225
Spain	188 449	177 728	195 495	232 606	271 650
Austria	95 401	86 699	99 744	140 888	140 850
Bulgaria (c)	*9 400	*4 000	*3 300	*2 900	*2 500
Czechoslovakia (c)	*8 100	*7 700	*7 300	*6 300	*5 500
Finland	571 391	627 611	792 504	950 300	932 299
German Democratic Republic	1 400	5 000	4 600	4 400	2 600
Hungary	59 451	63 278	59 564	60 158	54 303
Norway	79 528	75 743	76 492	88 665	99 475
Poland	145 961	160 181	159 001	160 137	...
Romania (c)	*25 600	*33 000	*25 000	*24 100	*24 500
Sweden	419 400	386 682	442 104	441 103	352 791
Switzerland	...	...	...	111 219	111 432
Turkey	7 401	5 442	10 031	9 433	...
Yugoslavia	83 136	93 096	91 789	83 307	80 977
Algeria (d)	15 961	4 722	5 014	...	...
Ivory Coast	139	121	...	111	...
Morocco	7 853	8 032	5 456	7 757	...
Tunisia	8 974	14 007	34 539	26 291	28 144
Zimbabwe (e)	2 896	2 748	1 413	...	...
Canada	271 468	333 272	417 405	389 724	431 516
Mexico	95 989	93 126	91 832	110 688	...
USA	8 515	9 374	9 548	7 601	3 106
Argentina	15 449	24 448	30 258	24 135	18 100
Brazil	1 281	841	862	844	...
Colombia	9 339	6 036	...	...	...
Ecuador	2 643	4 925	3 149	1 760	4 702
Peru	2 184	2 135	2 237	3 094	1 158
Uruguay	2 539	2 792	5 009	4 934	...
Venezuela	21 017	16 770	29 958	31 061	...
Bangladesh (b)	...	350 641	104 570	84 308	...
Hong Kong	38 827	82 336	197 422	265 948	388 503
Indonesia	22 207	19 460	27 597	35 301	50 646
Iran (a)	14 484	11 720	8 671	8 448	...
Israel (c)	*14 200	*12 700	*13 500	*8 900	*12 100
Japan	706 745	678 359	763 079	970 491	1 029 809
Korea, Republic of	41 979	53 079	103 665	148 077	145 944
Malaysia	2 666	1 233	2 004	944	7 996
Pakistan (b)	4 569	5 712	7 102	8 293	...
Philippines	7 401	8 687	15 024	22 913	25 147
Saudi Arabia	3 094	2 122	2 364	3 398	2 061
Taiwan	80 129	120 134	156 723	149 557	358 541
Thailand	4 320	19 429	14 400	26 666	...
Australia	2 437	4 461	12 270	12 487	...
New Zealand (b)	5 659	6 675	6 543	8 642	10 174

(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

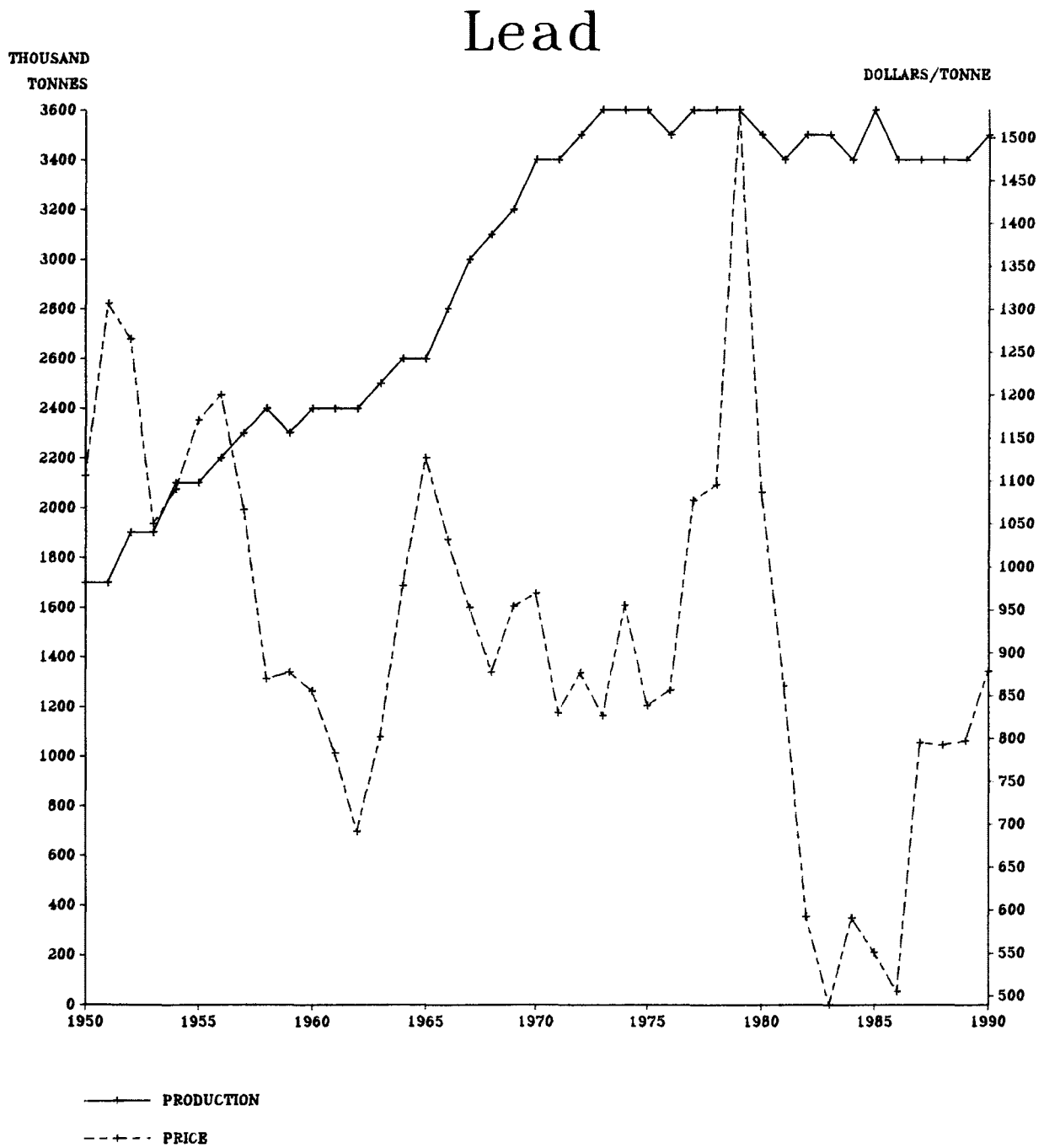


Figure 11 World mine production of lead compared with the annual average price of pig lead in New York, according to *American Metal Market*, expressed in constant 1985 US dollars.

Mine Production of Lead

tonnes (metal content)

Country	1985	1986	1987	1988	1989
United Kingdom	3 994	648	691	1 185	2 161
France	2 488	2 478	2 199	2 000	1 060
Germany, Federal Republic of (a)	20 500	16 700	24 500	17 900	9 300
Greece	19 752	20 873	20 600	25 900	25 100
Irish Republic	34 600	36 400	33 800	32 500	32 100
Italy	15 622	11 119	12 202	16 503	14 600
Spain	85 636	82 057	81 629	72 670	74 672
Austria	7 500	5 699	6 437	3 315	2 345
Bulgaria	97 000	90 000	85 000	84 500	85 000
Czechoslovakia	2 718	2 944	2 849	2 814	2 670
Finland	2 422	1 980	2 401	1 924	2 552
Greenland	17 800	17 000	21 000	23 000	24 000
Hungary	575	174	—	—	—
Norway	3 597	3 366	3 071	2 957	3 188
Poland	51 300	42 500	48 800	64 000	66 000
Romania	*34 300	*36 300	*30 200	*32 800	*37 700
Soviet Union	*580 000	*520 000	*510 000	*520 000	*500 000
Sweden	80 604	91 729	95 141	91 579	88 967
Turkey	9 790	9 626	9 094	10 212	14 000
Yugoslavia	115 115	116 944	106 670	103 286	105 161
Algeria	3 800	3 500	3 500	3 600	4 000
Congo	1 500	400	430	760	—
Morocco	107 072	77 152	75 185	72 076	64 700
Namibia	28 284	23 326	23 692	24 446	23 956
Nigeria	*260	*100	*100	—	—
South Africa	98 425	97 778	93 642	90 233	78 171
Tunisia	2 500	1 900	2 100	2 200	1 700
Zambia	15 062	15 375	12 380	12 356	12 300
Canada	307 400	349 281	423 207	366 564	276 065
Honduras	21 635	6 454	3 728	11 195	5 416
Mexico	206 732	182 672	177 161	171 317	163 017
USA	424 200	353 100	318 700	393 700	419 300
Argentina	28 582	26 868	26 069	28 549	26 650
Bolivia	6 242	3 121	9 118	12 544	15 738
Brazil	16 997	13 558	11 472	14 314	16 050
Chile	2 473	1 501	829	1 359	1 241
Peru (a)	200 600	194 378	203 950	149 037	192 200
China	230 500	226 800	267 300	311 600	341 400
India	26 000	25 000	29 000	23 300	25 000
Iran (b)	23 000	22 000	20 000	17 000	10 500
Japan	49 716	34 998	28 024	22 090	18 595
Korea, Dem. P.R. of	*80 000	*85 000	*90 000	*90 000	*80 000
Korea, Republic of	9 699	11 864	13 998	14 457	16 535
Myanmar	7 623	6 600	4 600	6 000	5 200
Thailand	28 672	38 369	34 286	42 998	36 008
Australia	497 954	447 673	489 150	462 170	495 000
World total	3 600 000	3 400 000	3 500 000	3 500 000	3 400 000

(a) Recoverable

(b) Years ended 20 March following that stated

Production of Refined Lead

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom	327 197	328 630	346 954	373 845	349 983
Belgium (a)	114 293	98 313	108 030	126 561	109 442
Denmark (b)	4 503	*500	445	400	508
France	223 637	230 403	245 924	257 916	267 300
Germany, Federal Republic of	356 400	366 600	340 400	345 100	349 900
Greece	13 700	19 300	2 700	15 100	7 000
Irish Republic	10 000	10 000	10 000	11 700	12 000
Italy	140 055	132 374	168 300	177 700	180 800
Netherlands	37 300	35 700	40 300	39 500	41 500
Portugal	7 000	6 000	7 000	7 000	7 000
Spain	156 100	124 900	122 700	110 800	113 300
Austria	19 696	18 807	22 841	25 047	24 042
Bulgaria	*116 000	*113 700	*110 000	*105 000	99 000
Czechoslovakia	21 437	23 602	26 008	26 045	26 008
German Democratic Republic	41 000	*44 500	49 100	41 700	41 300
Poland	87 300	88 300	89 800	90 700	78 200
Romania	48 636	51 513	43 186	44 000	45 000
Soviet Union	*810 000	*790 000	*775 000	*795 000	*750 000
Sweden	56 975	87 604	92 858	85 373	75 396
Switzerland	2 000	2 500	2 500	1 500	1 500
Turkey	10 000	9 600	10 000	11 000	7 000
Yugoslavia	99 954	113 154	112 417	109 888	97 237
Algeria	4 000	4 000	4 000	4 000	4 000
Morocco	63 500	55 300	64 900	71 000	66 200
Namibia	38 511	40 047	40 634	44 447	44 183
Nigeria	800	600	300	500	1 000
South Africa	34 100	29 700	34 500	36 200	36 900
Tunisia	2 043	2 349	1 622	—	—
Zambia	8 873	6 648	7 979	6 385	4 600
Zimbabwe	*2 000	*3 000	*3 000	*3 000	*3 000
Canada	240 011	257 680	230 661	268 076	242 845
Jamaica	*600	*800	*500	*1 000	*1 000
Mexico	223 500	198 900	193 800	188 100	180 000
Trinidad & Tobago	*1 500	*1 400	*700	—	—
USA (c)	1 053 600	931 800	1 031 800	1 090 500	1 169 000
Argentina	28 663	30 657	32 173	28 840	24 500
Brazil (d)	81 575	84 691	88 203	98 182	85 817
Colombia	*3 700	*4 000	*4 500	*5 000	*5 000
Peru	83 300	67 400	70 792	56 523	73 402
Venezuela	20 000	19 000	18 500	13 100	14 000
China	222 500	239 600	246 400	241 400	301 900
India	22 185	26 831	30 466	28 722	34 729
Indonesia	*7 000	*6 000	*7 000	*7 000	*10 000
Iran	7 500	8 000	10 000	10 000	9 000
Japan	367 000	361 452	338 500	340 000	332 400
Korea, Dem. P.R. of	*65 000	*65 000	*70 000	*70 000	*75 000
Korea, Republic of	23 594	52 174	89 926	92 444	66 013
Malaysia	10 000	12 000	9 000	15 000	16 000
Myanmar	9 400	5 948	4 093	3 198	3 000
Pakistan	*2 000	*2 000	*2 000	*2 000	*3 000
Philippines	7 000	7 000	7 000	7 000	7 000
Sri Lanka	*1 000	*1 000	*1 000	*1 000	*500
Taiwan	48 700	53 500	66 400	67 300	58 200
Thailand	7 536	9 122	11 366	15 614	18 711
United Arab Emirates	*1 500	*1 500	*1 500	*1 000	*2 000
Australia	215 747	171 039	216 660	179 864	209 000
New Zealand	6 000	4 000	4 000	5 000	5 000
World total	5 600 000	5 500 000	5 700 000	5 800 000	5 800 000

Note(s):

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

(a) Including alloys

(b) Sales

(c) Excluding Pb content of primary antimonial lead

(d) Including direct use scrap

Exports of Lead

Lead
tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Ores & concentrates	3 728	3 189	1 658	1 290	5 295
Unwrought	93 478	89 494	87 348	93 038	80 270
Unwrought alloys	29 695	30 204	25 322	17 912	29 127
Scrap	30 800	14 783	21 394	17 177	29 320
Belgium-Luxembourg					
Unwrought	52 726	47 823	54 935	55 869	62 218
Unwrought alloys	17 847	10 236	9 633	5 662	6 919
Scrap	8 555	7 445	23 362	19 025	19 341
Denmark					
Unwrought	330	2 444	174	935	464
Unwrought alloys	3 713	852	174	371	445
Scrap	14 520	14 362	13 275	14 122	13 980
France					
Unwrought	39 559	34 821	53 054	51 760	52 180
Unwrought alloys	20 207	23 017	27 865	24 115	21 396
Scrap	12 630	7 105	8 330	5 456	12 692
Germany, Federal Republic of					
Ore	9 991	9 822	10 770	4 729	237
Unwrought	70 802	65 938	53 555	64 406	55 935
Unwrought alloys	36 190	33 062	34 238	31 422	28 336
Scrap	14 558	11 496	11 604	9 725	11 020
Greece					
Ore	23 000	38 800	33 000	—	...
Unwrought (a)	2 168	3 442	3 064	1 000	10 098
Irish Republic					
Ores & concentrates	62 622	60 400	56 218	49 516	58 501
Unwrought (a)	132	14	83	353	103
Scrap	4 085	2 062	3 761	3 651	4 596
Italy					
Ore	24 907	14 498	16 512	14 418	30 518
Unwrought	5 036	2 754	16 047	38 983	25 434
Unwrought alloys	6 749	7 700	4 448	2 359	1 530
Scrap	1 255	96	153	702	1 392
Netherlands					
Unwrought	7 062	8 660	12 160	6 382	7 220
Unwrought alloys	12 989	11 710	10 462	9 731	13 012
Scrap	20 213	17 203	16 173	20 917	21 649
Portugal					
Ore	1 090	1 029	1 065	987	992
Spain					
Ore	40 769	42 215	65 913	69 589	59 890
Unwrought (a)	56 014	22 500	18 250	14 219	18 077
Scrap	14	121	3 976	824	796
Austria					
Unwrought	988	1 126	1 935	7 272	4 658
Scrap	49	4 565	4 227	1 601	3 554
Bulgaria					
Unwrought (a)(f)	*2 400	*6 000	*6 800	*8 900	*4 800
Czechoslovakia					
Ores & concentrates (f)	*5 900	*6 100	*5 600	*5 800	*5 800
Finland					
Ore	6 105	3 927	4 850	4 277	5 677
Unwrought (a)	83	228	660	184	316
Scrap	1 044	1 415	6 709	9 751	11 546
Greenland					
Ores & concentrates	26 313	26 955	27 925	34 314	35 564
Hungary					
Scrap	3 017	1 860	1 813	1 837	1 332
Norway					
Ore	6 686	7 180	6 026	4 378	6 680
Scrap	6 475	7 171	8 308	9 080	10 166
Soviet Union					
Unwrought (a)(f)	*25 200	*25 800	*21 300	*21 000	*30 900
Sweden					
Ore	42 962	58 060	56 820	60 885	71 527
Unwrought	50 590	50 648	52 213	57 117	36 806
Unwrought alloys	14 215	15 140	14 072	12 415	12 314
Scrap	165	573	2 217	3 379	875

Lead

Exports of Lead

tonnes

Country	1985	1986	1987	1988	1989
Switzerland					
Unwrought	4 983	2 088	2 855	(a)3 484	(a)2 111
Scrap	10 391	16 008	11 232	14 799	14 526
Turkey					
Ore (e)	—	—	1 954	2 909	6 810
Yugoslavia					
Concentrates	5 764	734	727	1 140	12 059
Unwrought	15 071	11 886	15 497	(a)11 102	(a)19 707
Unwrought alloys	2 031	466	2 787	...	...
Algeria					
Ore	4 746	3 153	3 471	4 800	3 300
Ivory Coast					
Scrap	702	1 014	...	145	...
Morocco					
Ore	60 366	35 243	30 556	43 487	...
Unwrought	55 893	55 679	63 410	62 528	62 000
Namibia					
Unwrought	37 271	41 547	41 537	42 534	44 652
South Africa					
Concentrates (b)	102 790	102 637	90 790	91 470	81 541
Unwrought (f)	*7 200	*16 800	*18 900	*16 000	*16 700
Scrap (f)	*1 400	*2 300	*1 500	*200	*100
Tunisia					
Ore	3 300	3 000	2 000	5 000	1 500
Unwrought	1	—	60	240	1 055
Scrap	99	2 923	1 592	407	980
Zambia					
Unwrought	5 546	1 623	6 229	4 295	1 100
Canada					
Ore (b)	93 658	118 375	207 938	169 498	155 175
Unwrought	114 007	111 852	100 206	199 588	123 357
Scrap	11 393	25 565	21 971	9 214	15 686
Honduras					
Ores & concentrates (b)	15 580	16 498	6 131	...	...
Mexico					
Ores & concentrates	9 872	5 618	15 770	12 567	6 671
Unwrought	107 003	108 736	86 602	105 228	93 607
Scrap	2 122	1 907	3 099	2 291	...
USA					
Ores & concentrates (b)	9 987	4 380	106 596	143 007	173 762
of which: Re-exports	—	—	97 832	122 105	116 724
Unwrought	23 468	8 874	3 425	6 419	23 846
Unwrought alloys	1 931	2 342	1 041	1 137	4 725
Scrap	59 950	65 031	52 944	81 888	51 933
Argentina					
Ores & concentrates	19 854	17 079	19 727	9 812	25 942
Bolivia					
Ore	*5 300	26 720	14 312	*18 500	*32 000
Chile					
Ores & concentrates	2 266	2 111	137	5 291	1 489
Peru					
Ores & concentrates	221 090	201 657	253 224	179 574	206 436
Unwrought (a)	61 217	48 848	42 804	31 749	57 001
China					
Ore	...	...	79 756	58 829	19 198
Unwrought (a)	...	...	23 460	11 856	1 839
Dubai					
Scrap	3 037	5 924	...	...	...
Hong Kong					
Unwrought	344	436	11 561	5 691	2 071
of which: Re-exports	344	429	11 537	5 627	1 926
Scrap	1 883	2 502	3 523	3 266	3 476
Iran (c)					
Ore	50 700	23 100	30 000	19 675	...

Exports of Lead

Lead
tonnes

Country	1985	1986	1987	1988	1989
Japan					
Ores & concentrates	5 343	—	—	—	—
Unwrought (a)	25 131	25 379	17 113	1 286	1 407
Scrap	3 974	2 893	18 201	23 998	23 971
Korea, Dem. P.R. of					
Unwrought (a)(f)	*13 100	*15 500	*14 100	*11 500	*6 000
Korea, Republic of					
Ore	1 700	—	4 606	—	4 560
Unwrought (a)	251	9 186	8 713	3 504	5 493
Myanmar (d)					
Unwrought	1 780	6 304	4 571	...	...
Saudi Arabia					
Scrap	735	1 653	5 346	17 638	20 124
Singapore					
Unwrought (a)	673	5 584	8 608	23 072	7 494
of which: Re-exports	527	5 443	8 216	22 113	6 688
Scrap	7 057	5 103	9 690	8 131	7 535
of which: Re-exports	2 530	961	921	519	164
Taiwan					
Unwrought (a)	20 602	23 473	16 030	30 880	19 304
Thailand					
Ore	46 788	54 110	51 247	59 665	44 967
Australia					
Ores & concentrates	180 986	217 787	125 863	181 000	119 000
Unwrought					
Base bullion (b)	175 263	184 920	178 300	191 112	175 000
Refined (a)	156 733	111 929	133 150	159 387	141 000
Scrap	19 101	26 070	36 371	33 658	...

Note(s):

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

(a) Including alloys

(b) Pb content

(c) Years ended 20 March following that stated

(d) Years ended 31 March following that stated

(e) Complex lead-zinc ore

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

Imports of Lead

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Ores & concentrates	25 900	36 200	25 382	39 222	30 117
Unwrought	182 476	181 203	183 831	210 321	216 033
Unwrought alloys	2 799	1 830	2 804	5 466	3 276
Scrap	2 047	3 819	10 456	8 837	8 704
Belgium-Luxembourg					
Ore	114 697	76 144	107 072	114 018	101 958
Unwrought	39 195	49 740	30 810	24 451	27 099
Unwrought alloys	10 195	11 639	10 315	12 109	10 341
Scrap	11 626	6 218	10 317	12 357	12 383
Denmark					
Unwrought	246	8 502	9 329	4 595	2 566
Unwrought alloys	20 222	11 024	6 080	4 033	2 797
Scrap	994	339	323	152	680
France					
Ore	190 536	182 378	183 927	190 105	186 920
Unwrought	28 098	27 830	32 412	34 823	35 299
Unwrought alloys	13 009	9 245	10 148	12 081	12 391
Scrap	9 279	14 644	20 640	21 444	31 541
Germany, Federal Republic of					
Ore	236 490	194 054	226 010	235 442	222 361
Unwrought	118 711	121 939	79 908	87 138	109 792
Unwrought alloys	16 428	25 727	27 855	25 476	28 071
Scrap	45 905	50 542	44 995	30 397	29 934
Greece					
Ore	9 783	9 009	12 501	—	—
Unwrought (a)	9 752	1 937	4 877	6 844	7 447
Irish Republic					
Unwrought (a)	257	1 251	1 297	1 030	1 940
Scrap	4 787	7 359	8 473	10 141	13 106
Italy					
Ore	12 019	30 945	70 867	96 713	112 015
Unwrought	97 924	122 387	93 310	102 477	95 800
Unwrought alloys	17 071	18 424	16 310	14 230	13 278
Scrap	12 763	18 122	18 507	16 168	7 697
Netherlands					
Unwrought	26 500	28 733	26 918	28 876	29 601
Unwrought alloys	9 009	8 177	9 104	5 808	5 767
Scrap	24 593	19 257	14 021	19 317	19 554
Portugal					
Unwrought (a)	20 112	21 609	23 773	27 839	21 805
Scrap	14 770	6 235	53	—	4
Spain					
Ore	66 862	50 319	40 866	57 867	58 214
Unwrought	169	4 327	8 895	4 785	7 199
Unwrought alloys	3 492	4 573	4 475	5 364	5 868
Scrap	768	40	698	6 865	7 880
Austria					
Ore	3 987	4 124	1 152	6 884	17 947
Unwrought	37 501	38 516	31 476	36 714	38 902
Scrap	6 745	6 333	3 787	3 023	2 637
Bulgaria					
Ore (f)	*2 000	*7 800	*18 000	*21 600	*20 400
Czechoslovakia					
Unwrought (a)	25 000	25 000	23 000	20 000	18 000
Finland					
Unwrought	15 953	10 742	12 926	7 869	8 081
Unwrought alloys	3 625	5 030	5 029	4 221	5 146
German Democratic Republic					
Unwrought (a)(f)	*6 900	*11 500	*10 900	*30 700	*18 800
Scrap (f)	*7 600	*1 700	*9 700	*5 500	*11 300
Hungary					
Unwrought & semi-manufactures	7 454	6 729	5 225	9 267	7 416
Norway					
Unwrought	6 965	7 658	6 317	6 865	8 283
Unwrought alloys	6 825	6 573	7 151	3 300	3 415
Poland					
Unwrought	6 195	3 041	2 838	—	...

Imports of Lead

Lead
tonnes

Country	1985	1986	1987	1988	1989
Soviet Union					
Ore (f)	*41 800	*43 600	*25 400	*17 200	*14 300
Unwrought (a)(f)	*62 100	*5 600	*12 600	*13 400	...
Sweden					
Ore	8 264	—	—	3 301	1
Unwrought	2 021	1 479	594	2 228	1 399
Unwrought alloys	2 790	2 346	3 197	658	986
Scrap	20 651	16 378	18 551	23 287	17 373
Switzerland					
Unwrought	10 681	10 186	8 075	(a)9 803	(a)7 174
Turkey					
Unwrought (a)	16 480	12 862	13 629	15 753	5
Scrap	19	4 021	2 773	2 036	2 345
Yugoslavia					
Concentrates	416	2 887	—	20 007	6 044
Unwrought (a)	9 518	13 439	7 752	8 578	5 343
Scrap	960	1 859	1 112	509	3 056
Algeria					
Unwrought	7 993	14 265	11 430	(a)10 300	...
Unwrought alloys	2 390	2 761	4 784	...	...
Egypt					
Unwrought & scrap	16 934	8 085	16 368	16 100	...
Kenya					
Unwrought (a)	246	56	98	246	...
Madagascar					
Unwrought (a)	259	115	208	100	174
Mozambique					
Unwrought	281	1	394	...	...
Namibia					
Concentrates (b)	19 259	160	34 986	24 820	21 652
Nigeria					
Unwrought (a)	1 542	317	1 283	1 000	...
South Africa					
Ore	15 567	14 867	15 110	30 971	21 493
Unwrought	3 877	1 200	1 378	2 421	455
Unwrought alloys	...	...	...	1 218	308
Scrap	126	300	296	3 088	1 519
Tunisia					
Unwrought	1 501	2 709	3 038	3 713	4 079
Canada					
Ores & concentrates	...	...	...	15 718	34 375
Unwrought	5 676	4 244	12 559	14 690	11 130
Scrap	44 308	61 530	74 152	36 741	26 660
Cuba					
Unwrought	4 187	2 106	2 200	2 100	1 500
Mexico					
Unwrought & scrap	839	1 331	2 344	4 530	...
USA					
Ores & concentrates (b)	42 665	86 747	229 858	235 034	204 802
Unwrought					
Base bullion	799	161	10 905	6 586	5 189
Other	121 049	123 919	174 430	132 073	96 674
Alloys	13 752	17 575	14 457	16 268	21 319
Scrap	1 850	2 269	6 088	6 938	11 261
Brazil					
Ore	27 447	30 120	38 095	25 047	38 748
Unwrought (a)	2 141	3 410	15 580	2 642	1 595
Scrap	12 888	16 308	25 192	31 135	20 475
Chile					
Unwrought (a)	...	1 596	2 005	2 563	(f)*1 500
Colombia					
Unwrought (a)	790	1 424	1 400	2 636	...
Uruguay					
Unwrought	1 068	1 312	1 926	1 848	...
Venezuela					
Unwrought (a)	7 889	8 790	9 018	8 618	...
Scrap	3 740	3 164	5 756	6 217	...

Imports of Lead

tonnes

Country	1985	1986	1987	1988	1989
China					
Unwrought (a)	(f)*1 700	(f)*6 200	4 575	4 577	36 374
Scrap (f)	*1 200	*1 100	*1 500	*2 400	*6 200
Hong Kong					
Unwrought (a)	2 321	5 072	12 006	7 781	5 544
Scrap	458	681	524	1 461	2 241
India (c)					
Unwrought	33 232	39 946	24 297	35 007	...
Unwrought alloys	8 255	9 261	13 465	2 316	...
Scrap	6 542	3 170	2 579	9 949	...
Indonesia					
Unwrought	7 670	7 853	8 620	10 070	10 126
Unwrought alloys	5 500	7 291	6 888	5 269	4 172
Iran (d)					
Unwrought	11 944	5 017	11 330	6 673	...
Israel					
Unwrought	2 990	2 108	3 340	1 318	1 041
Japan					
Ore	261 795	273 829	294 728	279 537	298 964
Unwrought	74 561	46 966	39 398	51 991	59 917
Unwrought alloys	13 279	23 380	10 006	23 783	23 176
Korea, Dem. P.R. of					
Unwrought (a)(f)	*4 600	*6 900	*8 900	*4 400	*5 100
Korea, Republic of					
Unwrought	37 109	38 917	37 649	76 109	85 701
Unwrought alloys	26 694	16 115	10 030	11 072	11 287
Scrap	20 162	39 382	45 891	53 902	41 971
Malaysia					
Unwrought (a)	12 291	11 659	13 552	14 798	20 492
Scrap	4 666	1 053	1 755	4 558	2 541
Pakistan (e)					
Unwrought (a)	2 276	1 942	3 935	3 525	...
Philippines					
Unwrought (a)	2 984	4 532	8 739	4 723	8 362
Scrap	3 600	4 307	9 069	12 394	13 959
Singapore					
Unwrought (a)	5 457	9 674	16 206	26 405	12 247
Scrap	104	133	1 425	3 913	4 387
Syria					
Unwrought & scrap	2 439	1 454	1 176	1 200	...
Taiwan					
Unwrought (a)	12 272	16 154	20 947	18 925	26 386
Scrap	54 839	89 536	79 653	80 956	72 741
Thailand					
Unwrought	8 917	8 276	12 643	12 037	...
Unwrought alloys	386	1 376	811	939	...
Scrap	0	1 095	3 686	11 790	...
Australia					
Ores & concentrates	8 000	11 297	20 111	59 050	...
New Zealand (e)					
Unwrought (a)	5 408	4 346	4 144	3 544	3 321

Note(s):

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

(a) Including alloys

(b) Pb content

(c) Years ended 31 March following that stated

(d) Years ended 20 March following that stated

(e) Years ended 30 June of that stated

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

Production of Lithium Minerals

Country	1985	1986	1987	1988	1989
Portugal					
Lepidolite	130	1 800	9 380	14 109	18 264
Soviet Union	*55 000	*55 000	*55 000	*55 000	*55 000
Namibia	1 873	855	927	1 642	1 398
Zimbabwe	27 910	32 760	14 959	15 073	20 647
Canada	*4 500	*7 500	*10 000	*15 000	*15 000
USA (a)(b)	*4 500	*4 000	*4 000	*4 000	*4 500
Argentina	35	184	178	119	104
Brazil					
Amblygonite	118	49	52	...	...
Lepidolite	26	30	—	...	...
Petalite	1 323	1 614	2 946	(d)*3 500	(d)1 471
Spodumene	107	366	505	...	...
Chile (c)	4 508	4 458	6 139	7 332	7 508
China	*15 000	*15 000	*15 000	*15 000	*15 000
Australia					
Spodumene	12 009	8 530	16 621	27 396	*30 000
World total (a)	*7 600	*7 200	*7 400	*7 900	*8 600

(a) Li content

(b) Mostly spodumene

(c) Carbonate

(d) Including amblygonite, lepidolite and spodumene

Lithium

Exports of Lithium

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Oxides	...	...	199	201	221
Carbonate	100	286	432	548	734
Belgium-Luxembourg					
Oxides	54	50	—	99	—
France					
Oxides	48	21	36	100	3
Germany, Federal Republic of					
Metal	71	54	49	...	...
Oxides	761	694	909	712	745
Carbonate	1 093	1 462	1 444	1 371	1 819
Netherlands					
Oxides	27	18	—	17	40
Carbonate	9	62	132	64	61
Spain					
Lithium minerals	47	9	96	392	187
Soviet Union					
Oxides (a)	*70	*100	*180	*20	*100
Carbonate (a)	...	*150	*400	*300	*400
South Africa					
Lithium minerals (a)	*3 100	*1 500	*100	*400	...
Zimbabwe					
Lithium minerals	28 117	22 837	18 053	...	...
USA					
Oxides	3 562	2 897	2 917	3 788	4 731
Carbonate	6 312	5 253	5 783	7 168	9 068
Chile					
Carbonate	4 770	4 487	6 063	7 153	8 102
China					
Oxides (a)	*400	*500	*600	*700	*500
Carbonate (a)	*700	*1 100	*1 300	*1 400	*900

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

Imports of Lithium

Country	1985	1986	1987	1988	1989
United Kingdom					
Metal	21	36	51	...	...
Oxides	459	510	625	630	692
Carbonate	659	1 160	1 742	2 066	1 958
Belgium-Luxembourg					
Oxides	175	187	225	198	151
Carbonate	214	237	249	271	312
France					
Metal	18	41	7	...	...
Oxides	473	329	415	388	378
Carbonate	410	596	578	624	778
Germany, Federal Republic of					
Metal	22	24	22	...	...
Oxides	687	1 668	1 515	1 631	966
Carbonate	5 328	5 068	5 034	4 368	5 972
Italy					
Metal	6	1	45	...	...
Oxides	298	267	396	369	...
Carbonate	335	527	702	626	...
Netherlands					
Oxides	102	83	68	65	165
Carbonate	246	466	514	469	513
Spain					
Lithium minerals	430	567	803	325	606
Oxides	140	95	206	127	139
Carbonate	143	289	282	313	415
South Africa					
Lithium minerals	443	600	623	...	...
Oxides	153	100	151	138	102
Canada					
Carbonate	1 375	953	1 260	1 522	1 561
USA					
Lithium minerals	4 170	12 010	16 487	14 361	...
Brazil					
Oxides	426	388	471	503	...
Carbonate	267	36	118	237	...
Japan					
Metal	42	50	81	...	...
Oxides	797	885	888	935	1 020
Carbonate	4 430	2 431	3 096	3 318	3 933
Korea, Republic of					
Oxides	43	287	588	152	129
Carbonate	152	166	309	513	455
Australia					
Oxides (a)	139	...	...	...	141

(a) Years ended 30 June of that stated

Magnesite

Production of Magnesite

tonnes

Country	1985	1986	1987	1988	1989
Greece	884 373	1 261 028	1 132 186	847 911	*850 000
Spain	692 196	587 609	396 002	*473 000	*470 000
Austria	1 255 043	1 084 360	946 943	1 121 585	1 204 942
Czechoslovakia	654 000	666 000	671 000	631 000	642 000
Poland	19 200	20 900	22 300	23 867	24 133
Soviet Union	*1 975 000	*1 925 000	*1 875 000	*1 825 000	*1 825 000
Turkey	1 136 714	1 306 645	1 189 667	1 125 844	1 344 000
Yugoslavia	417 407	422 548	403 000	382 000	364 000
Egypt	477	6 095	5 038	110	...
South Africa	28 898	61 186	74 961	74 088	75 695
Zimbabwe	19 385	27 649	28 991	30 121	33 423
Canada (b)	136 000	144 000	*150 000	*200 000	...
Brazil (c)	265 177	307 096	396 830	*400 000	*300 000
Colombia	12 411	14 936	15 444	17 760	20 425
China	*2 000 000	*2 000 000	*2 000 000	*2 000 000	*2 000 000
India	421 379	460 315	419 933	507 873	479 530
Iran (a)	*5 000	*5 000	*3 000	2 777	*3 000
Korea, Dem. P.R. of	*1 900 000	*1 900 000	*1 900 000	*1 900 000	*1 900 000
Nepal (d)	19 851	63 190	38 388	45 000	27 978
Pakistan	2 113	1 757	3 824	3 766	8 750
Philippines	1 090	2 111	1 355	—	...
Australia	57 535	41 441	53 941	62 848	*60 000
World total	11 900 000	12 300 000	11 700 000	11 700 000	11 800 000

Note(s):

(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
 (d) Years ended 15 July of that stated

Exports of Magnesite and Magnesia

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Magnesite	155	105	50	4 028	446
Magnesia	92 601	82 625	86 055	72 917	89 209
Belgium-Luxembourg					
Magnesite	282	154	534	994	195
Magnesia	4 230	4 923	4 445	2 112	5 231
France					
Magnesite	980	515	218	450	573
Magnesia	13 237	15 897	21 972	21 704	19 580
Germany, Federal Republic of					
Magnesite	24	22	204	3 024	1 930
Magnesia	30 272	39 694	55 929	62 622	70 082
Greece					
Magnesite	10 447	8 054	3 075	—	...
Magnesia	332 779	326 861	287 701	...	...
Irish Republic (a)	*69 100	*62 600	*62 600	*77 900	*77 700
Italy					
Magnesite	2 373	719	713	3 342	3 686
Magnesia	116 014	123 773	99 852	109 355	126 301
Netherlands					
Magnesite	1 049	1 618	2 260	2 224	3 881
Magnesia	34 042	32 902	34 614	37 570	44 756
Spain					
Magnesite	620	8	216	13 851	15 311
Magnesia	121 856	109 286	87 058	82 954	80 628
Austria					
Magnesite	573	755	387	58	219
Magnesia	154 233	137 550	140 875	150 026	165 686
Czechoslovakia					
Magnesite	446 000	305 000	303 000	306 000	248 000
Finland					
Magnesia	(d)1 860	(d)503	(d)581	33	30
Norway					
Magnesite	...	...	...	161	155
Magnesia	(d)10 271	(d)8 689	(d)4 170	3 332	3 108
Soviet Union (a)	*9 700	*6 800	*8 000	*5 800	*4 500
Sweden					
Magnesite	...	...	...	185	518
Magnesia	(d)1 889	(d)575	(d)796	346	532
Turkey					
Magnesite	58 597	17 833	32 069	80 806	...
Magnesia	100 812	116 211	134 025	133 913	(d)143 457
Yugoslavia					
Magnesia	8 195	7 894	5 787	7 365	16 027
South Africa (a)	*1 400	*1 700	*3 500	*3 600	*3 000
Zimbabwe	16 852	23 175	25 099	...	...
Canada					
Magnesia	(e)47 531	(e)55 099	(e)25 860	67 133	56 335
Mexico					
Magnesia	28 995	44 342	39 430	59 076	...
USA					
Magnesite	...	...	...	...	10 384
Magnesia	(d)34 880	(d)42 764	(d)45 776	(d)43 715	43 016
Brazil					
Magnesia	84 169	75 263	73 585	110 745	55 596
China (a)	*504 400	*535 000	*578 800	*813 400	*939 300
Hong Kong (c)	15 457	29 478	25 638	42 105	28 609
India (b)					
Magnesite	14	—	508	533	...
Magnesia	1 358	2 192	1 318	4 220	...
Israel					
Magnesia	(a)*22 300	(a)*8 700	(a)*30 300	31 260	37 881
Japan					
Magnesite	...	...	...	307	307
Magnesia	(d)108 777	(d)126 612	(d)93 845	102 459	121 575

Exports of Magnesite and Magnesia

tonnes

Country	1985	1986	1987	1988	1989
Korea, Dem. P.R. of (a)	*237 700	*194 200	*217 100	*260 200	*228 900
Singapore	245	172	480	1 561	337
of which: Re-exports	245	28	123	261	205
Australia	5 443	2 652	4 095	3 043	...

Note(s):

- (1) The term 'magnesia', as used here, includes dead-burned, sintered and caustic-burned (caustic calcined) material
- (a) BGS estimates, based on known imports into certain countries
- (b) Years ended 31 March following that stated
- (c) Re-exports
- (d) Including magnesite
- (e) Exports to the USA

Imports of Magnesite and Magnesia

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Magnesite	14 860	9 241	7 778	16 323	15 186
Magnesia	121 286	115 292	121 753	148 654	141 713
Belgium-Luxembourg					
Magnesite	315	803	447	823	2 867
Magnesia	19 621	21 447	18 363	21 514	29 963
Denmark					
Magnesite	—	6	31	1 315	2 259
Magnesia	10 146	12 339	10 180	14 148	22 414
France					
Magnesite	53	100	117	5 844	987
Magnesia	171 536	180 092	195 559	208 410	217 807
Germany, Federal Republic of					
Magnesite	6 242	4 918	6 089	18 405	10 417
Magnesia	394 558	414 131	362 024	440 801	494 566
Greece					
Magnesite	—	5 743	3 275	...	...
Magnesia	27 025	18 798	8 658	17 442	...
Irish Republic					
Magnesite	110	278	0	16 448	...
Magnesia	36 092	41 973	35 623	10 923	12 050
Italy					
Magnesite	20 266	12 720	12 965	29 313	29 137
Magnesia	79 027	81 008	82 722	77 492	94 558
Netherlands					
Magnesite	3 933	1 939	2 582	12 284	4 061
Magnesia	77 042	80 890	59 406	75 357	89 672
Portugal					
Magnesite	261	245	165	...	...
Magnesia	2 426	2 818	2 850	(d)2 971	(d)3 821
Spain					
Magnesite	26	4	14	41	913
Magnesia	66 980	62 478	58 940	63 963	80 214
Austria					
Magnesite	153	584	118	590	594
Magnesia	150 117	121 481	108 534	136 281	142 720
Bulgaria (b)	*25 200	*6 200	*8 200	*7 100	*7 100
Finland					
Magnesite	...	...	...	1 254	1 525
Magnesia	(d)17 631	(d)9 620	(d)5 225	5 473	6 270
German Democratic Republic (b)	*58 200	*32 000	*31 000	*35 100	*31 100
Hungary					
Magnesia	94 990	100 032	91 480	80 606	76 494
Norway					
Magnesite	...	...	...	5 866	4 442
Magnesia	(d)7 947	(d)6 911	(d)9 292	2 283	4 715
Poland					
Magnesia	263 398	211 464	251 748	253 417	164 065
Romania (b)	*66 700	*50 200	*54 100	*32 200	*36 700
Soviet Union					
Magnesia	582 650	696 638	577 600	538 627	542 392
Sweden					
Magnesite	...	...	...	17 686	23 191
Magnesia	(d)28 126	(d)23 471	(d)28 130	20 946	21 602
Switzerland					
Magnesite	12	24	37	1 053	438
Magnesia	5 383	5 425	6 565	5 416	6 037
Yugoslavia					
Magnesite	27 533	5 244	0	5	19 893
Magnesia	15 805	16 388	12 897	10 358	10 679
Algeria					
Magnesia	802	632	1 201	...	...
Egypt	9 210	2 289	8 484	...	...
Morocco					
Magnesia	49	120	164	171	...
South Africa					
Magnesite	35 907	35 667	26 101	28 144	28 165
Magnesia	39 694	45 520	80 299	57 083	74 834

Imports of Magnesite and Magnesia

tonnes

Country	1985	1986	1987	1988	1989
Tanzania	2 501	251	7	...	...
Tunisia					
Magnesia	374	474	698	938	731
Canada					
Magnesite	...	...	...	28 851	125 657
Magnesia	46 468	46 600	72 757	110 169	86 166
USA					
Magnesite	1 225	34	3 011	8 170	8 372
Magnesia	222 186	264 788	244 112	272 934	290 302
Argentina					
Magnesia	19 917	15 776	20 159	24 428	20 285
Brazil					
Magnesia	533	1 374	745	1 089	...
Chile	59 461	37 284	10 146	9 857	...
Peru					
Magnesia	4 729	5 075	8 183	7 128	3 599
Venezuela					
Magnesia	89 039	60 167	94 491	(d)80 304	...
Bangladesh (a)	...	2 768	11 465	10 762	...
Hong Kong	21 331	31 501	28 322	47 463	30 370
India (c)					
Magnesite	169	120	13	34	...
Magnesia	9 517	31 198	36 779	69 106	...
Indonesia					
Magnesite	...	...	...	...	5 570
Magnesia	(d)6 456	(d)8 641	(d)5 367	(d)6 664	11 224
Israel (b)	*1 000	*1 100	*1 200	*3 200	*2 400
Japan					
Magnesite	38 538	33 613	36 202	12 199	735
Magnesia	304 073	233 320	277 613	387 973	429 395
Korea, Republic of					
Magnesite	141	728	4 700	3 870	489
Magnesia	38 003	75 369	54 509	85 371	91 281
Malaysia					
Magnesite	9 645	5 595	9 730	11 696	13 840
Pakistan (a)					
Magnesite	610	292	382	940	...
Magnesia	708	430	278	589	...
Philippines	5 651	8 375	29 268	24 143	14 211
Singapore	791	472	1 781	8 397	25 020
Taiwan					
Magnesite	...	...	...	...	4 491
Magnesia	(d)28 269	(d)37 215	(d)38 113	(d)66 069	51 080
Thailand					
Magnesite	7 704	13 234	19 176	18 229	...
Magnesia	2 493	1 204	2 874	3 332	...
Australia					
Magnesia	16 842	10 691	21 033	13 043	...
New Zealand (a)					
Magnesite	...	...	...	3 962	6 633
Magnesia	(d)7 650	(d)6 795	(d)2 201	3 727	6 681

Note(s):

(1) The term 'magnesia', 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) Including magnesite

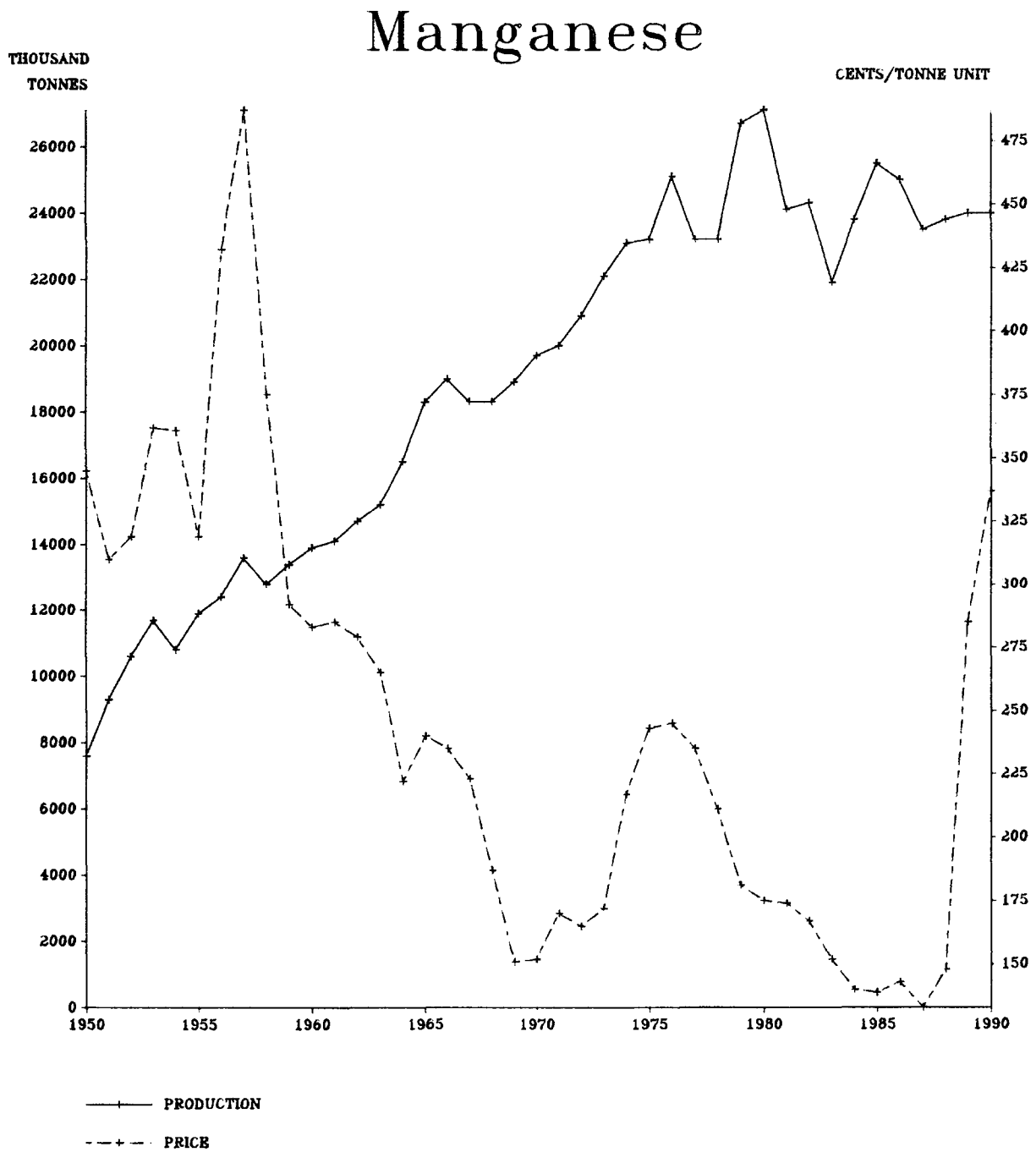


Figure 12 World production of manganese ore compared with the yearly average price of Indian (46%–48% Mn) ore c.i.f. US ports expressed in constant 1985 US dollars.

Production of Manganese Ore

Country		1985	1986	1987	1988	1989
Greece	(50%)	5 058	4 560	5 000	10 000	9 000
Italy	(30%)	8 621	6 396	3 802	9 701	5 899
Austria (e)		60 074	58 945	57 486	44 273	46 483
Bulgaria	(30%)	38 000	37 000	38 000	35 000	18 000
Czechoslovakia	(17%) (d)	*950	*900	*900	*900	*900
Hungary	(30%)	62 294	62 172	69 964	80 983	84 247
Romania	(22%)	68 000	67 000	*65 000	*65 000	*60 000
Soviet Union	(35%)	9 900 000	9 300 000	9 400 000	9 100 000	9 100 000
Turkey	(40%)	10 750	7 770	*7 000	*7 000	*7 000
Yugoslavia	(34%)	31 800	41 280	41 297	40 100	38 770
Gabon	(50%)	2 349 000	2 440 000	2 403 000	2 254 000	*2 600 000
Ghana	(40%)	315 600	259 300	253 600	230 900	333 743
Morocco	(50%)	43 690	40 334	42 500	30 100	32 000
South Africa						
Metallurgical	(40%)	3 442 544	3 563 647	2 769 804	3 331 418	3 547 516
Chemical	(55%)	158 464	155 647	113 310	122 537	75 680
Zaire	(45%)	37 240	913	...	...	...
Zambia	(45%)	1 870	554	—	502	351
Mexico	(38%)	396 400	459 000	385 300	443 600	397 000
USA	(10%) (a)	18 037	12 991	17 315	...	...
Argentina	(30%)	7 276	9 886	6 393	9 339	5 532
Brazil	(40%) (b)	2 523 194	2 696 799	2 067 385	*1 900 000	*2 000 000
Chile	(33%)	35 635	31 631	31 803	43 655	43 806
China	(30%)	*2 600 000	*2 700 000	*2 700 000	*2 700 000	*2 700 000
India	(35%) (c)	1 258 903	1 284 081	1 275 111	1 332 629	1 334 214
Indonesia	(50%)	33 295	7 985	9 360	10 278	9 076
Iran	(30%) (f)	55 000	55 000	55 000	74 630	*75 000
Japan	(26%)	21 140	5 905	—	80	—
Philippines	(48%)	387	780	445	2 251	1 326
Thailand	(45%)	4 412	4 888	9 148	7 947	11 044
Australia	(48%)	2 002 960	1 648 921	1 853 279	1 976 087	2 124 000
World total		25 500 000	25 000 000	23 700 000	23 900 000	24 700 000

Note(s):

- (1) Estimated average manganese content is given in parentheses for each country, relating where possible to the later years
 - (2) In addition to the countries listed, Colombia, Cuba and Vietnam are 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
 - (f) Years ended 20 March following that stated

Manganese

Exports of Manganese

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Ore (a)	3 853	235	323	419	778
Metal	(c)*600	(c)*600	(c)*500	1 813	2 520
Belgium-Luxembourg					
Ore	492	877	737	1 431	4 282
Metal	1 327	1 960	1 760	1 778	2 206
France					
Ore (a)	73 775	95 250	107 069	95 584	94 956
Metal	5 789	4 014	5 575	7 294	6 823
Germany, Federal Republic of					
Ore (a)	1 144	1 000	2 172	2 934	5 978
Metal	118	193	461	407	1 012
Greece					
Ore	—	501	—	20	...
Italy					
Ore (a)	1 272	1 747	484	667	572
Netherlands					
Ore	47 849	41 166	51 917	57 035	56 447
Metal	1 830	1 241	1 100	1 313	1 780
Portugal					
Ore	—	—	19 468	—	4 240
Bulgaria					
Ore	7 300	7 000	11 100	12 200	14 000
Hungary					
Ore	11 417	9 081	12 035	8 400	...
Norway					
Ore	—	505	5	10 000	8 000
Soviet Union					
Ore	1 126 000	1 101 000	714 000	982 000	895 000
Sweden					
Metal	86	113	119	273	150
Turkey					
Ore	6 914	602	28	—	...
Yugoslavia					
Ore	13 281	6 995	1 060	—	946
Gabon					
Ore	2 229 700	2 550 898	2 290 300	2 380 000	...
Ghana					
Ore	252 000	276 045	239 000	296 000	*231 900
Morocco					
Ore	47 012	50 738	43 927	47 371	...
South Africa					
Ore	2 890 306	2 415 694	1 561 846	2 735 023	2 974 999
Metal	26 387	27 166	31 109	...	36 500
Zaire					
Ore (c)	*25 500	...	...	...	...
Mexico					
Ore	133 634	123 670	158 132	169 127	127 222
USA					
Ore	69 753	41 554	70 743	67 498	51 880
Metal	4 805	4 840	5 626	9 496	5 350
Brazil					
Ore	901 201	759 875	715 842	1 048 546	1 034 735
China					
Ore	(c)*4 400	(c)*4 300	41 182	40 250	28 769
Metal (c)	*750	*1 300	*1 800	*3 400	*7 000
India (d)					
Ore (b)	486 380	221 918	225 781	307 656	...
Indonesia					
Ore (a)	30 665	4 959	5 000	5 720	16 020
Japan					
Ore	(b)1 605	(b)1 293	(b)1 853	929	55

Exports of Manganese

Manganese

tonnes

Country	1985	1986	1987	1988	1989
Singapore					
Ore	21 954	23 565	21 772	15 833	9 598
of which: Re-exports	7 392	23 565	21 772	15 833	9 598
Australia					
Ore	1 402 897	1 144 579	1 306 000	1 553 000	*1 620 000

Note(s):

- (1) Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys
- (a) Including manganiferous iron ore
- (b) Including ferruginous manganese ore
- (c) BGS estimates, based on known imports into certain countries
- (d) Years ended 31 March following that stated

Manganese

Imports of Manganese

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Ore (b)	386 299	159 482	120 550	195 457	275 509
Metal	4 215	4 831	2 484	2 859	4 574
Belgium-Luxembourg					
Ore	230 711	199 138	75 549	232 668	308 522
Metal	2 096	2 994	3 421	3 207	3 439
Denmark					
Ore	1 085	575	543	410	477
France					
Ore (b)	1 039 791	760 987	702 453	1 485 591	850 594
Metal	824	1 183	2 124	2 198	3 376
Germany, Federal Republic of					
Ore (b)	377 795	473 126	378 627	514 446	546 351
Metal	6 225	6 344	5 489	7 150	9 113
Greece					
Ore	10 852	589	15	82	24
Metal	119	138	160	278	181
Irish Republic					
Ore (b)	24 178	34 758	26 343	27 467	36 977
Italy					
Ore (b)	392 646	329 736	452 653	280 344	390 049
Metal	3 522	1 664	1 836	2 680	1 978
Netherlands					
Ore	72 493	130 177	124 983	53 425	55 961
Metal	2 113	2 004	1 710	2 203	2 362
Portugal					
Ore (c)	127 342	126 764	92 572	2 410	2 166
Spain					
Ore	299 032	244 299	202 286	199 519	328 520
Metal	466	674	614	679	782
Austria					
Ore	666	437	472	270	528
Metal	...	...	...	402	429
Bulgaria					
Ore	92 600	82 500	65 000	46 700	20 000
Czechoslovakia					
Ore	457 000	332 000	438 000	484 000	871 000
Finland					
Ore	10 045	2 265	2 218	1 266	16 828
German Democratic Republic					
Ore (a)	19 500	30 200	23 800	27 400	26 600
Hungary					
Ore	480	440	420	140	...
Norway					
Ore	701 993	817 544	628 173	847 235	724 558
Metal	1 678	1 315	1 641	1 263	1 355
Poland					
Ore	617 977	670 843	682 259	693 211	571 651
Romania					
Ore	225 000	196 000	212 000	205 000	205 000
Sweden					
Ore	336	12 121	11 139	11 683	13 398
Metal	1 072	1 726	2 064	1 593	2 079
Turkey					
Ore	1 300	840	1 618	1 496	1 107
Yugoslavia					
Ore	140 249	132 548	88 173	130 587	93 015
Ivory Coast					
Ore	2 067	3 030	...	2 750	...
Kenya					
Ore (b)	1 592	3 550	2 363	3 150	...
South Africa					
Ore	5 250	3 050	3 931	5 381	6 780
Zimbabwe					
Ore	6 539	23 550	18 419	...	...
Canada					
Ore (a)	102 199	94 914	80 957	124 282	79 047
Metal	3 757	2 655	2 085	4 086	5 225

Imports of Manganese

Manganese

tonnes

Country	1985	1986	1987	1988	1989
Mexico					
Ore	146 455	112 353	44 669	140 333	...
Trinidad & Tobago					
Ore	1	4 040	3 158	2 111	3 071
USA					
Ore	344 087	415 884	301 732	443 581	587 818
Metal	8 609	8 844	8 132	10 957	14 731
Argentina					
Ore	64 000	50 578	60 353	78 395	66 312
Brazil					
Ore	3 753	2 106	0	32 749	...
Metal	1 336	1 364	1 605	1 710	...
Colombia					
Ore	2 241	3 951	12 600	9 809	...
Peru					
Ore	1 320	1 099	662	580	66
Venezuela					
Ore	48 377	48 006	62 259	80 413	...
China					
Ore	...	...	235 999	276 690	424 803
Hong Kong					
Ore	243	341	665	629	580
India (e)					
Ore	4 809	3 954	1 152	4 860	...
Metal	236	130	567	1 095	...
Indonesia					
Ore (b)	1 153	1 170	1 998	1 680	1 370
Iran					
Ore (d)	*1 500	*3 500	...	*1 000	...
Japan					
Ore	(c)2 183 066	(c)1 806 871	(c)1 580 662	(b)1 922 113	(b)1 939 002
Korea, Dem. P.R. of					
Ore (d)	*41 300	*55 600	*61 000	*60 300	*49 000
Korea, Republic of					
Ore	275 920	222 831	373 880	391 811	508 323
Metal	...	...	...	697	823
Malaysia					
Ore	1 128	985	1 170	933	985
Pakistan (f)					
Ore	163	33 187	27 722	173	...
Philippines					
Ore (b)	2 669	3 040	3 594	3 209	22 244
Saudi Arabia					
Ore	20 144	27 929	26 124	19 509	8 535
Singapore					
Ore	35 923	28 846	45 512	51 062	26 180
Sri Lanka					
Ore	290	104	1 299	198	...
Taiwan					
Ore	128 970	119 241	131 704	170 943	196 032
Australia					
Ore	1 576	1 703	1 575	2 845	...
Metal	1 012	649	923	3 170	...

Note(s):

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

(a) Mn content

(b) Including manganiferous iron ore

(c) Including ferruginous manganese ore

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

(e) Years ended 31 March following that stated

(f) Years ended 30 June of that stated

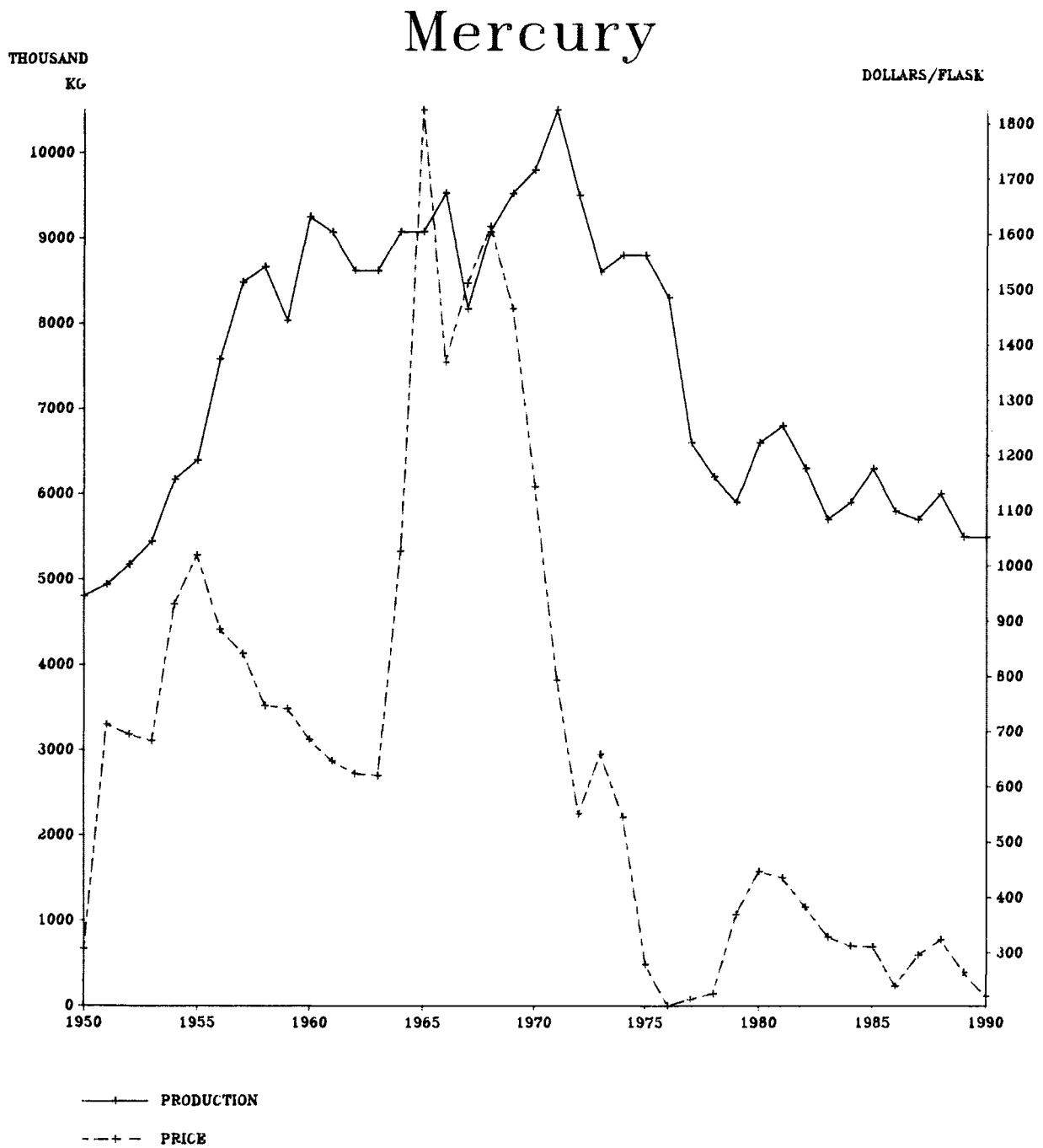


Figure 13 World production of mercury compared with the annual average price in the USA according to *Metals Week*, expressed in constant 1985 US dollars.

Production of Mercury

Mercury
kilograms

Country	1985	1986	1987	1988	1989
Spain	1 552 707	1 470 379	1 570 971	1 552 500	967 000
Czechoslovakia	158 000	168 000	164 000	168 000	131 000
Finland	125 138	87 021	217 134	97 026	202 470
Soviet Union	*1 600 000	*1 500 000	*1 650 000	*1 650 000	*1 500 000
Turkey	226 328	261 649	210 519	97 359	185 000
Yugoslavia	88 000	75 000	67 000	70 000	51 000
Algeria	793 500	756 000	705 000	662 000	587 000
Mexico	394 000	185 000	124 000	345 000	*345 000
USA	569 839	483 000	*100 000	380 000	428 000
China	*800 000	*850 000	*900 000	*950 000	*1 000 000
World total	6 300 000	5 800 000	5 700 000	6 000 000	5 400 000

Exports of Mercury

kilograms

Country	1985	1986	1987	1988	1989
United Kingdom	69 778	20 479	64 487	66 572	128 462
Belgium-Luxembourg	9 900	11 400	3 000	2 600	5 400
Denmark	6 300	1 100	7 100	4 200	1 700
France	56 000	87 900	32 400	323 800	105 000
Germany, Federal Republic of	149 600	111 700	137 700	72 900	121 800
Italy	19 400	3 000	54 900	38 700	68 000
Netherlands	25 000	23 000	50 000	96 000	74 000
Spain	942 000	1 089 000	702 000	699 000	696 000
Austria	2 900	2 800	1 700	2 900	700
Finland	108 000	81 000	224 000	94 000	188 000
Norway	57 000	30 000	73 000	63 000	29 000
Sweden	5 000	11 000	7 000	8 000	59 000
Switzerland	29 450	5 206	19 845	2 960	3 832
Turkey	298 114	181 459	100 740	182 812	306 011
Yugoslavia	41 000	34 000	17 000	27 000	5 000
Algeria	2 032 127	569 500	607 501	...	...
Canada	...	...	...	48 701	14
Mexico	92 295	155 346	137 000	142 377	87 000
USA	(a)*143 000	(a)*162 000	(a)*166 000	(a)*98 000	222 560
China (a)	*377 000	*564 000	*1 195 000	*758 000	*419 800
Hong Kong (b)	42 637	93 730	242 503	80 993	73 468
Japan	330 946	272 485	200 365	191 150	205 027
Singapore	10 678	5 680	21 445	2 542	5 844
of which: Re-exports	10 653	5 680	21 445	2 542	5 844

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

(b) Re-exports

Imports of Mercury

Mercury
kilograms

Country	1985	1986	1987	1988	1989
United Kingdom	393 346	417 712	435 615	311 020	89 178
Belgium-Luxembourg	259 800	211 700	115 200	161 500	91 700
Denmark	15 600	7 100	14 900	6 300	6 800
France	157 000	188 000	123 400	130 700	129 000
Germany, Federal Republic of	402 800	412 400	343 400	256 100	263 500
Greece	2 000	4 000	1 000	3 091	5 500
Irish Republic	19 900	18 500	1 400	7 452	14 385
Italy	170 000	179 329	144 300	194 300	189 000
Netherlands	26 000	33 000	83 000	104 000	110 000
Portugal	19 100	15 100	7 600	...	...
Spain	1 053	18 000	98 000	198 000	33 000
Austria	6 500	5 500	7 000	7 300	3 800
Czechoslovakia (a)	*8 600	*10 000	...	...	...
Finland	1 000	...	2 000	2 000	...
German Democratic Republic (a)	*374 000	*50 000	*335 000	...	*30 000
Hungary	61 000	57 000	60 000	65 000	70 000
Norway	13 000	3 000	8 000	4 000	...
Poland (a)	...	...	...	*15 000	...
Romania (a)	*214 000	*203 000	*69 000	...	...
Sweden	16 000	47 000	11 000	31 000	13 000
Switzerland	58 778	37 384	17 691	16 025	18 154
Yugoslavia	8 000	10 000	23 000	48 000	29 000
Egypt	21 000	19 000	18 000	...	...
Morocco	11 279	3 261	...	4 293	...
South Africa	22 300	30 000	114 200	58 368	—
Tunisia	10 772	11 027	10 706	10 368	11 636
Canada	40 000	77 000	33 000	36 238	32 442
USA	618 901	695 914	653 302	326 563	131 219
Argentina	46 000	212 000	45 000	57 000	...
Brazil	186 441	222 349	271 412	202 970	...
Colombia	35 533	37 088	...	34 000	...
Peru	15 200	27 318	44 814	25 114	65 000
Uruguay	300	4 500	33 700	4 300	...
Venezuela	6 096	47 558	104 149	...	...
Hong Kong	97 683	123 626	253 964	158 219	80 363
India (d)	291 868	286 508	237 753	298 897	...
Indonesia	40 422	179 190	192 285	55 207	77 402
Iran (b)	12 200	4 694	4 170	38 309	...
Israel (a)	*1 800	*400	*1 500	*300	*3 000
Japan	17 694	29 647	75 309	39 911	61 955
Korea, Dem. P.R. of (a)	*10 000	*5 000	...	*1 000	*3 000
Korea, Republic of	14 179	19 579	28 509	33 791	31 178
Malaysia	8 360	6 000	8 520	4 260	27 550
Myanmar (d)	307 340	3 099	6 096	...	...
Pakistan (c)	21 646	49 418	109 429	45 092	...
Philippines	30 549	55 013	65 966	132 451	62 370
Saudi Arabia	—	565 533	—	87 975	32 218
Singapore	25 345	31 552	45 335	55 576	150 733
Sri Lanka	1 089	1 359	917	400	...
Taiwan	9 989	9 723	8 511	18 321	18 418
Thailand	8 636	13 874	11 269	11 193	...
Australia	30 861	66 310	52 100	76 044	...

- (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	1985	1986	1987	1988	1989
France (e)	10 084	10 834	9 300	*9 000	*9 000
Portugal (a)	440	484	160	—	—
Spain (e)	727	325	370	2 233	*2 000
Norway (b)	*4 000	*3 000	*4 000	*4 000	*4 500
Soviet Union	*50 000	*50 000	*50 000	*50 000	*50 000
Yugoslavia	644	756	887	807	794
Madagascar	589	1 775	402	693	1 182
Morocco	1 440	*1 500	1 060	*1 000	*1 000
South Africa	2 153	2 509	1 159	1 669	1 708
Zimbabwe	581	1 390	801	1 368	1 471
Canada	*11 500	11 800	13 200	14 148	16 100
Mexico	1 446	1 748	3 419	2 584	*2 500
USA (d)(e)	125 000	134 000	146 000	130 000	119 000
Argentina	721	551	791	960	327
Brazil (a)	931	1 662	1 484	1 734	1 202
China (c)	*16 800	*19 700	*18 300	*11 800	*20 200
India	7 482	7 519	10 547	7 533	7 307
Iran (f)	820	*820	*1 000	1 167	*1 000
Malaysia	—	—	—	1 065	2 251
Sri Lanka	529	895	1 228	1 981	2 510
Taiwan	114	774	787	4 387	4 290
Australia	1 574	24	106	3 584	...
World total	238 000	252 000	265 000	252 000	252 000

Note(s):

- (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
- (f) Years ended 20 March following that stated

Exports of Mica

Mica
tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Unmanufactured	112	95	23	50	68
Ground	1 310	1 101	2 560	4 262	4 951
Waste	1 668	1 940	1 727	80	103
Belgium-Luxembourg	225	82	12	928	521
France					
Unmanufactured	2 887	2 591	2 542	763	1 578
Ground	4 842	4 310	4 492	6 651	6 827
Germany, Federal Republic of					
Unmanufactured	36	0	15	55	4
Ground	1 411	1 364	1 327	1 232	1 327
Italy					
Unmanufactured	116	43	107	134	(c)430
Ground	113	79	134	649	...
Netherlands					
Unmanufactured	983	779	1 016	473	464
Ground	475	222	655	524	819
Portugal	440	484	160	...	...
Spain	60	22	21	529	751
Austria	316	1 659	371	651	616
Finland	566	274	1 315	1 976	3 549
Norway	1 934	1 422	1 916	1 946	2 241
Sweden	20	46	38	60	15
Switzerland	130	77	89	142	133
Turkey	32	20	121	34	118
Madagascar	779	1 874	653	...	684
Morocco	1 330	1 508	2 230	1 862	...
South Africa	1 076	720	1 105	851	884
Zimbabwe					
Ground	396	845	468	...	...
Canada	(d)6 659	(d)7 913	(d)7 947	8 775	12 859
USA					
Unmanufactured	1 361	1 503	913	1 181	1 351
Ground	6 559	5 313	4 301	5 412	3 745
Brazil	931	1 662	1 484	1 734	1 202
China (a)	*16 800	*19 700	*18 300	*11 800	*20 200
India (b)					
Block	717	578	383	407	...
Splittings	2 708	2 695	2 842	3 731	...
Condenser films	3	8	14	28	...
Waste	14 520	16 581	10 288	15 151	...
Japan	290	366	318	529	577
Malaysia	862	1 765	1 797	2 422	2 678
Singapore	222	51	298	377	350
of which: Re-exports	215	51	298	377	350
Sri Lanka	534	889	1 309	1 805	...
Taiwan	248	198	394	183	307

Note(s):

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

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

(b) Years ended 31 March following that stated

(c) Including ground

(d) Exports to the USA and Japan

Mica

Imports of Mica

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Unmanufactured	82	570	515	57	42
Ground	3 185	1 925	5 524	3 471	4 245
Waste	12 587	17 519	13 904	10 186	16 357
Belgium-Luxembourg					
Unmanufactured	3 600	6 568	5 023	...	...
Ground	962	779	939	1 169	1 374
Denmark	272	258	206	238	197
France					
Unmanufactured	3 676	4 214	3 989	3 306	4 440
Ground	633	631	876	919	1 416
Germany, Federal Republic of					
Unmanufactured	4 912	4 124	2 860	1 698	1 541
Ground	7 034	7 343	11 911	13 919	15 000
Greece	474	514	597	522	590
Irish Republic	135	222	127	207	686
Italy					
Unmanufactured	400	109	265	204	(d)1 479
Ground	1 111	986	863	1 577	...
Netherlands					
Unmanufactured	876	987	1 594	785	726
Ground	1 724	893	1 181	1 357	1 888
Portugal	382	168	160	156	218
Spain	3 963	2 567	1 506	1 550	1 555
Austria	321	183	221	426	401
Finland	248	276	304	590	244
German Democratic Republic	1 124	1 212	820	628	920
Norway					
Unmanufactured	165	179	347	130	123
Waste	3 878	1 115	1 535	3 097	2 398
Poland	1 241	1 357	729	1 643	893
Soviet Union (c)	*1 600	*1 500	*2 300	...	...
Sweden	447	399	434	398	510
Switzerland	611	585	726	856	925
Turkey	20	326	9	7	7
Yugoslavia	253	297	336	101	72
Egypt	258	28	14	...	...
South Africa	586	500	493	687	1 395
Canada	2 311	2 174	2 204	1 815	2 512
Jamaica	119	103	162	108	162
Mexico	132	154	57	154	...
Trinidad & Tobago	117	129	67	53	43
USA					
Block	296	105	42	183	158
Splittings	483	899	786	1 317	1 380
Ground	5 487	5 451	5 673	7 780	8 904
Other unmanufactured	3 426	2 150	4 195	4 431	4 266
Colombia	113	53	...	118	...
Venezuela	1 033	704	429	492	...
Dubai	248	26	...	...	...
Hong Kong	32	48	57	68	317
Indonesia	909	599	237	440	493
Iran (a)	8	11	150	755	...
Japan					
Block	2 163	1 965	3 648	90	248
Splittings	1 903	1 457	2 824	4 944	6 333
Waste	3 088	5 603	3 504	6 269	4 565
Other unmanufactured	3 711	6 118	7 251	9 819	13 107
Korea, Republic of	1 023	987	1 084	1 926	2 122
Malaysia	118	87	352	3 114	329
Philippines	26	109	134	139	204

Imports of Mica

Mica
tonnes

Country	1985	1986	1987	1988	1989
Saudi Arabia	608	—	654	—	302
Singapore	1 220	496	382	1 010	951
Taiwan					
Unmanufactured	33	54	251	208	149
Ground	160	391	572	680	843
Thailand	153	177	274	319	...
Australia	395	670	686	911	...
New Zealand (b)	£120 000	£105 000	£119 000	£122 000	£122 000

Note(s):

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

- (a) 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 ground

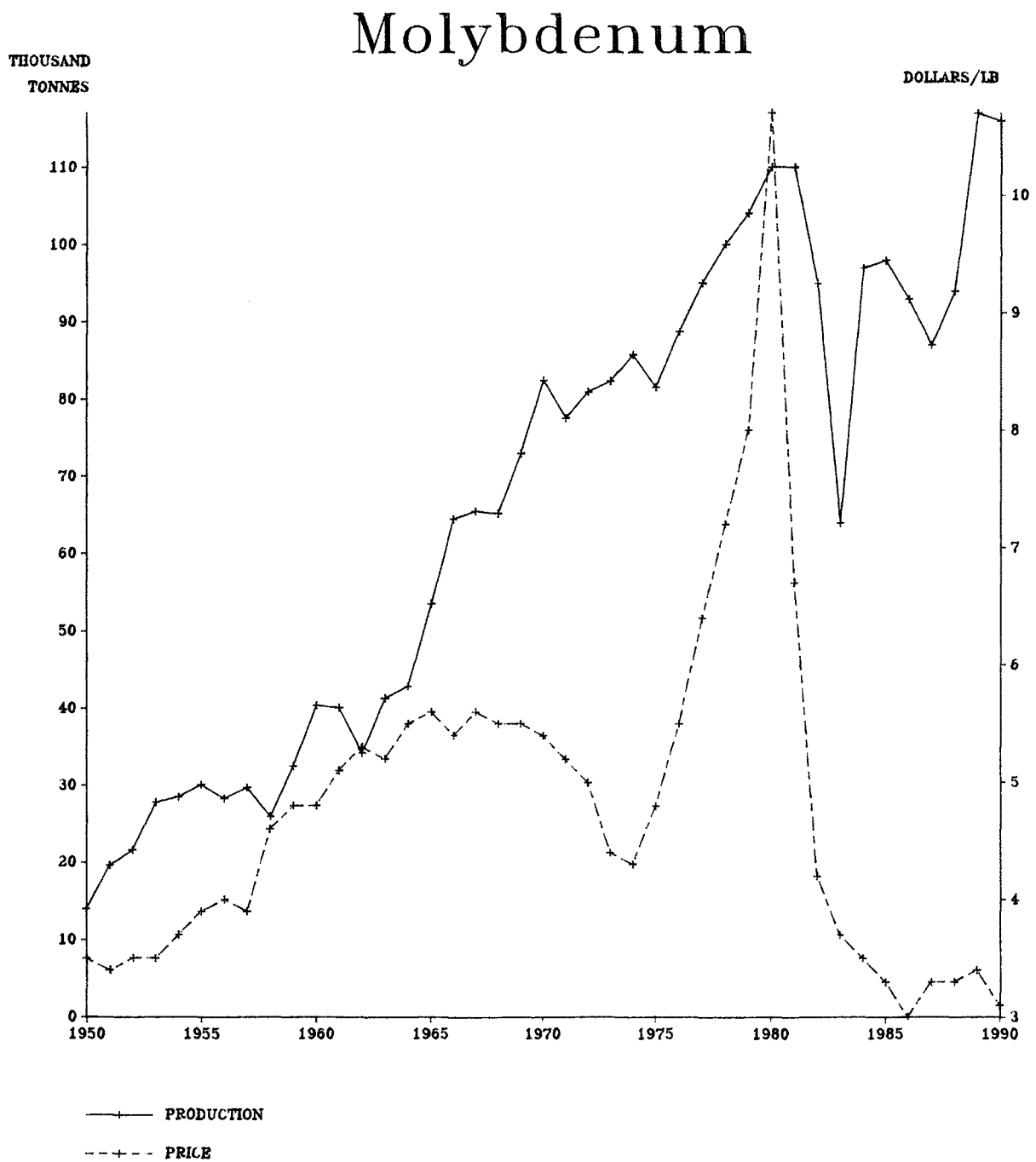


Figure 14 World mine production of molybdenum compared with the weighted annual average producer price in the USA of molybdenum contained in technical-grade molybdic oxide, expressed in constant 1985 US dollars.

Mine Production of Molybdenum

tonnes (metal content)

Country	1985	1986	1987	1988	1989
Bulgaria	*190	*190	*200	*200	*190
Soviet Union	*11 300	*11 400	*11 500	*11 500	*11 500
Turkey	*100	*100	*100	*100	*100
Niger	32	*20	8	*15	*15
Canada	6 950	11 251	12 509	12 494	14 073
Mexico	3 761	3 350	4 400	4 456	4 189
USA	49 173	42 627	34 073	43 051	63 105
Chile	18 391	16 581	16 941	15 515	16 550
Peru	3 833	3 491	3 352	2 370	2 880
China	*2 000	*2 000	*2 000	*2 000	*2 000
Iran	*500	*500	*500	*500	*500
Japan	*100	*100	*100	*100	*100
Korea, Republic of	335	317	327	144	132
Mongolia	*1 000	*1 100	*1 100	*1 100	*1 200
World total	98 000	93 000	87 000	94 000	117 000

Note(s):

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

Exports of Molybdenum

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Ores & concentrates	4 402	2 894	2 269	2 551	2 465
Metal	408	629	763	489	347
Oxides	1 594	1 109	1 044	459	676
Belgium-Luxembourg					
Ores & concentrates	11 412	11 346	12 890	16 519	16 102
Metal	114	141	142	151	139
Oxides	42	36	53	55	76
France					
Ores & concentrates	193	4 961	2 115	1 267	1 273
Metal	280	290	295	310	293
Germany, Federal Republic of					
Ores & concentrates	3 526	4 045	3 417	2 213	2 057
Metal	649	636	849	874	949
Oxides	(c)2 170	1 191	761	566	394
Italy					
Metal	4	64	35	55	237
Netherlands					
Ores & concentrates	18 224	13 699	8 694	15 953	17 403
Metal	274	220	422	266	355
Oxides	1 509	945	1 455	2 211	1 193
Austria					
Metal	1 439	1 267	1 266	1 640	1 651
Sweden					
Ores & concentrates	1 375	1 687	2 747	1 725	2 647
Metal	118	7	13	21	3
Canada					
Ores & concentrates (a)	5 636	11 368	14 253	13 978	16 140
Mexico					
Ores & concentrates (a)	14 533	2 875	4 237	4 542	...
USA					
Ores & concentrates (a)	28 966	22 295	18 430	23 500	51 270
Metal	863	1 289	1 596	1 654	1 672
Chile					
Ores & concentrates	*27 000	29 039	25 813	24 815	24 466
Peru					
Ores & concentrates	7 254	6 839	6 203	4 279	*5 000
China					
Ores & concentrates (b)	*500	*12 300	*7 600	*3 300	*1 300
Metal (b)	*10	*70	*40	*90	*60
Japan					
Metal	55	63	81	62	93
Korea, Republic of					
Ores & concentrates	230	308	126	—	—

Note(s):

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

(a) Mo content

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

(c) Including tungsten and vanadium oxides

Imports of Molybdenum

Country	1985	1986	1987	1988	1989
United Kingdom					
Ores & concentrates	19 057	19 248	15 756	19 882	23 196
Metal	358	278	315	337	295
Oxides	304	237	135	256	146
Belgium-Luxembourg					
Ores & concentrates	22 150	21 874	24 787	28 512	31 950
Metal	223	211	480	292	339
Oxides	39	147	180	190	122
France					
Ores & concentrates	5 677	7 446	8 632	9 614	9 406
Metal	260	248	233	391	408
Oxides	144	124	157	140	152
Germany, Federal Republic of					
Ores & concentrates	17 600	17 817	16 305	17 329	16 450
Metal	1 146	1 033	828	1 272	1 375
Oxides	174	120	107	544	448
Italy					
Ores & concentrates	4 810	2 742	2 870	2 789	2 631
Metal	142	218	195	182	194
Oxides	65	65	32	173	...
Netherlands					
Ores & concentrates	24 061	22 961	15 985	17 697	25 577
Metal	186	116	202	163	260
Oxides	24	30	27	10	18
Spain					
Ores & concentrates	4 600	5 236	4 991	2 720	2 609
Metal	25	52	43	56	53
Austria					
Ores & concentrates	...	...	...	9 542	9 969
Metal	97	117	121	130	256
Oxides	2 241	2 066	1 706	2 852	2 486
Czechoslovakia					
Ores & concentrates (a)	*600	*900	*800	*1 900	*2 000
Finland					
Ores & concentrates	1 121	326	1 074	1 245	1 256
Metal	6	1	4	6	10
Sweden					
Ores & concentrates	6 479	7 246	7 402	7 870	7 557
Metal	138	186	262	274	372
Oxides	125	96	236	234	243
Switzerland					
Metal	22	20	23	17	17
Yugoslavia					
Metal	14	24	20	20	26
South Africa					
Metal	23	13	15	19	13
Oxides	414	361	481	518	372
Canada					
Metal	(b)30	(b)52	(b)161	159	59
Oxides	187	202	193	188	124
USA					
Ores & concentrates	83	789	1 784	668	620
Metal	338	373	444	473	512
Oxides	1 893	810	4 142	721	422
Argentina					
Oxides	357	479	677	805	841
Brazil					
Ores & concentrates	2 893	2 493	3 093	3 094	...
Metal	56	75	58	68	...
Oxides	542	484	740	615	...

Molybdenum

Imports of Molybdenum

tonnes

Country	1985	1986	1987	1988	1989
Japan					
Ores & concentrates	21 138	18 024	17 115	22 987	23 106
Metal	428	290	380	662	606
Oxides	384	414	468	351	352
Korea, Republic of					
Ores & concentrates	115	263	522	13 520	559
Metal	21	28	32	58	182
Philippines					
Metal	20	2	4	9	35
Singapore					
Metal	4	1	4	7	164
Taiwan					
Metal	60	85	105	127	134
Australia					
Ores & concentrates	174	133	86	38	...

Note(s):

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

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

(b) Imports from the USA

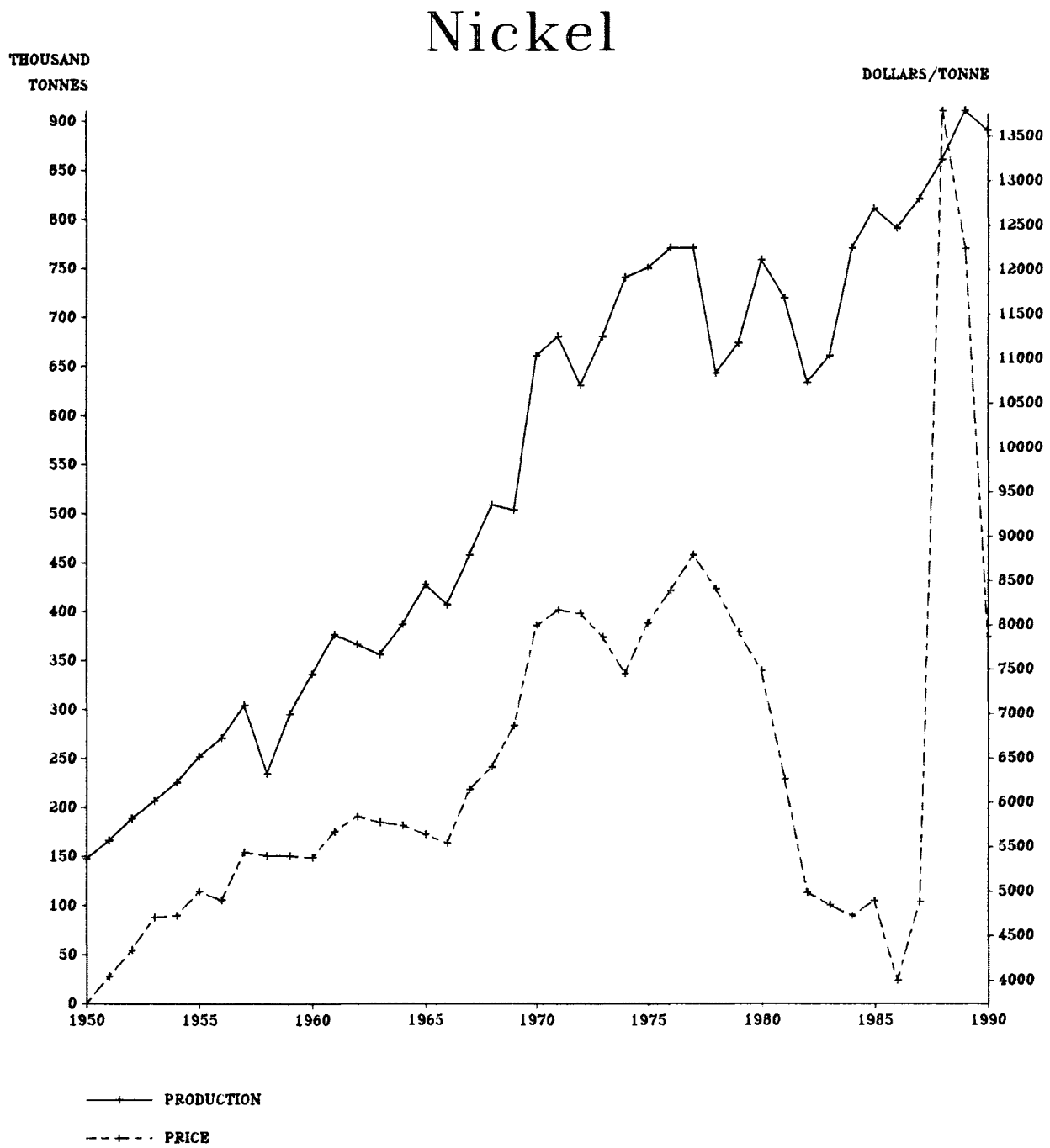


Figure 15 World mine production of nickel compared with the annual average price of refined nickel in the UK according to *Metal Bulletin* and, from 1980, the LME cash price, expressed in constant 1985 US dollars.

Mine Production of Nickel

tonnes (metal content)

Country	1985	1986	1987	1988	1989
Greece (d)	15 952	10 324	9 200	13 131	16 097
Albania	7 200	7 500	7 700	*8 000	*8 000
Finland	7 993	11 403	10 038	11 070	9 233
German Democratic Republic	1 600	*1 700	1 800	1 500	1 500
Norway	425	467	386	382	1 300
Soviet Union	*190 000	*185 000	*195 000	*205 000	*210 000
Yugoslavia	*2 800	*3 200	*3 500	*5 600	*6 300
Botswana	19 565	18 972	16 528	22 539	21 309
South Africa (a)	29 000	31 800	34 300	34 800	34 000
Zimbabwe	9 897	9 732	10 393	11 489	11 634
Canada	(b)169 971	(b)163 639	193 391	216 589	200 899
Cuba	32 064	33 524	35 221	42 145	44 685
Dominican Republic (d)	25 400	21 900	32 500	29 300	31 300
USA	5 558	1 066	—	—	—
Brazil	20 300	21 240	22 092	18 667	20 963
Colombia	14 608	20 980	22 800	19 200	24 900
China	*25 800	*24 000	*26 000	*26 000	*27 500
Indonesia	48 200	67 300	57 200	59 800	59 600
Myanmar (e)	*55	*50	*50	*100	*100
Philippines	28 158	12 745	8 510	10 349	18 049
Australia	85 757	76 739	74 554	62 639	66 000
New Caledonia (c)	72 361	64 518	57 470	71 242	96 150
World total	810 000	790 000	820 000	870 000	910 000

(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	1985	1986	1987	1988	1989
United Kingdom	17 800	30 900	29 500	28 000	26 100
France	7 019	8 241	6 690	9 124	8 632
Greece	15 900	10 300	9 200	13 131	16 097
Albania	4 000	4 000	4 000	4 500	5 000
Czechoslovakia	*4 000	*3 800	*3 700	3 500	3 460
Finland	15 656	16 243	17 689	16 343	13 090
German Democratic Republic	1 900	*3 200	3 500	3 300	2 700
Norway	37 513	38 202	44 564	52 545	54 886
Soviet Union	*198 000	*195 000	*210 000	*215 000	*225 000
Yugoslavia	2 800	3 200	3 500	5 600	6 300
South Africa	24 000	25 400	27 000	27 200	30 000
Zimbabwe	11 500	16 400	16 700	18 300	18 600
Canada	117 200	124 200	139 500	145 700	144 100
Cuba	15 884	16 671	18 186	23 831	26 210
Dominican Republic (a)	25 802	21 989	29 100	32 400	28 500
USA	33 005	1 498	—	—	347
Brazil	13 166	13 465	13 862	13 101	13 727
Colombia	11 373	18 018	19 344	16 877	16 955
China	24 600	23 800	25 500	25 500	26 300
Indonesia	4 800	4 500	1 700	4 900	5 000
Japan	92 594	92 990	94 175	100 620	107 300
Philippines	16 993	1 153	—	—	—
Taiwan	2 100	8 500	8 200	10 500	10 000
Australia	40 807	42 097	44 529	37 400	42 900
New Caledonia	36 103	33 001	29 531	37 352	36 285
World total	770 000	760 000	800 000	840 000	870 000

Note(s):

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

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

Exports of Nickel

Country	1985	1986	1987	1988	1989
United Kingdom					
Mattes, sinters etc.	323	682	1 285	762	450
Unwrought	8 477	15 610	16 786	15 999	11 818
Unwrought alloys	2 108	1 840	1 779	2 565	2 682
Scrap	5 408	4 629	5 030	4 185	4 772
Oxides	130	79	98	218	109
Belgium-Luxembourg					
Unwrought	146	50	59	461	1 684
Unwrought alloys	72	263	312	908	871
Scrap	1 139	739	991	1 396	1 206
Denmark					
Scrap	15	30	87	612	303
France					
Unwrought	5 267	6 051	5 754	6 510	6 006
Unwrought alloys	953	889	1 086	528	256
Scrap	3 637	3 109	2 865	4 582	3 863
Oxides	30	8	15	66	15
Germany, Federal Republic of					
Mattes, sinters etc.	1 491	1 727	1 187	1	0
Unwrought	2 726	2 985	5 838	6 215	4 825
Unwrought alloys	3 905	3 405	3 589	3 142	2 924
Scrap	10 032	5 668	6 492	9 989	8 041
Oxides	58	98	95	88	68
Irish Republic					
Unwrought (a)	36	35	7	260	90
Scrap	151	161	208	330	315
Italy					
Unwrought (a)	124	113	378	845	484
Scrap	119	163	281	602	472
Netherlands					
Mattes, sinters etc. (b)	*3 500	*3 700	*5 300	*4 100	*6 400
Unwrought (a)	443	500	650	400	1 558
Scrap	3 068	4 684	3 433	6 740	6 367
Oxides (b)	*400	*500	*200	*150	*200
Spain					
Scrap	164	96	64	166	349
Austria					
Scrap	295	214	104	123	311
Finland					
Unwrought	13 852	15 086	13 309	10 458	9 456
Scrap	1 777	59	55	0	3
Norway					
Ore	10 843	11 871	8 991	6 914	11 513
Unwrought	35 669	37 917	44 125	50 789	54 824
Scrap	143	108	91	86	100
Soviet Union					
Mattes, sinters etc. (b)	*500	*200	*400	*7 900	*15 700
Unwrought (a)(b)	*29 100	*39 100	*56 800	*59 000	*72 500
Sweden					
Unwrought (a)	96	52	78	1 802	133
Scrap	533	655	740	642	769
Switzerland					
Unwrought	(g)105	(g)44	(g)122	(a)662	(a)194
Scrap	256	295	369	440	302
Yugoslavia					
Unwrought	347	—	—	—	2
Scrap	398	70	81	12	1
Botswana					
Mattes, sinters etc.	53 155	51 290	*45 000	*60 000	...
South Africa					
Slurry, mattes, sinters etc. (b)	*42 800	*29 200	*29 700	*46 300	*32 500
Unwrought (a)(b)	*16 100	*17 900	*14 800	*15 400	*14 800
Scrap (b)	*400	*200	*400	*500	*1 100
Zimbabwe					
Unwrought (a)	10 896	14 326	15 832	18 000	...

Nickel

Exports of Nickel

tonnes

Country	1985	1986	1987	1988	1989
Canada					
Ores, concentrates, mattes etc. (c)	81 276	71 712	77 275	67 888	65 517
Unwrought	81 773	86 057	96 165	...	(a)62 674
Scrap	4 948	6 253	7 663	7 155	7 936
Cuba					
Oxide, sinter & sulphide (e)	33 416	34 913	36 130	*44 000	*47 000
USA					
Unwrought (a)	16 415	1 961	1 825	2 080	3 977
Scrap	14 093	9 538	10 489	11 626	14 753
China					
Unwrought (a)(b)	*100	*2 200	*9 700	*5 200	*3 000
Hong Kong					
Unwrought (f)	3 242	4 865	6 228	4 979	5 301
Scrap	118	387	956	526	252
Oxides (f)	244	162	76	39	81
Indonesia					
Ore	626 745	963 198	992 877	1 253 611	1 081 531
Mattes, sinters etc.	54 004	54 315	49 496	58 769	38 166
Japan					
Unwrought (a)	313	181	228	544	128
Oxides	...	...	...	163	186
Malaysia					
Unwrought alloys	106	10	17	...	...
of which: Re-exports	91	...	—	...	...
Philippines					
Ores & concentrates	616 455	420 809	483 417	489 055	601 144
Unwrought (a)	11 284	2 566	—	—	—
Singapore					
Unwrought	2 069	2 399	1 483	2 436	5 521
of which: Re-exports	2 017	2 399	1 483	2 436	5 521
Scrap	1 072	280	142	97	140
of which: Re-exports	947	16	30	38	12
Taiwan					
Unwrought	392	356	1 140	2 431	(a)1 403
Scrap	1 889	1 506	2 180	3 891	3 111
Australia (d)	*61 900	*71 800	*68 400	*60 200	*55 900
New Caledonia					
Ores	1 443 908	1 074 502	1 019 729	1 301 864	1 950 752
Mattes, sinters etc.	11 800	12 900	9 900	14 000	14 600

Note(s):

- (1) In this table the term 'unwrought' nickel corresponds to item 683.1 of the Standard International Trade Classification (Revision 3) which excludes all electro-plating anodes
 - (2) Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys
- (a) Including alloys
- (b) BGS estimates, based on known imports into certain countries
- (c) Ni content
- (d) BGS estimates; unwrought metal and Ni content of ores, concentrates, matte etc., based on known imports into certain countries
- (e) Ni-Co content (mainly nickel)
- (f) Re-exports
- (g) Including mattes, sinters etc.

Imports of Nickel

Country	1985	1986	1987	1988	1989
United Kingdom					
Mattes, sinters etc.	42 753	38 008	39 957	46 834	41 792
Unwrought	13 948	14 024	17 031	15 248	17 140
Unwrought alloys	2 216	2 060	1 127	2 326	1 836
Scrap	4 137	3 197	4 503	6 332	6 493
Oxides	1 062	598	2 709	2 695	818
Belgium-Luxembourg					
Ore	—	1 087	2 350	2 273	2 317
Mattes, sinters etc.	1 669	1 943	1 791	4 445	6 358
Unwrought	2 322	3 141	5 418	9 238	9 133
Unwrought alloys	274	646	1 228	128	65
Scrap	527	304	627	1 390	2 388
Oxides	142	746	274	126	163
Denmark					
Unwrought	106	178	244	109	111
Unwrought alloys	38	38	5	31	6
France					
Mattes, sinters etc.	13 600	13 534	11 697	14 019	14 083
Unwrought	15 415	14 798	22 712	20 375	23 963
Unwrought alloys	4 357	3 755	4 872	4 687	3 033
Scrap	942	669	580	837	1 167
Oxides	204	146	61	173	204
Germany, Federal Republic of					
Mattes, sinters etc.	12 583	11 186	13 104	14 585	11 936
Unwrought (a)	42 368	46 071	57 342	56 399	57 458
Scrap	7 561	6 062	6 987	11 775	12 508
Oxides	234	558	280	331	271
Greece					
Unwrought	133	120	203	105	...
Irish Republic					
Unwrought (a)	305	585	398	515	615
Italy					
Mattes, sinters etc.	4 426	4 927	6 743	6 978	10 520
Unwrought	17 336	17 254	15 616	16 258	15 420
Unwrought alloys	583	1 133	849	698	1 342
Scrap	271	87	220	119	42
Oxides	975	1 836	440	110	114
Netherlands					
Mattes, sinters etc. (e)	*10 400	*8 600	*5 900	*11 700	...
Unwrought	1 737	2 973	1 834	1 472	2 924
Unwrought alloys	34	142	83	62	756
Scrap	2 943	2 776	2 773	3 138	2 962
Oxides	314	141	145	196	211
Portugal					
Unwrought (a)	286	347	331	279	267
Spain					
Mattes, sinters etc.	1 849	1 591	1 503	503	426
Unwrought (a)	3 780	4 863	4 270	7 895	10 766
Austria					
Mattes, sinters etc.	1 207	907	405	672	835
Unwrought (a)	2 664	3 030	2 814	2 735	2 370
Scrap	572	155	949	626	271
Czechoslovakia					
Unwrought (a)	6 558	5 473	7 460	5 352	6 092
Finland					
Ore	13 661	10 971	12 516	7 582	11 286
Mattes, sinters etc.	9 759	9 267	4 514	5 778	5 417
Unwrought (a)	5 084	2 735	2 313	3 140	4 045
Scrap	2 681	3 839	3 216	5 761	5 738
Norway					
Mattes, sinters etc.	102 443	101 073	92 110	119 220	110 432
Unwrought (a)	202	153	64	19	53
Sweden					
Ore	—	18	—	2 866	2 212
Mattes, sinters etc.	2 700	3 513	3 515	2 319	1 729
Unwrought	11 874	10 042	10 628	13 622	12 382
Unwrought alloys	309	306	177	554	1 368
Scrap	5 510	6 709	6 048	11 013	11 029

Nickel

Imports of Nickel

tonnes

Country	1985	1986	1987	1988	1989
Switzerland					
Unwrought	(f)1 261	(f)1 382	(f)1 157	(a)664	(a)1 087
Scrap	86	29	29	85	51
Yugoslavia					
Unwrought (a)	2 837	2 395	1 627	1 681	884
South Africa					
Mattes, sinters etc.	904	628	469	2	351
Canada					
Ores & concentrates (b)	(g)31 592	(g)38 331	(g)23 533	13 195	1 411
Mattes, sinters etc.	...	...	...	4 207	2 522
Unwrought (a)	3 338	3 451	3 348	1 682	3 786
Scrap	...	...	...	14 544	13 480
Mexico					
Mattes, sinters etc.	3 538	1 896	2 228	1 702	1 325
USA					
Slurry, mattes, sinters etc.	55 462	4 518	5 335	6 687	303
Unwrought (a)	88 704	91 717	103 314	106 867	111 608
Scrap	5 036	6 164	6 865	8 384	10 280
Oxides	4 618	712	804	806	749
Argentina					
Unwrought	311	538	844	322	253
Brazil					
Unwrought (a)	1 135	1 915	1 710	1 493	...
Colombia					
Unwrought	144	280	200	170	...
Venezuela					
Unwrought	201	493	327	243	...
China					
Unwrought (a)	...	...	209	2 471	526
Hong Kong					
Unwrought	3 811	7 052	6 220	7 026	6 079
India (c)					
Mattes, sinters etc.	3 276	1 120	3 884	3 265	...
Unwrought	3 466	2 862	5 322	6 052	...
Unwrought alloys	1 299	1 331	750	58	...
Scrap	1 101	1 067	632	969	...
Japan					
Ore	2 976 005	2 885 823	2 926 857	3 265 651	3 827 905
Mattes, sinters etc.	52 656	58 312	54 610	62 658	59 923
Unwrought	24 690	24 024	42 352	34 093	37 973
Unwrought alloys	208	325	261	235	282
Scrap	2 622	2 219	3 089	3 578	2 241
Korea, Dem. P.R. of					
Unwrought (a)(e)	*700	*600	*1 900	*600	*100
Korea, Republic of					
Unwrought	3 472	5 839	4 961	5 259	8 165
Scrap	327	284	554	2 077	1 781
Malaysia					
Unwrought (a)	104	133	111	170	158
Singapore					
Unwrought	2 638	3 726	1 493	4 042	3 355
Scrap	170	182	284	208	185
Taiwan					
Mattes, sinters etc.	2 938	11 514	11 256	17 539	9 923
Unwrought	3 863	6 535	6 364	3 900	(a)7 061
Scrap	396	1 223	383	155	7
Thailand					
Unwrought (a)	387	517	775	567	...

Imports of Nickel

Country	1985	1986	1987	1988	1989
Australia					
Mattes, sinters etc.	121	1 869	84	36	...
Unwrought	737	1 082	1 211	330	...
Unwrought alloys	80	41	51	269	...
Scrap	129	211	353	207	...
New Zealand (d)					
Unwrought (a)	131	65	64	25	45

Note(s):

- (1) In this table the term 'unwrought' nickel corresponds to item 683.1 of the Standard International Trade Classification (Revision 3) which excludes all electro-plating anodes
 - (2) Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys
- (a) Including alloys
 (b) Ni content
 (c) Years ended 31 March following that stated
 (d) Years ended 30 June of that stated
 (e) BGS estimates, based on known exports from certain countries
 (f) Including mattes, sinters etc.
 (g) Including scrap

Petroleum

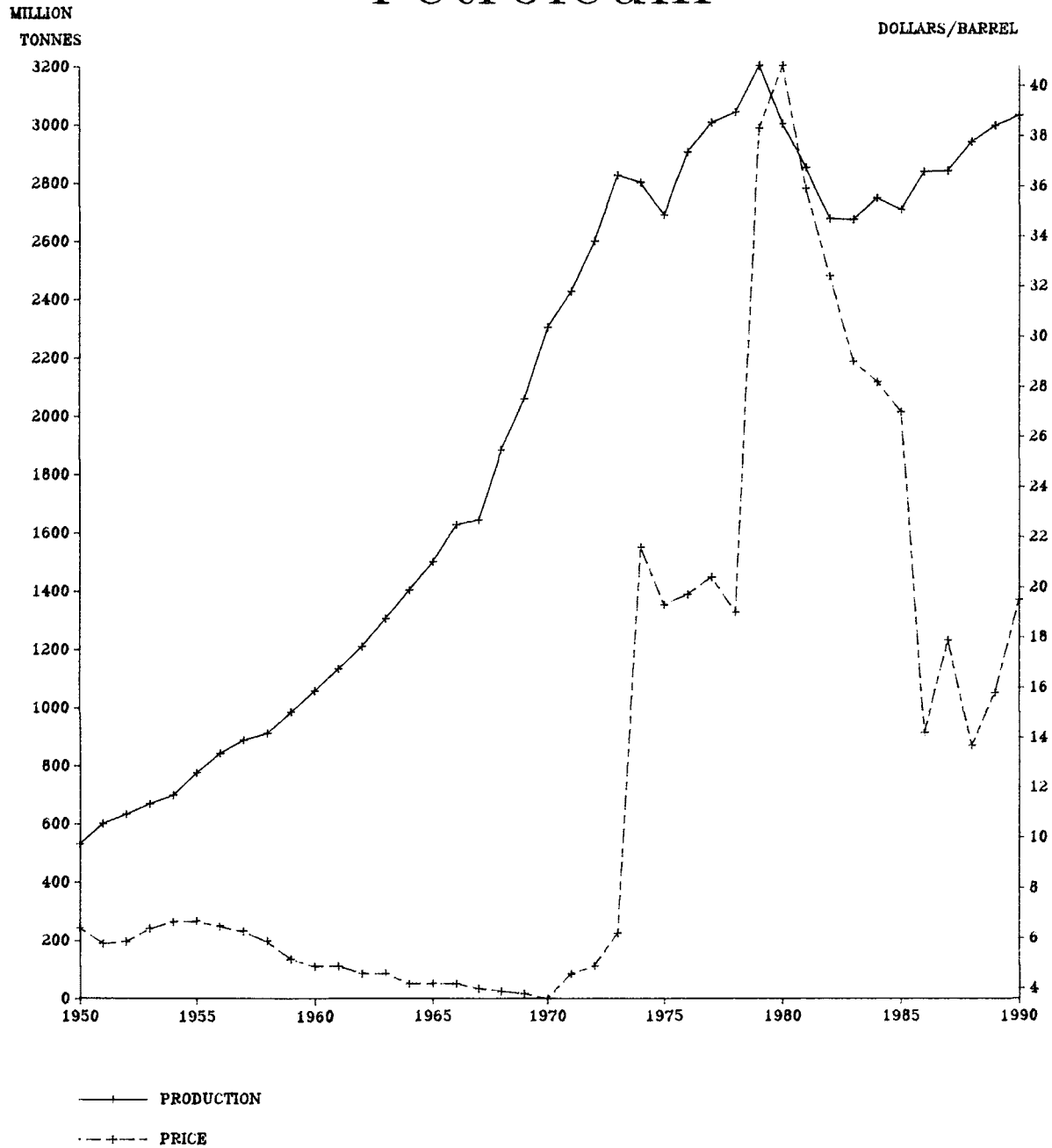


Figure 16 World production of crude petroleum compared with the weighted yearly average price of crude f.o.b. OPEC countries and, from 1979, the average price of Dubai, Brent and Alaskan crude, expressed in constant 1985 US dollars.

Production of Crude Petroleum

Country	1985	1986	1987	1988	1989
United Kingdom	122 461 000	121 253 000	117 658 000	109 455 000	87 404 000
Denmark (e)	2 853 368	3 238 459	4 552 394	4 700 061	5 416 303
France	2 642 572	2 948 000	3 234 621	3 358 000	3 243 000
Germany, Federal Republic of	4 105 000	4 017 000	3 800 000	3 937 000	3 770 000
Greece	1 330 684	1 347 837	1 238 153	1 106 000	906 000
Italy	2 342 545	2 510 564	3 908 036	4 811 523	4 579 174
Netherlands	3 728 000	4 628 000	4 291 000	3 909 000	3 391 000
Spain	2 088 248	1 805 115	1 639 994	1 483 000	1 039 000
Albania	*3 100 000	*3 000 000	*3 000 000	2 482 000	2 135 000
Austria	1 146 958	1 115 924	1 060 367	1 175 186	1 157 891
Bulgaria	*280 000	*280 000	*280 000	*280 000	*303 000
Czechoslovakia	123 000	142 000	147 000	143 000	144 000
German Democratic Republic	*60 000	*60 000	*60 000	*60 000	*60 000
Hungary	2 012 000	2 005 000	1 914 000	1 947 000	1 966 000
Norway	38 342 000	42 483 000	49 316 000	56 125 000	74 528 000
Poland	194 000	167 000	149 000	163 000	159 000
Romania	10 718 000	10 125 000	9 504 000	9 389 000	9 173 000
Soviet Union	595 291 000	614 753 000	624 177 000	624 324 000	607 121 000
Turkey	2 109 986	2 393 806	2 629 263	2 563 891	2 877 000
Yugoslavia	4 149 259	4 140 489	3 867 000	3 681 147	3 392 445
Algeria	48 100 000	48 826 000	48 000 000	49 357 000	50 874 000
Angola	11 514 325	14 102 000	17 968 000	24 606 000	23 588 000
Benin	350 000	350 000	350 000	250 000	200 000
Cameroon	9 200 000	9 090 000	8 602 000	8 688 000	8 842 000
Congo	5 600 000	5 610 000	6 316 848	7 038 074	7 969 388
Egypt	44 312 000	40 237 000	43 178 000	44 523 000	42 626 000
Gabon	8 626 000	8 384 000	7 980 000	8 812 000	10 998 000
Ivory Coast	1 300 000	1 350 000	1 200 000	548 000	350 000
Libya	52 700 000	49 900 000	46 790 000	49 250 000	53 694 000
Nigeria	72 900 000	72 200 000	63 670 000	68 530 000	83 129 000
Tunisia	5 408 000	5 249 000	5 005 000	4 908 000	4 916 000
Zaire	1 670 219	1 619 809	1 559 836	1 464 000	1 358 000
Barbados	93 219	76 743	68 181	58 617	53 430
Canada	77 795 600	77 981 100	81 322 400	85 596 900	82 567 500
Cuba	867 600	938 000	894 500	716 800	718 400
Guatemala	151 222	255 251	191 167	185 182	192 165
Mexico	139 758 862	129 268 989	135 300 000	*133 000 000	*134 000 000
Trinidad & Tobago	9 070 986	8 701 325	7 995 579	7 793 355	7 694 712
USA	439 224 000	424 977 000	408 771 000	398 538 000	372 736 000
Argentina	24 342 500	22 982 800	*22 800 000	*24 000 000	*24 500 000
Bolivia	1 050 800	930 400	1 000 800	840 023	868 190
Brazil	28 889 605	30 286 000	*30 100 000	29 407 000	31 511 000
Chile	1 892 273	1 770 015	1 583 985	1 295 716	1 169 392
Colombia	9 084 000	15 629 000	19 835 000	19 358 000	20 839 000
Ecuador	14 295 932	14 727 997	8 893 681	15 418 451	14 199 445
Peru	9 286 924	8 748 524	8 064 014	6 982 151	6 425 929
Suriname	67 174	114 035	136 518	199 500	225 619
Venezuela	88 009 031	93 744 112	95 256 500	99 600 000	99 800 000
Abu Dhabi	34 333 289	41 220 856	43 015 775	34 563 636	*45 000 000
Bahrain	2 090 437	2 115 301	2 099 590	2 141 257	2 128 825
Brunei	7 593 000	7 532 000	7 015 000	6 352 000	7 180 000
China (a)	124 895 000	130 688 000	134 140 000	137 046 000	137 641 000
Dubai	16 978 610	18 900 000	19 600 000	17 100 000	17 700 000
India	29 860 000	31 157 000	30 128 000	31 580 000	33 693 000
Indonesia	64 007 409	67 111 405	63 384 096	64 127 282	62 929 479
Iran	110 000 000	94 500 000	114 700 000	112 900 000	142 200 000
Iraq	70 600 000	85 500 000	102 400 000	127 700 000	138 600 000
Israel	9 396	13 136	15 143	16 876	19 522
Japan	570 135	676 223	645 200	631 180	584 736
Kuwait	53 769 000	71 516 000	61 439 000	71 504 000	91 886 000
Malaysia	21 300 000	26 200 000	24 600 000	26 700 000	28 300 000
Myanmar (d)	1 500 000	1 113 300	831 700	643 900	751 200
Neutral Zone (c)	17 000 000	17 900 000	20 200 000	16 600 000	20 900 000

Production of Crude Petroleum

tonnes

Country	1985	1986	1987	1988	1989
Oman	24 802 837	27 864 157	28 982 542	30 905 619	31 887 616
Pakistan	1 669 605	2 008 496	2 030 343	2 213 000	2 530 000
Philippines	395 000	345 000	289 000	300 000	257 700
Qatar	15 900 000	16 600 000	15 900 000	16 900 000	18 700 000
Ras al Khaimah	350 000	550 000	490 000	500 000	400 000
Saudi Arabia	159 446 753	240 253 165	212 200 000	257 300 000	256 500 000
Sharjah	3 090 000	3 130 000	3 130 000	3 140 000	2 000 000
Syria	8 425 305	9 660 000	12 000 000	13 500 000	16 000 000
Taiwan	107 783	96 000	*100 000	130 000	140 000
Thailand	1 123 113	1 430 000	1 600 000	1 500 000	1 153 200
Vietnam	—	*40 000	175 000	747 000	1 022 000
Australia	30 447 317	27 151 450	29 076 240	27 492 622	25 908 088
New Zealand (b)	1 226 800	1 353 830	1 291 940	1 555 310	1 745 500
World total	2 706 000 000	2 837 000 000	2 841 000 000	2 933 000 000	2 987 000 000

Note(s):

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

(a) Including oil from shale and coal

(b) Petroleum condensate

(c) Neutral zone of Kuwait and Saudi Arabia

(d) Years ended 31 March following that stated

(e) Sales

Production of Natural Gas

million m³

Country	1985	1986	1987	1988	1989
United Kingdom	42 971	45 304	47 641	45 758	44 755
Belgium	52	37	38	27	22
France	5 419	4 217	3 875	3 207	3 073
Germany, Federal Republic of	14 459	13 865	15 871	14 783	14 650
Irish Republic	2 413	1 679	1 669	2 017	2 300
Italy	14 158	15 893	16 324	16 634	16 978
Netherlands	80 721	74 037	74 247	65 610	71 715
Spain	273	384	750	920	1 550
Albania	*380	*450	*450	*800	*700
Austria	1 164	1 112	1 167	1 265	1 323
Bulgaria	21	17	13	10	*10
Czechoslovakia	705	751	785	944	865
German Democratic Republic	13 150	13 169	13 075	11 936	10 262
Hungary	7 456	7 022	7 126	6 272	6 176
Norway	26 699	28 102	29 868	29 778	30 990
Poland	6 390	5 824	5 781	5 714	5 377
Romania	38 904	39 371	37 418	36 804	32 951
Soviet Union	643 000	686 000	727 000	770 000	796 000
Yugoslavia	2 400	2 447	2 887	3 015	2 871
Algeria	34 300	39 400	39 400	44 900	48 400
Angola	343	400	450	450	430
Egypt	4 930	5 680	6 280	6 920	7 740
Gabon	70	60	70	100	90
Libya	5 200	5 600	5 000	5 500	6 000
Morocco	94	91	74	83	60
Nigeria	2 800	3 590	3 700	3 800	4 700
Tunisia	408	423	375	340	363
Canada	96 354	91 608	99 381	113 724	119 297
Mexico	26 703	25 848	*26 000	26 046	*26 100
Trinidad & Tobago	4 077	4 394	4 569	4 956	5 050
USA (e)	463 876	452 822	468 253	482 112	488 749
Argentina	14 641	15 903	18 905	22 315	22 590
Bolivia	2 644	2 691	2 678	2 783	2 933
Brazil	2 346	2 677	2 770	2 932	3 221
Chile	1 107	988	960	1 248	1 806
Colombia	3 848	*3 800	*3 700	*3 800	*3 800
Peru	1 056	890	865	810	704
Venezuela	17 326	19 074	18 587	18 794	18 660
Abu Dhabi	9 670	10 140	12 610	12 920	15 600
Afghanistan (c)	*2 800	2 900	2 800	3 000	3 000
Bahrain	4 904	5 804	5 846	6 169	6 435
Bangladesh (d)	2 679	3 020	3 549	4 175	4 413
Brunei	8 149	8 170	8 151	8 469	8 300
China	12 930	13 760	13 890	14 260	15 050
Dubai	2 120	2 300	2 600	2 440	2 280
India	4 905	6 628	6 334	8 833	8 778
Indonesia	44 684	46 124	49 044	52 461	52 400
Iran	14 600	15 200	16 000	20 000	22 200
Iraq	850	1 550	3 750	5 730	6 100
Israel	53	40	45	38	41
Japan	2 225	2 105	2 168	2 097	2 010
Kuwait (a)	5 066	5 730	5 300	6 490	8 160
Malaysia	12 380	14 950	15 500	16 450	17 160
Myanmar (b)	830	1 119	1 187	1 107	1 133
Oman	1 124	1 383	1 523	1 595	1 658

Production of Natural Gasmillion m³

Country	1985	1986	1987	1988	1989
Pakistan	10 370	11 113	11 633	12 594	13 450
Qatar	5 307	5 695	6 136	6 470	6 090
Ras al Khaimah	130	310	350	300	200
Saudi Arabia (a)	18 800	25 200	26 800	29 100	29 800
Sharjah	1 110	2 270	3 750	2 980	3 900
Syria	150	220	620	720	1 000
Taiwan	1 125	1 023	1 057	1 157	1 158
Thailand	3 746	3 617	5 059	5 993	5 986
Australia	13 470	(f)14 714	(f)15 023	15 383	17 806
New Zealand	3 596	4 485	4 350	4 754	4 905
World total	1 800 000	1 800 000	1 900 000	2 000 000	2 100 000

Note(s):

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

Exports of Crude Petroleum

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom	79 580 673	81 883 124	80 616 236	63 804 707	49 228 876
Denmark	1 042 763	841 022	1 741 057	1 801 566	2 385 236
France	681	102	20 644	132 669	18 945
Germany, Federal Republic of	1 206 185	1 155 040	1 101 194	1 175 249	1 155 060
Greece	373 695	739 868	1 105 000	...	...
Italy	278 818	187 764	619 306	626 155	741 036
Netherlands	1 328 149	1 362 432	1 024 625	930 293	1 051 752
Hungary	818 000	863 000	2 076 000	2 483 000	...
Norway	32 602 346	35 375 520	41 746 707	48 104 368	65 133 948
Soviet Union	(a)*85 598 000	129 475 000	136 607 000	144 196 000	127 330 000
Sweden	94 000	133 000	140 000	—	56 000
Algeria	11 027 997	25 101 495	25 555 165	28 533 000	*34 000 000
Angola	9 934 516	11 412 000	16 967 000	20 592 000	*20 500 000
Benin	*325 000	*365 000	*350 000	...	...
Cameroon	1 120 632	1 596 000	1 142 000	1 117 000	*1 000 000
Congo	5 124 850	5 512 859	3 388 758	4 520 920	6 665 717
Egypt	10 508 550	7 248 746	10 023 000	11 808 000	*13 100 000
Gabon	8 350 000	7 452 000	6 872 000	7 229 000	8 650 000
Ivory Coast	169 512	230 688	...	—	...
Libya	44 417 000	52 977 000	40 217 000	44 189 000	42 000 000
Nigeria	63 454 315	56 790 657	53 354 442	55 136 000	75 300 000
Tunisia	3 892 961	4 049 073	3 711 464	3 186 593	4 350 989
Zaire	1 647 521	1 583 650	1 588 824	1 451 700	...
Bahamas (d)	8 859 264	9 052 524	8 607 368	6 836 821	9 110 554
Canada	25 438 501	30 665 913	32 635 978	37 376 510	34 170 001
Cuba (d)	1 891 000	1 450 000	*1 500 000	*1 300 000	...
Guatemala	64 945	252 468	154 569	134 516	*135 000
Mexico	74 152 900	68 203 787	69 536 100	65 303 238	66 100 000
Netherlands Antilles	25 855 000	488 000	552 000	1 229 000	2 058 000
Trinidad & Tobago	4 806 133	4 497 870	3 881 794	3 638 257	3 713 463
USA	1 009 163	810 248	952 386	629 038	503 984
Argentina	406 661	131 730	83 200	200 984	...
Colombia	—	4 523 000	7 499 000	7 462 000	8 358 000
Ecuador	8 613 658	8 817 027	5 400 000	7 400 000	7 300 000
Peru	1 238 558	654 786	152 967	249 322	48 480
Venezuela	43 240 000	49 666 000	53 757 000	50 900 000	51 600 000
Brunei	7 889 806	6 965 954	6 815 332	6 577 000	*7 100 000
China	30 030 000	28 500 000	27 225 373	26 045 339	24 388 350
India (b)	528 086	—	—	...	...
Indonesia	39 126 096	44 454 043	39 133 463	36 653 795	39 147 075
Iran (a)	*65 998 000	*58 156 000	*73 315 000	*59 282 000	*74 695 000
Iraq	53 812 000	67 191 000	76 279 000	95 947 000	*111 000 000
Kuwait	27 909 000	33 591 000	21 387 000	20 787 000	*43 000 000
Malaysia	16 722 986	19 297 000	18 111 170	19 937 235	*20 500 000
Oman	22 376 000	25 487 000	26 792 000	26 023 000	*29 000 000
Qatar	13 513 000	14 093 000	12 231 000	14 639 000	15 938 578
Saudi Arabia	108 390 692	164 060 513	121 105 806	153 239 867	157 880 887
Singapore	198 777	184 347	111 289	1 551 062	185 460
of which: Re-exports	85 202	89 900	97 893	1 476 407	14 764
Syria	4 445 449	3 968 469	4 280 051	4 208 000	6 400 000
United Arab Emirates	48 806 000	56 161 000	62 016 000	66 730 000	*80 500 000
Australia	6 229 600	4 015 600	5 670 400	5 596 000	4 030 000
New Zealand (c)	115 666	357 491	92 979	214 346	290 597

(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	1985	1986	1987	1988	1989
United Kingdom	26 869 737	32 182 351	33 109 328	32 885 988	36 339 792
Belgium-Luxembourg	15 464 760	21 493 630	23 872 531	23 207 014	24 608 187
Denmark	4 806 490	4 302 879	4 286 750	4 476 516	4 226 890
France	68 694 509	66 440 317	63 054 333	66 351 077	66 676 889
Germany, Federal Republic of	64 193 086	66 569 034	63 840 159	72 036 951	66 326 900
Greece	12 966 465	10 455 080	16 639 408	*14 150 000	*13 800 000
Irish Republic	1 322 211	1 400 472	1 528 804	1 348 043	1 429 924
Italy	64 880 757	72 403 264	67 023 444	63 393 108	67 978 000
Netherlands	40 342 992	46 940 080	48 512 517	51 394 231	51 285 070
Portugal	7 063 418	8 163 307	7 890 708	7 947 544	9 823 383
Spain	39 475 257	40 434 467	44 850 096	45 019 884	49 918 012
Austria	6 205 712	6 187 679	6 232 912	5 630 832	5 943 879
Bulgaria	12 500 000	12 500 000	12 972 000	13 196 000	*14 000 000
Czechoslovakia	16 928 000	17 800 000	17 760 000	17 014 000	17 632 000
Finland	9 827 751	9 934 967	10 685 513	8 937 400	8 840 411
German Democratic Republic	22 802 000	22 250 000	20 949 000	20 514 000	21 040 000
Hungary	7 253 254	7 560 547	8 499 143	7 261 969	6 320 991
Norway	1 507 190	2 111 984	2 781 082	1 187 345	929 749
Poland	13 712 000	14 139 000	14 169 000	14 986 000	14 985 000
Romania	14 626 000	17 047 000	21 366 000	20 957 000	21 809 000
Soviet Union	12 400 000	14 567 000	13 990 000	19 845 000	*18 000 000
Sweden	14 366 621	16 372 054	15 411 383	14 414 742	15 781 358
Switzerland	3 810 036	3 917 551	3 895 006	3 845 408	3 013 434
Turkey	15 505 105	16 742 477	19 691 963	21 636 806	*18 600 000
Yugoslavia	8 600 466	10 841 501	10 917 193	12 061 042	11 688 739
Ethiopia	757 743	749 630	788 513	733 765	...
Ghana	897 624	848 404	884 622	885 000	...
Ivory Coast	1 489 727	1 996 728	*1 095 000	1 941 717	*2 000 000
Kenya	1 951 997	2 006 049	2 102 564	2 010 836	*2 240 000
Liberia	360 000	375 000	365 000	370 000	...
Madagascar	297 457	113 379	244 099	250 000	154 185
Morocco	5 024 916	4 507 338	4 836 221	5 001 294	*5 760 000
Senegal	621 126	840 337	859 800	1 165 046	1 619 112
Sierra Leone	196 161	243 000	240 000	250 000	...
Somalia	225 000	245 000	*248 000	*250 000	...
South Africa	17 500 000	17 500 000	16 000 000	16 000 000	...
Sudan	691 949	*610 000	*610 000	...	...
Tanzania	535 380	534 384	509 773	624 705	...
Tunisia	22 793	412 867	423 199	4	553 150
Zaire	*185 000	*110 000	*100 000	*100 000	...
Zambia	720 547	700 000	698 429	636 542	...
Bahamas	7 505 512	9 091 436	8 443 299	4 772 058	9 304 173
Barbados	113 981	141 339	167 023	185 754	209 904
Canada	14 464 163	18 396 615	19 856 397	21 415 133	25 816 113
Costa Rica	428 291	638 118	634 243	602 869	677 744
Cuba	8 046 400	7 366 000	7 894 000	8 343 000	*8 500 000
Dominican Republic	1 713 618	1 761 772	*1 700 000	*1 750 000	...
El Salvador	633 568	829 927	701 005	710 125	563 858
Guatemala	1 557 643	202 091	522 043	*500 000	*500 000
Honduras	543 191	218 693	294 373	389 816	461 416
Jamaica	974 052	2 390 222	659 335	739 822	877 547
Martinique	245 529	410 064	551 342	493 023	595 164
Netherlands Antilles	5 662 000	7 729 000	9 867 000	10 458 000	9 924 000
Nicaragua	965 173	524 185	*530 000	*530 000	...
Panama	1 241 975	969 217	1 347 741	951 948	955 927
Trinidad & Tobago	197 141	34	248 729	673 632	307 490
USA	169 110 946	219 298 518	234 068 069	253 234 119	285 449 511
Brazil	26 798 497	29 777 240	30 945 630	31 700 745	29 180 116
Chile	2 195 000	2 569 194	2 962 172	4 226 840	5 032 000
Colombia	992 137	—	—	...	...
Paraguay	156 848	205 265	255 079	243 108	300 210
Uruguay	1 073 624	1 360 237	1 131 831	1 155 122	...

Imports of Crude Petroleum

tonnes

Country	1985	1986	1987	1988	1989
Bahrain	*7 218 000	9 958 000	10 054 000	10 429 000	*11 000 000
Bangladesh (a)	992 492	1 008 001	1 000 449	1 212 079	...
Cyprus	502 240	602 545	615 889	620 000	...
India (b)	15 143 488	15 475 575	17 930 000	17 810 000	*19 000 000
Indonesia	3 675 798	3 826 943	4 184 629	4 309 647	4 657 022
Israel	6 292 000	7 360 000	6 695 000	6 800 000	7 184 000
Japan	176 369 002	167 840 928	164 125 425	171 247 941	183 249 914
Jordan	2 264 435	2 285 058	2 537 871	2 482 403	2 453 260
Korea, Dem. P.R. of	*2 600 000	*2 700 000	*2 800 000	*2 900 000	...
Korea, Republic of	27 072 058	28 837 773	29 241 798	32 942 770	40 067 228
Lebanon	*625 000	*1 120 000	*1 250 000	*1 300 000	...
Malaysia	2 252 298	1 933 480	1 563 128	1 526 793	1 020 056
Pakistan	4 364 701	3 727 075	3 714 220	3 809 857	...
Philippines	6 592 038	7 027 203	8 945 688	9 473 386	9 777 864
Singapore	29 753 982	32 385 635	31 489 670	34 885 597	37 344 978
Sri Lanka	1 658 094	1 638 547	1 778 853	1 720 591	...
Syria	5 067 089	2 283 195	2 786 617	2 000 000	*1 100 000
Taiwan	16 255 485	17 163 675	19 244 855	19 952 499	21 388 499
Thailand	7 291 364	7 703 742	8 160 754	8 040 644	...
Yemen, People's Dem. Rep.	104 800	106 926	9 390	...	...
Australia	6 032 500	6 714 000	7 254 000	8 197 000	12 447 000
New Zealand (a)	1 683 713	713 958	1 599 407	2 305 756	2 619 645

(a) Years ended 30 June of that stated

(b) Years ended 31 March following that stated

Phosphate

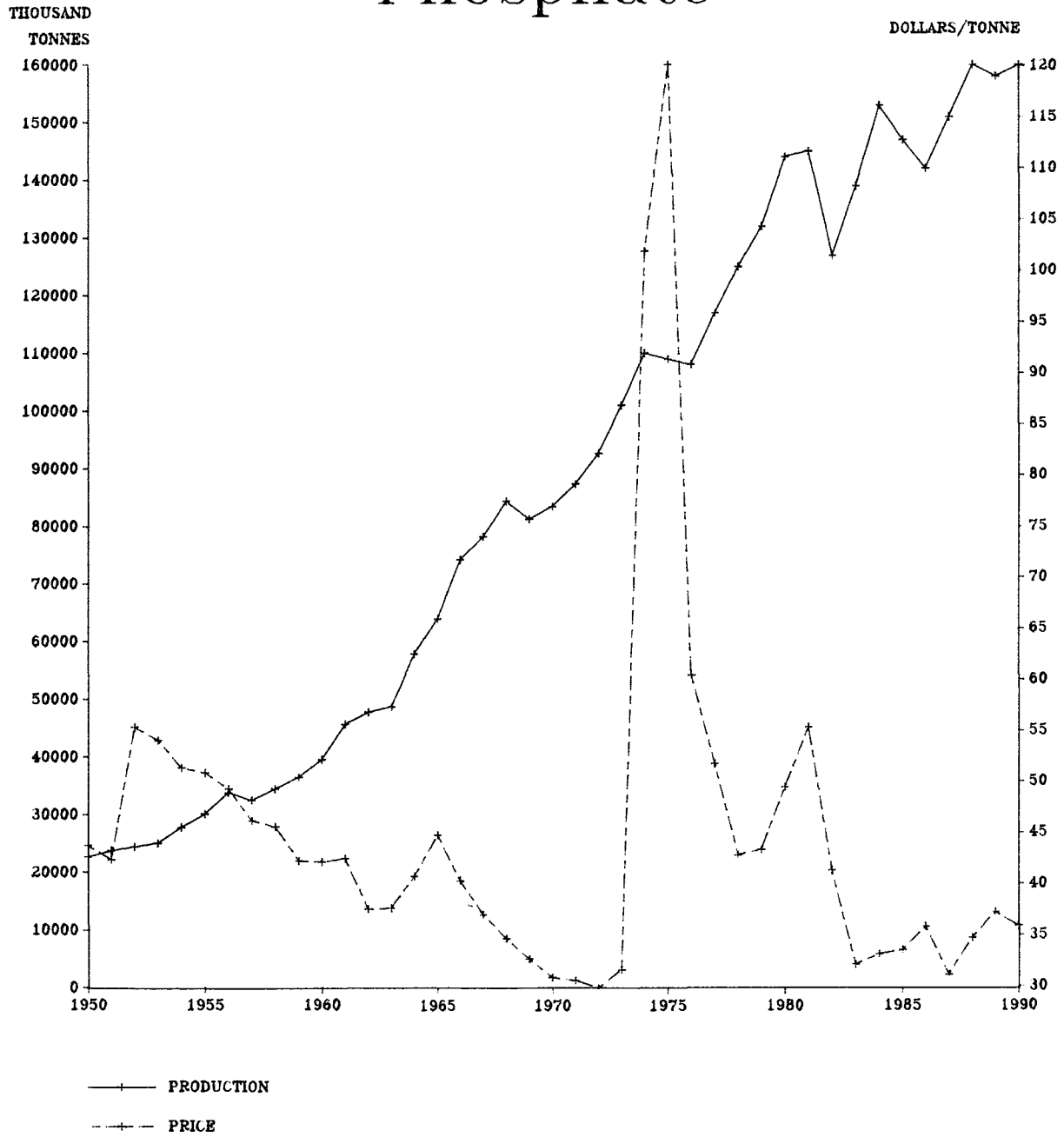


Figure 17 World production of phosphate rock compared with the yearly average price of Moroccan phosphate (70% BPL) f.a.s. Casablanca expressed in constant 1985 US dollars.

Production of Phosphate Rock

Country	1985	1986	1987	1988	1989
Finland	511 500	527 495	553 279	583 542	563 934
Soviet Union	*33 755 000	*33 900 000	*34 100 000	*34 400 000	*34 400 000
Sweden	193 445	186 676	227 844	142 000	71 000
Turkey	38 525	2 700	19 197	74 230	84 800
Algeria	1 221 200	1 203 300	1 209 000	1 331 000	1 223 600
Egypt	748 126	769 160	580 061	207 698	216 107
Morocco	20 779 000	21 427 000	21 270 000	25 015 000	18 067 000
Senegal					
Phosphate rock	1 813 280	1 875 628	1 780 836	2 327 262	2 272 600
Aluminium phosphate (a)	355 266	131 300	79 136	417 090	157 600
South Africa	2 433 375	2 922 500	2 623 100	2 850 200	2 962 900
Tanzania	21 039	10 028	18 386	13 000	10 600
Togo	2 444 666	2 313 900	2 968 635	3 312 773	3 484 237
Tunisia	4 505 000	5 800 000	6 215 000	6 027 000	6 610 360
Zimbabwe	135 061	135 592	154 827	125 156	133 791
Mexico	786 500	746 863	688 973	666 753	624 000
Netherlands Antilles (b)	27 992	22 702	22 291	21 931	15 738
USA	50 835 000	40 320 000	40 954 000	45 389 000	49 817 000
Brazil (d)	4 170 680	4 542 317	5 433 175	*5 000 000	*4 000 000
Chile					
Phosphate rock	7 110	6 684	10 389	9 161	14 354
Guano	3 150	7 546	5 685	4 052	3 127
Colombia	24 249	28 624	29 800	30 000	30 000
Peru	12 216	5 167	60 713	13 465	*15 000
Venezuela	8 567	174 000	99 000	84 000	174 198
Cambodia	*5 000	—	—	—	—
China	6 974 000	9 790 000	14 866 000	16 600 000	*17 000 000
Christmas Island (b)(c)	1 187 225	880 115	836 000	—	—
India	925 061	667 070	679 419	738 877	703 716
Indonesia	525	601	2 592	411	11 000
Iraq	*1 000 000	*1 000 000	*1 500 000	*1 273 000	*1 142 500
Israel	2 195 300	2 518 000	2 731 000	2 761 000	2 648 000
Jordan	6 067 139	6 249 223	6 845 400	5 628 200	6 635 600
Korea, Dem. P.R. of	*500 000	*500 000	*500 000	*500 000	*500 000
Pakistan	8 783	31 094	72 782	...	12 285
Philippines					
Phosphate rock	8 848	1 656	5 824	7 104	*7 000
Guano	1 318	3 466	935	1 406	*2 000
Sri Lanka	17 295	14 977	21 305	23 104	29 257
Syria	1 224 000	1 606 000	1 986 000	2 342 000	2 256 000
Thailand	4 072	4 940	4 502	8 348	6 584
Vietnam	*300 000	*400 000	*300 000	*350 000	*350 000
Australia	33 116	33 659	11 294	13 000	8 000
Nauru (b)	1 508 200	1 493 600	1 375 500	1 540 400	1 181 300
World total	147 000 000	142 000 000	151 000 000	160 000 000	157 000 000

(a) Including lime phosphates

(b) Exports

(c) Including phosphate dust

(d) Including beneficiated and directly shipped material

Phosphates

Exports of Phosphate Rock

tonnes

Country	1985	1986	1987	1988	1989
Belgium-Luxembourg	26 761	17 604	30 822	19 305	19 342
Denmark	1 713	1 369	10 467	1 449	1 910
France	4 239	3 202	4 065	4 459	12 863
Germany, Federal Republic of	9 824	2 482	2 989	5 189	5 090
Netherlands	57 174	21 876	137 637	158 586	194 541
Soviet Union (b)	*3 175 000	*2 451 000	*3 216 000	*2 582 000	*2 665 000
Sweden	98 426	132 725	142 096	72 363	80 328
Algeria	715 182	785 363	855 520	870 000	890 000
Egypt	141 705	71 770	68 650	123 300	*93 500
Morocco	14 789 875	13 696 128	13 061 333	14 260 343	12 406 500
Senegal					
Calcium phosphate	1 260 886	1 319 474	845 789	(c)1 846 500	(c)1 396 449
Aluminium phosphate	70 153	60 489	52 284	...	...
South Africa	694 824	775 199	1 061 400	1 268 000	1 094 200
Togo	2 444 800	2 266 300	3 000 000	3 300 000	3 347 147
Tunisia	1 114 864	1 205 752	1 241 277	1 114 055	1 082 386
Netherlands Antilles	27 992	22 702	22 291	21 931	15 738
USA	10 284 000	9 176 000	8 454 000	8 092 000	8 323 000
China	...	...	109 657	158 200	194 479
Christmas Island (a)	1 187 225	880 115	846 800	—	—
Israel	2 219 084	2 351 399	2 369 093	1 915 000	1 946 000
Jordan	4 609 710	5 197 665	5 543 685	5 726 740	6 356 840
Malaysia	1 979	2 104	4 777	6 726	...
Singapore	3 499	2 605	898	743	163
of which: Re-exports	3 021	2 605	898	743	163
Syria	794 246	1 262 299	1 514 336	1 881 000	1 729 000
Australia	10 034	22 845	15 000	34	...
Nauru	1 508 200	1 493 600	1 375 500	1 540 400	1 181 300

(a) Including phosphate dust

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

(c) Including aluminium phosphate

Imports of Phosphate Rock

Country	1985	1986	1987	1988	1989
United Kingdom	1 159 512	936 153	758 084	746 823	602 426
Belgium-Luxembourg	2 482 188	2 286 726	2 522 224	2 386 939	2 279 182
Denmark	328 663	198 473	234 464	270 370	219 203
France	4 254 324	3 566 714	3 754 538	3 672 788	3 578 361
Germany, Federal Republic of	1 943 064	1 579 045	1 444 894	1 157 569	1 208 100
Greece	202 829	356 999	795 412	308 123	*305 000
Irish Republic	7 239	5 105	2 813	1 495	6 128
Italy	1 295 729	1 388 856	1 302 576	1 162 063	1 056 869
Netherlands	2 388 066	2 053 253	2 212 428	2 459 808	2 366 965
Portugal	342 282	307 603	324 888	262 847	237 725
Spain	2 775 044	3 700 779	2 832 571	2 870 591	2 421 726
Albania	58 800	95 200	104 800	87 100	108 000
Austria	424 530	421 837	350 134	328 113	426 191
Bulgaria	722 898	629 255	520 900	732 600	643 000
Czechoslovakia (a)	282 000	273 000	255 000	146 000	199 000
Finland	383 000	190 800	136 200	149 900	121 800
German Democratic Republic (a)	424 000	437 300	368 300	394 000	423 900
Hungary	575 883	585 147	712 200	544 221	523 211
Norway	452 112	445 807	475 426	512 188	599 961
Poland	3 261 000	2 970 000	3 482 000	3 401 000	3 319 000
Romania (a)	947 100	1 041 200	867 100	873 100	833 200
Sweden	749 688	588 417	739 838	693 305	714 696
Switzerland	6 247	5 063	5 237	2 193	3 312
Turkey	682 049	702 401	813 582	995 330	808 922
Yugoslavia	1 312 471	1 439 150	1 373 803	1 741 304	1 234 726
Ivory Coast	7 793	10 533	...	4 646	...
Nigeria	11 000	7 400	...	...	...
South Africa	51 770	...	250 650	404 787	296 801
Tanzania	15 000	...	...	25 000	...
Zimbabwe	—	11 939	6 747	...	...
Canada	2 621 667	2 355 683	1 968 225	2 157 426	1 846 917
Cuba	10 000	24 800	10 000	5 000	5 000
Mexico	2 034 921	1 096 767	1 345 432	1 489 631	1 456 599
USA	35 049	527 776	466 562	675 626	709 564
Brazil	31 678	119 237	152 675	142 340	146 000
Chile	18 948	13 871	15 929	18 275	17 800
Colombia	40 608	51 127	47 800	45 696	37 800
Uruguay	42 000	35 422	89 700	77 149	70 200
Venezuela	72 545	59 639	54 926	68 365	68 000
Bangladesh (b)	123 000	162 601	95 006	87 547	*180 000
China	286 000	338 400	186 794	194 647	211 046
India (c)	1 849 121	1 867 600	1 819 319	2 017 431	2 431 200
Indonesia	817 432	717 571	1 195 638	1 035 831	886 342
Japan	2 413 608	2 076 190	2 159 958	1 821 007	1 590 053
Korea, Dem. P.R. of	50 000	144 400	90 000	132 000	31 000
Korea, Republic of	1 770 968	1 606 721	1 702 440	1 653 005	1 544 445
Malaysia	374 644	283 857	384 588	359 420	376 161
Pakistan (b)	246 979	191 855	115 573	278 845	238 300
Philippines	306 130	1 286 548	1 034 936	717 016	780 371
Saudi Arabia	9 604	17 177	4 298	4 869	2 134
Singapore	5 219	4 920	3 445	2 358	725
Sri Lanka	24 025	13 434	18 718	10 500	14 000
Taiwan	308 858	330 763	361 188	368 630	391 353
Australia	1 809 830	1 690 344	1 666 215	2 082 000	1 761 000
New Zealand (b)	924 638	484 595	338 178	563 310	489 350

(a) P₂O₅ content

(b) Years ended 30 June of that stated

(c) Years ended 31 March following that stated

Platinum Metals

Mine Production of Platinum Group Metals

kilograms (metal content)

Country	1985	1986	1987	1988	1989
Finland					
Platinum (a)	67	107	69	54	78
Palladium (a)	60	96	120	106	116
German Democratic Republic					
Platinum (a)	2 148	*2 000	*2 000	...	...
Palladium (a)	386	*350	*350	...	...
Soviet Union					
Platinum	*30 000	*30 300	*31 100	*32 000	*32 000
Palladium	*79 000	*91 000	*93 300	*95 500	*95 500
Yugoslavia					
Platinum (a)	3	30	22	23	23
Palladium (a)	87	85	132	142	199
Ethiopia (c)	2	2	1	2	*2
South Africa	*115 100	*123 200	*131 300	*133 300	*135 800
Zimbabwe					
Platinum	19	26	18	28	25
Palladium	30	35	29	45	43
Canada	(b)10 534	(b)12 190	11 506	13 444	10 389
USA					
Platinum	(d)470	(d)500	*780	*1 240	*1 430
Palladium	...	...	*2 330	*3 730	*4 850
Colombia	362	447	680	810	973
Japan					
Platinum (a)	691	663	753	647	821
Palladium (a)	1 359	1 453	1 417	1 170	1 031
Australia					
Platinum	95	115	84	73	*100
Palladium	476	428	451	360	*400
World total	241 000	263 000	276 000	285 000	286 000

Note(s):

- (1) Wherever possible, figures relate to quantities of platinum group metals thought to be recovered from ores originating in the country stated
 - (2) Figures for metal production are only given for countries where recovery is thought to be based predominantly on domestic materials or on imported materials which have not been recorded as mine production elsewhere in the table
 - (3) In addition to the countries listed, Bulgaria, China, Indonesia, Papua New Guinea and Philippines are 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	1985	1986	1987	1988	1989
United Kingdom					
Platinum	30 605	33 277	27 388	37 487	34 473
Palladium	16 374	20 252	14 865	32 795	30 086
Other platinum metals	7 005	11 311	6 485	5 796	9 580
Waste & scrap	2 188	290	25 925	1 198	3 773
Belgium-Luxembourg					
Platinum	1 931	3 770	2 405	3 646	3 730
Platinum metals	7 206	7 696	6 880	16 201	11 397
Waste & scrap	£2 719 000	£4 400 000	£3 384 000	£4 433 000	£5 360 000
Denmark					
Platinum & platinum metals	81	99	57	285	81
Waste & scrap	944	285	1 810	373	1 574
of which: Re-exports	299	207	1 638	274	468
France					
Platinum	6 267	3 471	4 417	6 930	7 164
Platinum metals	3 219	4 942	7 066	4 370	5 070
Waste & scrap	29 111	28 203	179 129	449	171 352
Germany, Federal Republic of					
Platinum	8 654	9 393	13 189	15 183	17 119
Palladium	5 823	4 878	5 192	8 490	9 293
Other platinum metals	5 028	4 824	5 546	2 377	2 192
Waste & scrap	44 573	999	277	20 545	42 588
Irish Republic					
Platinum & platinum metals	414	614	997	2 006	608
Italy					
Platinum	1 537	2 253	966	1 200	...
Platinum metals	904	1 968	2 105	662	...
Netherlands					
Platinum	1 672	1 263	1 232	1 560	1 872
Platinum metals	556	571	534	482	313
Waste & scrap	4 000	6 000	8 000	18 000	10 000
Portugal					
Platinum & platinum metals	406	300	399	400	400
Spain					
Platinum & platinum metals	220	149	78	330	97
Austria					
Platinum & platinum metals	413	467	740	1 201	766
Finland					
Platinum & platinum metals	15	547	12	3	13
Norway					
Platinum & platinum metals	1 549	1 601	1 975	1 579	2 465
Soviet Union					
Platinum & platinum metals (a)	*46 900	*58 500	*78 000	*81 600	*75 300
Sweden					
Platinum & platinum metals	£954 300	£1 334 000	£749 000	£1 307 000	£2 608 000
Switzerland					
Platinum & platinum metals	31 057	28 470	37 741	63 335	42 238
Waste & scrap	...	...	...	59 614	12 332
South Africa					
Platinum & platinum metals (a)	*95 000	*99 800	*112 000	*124 000	*146 600
Waste & scrap (a)	*1 100	*800	*3 500	*20 700	*4 600
Canada					
Ores & concentrates (b)	7 174	9 062	7 763	...	...
Platinum metals	6 015	3 662	4 506	4 657	9 772
Waste & scrap	8 527	7 519	6 696	...	...
USA					
Ores & concentrates (b)	195	1 157	172	156	173
Platinum	6 376	3 773	5 675	9 524	9 299
of which: Re-exports	700	877	3 114	1 898	884
Palladium	7 173	6 608	6 855	9 106	13 155
of which: Re-exports	466	1 146	1 132	718	150
Other platinum metals	2 987	3 679	6 205	4 379	1 717
of which: Re-exports	258	990	1 847	1 002	53
Waste & scrap	12 219	11 730	10 545	12 103	15 064

Exports of Platinum Group Metals

kilograms

Country	1985	1986	1987	1988	1989
Colombia					
Platinum	1 434	1 010	...	...	...
China					
Platinum & platinum metals	(a)*250	(a)*400	1 227	158	871
Hong Kong					
Platinum & platinum metals (c)	829	619	2 642	2 067	1 101
Japan					
Platinum	1 481	659	388	7 188	3 055
Platinum metals	2 484	1 632	2 268	1 639	1 451
Korea, Republic of					
Waste & scrap	585	60	8 741	3 979	6 335
Australia					
Platinum & platinum metals	290	1 049	6 723	660	...
of which: Re-exports	32	45	85	...	...

Note(s):

(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

kilograms

Country	1985	1986	1987	1988	1989
United Kingdom					
Ores & concentrates	...	...	...	75 240	46 787
Platinum	13 009	10 322	10 425	26 437	29 225
Palladium	6 361	13 058	10 575	28 438	17 242
Other platinum metals	2 981	3 608	5 004	4 342	4 923
Waste & scrap	17 034	18 858	18 577	35 456	382 547
Belgium-Luxembourg					
Platinum	1 420	1 456	1 268	1 519	1 282
Platinum metals	445	556	477	719	718
Waste & scrap	£7 626 000	£9 254 000	£8 533 000	£11 211 000	£13 772 000
Denmark					
Platinum & platinum metals	639	691	726	473	634
France					
Platinum	6 241	5 375	5 436	6 514	6 746
Platinum metals	5 559	6 182	5 132	5 336	6 163
Waste & scrap	16 237	3 146	2 780	50 380	39 913
Germany, Federal Republic of					
Platinum	19 553	17 750	23 888	21 492	24 813
Palladium	19 333	18 109	17 081	27 461	21 889
Other platinum metals	4 609	5 425	5 127	3 151	3 331
Waste & scrap	74 551	87 922	122 240	86 762	103 755
Greece					
Platinum & platinum metals	499	492	228	437	...
Irish Republic					
Platinum & platinum metals	350	653	2 267	3 842	479
Italy					
Platinum	3 003	3 363	3 246	10 533	...
Platinum metals	3 291	3 903	4 025	5 346	...
Waste & scrap	600	1 339	3 900	1 500	1 581
Netherlands					
Platinum	1 384	777	892	1 158	1 094
Platinum metals	1 454	1 907	2 356	2 465	3 059
Waste & scrap	...	...	12 000	14 000	1 000
Portugal					
Platinum & platinum metals	366	200	690	700	...
Spain					
Platinum & platinum metals	610	1 304	1 165	1 842	2 064
Waste & scrap	1 000	1 000	325	338	0
Austria					
Platinum & platinum metals	1 262	1 314	2 420	2 512	2 429
Bulgaria					
Platinum & platinum metals (e)	*800	*1 100	*700	*700	*500
Czechoslovakia					
Platinum & platinum metals (e)	*250	*250	*100	*500	*600
Finland					
Platinum & platinum metals	96	123	334	954	134
German Democratic Republic					
Platinum & platinum metals (e)	*1 900	*2 200	*1 700	*2 300	*2 000
Hungary					
Platinum & platinum metals	(e)*300	(e)*400	(e)*300	(e)*400	100
Norway					
Platinum & platinum metals	679	669	786	728	595
Poland					
Platinum & platinum metals (e)	*300	*900	*1 400	*800	*800
Romania					
Platinum & platinum metals (e)	*50	*160	*250	*450	*290
Sweden					
Platinum & platinum metals	3 000	3 000	3 000	2 000	2 000
Switzerland					
Platinum & platinum metals	37 247	36 028	48 225	23 735	33 743
Waste & scrap	...	...	...	4 617	2 135
Turkey					
Platinum & platinum metals	350	424	321	227	...
Yugoslavia					
Platinum & platinum metals	£1 450 000	£1 082 000	£1 084 000	£1 328 000	£1 363 000

Imports of Platinum Group Metals

kilograms

Country	1985	1986	1987	1988	1989
Algeria					
Platinum & platinum metals	136	22	51	...	...
South Africa					
Platinum & platinum metals	2 310	69	411	1 295	77
Canada					
Platinum & platinum metals (c)	2 034	4 212	3 377	10 893	6 108
Costa Rica					
Platinum & platinum metals	198	31	5	5	3
Mexico					
Platinum & platinum metals	72	74	13	70	...
USA					
Ores & concentrates (d)	254	74	64	30	12
Platinum	48 669	56 582	36 413	46 789	49 240
Platinum metals					
Palladium	46 075	46 710	52 275	52 881	51 133
Rhodium	6 257	5 570	6 603	7 359	7 105
Other	7 806	7 411	3 751	4 585	3 628
Waste & scrap	16 506	31 522	19 438	12 761	2 162
Argentina					
Platinum	9	23	9	2	...
Palladium	39	36	87	94	...
Other platinum metals	83	8	335	111	...
Brazil					
Platinum	115	256	154	277	...
Palladium	642	444	863	662	...
China					
Platinum & platinum metals	(e)*500	(e)*800	2 620	4 863	2 589
Hong Kong					
Platinum & platinum metals	1 367	587	1 683	3 318	2 085
India (a)					
Platinum & platinum metals	403	334	217	166	...
Indonesia					
Platinum & platinum metals	34	2	245	3	1 173
Iran (f)					
Platinum & platinum metals	£153 000	£106 000	—	£5 000	...
Israel					
Platinum metals	£821 000	£1 415 000	£1 247 000	£1 288 000	£1 364 000
Japan					
Platinum	40 494	30 935	52 801	68 459	53 516
Platinum metals	39 072	47 824	53 964	58 595	61 145
Waste & scrap	2 664	3 179	6 688	4 537	5 294
Jordan					
Platinum	38	30	40	32	31
Korea, Republic of					
Platinum & platinum metals	399	590	465	804	1 130
Malaysia					
Platinum & platinum metals	553	25 963	10 651	7 890	4 857
Qatar					
Platinum & platinum metals	54	1 104	1 061	...	...
Singapore					
Platinum & platinum metals	1 065	474	1 055	865	1 530
Taiwan					
Platinum & platinum metals	2 133	599	1 053	1 678	3 596
Thailand					
Platinum & platinum metals	6	59	443	9 221	...

Imports of Platinum Group Metals

Country	1985	1986	1987	1988	1989
Australia					
Platinum metals	1 216	968	5 848	3 098	...
New Zealand (b)					
Platinum & platinum metals	144	86	61	28	17

Note(s):

- (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

Potash

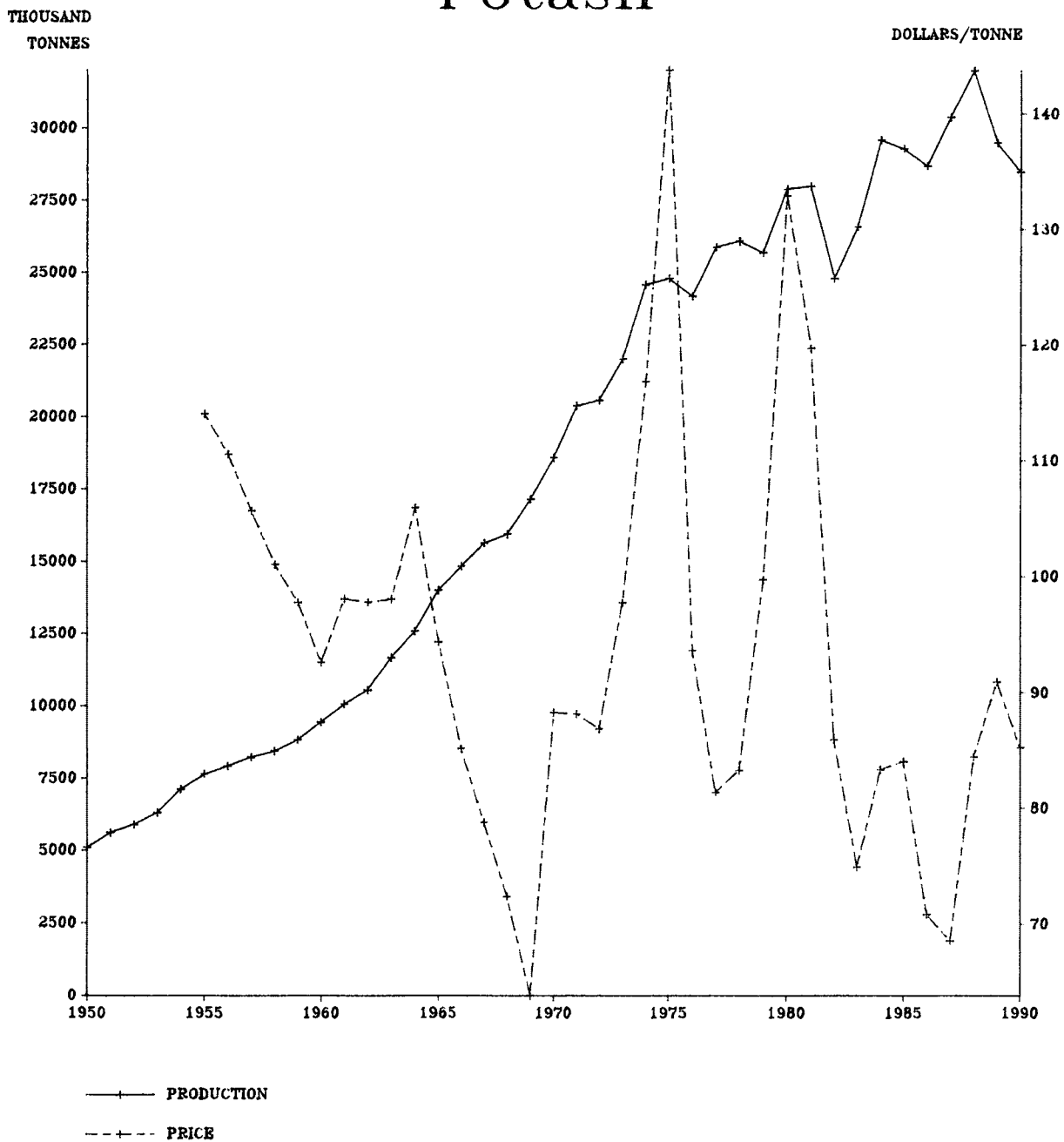


Figure 18 World production of potash compared with the yearly average price of Canadian potash at Vancouver expressed in constant 1985 US dollars.

Production of Potash

Potash
tonnes (K₂O content)

Country	1985	1986	1987	1988	1989
United Kingdom					
Chloride	354 496	416 965	450 345	483 662	486 501
France					
Potassic salts	1 750 000	1 620 200	1 538 700	1 502 450	1 195 400
Germany, Federal Republic of					
Potassic salts	2 583 000	2 161 000	2 199 000	2 290 000	2 182 000
Italy					
Potassic salts	204 177	157 958	177 834	196 762	214 960
Spain					
Potassic salts	761 057	794 586	838 439	766 000	741 000
German Democratic Republic					
Potassic salts	3 465 000	3 485 000	3 510 000	3 510 000	3 199 000
Soviet Union	10 367 000	10 200 000	10 900 000	11 300 000	10 232 000
Canada					
Chloride	6 694 507	6 677 983	7 398 906	8 310 586	7 333 000
USA					
Potassic salts	1 296 000	1 202 000	1 262 000	1 521 000	1 595 000
Brazil					
Chloride	1 500	10 524	37 311	54 121	96 945
Chile					
Nitrate	*21 000	*20 600	*23 100	*25 300	*25 000
China	*40 000	*40 000	*40 000	*40 000	*40 000
Israel					
Chloride	1 200 000	1 255 000	1 253 000	1 244 000	1 271 000
Jordan	561 000	660 000	734 000	785 000	790 000
World total	29 300 000	28 700 000	30 400 000	32 000 000	29 400 000

Potash

Exports of Potash

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Chloride	78 547	94 929	327 485	434 640	367 140
Other potassic fertilisers	1 132	900	1 594	1 967	2 060
Potassic chemicals	4 874	4 023	6 214	5 020	3 294
Belgium-Luxembourg					
Fertiliser salts	382	2 127	1 024	530	945
Sulphate (b)	*325 000	*322 900	*400 300	*268 200	*246 300
Chloride	15 328	29 572	107 714	55 921	192 384
Other potassic fertilisers	4 361	5 519	5 130	3 942	6 941
Potassic chemicals	2 845	2 181	1 994	2 737	1 083
France					
Fertiliser salts	7 889	6 710	7	—	2
Chloride	411 129	288 716	419 134	513 901	340 128
Other potassic fertilisers	22 594	20 563	19 779	17 696	16 105
Potassic chemicals	3 166	7 306	5 476	8 745	996
Germany, Federal Republic of					
Fertiliser salts	47 006	43 401	47 958	43 017	43 546
Potassic fertilisers	2 322 673	2 177 290	2 297 189	2 317 394	2 378 355
Potassic chemicals	43 278	40 649	39 174	43 393	46 344
Greece					
Potassic fertilisers	33 110	58 175	12 406	*2 300	1 115
Italy					
Sulphate	111 027	66 291	56 733	74 397	131 932
Other potassic fertilisers	390	285	1 904	2 060	3 372
Potassic chemicals	2 025	1 951	2 969	3 182	2 755
Netherlands					
Sulphate (a)	1 331	276	296	409	512
Chloride (a)	2 372	5 999	44 039	63 055	77 261
Potassic chemicals	3 414	3 090	3 603	4 434	4 715
Portugal					
Potassic fertilisers	752	110	186	35	223
Spain					
Sulphate	61 075	86 746	58 479	48 325	34 665
Chloride	501 184	395 562	627 730	627 743	528 856
Potassic chemicals	8 127	9 355	8 423	5 197	10 407
Czechoslovakia					
Potassic chemicals (b)	*9 600	*3 700	*1 600	*900	*350
German Democratic Republic					
Fertiliser salts (a)	2 791 000	2 814 000	2 894 000	2 832 000	2 556 000
Poland					
Potassic chemicals	4 476	4 310	4 268	4 055	...
Romania					
Potassic chemicals (b)	*59 200	*51 100	*25 300	*7 200	*6 000
Soviet Union					
Fertiliser salts	5 455 746	5 127 007	5 412 162	5 830 462	5 315 002
Sweden					
Potassic chemicals	4 632	...	...	...	...
Switzerland					
Potassic chemicals	1 684	1 061	844	1 594	905
Yugoslavia					
Potassic chemicals	632	873	882	3 517	4 210
Canada					
Chloride	9 981 058	9 894 211	10 983 658	12 674 202	10 914 791
Other potassic fertilisers	...	...	...	45 074	60 892
Potassic chemicals	(d)1 680	(d)2 868	(d)7 127	15 611	18 931
USA					
Sulphate	273 290	316 673	414 830	382 027	448 880
Chloride	699 770	708 357	511 590	400 831	496 575
Other potassic fertilisers	250 000	...	...	...	...
Potassic chemicals	13 389	19 114	22 868	30 306	129 375
Chile					
Fertiliser salts	113 508	108 215	94 478	131 190	123 648
China					
Potassic chemicals (b)	*1 000	*4 200	*5 900	*6 700	*18 300
Hong Kong					
Potassic chemicals (c)	234	811	1 721	16 505	3 467

Exports of Potash

Country	1985	1986	1987	1988	1989
Israel					
Chloride (b)	*1 219 900	*1 245 000	*1 402 200	*1 406 800	*1 261 400
Other potassic fertilisers (b)	*227 000	*186 400	*173 900	*177 000	*137 100
Potassic chemicals	(b)*107 700	(b)*111 400	(b)*124 700	218 462	249 027
Japan					
Potassic fertilisers	82	310	384	1 187	1 350
Potassic chemicals	7 780	8 985	10 485	19 790	21 830
Jordan					
Fertiliser salts	844 773	1 205 056	1 243 928	1 300 411	1 257 895
Korea, Republic of					
Sulphate	22 544	27 419	19 493	44 800	46 020
Other potassic fertilisers	4 917	9 258	21 679	10 500	2 260
Potassic chemicals	4 871	7 399	9 292	13 802	8 862
Singapore					
Sulphate	5 022	5 143	1 918	3 004	10 157
of which: Re-exports	5 022	5 143	1 918	2 944	10 156
Chloride	16 755	13 625	12 267	85 064	94 091
of which: Re-exports	16 754	13 625	12 265	85 058	94 070
Other potassic fertilisers	152 238	122 600	125 807	137 753	14 969
of which: Re-exports	151 635	122 454	125 607	136 996	14 959
Taiwan					
Potassic fertilisers	12 600	25 855	34 511	52 024	48 267
Potassic chemicals	997	1 016	1 063	1 636	3 301

Note(s):

(1) So far as possible the term 'potassic chemicals', as used in this table, relates to items 522.64, 523.3,4,5 and 7 of the S.I.T.C. (Rev.3) 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
- (d) Exports to the USA

Imports of Potash

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Fertiliser salts	30 424	32 144	25 912	28 038	17 274
Chloride	574 494	470 885	521 274	570 686	452 657
Other potassic fertilisers	7 728	7 764	7 834	23 796	15 521
Potassic chemicals	26 975	27 377	30 146	32 623	36 166
Belgium-Luxembourg					
Fertiliser salts	40 155	39 460	38 646	30 540	29 796
Sulphate	31 771	32 799	48 693	34 222	53 406
Chloride	1 077 430	1 066 949	1 308 403	1 229 633	1 251 317
Other potassic fertilisers	27 945	155 690	22 912	30 132	19 781
Potassic chemicals	13 725	13 696	12 351	12 268	13 229
Denmark					
Fertiliser salts	3 376	2 761	2 667	3	*20
Sulphate	53 793	45 612	39 109	31 178	22 800
Chloride	234 532	217 429	240 420	229 558	239 907
Potassic chemicals	6 989	7 508	7 140	8 409	7 616
France					
Fertiliser salts	1	24 392	84 235	58 260	74 040
Sulphate	170 005	151 572	162 211	106 118	109 575
Chloride	767 872	664 553	1 115 054	1 012 242	1 290 689
Other potassic fertilisers	2 440	31	44	32 236	27 467
Potassic chemicals	21 817	24 367	29 118	29 826	34 641
Germany, Federal Republic of					
Chloride	75 965	64 364	149 060	179 316	131 851
Potassic chemicals	27 712	18 209	18 840	28 037	27 937
Greece					
Sulphate	37 544	51 818	159 971	86 495	107 978
Potassic chemicals	9 287	5 902	18 371	...	...
Irish Republic					
Sulphate	8 524	4 436	3 600	2 097	5 011
Chloride	318 289	235 034	297 680	219 477	253 195
Other potassic fertilisers	1 657	310	548	400	1 622
Italy					
Fertiliser salts	9 090	7 112	4 632	1 587	1 725
Sulphate	44 454	70 665	77 050	75 561	44 134
Chloride	587 945	606 425	666 059	655 647	702 553
Other potassic fertilisers	15 296	19 759	21 295	39 008	25 768
Potassic chemicals	38 883	27 219	30 418	35 356	34 696
Netherlands					
Fertiliser salts (a)	297	377	654	708	768
Sulphate (a)	47 149	44 979	41 337	20 173	20 096
Chloride (a)	183 428	200 780	285 553	302 227	340 581
Other potassic fertilisers (a)	—	—	—	12 946	10 478
Potassic chemicals	40 090	39 776	44 357	52 506	54 401
Portugal					
Sulphate	1 001	1 315	2 573	...	...
Chloride	56 746	65 459	78 043	(e)85 414	(e)81 160
Potassic chemicals	2 759	2 750	3 961	...	...
Spain					
Chloride	399	8 375	25 532	39 016	27 765
Other potassic fertilisers	12	86	3 202	7 516	12 710
Potassic chemicals	13 388	15 846	25 783	31 030	47 690
Austria					
Fertiliser salts	12 868	12 079	10 424	11 842	16 647
Sulphate	28 152	22 757	20 416	15 286	16 319
Chloride	226 825	185 489	163 225	197 176	165 486
Other potassic fertilisers	17 500	7 340	7 829	4 875	5 014
Potassic chemicals	6 799	6 896	7 136	7 459	6 137
Bulgaria					
Fertiliser salts (c)	*163 000	*188 900	*142 300	*183 400	*223 200
Czechoslovakia					
Potassic fertilisers (a)	556 000	572 000	551 000	641 000	557 000
Finland					
Chloride (c)	*230 300	*213 100	*212 100	*209 800	*241 000
Other potassic fertilisers	384	364	182	106	111
Potassic chemicals	4 296	4 314	6 278	7 197	9 542
Hungary					
Fertiliser salts	3 349	2 338	2 257	2 132	...
Potassic fertilisers	1 286 440	1 114 655	1 080 930	1 356 158	879 990
Potassic chemicals	1 103	1 220	1 509	1 562	1 420

Imports of Potash

Potash
tonnes

Country	1985	1986	1987	1988	1989
Iceland					
Sulphate	1 803	5 781	5 041	1 000	2 076
Chloride	8 194	4 090	4 120	5 850	7 127
Norway					
Sulphate	87 473	97 947	92 449	124 196	123 606
Chloride	255 038	218 791	212 012	227 477	293 756
Other potassic fertilisers	1 182	926	1 066	1 496	536
Potassic chemicals	2 753	3 457	2 189	1 959	2 570
Poland					
Chloride	18 228	17 993	17 350	18 475	...
Other potassic fertilisers	2 357 000	2 373 000	2 496 000	2 532 000	2 055 000
Potassic chemicals	5 875	6 027	5 283	5 721	...
Romania					
Fertiliser salts (a)	346 000	457 600	352 100	398 600	327 400
Sweden					
Fertiliser salts	2 175	2 099	1 998	4 934	5 259
Chloride	103	99	514	141 911	152 388
Other potassic fertilisers	720	1 202	1 644	31 699	11 731
Potassic chemicals	3 494	3 894	4 485	4 897	4 153
Switzerland					
Chloride	...	...	...	51 315	52 569
Other potassic fertilisers	81 381	71 002	68 464	13 231	11 459
Potassic chemicals	12 603	13 482	13 415	15 217	14 871
Turkey					
Fertiliser salts	23 803	20 634	16 881	13 517	...
Sulphate	11 946	50 958	8 563	14 919	...
Other potassic fertilisers	11 259	39 697	33 519	45 439	...
Potassic chemicals	4 372	6 326	7 975	7 725	...
Yugoslavia					
Sulphate	22 294	18 899	17 138	32 017	6 217
Chloride	599 574	559 280	523 319	606 000	436 001
Potassic chemicals	160 887	178 226	141 134	7 570	7 777
Algeria					
Sulphate	89 582	71 585	102 669	*47 200	*47 800
Potassic chemicals	386	450	603	...	...
Cameroon					
Potassic fertilisers	...	9 104	41 155	*9 200	*5 800
Egypt					
Potassic fertilisers	29 082	35 402	31 713	*9 000	*46 000
Gabon					
Fertiliser salts	399	459	...	...	...
Potassic fertilisers	1 339	1 516	...	*1 400	*1 800
Ivory Coast					
Sulphate	8 282	6 980	...	1 370	...
Chloride	44 866	22 427	...	36 944	...
Kenya					
Potassic fertilisers	2 733	1 540	1 076	3 724	*3 700
Liberia					
Potassic fertilisers (a)	2 900	1 800	1 200	1 700	2 000
Madagascar					
Potassic fertilisers	5 133	1 072	4 664	...	3 800
Mauritius					
Potassic fertilisers	26 367	21 229	27 605	17 445	36 039
Morocco					
Sulphate	43 748	47 079	34 710	59 815	...
Chloride	54 467	41 048	61 176	61 117	...
Potassic chemicals	990	982	971	1 060	...
Mozambique					
Potassic fertilisers	2 530	—	...	...	...
Niger					
Potassic fertilisers	1 335	2 864	...	...	...
Nigeria					
Potassic fertilisers	2 334	6 690	1 519	...	...
Reunion					
Potassic fertilisers	249	3 700	5 240	...	...
Senegal					
Potassic fertilisers	24 941	1 160	6 447	13 472	11 953
South Africa					
Potassic fertilisers	292 296	208 068	220 115	245 435	658 567
Potassic chemicals	5 762	6 383	7 039	28 353	31 719

Potash

Imports of Potash

tonnes

Country	1985	1986	1987	1988	1989
Tunisia					
Potassic fertilisers	10 865	15 021	3 501	45 500	11 132
Zimbabwe					
Sulphate	22 423	15 672	20 740	...	...
Chloride	44 802	28 577	47 685	(e)*40 000	(e)*70 000
Belize					
Potassic fertilisers	71	1 030	2 044	2 122	2 199
Canada					
Sulphate	30 837	29 005	11 814	9 801	22 258
Chloride	707	390	967	3 765	4 553
Other potassic fertilisers	33 687	23 991	51 503	45 267	19 328
Potassic chemicals	8 294	9 786	10 159	12 599	16 818
Costa Rica					
Potassic fertilisers	43 293	59 103	57 564	61 727	50 811
Cuba					
Sulphate	24 281	18 000	22 000	20 000	...
Chloride	390 593	367 000	352 000	323 000	*400 000
Dominican Republic					
Potassic fertilisers	13 776	13 400	25 600	17 900	32 100
El Salvador					
Potassic fertilisers	14 646	10 665	...	7 206	7 451
Guatemala					
Potassic fertilisers	12 186	23 123	16 808	10 632	14 200
Honduras					
Potassic fertilisers	6 727	9 506	3 757	28 706	10 557
Jamaica					
Potassic fertilisers	183	3 096	391	11 472	447
Martinique					
Potassic fertilisers	19 854	20 033	4 561	10 008	9 192
Mexico					
Sulphate	37 173	29 181	4 156	31 745	...
Chloride	239 840	144 667	77 436	123 777	65 200
Nicaragua					
Potassic fertilisers	13 573	...	*4 000	*10 000	...
Panama					
Potassic fertilisers	6 444	9 098	2 485	7 918	16 982
St. Kitts-Nevis-Anguilla					
Potassic fertilisers	*1 500	*1 500	*1 500	*1 600	...
Trinidad & Tobago					
Potassic fertilisers	669	3 125	1 281	1 583	3 461
USA					
Fertiliser salts	41 948	46 196	20 100	36 905	6 949
Sulphate	48 788	47 689	57 635	90 787	64 215
Chloride	7 468 432	6 836 183	6 613 676	6 795 910	5 497 763
Other potassic fertilisers	99	149	296	3 122	834 723
Potassic chemicals	27 973	38 611	40 588	30 231	155 457
Argentina					
Sulphate	2 878	8 299	3 852	6 448	1 412
Chloride	6 714	11 219	16 799	19 073	10 970
Potassic chemicals	2 630	7 198	7 808	7 269	...
Brazil					
Sulphate	22 292	42 976	46 963	48 100	...
Chloride	1 777 567	2 234 374	2 402 788	2 145 575	1 662 543
Potassic chemicals	7 886	15 263	7 622	62 541	...
Chile					
Sulphate	19 900	25 489	26 953	29 348	(c)*20 300
Chloride	28 329	53 506	43 237	143 893	(c)*72 800
Colombia					
Sulphate	16 267	16 470	...	15 545	...
Chloride	157 470	173 707	(e)*225 000	241 809	(e)*245 000
Potassic chemicals	2 883	1 874	...	...	...
Ecuador					
Chloride	19 263	4 667	19 272	26 768	14 800
Other potassic fertilisers	100	2 512	6 944	382	...
Guyana					
Potassic fertilisers	*2 000	*2 000	*3 000	*3 000	*500

Imports of Potash

Country	1985	1986	1987	1988	1989
Peru					
Sulphate	4 059	8 611	8 349	6 827	...
Chloride	12 355	24 500	45 678	17 811	(e)22 300
Potassic chemicals	859	1 367	1 653	1 096	1 029
Uruguay					
Potassic fertilisers	6 339	6 536	5 310	6 307	...
Potassic chemicals	115	368	505	268	...
Venezuela					
Potassic fertilisers	256 054	144 569	140 354	*165 000	*135 000
Potassic chemicals	1 293	1 811	1 794	...	...
Bangladesh (d)					
Potassic fertilisers	...	76 215	54 408	66 946	...
China					
Potassic fertilisers	(c)*350 000	(c)*440 000	1 786 720	2 243 896	1 477 092
Cyprus					
Potassic fertilisers	1 001	1 061	1 239	...	...
Dubai					
Potassic fertilisers	1 530	984	...	...	...
Hong Kong					
Potassic fertilisers	15 000	—	—	—	—
Potassic chemicals	764	1 689	2 181	3 581	3 838
India (b)					
Fertiliser salts	55 006	89 316	—	—	...
Chloride	964 220	988 302	814 346	1 078 921	...
Other potassic fertilisers	125 357	188 168	231 562	176 589	...
Potassic chemicals	1 631	3 870	2 544	1 864	...
Indonesia					
Sulphate	1 000	1 700	5 307	1 400	104 629
Chloride	277 594	88 759	206 641	509 804	259 600
Other potassic fertilisers	33 080	1 665	45	12 053	—
Potassic chemicals	1 972	1 870	2 323	3 036	4 928
Japan					
Sulphate	197 876	171 347	222 776	236 268	222 314
Chloride	1 138 094	970 042	1 142 162	1 041 940	947 907
Other potassic fertilisers	39 460	58 065	74 872	66 528	83 344
Potassic chemicals	3 902	8 410	11 799	16 644	18 052
Jordan					
Potassic fertilisers	753	—	—	3 424	...
Korea, Dem. P.R. of					
Potassic fertilisers (c)	*110 100	*23 000	*11 000	*31 600	...
Korea, Republic of					
Sulphate	6 955	—	—	1	0
Chloride	482 105	429 960	697 864	662 936	679 718
Potassic chemicals	1 594	5 174	9 142	6 223	10 572
Malaysia					
Fertiliser salts	287	10	184	—	5
Sulphate	16 890	7 714	9 861	28 678	3 349
Chloride	178 762	229 231	291 726	24 653	24 700
Other potassic fertilisers	314 658	229 510	310 158	771 110	607 285
Pakistan (d)					
Potassic chemicals	2 083	1 678	1 956	2 448	...
Philippines					
Sulphate	32 471	19 521	19 543	99 586	4 875
Chloride	24 174	66 109	148 489	93 266	122 062
Other potassic fertilisers	1 624	960	2 105	698	—
Potassic chemicals	2 458	2 546	2 538	3 191	3 829
Saudi Arabia					
Sulphate	23 843	2 497	14 239	25 139	7 855
Other potassic fertilisers	34 548	32 772	34 661	30 614	8 198
Singapore					
Sulphate	22 312	6 613	3 800	3	14 420
Chloride	216	8 256	12 037	90 434	66 266
Other potassic fertilisers	166 838	140 667	112 024	179 043	918
Sri Lanka					
Chloride	48 287	35 914	55 600	58 502	...
Other potassic fertilisers	43 426	24 393	45 599	62 253	...

Imports of Potash

tonnes

Country	1985	1986	1987	1988	1989
Syria					
Potassic fertilisers	44	10 986	20 277	*62 500	...
Taiwan					
Chloride	130 064	212 492	178 217	227 858	244 952
Potassic chemicals	8 645	11 526	16 101	16 616	9 745
Thailand					
Sulphate	4 050	11 158	19 035	14 501	...
Chloride	3 878	6 477	6 960	60 703	...
Other potassic fertilisers	34 089	45 334	63 194	10 818	...
Potassic chemicals	3 876	10 674	7 543	9 714	...
Australia					
Sulphate	10 471	6 567	7 524	19 793	...
Chloride	193 283	191 673	263 952	252 356	(e)279 000
Other potassic fertilisers	879	1 155	3 029	2 542	...
Potassic chemicals	12 881	12 402	11 463	...	...
Fiji					
Potassic fertilisers	1 792	3 208	2 692	...	...
New Zealand (d)					
Sulphate	1 611	1 140	617	1 343	1 686
Chloride	209 957	107 319	94 883	64 094	101 877
Other potassic fertilisers	31 899	308	2 776	41 801	325
Potassic chemicals	1 726	1 302	1 277	1 936	23 018

Note(s):

(1) So far as possible the term 'potassic chemicals', as used in this table, relates to items 522.64, 523.3,4,5 and 7 of the S.I.T.C. (Rev.3) and includes caustic potash, carbonate, chlorate, nitrate and sulphate

(a) K₂O 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	1985	1986	1987	1988	1989
Madagascar					
Bastnaesite	9	*10	*10	*10	...
Zaire					
Monazite	—	7	97	168	175
USA					
Bastnaesite (a)	13 428	11 094	16 710	11 533	20 787
Monazite (a)(b)	*450	*450	*450	*450	*450
Brazil					
Monazite	3 953	3 618	4 332	*4 000	*5 000
China (a)	*10 000	11 860	15 100	18 660	*20 000
India					
Monazite (d)	*4 000	*4 000	*4 000	*4 000	*4 000
Malaysia					
Monazite	5 808	5 959	2 908	2 920	2 948
Xenotime	1 124	145	31	47	131
Sri Lanka					
Monazite	*200	17	100	—	—
Thailand					
Monazite	663	1 609	458	590	631
Xenotime	158	28	30	101	35
Australia					
Monazite	18 735	14 822	12 813	10 897	13 000
Xenotime	46	41	5	0	...
World total (c)	74 500	69 300	78 600	73 800	94 700
World total (REO content)	*44 200	*41 400	*47 100	*44 200	*56 700

Note(s):

- (1) With the exception of the data for USA and China, 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) Nominal capacity
 (c) Expressed as grossed up weight of concentrates produced
 (d) Years ended 31 March following that stated

Rare Earths

Exports of Rare Earths

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Cerium compounds	...	337	351	582	607
Other rare earth compounds	...	...	59	86	70
Ferro-cerium & other pyrophoric alloys	13	10	6	121	54
Metals	57	40	64	28	100
France					
Ferro-cerium & other pyrophoric alloys	111	102	124	98	124
Metals	81	59	131	30	1
Germany, Federal Republic of					
Cerium compounds	183	150	201	(d)223	(d)210
Other rare earth compounds	9	13	13	...	...
Ferro-cerium & other pyrophoric alloys	61	78	85	94	131
Metals	34	18	14	6	12
Italy					
Metals	39	14	138	780	...
Austria					
Cerium compounds	...	...	...	576	522
Other rare earth compounds	...	...	...	1 740	1 059
Metals	712	391	351	430	358
Soviet Union					
Rare earth compounds (b)	*900	*1 000	*400	*1 000	*950
Metals (b)	*100	*40	...	*200	*300
South Africa (a)					
Rare earth compounds	£1 400	£4 000	£200	£2 100	£6 200
USA					
Ores & concentrates	7 712	6 140	4 534	7 360	...
Ferro-cerium & other pyrophoric alloys	26	35	82	36	*35
Brazil					
Cerium compounds	0	—	523	780	799
Ferro-cerium & other pyrophoric alloys	182	307	324	260	198
Metals	233	89	103	107	187
China					
Rare earth compounds (b)	*5 200	*4 300	*6 000	*7 400	*6 300
Ferro-cerium & other pyrophoric alloys (b)	*150	*400	*300	*200	*200
Metals (b)	*10	*90	*250	*420	*520
Hong Kong					
Ferro-cerium & other pyrophoric alloys (c)	103	131	140	112	97
Japan					
Cerium compounds	...	...	...	482	903
Other rare earth compounds	...	...	...	322	165
Ferro-cerium & other pyrophoric alloys	30	20	25	...	...
Malaysia					
Ores & concentrates	2 365	738	1 024	173	...
Thailand					
Ores & concentrates	1 350	1 306	428	165	541
Australia					
Ores & concentrates	18 024	14 100	10 491	10 000	20 000

Note(s):

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

(a) Values shown are for the common customs area

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

(c) Re-exports

(d) Including other rare earth compounds

Imports of Rare Earths

Country	1985	1986	1987	1988	1989
United Kingdom					
Cerium compounds	...	222	240	655	355
Other rare earth compounds	...	...	884	215	169
Ferro-cerium & other pyrophoric alloys	29	3	4	111	384
Metals	88	61	57	54	77
Belgium-Luxembourg					
Cerium compounds	75	127	127	92	249
Other rare earth compounds	15	17	12	3	41
Ferro-cerium & other pyrophoric alloys	26	6	8	49	26
Metals	64	54	32	54	45
Denmark					
Ferro-cerium & other pyrophoric alloys	1	12	15	16	9
France					
Cerium compounds	946	962	167	661	356
Other rare earth compounds	2 103	1 366	1 798	3 012	2 599
Ferro-cerium & other pyrophoric alloys	76	118	62	57	37
Metals	235	203	188	228	291
Germany, Federal Republic of					
Cerium compounds	1 036	1 034	1 133	1 246	1 131
Other rare earth compounds	816	710	851	1 611	1 503
Ferro-cerium & other pyrophoric alloys	13	10	17	23	45
Metals	107	113	138	143	117
Italy					
Ferro-cerium & other pyrophoric alloys	10	5	8	29	...
Metals	16	64	67	70	...
Netherlands					
Cerium compounds	2 108	1 215	1 382	351	112
Other rare earth compounds	1 588	1 639	1 389	1 090	2 902
Ferro-cerium & other pyrophoric alloys	21	16	11	25	29
Metals	11	28	14	1	4
Spain					
Rare earth compounds	270	247	272	280	248
Ferro-cerium & other pyrophoric alloys	40	43	47	48	46
Metals	11	43	14	12	17
Austria					
Cerium compounds	...	...	...	1 510	1 531
Other rare earth compounds	...	...	...	179	121
Metals	147	88	2	111	245
Norway					
Rare earth compounds	...	...	...	56	70
Metals	...	...	...	282	257
Switzerland					
Metals	5	1	1	...	3
Yugoslavia					
Ferro-cerium & other pyrophoric alloys	...	...	...	53	31
Metals	...	...	...	66	61
South Africa					
Rare earth compounds (a)	£156 000	£212 000	£83 000	£80 000	£144 000
Canada					
Cerium compounds	...	...	...	201	278
Other rare earth compounds	...	...	...	240	158
USA					
Ores & concentrates	5 694	2 960	1 122	1 924	774
Cerium compounds	7	300	209	695	251
Other rare earth compounds	202	294	313	234	9 295
Ferro-cerium & other pyrophoric alloys	113	94	96	108	84
Metals	237	68	186	198	294
Argentina					
Cerium compounds	27	40	38	65	...
Other rare earth compounds	2	2	3	2	...
Metals	7	2	1	2	...
Brazil					
Cerium compounds	182	156	247	262	...
Other rare earth compounds	20	11	14	14	...

Imports of Rare Earths

tonnes

Country	1985	1986	1987	1988	1989
Hong Kong					
Ferro-cerium & other pyrophoric alloys	143	183	217	178	170
Indonesia					
Rare earth compounds	18	4	58	21	27
Ferro-cerium & other pyrophoric alloys	42	76	22	17	107
Japan					
Cerium compounds	149	411	260	3 089	3 520
Other rare earth compounds	9 829	8 178	8 674	11 466	8 192
Ferro-cerium & other pyrophoric alloys	31	29	52	...	...
Metals	59	132	278	468	337
Korea, Republic of					
Cerium compounds	67	74	158	2 300	621
Other rare earth compounds	217	17	25	249	54
Malaysia					
Ores & concentrates	2 476	385	878	62	143
Singapore					
Ferro-cerium & other pyrophoric alloys	36	87	75	41	...
Taiwan					
Metals	32	62	34	31	2
Thailand					
Ferro-cerium & other pyrophoric alloys	84	92	75	19	...

Note(s):

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

(a) Values shown are for the common customs area

Production of Salt

Salt
tonnes

Country	1985	1986	1987	1988	1989
<i>United Kingdom</i>					
Rock salt	2 030 000	2 040 000	1 855 000	876 845	594 288
Brine salt	1 552 000	1 510 000	1 554 000	1 425 551	...
Salt in brine (a)	3 563 000	3 305 000	3 672 000	3 827 138	...
Denmark (m)	573 939	573 557	536 951	548 085	551 871
<i>France</i>					
Rock salt	1 178 000	976 000	930 000	*950 000	*950 000
Salt in brine	4 167 000	3 963 000	3 663 000	*3 675 000	*3 800 000
Sea salt	1 423 000	1 610 000	1 627 000	1 435 000	1 889 000
<i>Germany, Federal Republic of</i>					
Rock salt	7 512 000	7 462 000	7 256 000	6 251 000	5 611 000
Brine salt	885 000	892 000	913 000	946 000	941 000
Salt in brine	5 055 285	5 193 884	5 395 544	5 379 475	5 386 147
<i>Greece</i>	195 103	160 917	141 548	*190 000	...
<i>Italy</i>					
Rock salt & brine salt	3 175 734	3 432 696	3 494 028	3 609 155	3 500 518
Sea salt	*1 000 000	*1 000 000	1 120 000	970 000	700 000
<i>Netherlands</i>	4 154 000	3 763 000	3 979 000	3 693 000	3 756 000
<i>Portugal</i>					
Rock salt	456 943	466 398	525 055	530 047	583 671
Sea salt	213 826	194 392	177 723	138 784	*150 000
<i>Spain</i>					
Rock salt	2 160 356	2 100 813	2 250 606	2 455 002	*2 300 000
Sea salt	1 027 383	916 055	848 426	1 298 984	*900 000
Other salt	52 010	89 876	95 652	124 126	*100 000
<i>Albania</i>	*70 000	*70 000	*75 000	75 000	88 000
<i>Austria</i>					
Rock salt	1 363	1 569	1 350	1 020	1 361
Salt in brine	230 000	250 000	240 000	*250 000	*240 000
Evaporated salt	437 584	485 513	483 624	412 929	396 485
<i>Bulgaria</i>	*89 000	*91 000	*92 000	*91 000	77 500
<i>Czechoslovakia</i>	349 174	338 240	337 985	350 152	344 201
<i>German Democratic Republic</i>	3 126 700	3 139 000	3 087 200	3 277 800	3 172 300
<i>Poland</i>					
Rock salt	1 198 000	1 221 000	1 231 000	1 247 000	994 000
Other salt	3 667 000	4 198 000	4 944 000	*4 900 000	*3 700 000
<i>Romania</i>	5 019 000	5 355 000	5 395 000	5 353 000	5 038 000
<i>Soviet Union</i>	*16 100 000	*15 300 000	*15 400 000	*14 800 000	*14 800 000
<i>Switzerland</i>					
Evaporated salt	31 792	29 862	...	...	...
Other salt	300 254	318 111	(1)330 735	(1)264 709	(1)198 608
<i>Turkey</i>	1 189 421	1 171 824	1 217 747	1 384 194	1 383 886
<i>Yugoslavia</i>					
Rock salt	149 151	234 685	153 067	126 650	133 597
Sea salt	67 897	69 842	67 672	58 286	50 376
Other salt	193 194	199 760	282 650	200 276	184 461
<i>Algeria</i>					
Brine salt & sea salt	171 000	190 500	232 900	232 000	228 400
<i>Angola</i>	6 000	*10 000	*10 000	*10 000	*10 000
<i>Cape Verde Islands</i>	6 163	4 855	...	...	...
<i>Egypt</i>	922 707	863 794	1 054 760	922 308	805 840
<i>Ethiopia (d)</i>	213 414	227 799	167 745	*135 000	...
<i>Ghana</i>	*50 000	*50 000	*50 000	*50 000	*50 000
<i>Kenya</i>	34 348	71 912	72 269	94 682	103 220
<i>Libya</i>	*12 000	*12 000	*12 000	*12 000	*12 000
<i>Madagascar</i>	40 199	54 721	42 339	52 658	57 508
<i>Mali</i>	*4 500	*4 500	*4 500	*4 500	*4 500
<i>Mauritania</i>	*5 400	*5 400	*5 400	*5 400	*5 400
<i>Mauritius (c)</i>	6 000	7 000	7 500	7 000	7 000
<i>Morocco</i>	105 023	118 814	130 946	139 212	117 600
<i>Mozambique</i>	*28 000	*28 000	*28 000	*28 000	*28 000
<i>Namibia</i>	153 447	134 644	130 041	149 317	142 102
<i>Senegal</i>	143 000	145 000	34 100	26 800	161 300
<i>Somalia</i>	*30 000	*30 000	*30 000	*30 000	*30 000
<i>South Africa</i>	722 482	752 440	705 531	678 225	692 391
<i>Sudan</i>	65 000	190 000	83 939	91 000	...

Salt

Production of Salt

tonnes

Country	1985	1986	1987	1988	1989
Tanzania	21 108	21 868	41 124	30 100	21 300
Tunisia (c)	405 000	450 000	425 000	450 000	480 000
Bahamas (k)	1 224 632	1 057 542	1 164 088	1 236 012	1 008 483
Canada					
Rock salt	6 608 739	6 867 287	6 670 863	7 126 762	7 804 537
Other salt (e)	3 475 958	3 464 559	3 458 190	3 560 418	3 545 286
Costa Rica	29 484	*30 000	12 650	...	...
Cuba	220 900	266 000	230 500	200 800	206 100
Dominican Republic	47 159	54 000	54 000	17 021	...
El Salvador (c)	35 548	43 563	36 188	32 591	30 238
Guatemala (c)	34 500	39 100	46 000	41 400	63 100
Honduras	*30 000	*30 000	*30 000	*30 000	*30 000
Mexico	6 467 140	6 205 031	6 198 833	6 965 173	7 652 000
Netherlands Antilles (k)	238 559	257 503	305 877	236 717	149 854
Nicaragua (c)	*15 000	*15 000	*15 000	*15 000	*15 000
Panama (c)	16 101	8 872	17 074	22 797	17 992
USA (f)					
Rock salt	13 327 000	11 429 000	10 854 000	11 703 000	...
Salt in brine	17 334 000	16 257 000	16 442 000	17 782 000	(l)*35 500 000
Evaporated salt	5 688 000	5 575 000	5 809 000	5 841 000	...
Argentina	1 447 495	1 218 183	950 478	1 245 709	1 185 458
Brazil					
Rock salt	994 873	954 062	951 645	1 336 000	1 298 000
Sea salt	1 734 390	1 600 359	3 600 000	3 020 000	2 355 000
Chile	753 427	1 032 373	865 168	1 043 397	903 932
Colombia					
Rock salt	234 377	226 828	204 665	209 099	190 380
Sea salt	346 276	344 122	450 404	473 482	469 875
Peru	204 992	399 387	444 894	*400 000	...
Venezuela (c)	338 889	511 421	*500 000	*365 000	439 400
Afghanistan (g)	*10 000	*10 000	*10 000	*10 000	*10 000
Bangladesh (j)	489 000	746 000	416 000	409 000	...
Cambodia	*40 000	*40 000	*40 000	*40 000	*40 000
China	14 790 000	17 610 000	17 640 000	22 640 000	28 290 000
Cyprus	10 013	6 051	—	—	—
India					
Rock salt	3 941	1 664	970	4 357	2 640
Sea salt	9 875 000	10 116 000	11 000 000	11 200 000	*11 000 000
Indonesia	*600 000	*600 000	*600 000	*600 000	*600 000
Iran (g)	703 000	*700 000	*700 000	814 842	...
Iraq	*70 000	*70 000	*70 000	*70 000	*70 000
Israel	*150 000	294 800	302 700	386 300	495 900
Japan (i)	*1 200 000	1 370 000	1 397 000	1 363 000	1 366 684
Jordan (b)	32 192	33 746	18 000	38 000	57 000
Korea, Dem. P.R. of	*570 000	*570 000	*570 000	*570 000	*570 000
Korea, Republic of	643 000	729 000	664 000	1 020 000	830 000
Kuwait	21 000	26 166	35 279	31 753	...
Laos	*10 000	*30 000	*30 000	*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
Myanmar (b)(c)(h)	321 000	245 930	256 680	245 930	261 640
Nepal (n)	7 500	7 000	2 000	6 000	7 200
Pakistan					
Rock salt	584 306	544 815	515 782	509 000	721 053
Sea salt	268 914	242 274	302 486	207 200	...
Philippines	421 058	442 111	466 427	492 080	479 599
Sri Lanka	75 919	104 278	115 274	101 590	150 223
Syria	106 000	*87 000	81 000	*90 000	137 950
Taiwan	173 898	136 078	99 943	111 341	169 982
Thailand					
Rock salt	12 786	2 000	3 268	5 670	15 384
Other salt	*165 000	*165 000	*165 000	*165 000	*165 000

Production of Salt

Salt
tonnes

Country	1985	1986	1987	1988	1989
Vietnam	379 000	450 000	*230 000	*300 000	...
Yemen Arab Republic	*150 000	300 000	163 000	150 000	...
Yemen, People's Dem. Rep. of	66 900	40 300	55 500	*60 000	...
Australia	5 835 364	6 130 300	6 336 000	6 976 000	7 069 000
New Zealand	51 500	—	*65 000	*65 000	...
World total	174 400 000	175 300 000	178 300 000	185 900 000	189 000 000

Note(s):

- (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
 - (m) Sales
 - (n) Years ended 15 July of that stated

Exports of Salt

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom	402 946	368 717	404 587	293 028	285 296
Belgium-Luxembourg	205 256	164 861	83 597	77 614	80 847
Denmark	237 286	272 420	240 652	301 736	311 931
France	788 763	747 002	600 747	514 074	529 287
Germany, Federal Republic of	2 359 839	2 290 731	2 146 283	2 061 264	2 001 650
Irish Republic	973	1 556	1 234	754	1 595
Italy	428 591	619 198	613 394	358 371	81 885
Netherlands	2 863 178	2 684 831	2 658 571	2 776 934	2 815 205
Portugal	11 038	5 559	35 383	19 894	22 134
Spain	893 928	510 839	435 014	297 257	291 031
Austria	1 506	1 621	2 727	—	—
German Democratic Republic	1 604 000	1 721 000	1 653 000	1 826 000	1 772 000
Norway	2 413	2 487	1 798	1 427	2 505
Poland	380 110	327 246	364 239	424 837	327 811
Romania (a)	*850 800	*872 300	*842 000	*793 100	*727 000
Soviet Union	398 970	418 057	451 609	344 909	299 156
Sweden	2 063	1 835	1 681	1 793	1 878
Turkey	16 343	20 857	17 386	20 312	4 368
Algeria	265	13 938	4 942	...	...
Cape Verde Islands	2 140	5 000	—	...	...
Egypt	9 551	13 013	180 276	...	...
Ethiopia	33 600	...	8 819	79	...
Ivory Coast	1 936	5 430	...	151	...
Kenya	32	16 042	20 974	48 239	...
Madagascar	11 150	9 116	8 289	...	12 548
Morocco	26 450	28 400	60 905	17 050	...
Namibia	110 956	113 348	118 604	133 894	148 735
Senegal	137 676	116 478	61 628	85 148	108 477
South Africa	91 639	90 184	81 715	79 404	76 748
Tanzania	2 480	4 025	2 164	7 140	...
Tunisia	314 566	359 568	340 702	295 682	483 450
Bahamas	1 224 632	1 057 542	1 164 088	1 236 012	1 008 483
Canada	2 289 275	2 552 532	1 960 130	3 038 462	2 137 512
El Salvador	7 536	3 680	...	...	...
Jamaica	1 925	1 669	2 347	3 377	3 369
Mexico	4 561 576	4 440 481	4 994 844	5 098 127	5 526 429
Netherlands Antilles	238 559	257 503	305 877	236 717	149 854
USA	834 036	1 065 696	501 311	855 718	1 429 638
Argentina	7 718	12 738	130 608	24 340	198 543
Brazil	144 580	37 809	27 416	24 018	13 069
Chile	517 117	921 244	826 387	654 577	699 674
Colombia	300	61 479	...	23 100	...
China	1 070 000	1 170 000	1 069 088	382 177	370 634
Hong Kong (c)	1 039	947	614	1 756	4 745
India (b)	324 880	242 512	187 692	494 418	...
Israel (a)	*19 600	*9 700	*33 100	*9 000	*16 700
Japan	1 414	1 182	717	656	1 036
Jordan	222	187	305	—	18 313
Korea, Republic of	6 412	11 689	49 967	14 467	24 157
Malaysia	604	6 482	1 245	1 233	...
Pakistan (d)	8 519	17 270	16 495	32 127	...
Saudi Arabia	6 433	12 298	6 507	12 189	11 653

Exports of Salt

Salt
tonnes

Country	1985	1986	1987	1988	1989
Singapore	13 817	9 216	9 663	13 707	18 170
of which: Re-exports	12 995	7 565	8 961	12 442	17 252
Sri Lanka	1 000	2 000	0	0	...
Taiwan	1 472	1 950	3 418	4 800	6 834
Thailand	61 548	54 489	60 579	41 139	...
Yemen, People's Dem. Rep. of	30 000	26 565	17 000	...	...
Australia	5 165 672	5 213 037	*5 500 000	6 088 000	6 196 000
New Zealand (d)	2 490	2 760	3 891	3 444	1 897

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

(b) Years ended 31 March following that stated

(c) Re-exports

(d) Years ended 30 June of that stated

Salt

Imports of Salt

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom	333 373	357 128	222 668	162 057	140 042
Belgium-Luxembourg	1 346 543	1 341 250	1 295 472	1 061 158	1 110 538
Denmark	274 092	298 748	297 250	171 772	132 127
France	151 575	154 332	169 382	181 248	169 210
Germany, Federal Republic of	826 942	782 790	867 951	872 680	745 482
Greece	48 873	68 322	133 334	40 636	74 179
Irish Republic	102 967	107 907	105 570	94 940	107 767
Italy	943 874	934 150	882 193	707 861	646 571
Netherlands	412 093	336 495	285 188	247 647	220 405
Portugal	8 025	31 272	33 520	117 078	95 018
Spain	324	4 703	12 128	7 882	77 430
Austria	134	212	643	179	171
Bulgaria	239 462	237 618	...	...	...
Czechoslovakia (a)	*140 000	*150 300	*148 700	*139 000	*140 600
Faeroe Islands	30 821	34 590	17 983	38 648	27 875
Finland	598 805	526 692	586 315	645 815	710 140
Greenland	4 678	3 331	3 921	3 590	4 958
Hungary	672 310	735 959	696 629	664 982	581 791
Iceland	71 526	83 191	103 353	67 924	130 608
Malta	£81 600	£188 600	£58 100	£139 000	£81 500
Norway	561 315	555 602	596 368	470 547	491 912
Sweden	1 261 550	1 281 459	1 157 390	1 342 487	1 098 909
Switzerland	1 932	2 225	3 282	4 082	3 027
Turkey	122	255	428	12 126	9 265
Yugoslavia	320 812	290 413	329 638	255 485	268 769
Algeria	953	105	282	...	...
Botswana	6 092	7 726	...	...	...
Burkina Faso	...	24 154	21 629	...	...
Burundi	9 930	19 166	17 892	6 209	...
Cameroon	28	13 215	41 262	...	...
Central African Republic	5 100	...	...	...	...
Congo	5 495	4 645	3 779	5 028	3 763
Egypt	1 037	623	812	...	...
Gabon	5 029	4 571	...	...	...
Ivory Coast	42 950	41 509	...	34 042	...
Kenya	254	321	549	98	...
Liberia	3 157	3 320	3 615	...	...
Mauritius	391	5 385	622	972	1 028
Niger	27 187	26 001	...	...	...
Nigeria	3 117 989	226 669	453 959	...	...
Reunion	2 224	3 495	2 030	3 093	...
Rwanda	13 981	29 845	10 037	10 892	...
Seychelles	196	318	386	575	459
Sierra Leone	626	733	...	...	...
South Africa	84 479	93 692	91 321	88 177	*164 000
Tanzania	—	751	10 834	2 623	...
Togo	123	...	1 988	4 776	9 999
Zaire	58 567	61 094	40 048	37 965	...
Zambia	76 858	944	764	12 409	...
Zimbabwe	53 133	51 190	48 329	...	...
Bahamas	3 480	2 658	1 648	2 063	4 287
Barbados	2 472	1 977	1 954	2 141	...
Belize	566	552	462	621	621
Canada	1 255 519	1 328 235	1 112 100	1 275 663	2 360 908
Dominica	429	534	659	577	639
Grenada	391	507	485	...	...
Guadeloupe	2 451	2 294	2 410	2 527	2 309
Guatemala	11 732	26 195	...	2 315	...
Jamaica	25 058	20 541	23 667	18 225	22 231
Martinique	2 373	2 532	2 380	2 376	2 290
Mexico	647	737	583	1 062	...
Netherlands Antilles	1 620	923	1 493	672	*500
Panama	1 037	704	554	193	278
St. Lucia	830	740	797	777	...
Trinidad & Tobago	15 351	22 630	23 453	...	...
USA	5 630 974	6 046 735	7 165 810	4 950 341	5 519 290

Imports of Salt

Salt
tonnes

Country	1985	1986	1987	1988	1989
Brazil	222 568	783 343	1 231 509	47 743	...
Chile	2 088	3 256	...	...	...
French Guiana	504	379	429	503	444
Paraguay	11 475	3 898	2 011	1 777	395
Peru	345	363	442	297	184
Suriname	4 343	2 631	1 710	3 963	2 341
Uruguay	52 036	76 801	63 841	72 292	...
Abu Dhabi	3 438	6 801	2 308	2 016	...
Bahrain	2 330	2 143	1 887	2 802	...
Bangladesh (b)	209 281	399 272	165 960	219 990	...
Brunei	1 802	6 017	1 511	...	...
Cyprus	847	1 287	5 351	...	...
Dubai	8 448	14 751	...	...	...
Hong Kong	106 599	130 537	129 938	131 362	156 456
India (c)	37 704	13 533	11 081	10 645	...
Indonesia	26 830	60 886	85 463	757	175 767
Japan	6 832 551	6 614 250	6 830 128	7 229 250	7 703 070
Jordan	1 442	620	742	331	697
Korea, Dem. P.R. of (a)	*111 200	*100 300	*224 700	*119 300	*60 000
Korea, Republic of	800 109	872 771	1 102 538	1 053 486	1 038 719
Kuwait	...	12 123	...	...	...
Macao	2 081	2 276	2 273	2 135	3 265
Malaysia	146 470	152 962	175 315	210 759	230 224
Oman	10 259	7 907	...	...	...
Philippines	71 131	88 918	93 052	52 620	208 540
Qatar	3 867	4 108	3 135	...	3 384
Saudi Arabia	16 209	14 038	10 694	24 868	15 733
Singapore	36 102	36 700	47 136	66 068	67 459
Taiwan	805 115	859 515	596 704	781 925	851 667
Thailand	846	937	1 160	846	...
Australia	5 710	6 895	7 971	7 243	6 633
Fiji	2 769	3 485	3 497	...	...
New Caledonia	624	741	625	649	846
New Zealand (b)	98 669	49 898	94 298	69 877	67 550
Solomon Islands	1 071	1 490	1 475	1 070	...
Vanuatu	352	373	310	362	...

(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	1985	1986	1987	1988	1989
France					
Andalusite	56 600	50 900	50 000	50 000	50 000
Spain					
Andalusite	2 800	3 304	3 916	*4 000	*4 000
Czechoslovakia	*75 000	*75 000	*75 000	*75 000	*75 000
Romania	*70 000	*70 000	*70 000	*70 000	*70 000
Soviet Union					
Kyanite (a)	*100 000	*100 000	*100 000	*100 000	*100 000
Sweden					
Kyanite	2 200	*5 000	*5 000	*5 000	6 000
South Africa					
Andalusite	194 693	181 624	218 560	259 556	284 048
Sillimanite	1 337	1 330	1 243	781	170
Zimbabwe					
Kyanite	1 676	1 851	1 834	1 795	1 869
USA					
Kyanite (b)	*100 000	*90 000	*90 000	*90 000	*100 000
Brazil					
Kyanite (d)	2 350	950	510	*1 000	*1 000
China	*2 500	*2 500	*2 500	*2 500	*2 500
India					
Andalusite	500	732	482	—	—
Kyanite	30 574	32 394	37 382	35 773	39 489
Sillimanite	17 123	14 674	14 336	15 377	16 117
Australia					
Kyanite	818	768	1 079	*500	*500
Sillimanite (c)	650	133	77	64	*70
World total	659 000	631 000	672 000	711 000	751 000

Note(s):

(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

Country	1985	1986	1987	1988	1989
United Kingdom					
Sillimanite minerals	5 172	4 631	4 362	5 618	6 274
Belgium-Luxembourg					
Sillimanite minerals	21	38	44	—	250
Denmark					
Sillimanite minerals	13	72	23	49	11
France					
Sillimanite minerals					
Crude	93	8	9	...	...
Other	86	107	20	(a)46 525	(a)49 764
Germany, Federal Republic of					
Sillimanite minerals					
Crude	716	533	2 015	...	...
Calcined	7 297	6 938	4 884	(a)6 374	(a)10 929
Italy					
Sillimanite minerals	—	1 021	1 431	1 337	...
Netherlands					
Sillimanite minerals					
Crude	1 901	2 099	1 815	...	...
Other	263	432	1 371	(a)927	(a)1 011
Austria					
Sillimanite minerals	15 122	22 374	20 735	1	10
Czechoslovakia					
Sillimanite minerals (b)	*16 400	*18 500	*16 800	...	...
German Democratic Republic					
Sillimanite minerals (b)	*1 400	*1 000	*900	...	...
South Africa					
Andalusite	142 143	113 514	139 426	147 046	160 084
Sillimanite	1 467	748	979	935	181
USA					
Kyanite & related minerals	(b)*73 900	(b)*58 800	(b)*61 200	(b)*95 100	29 950
Brazil					
Kyanite	381	241	228	82	39
Japan					
Sillimanite minerals	(d)11 946	(d)12 473	(d)10 362	5 207	4 925
Macao					
Sillimanite minerals	14 577	20 806	27 102	12 000	1 260
New Zealand (c)					
Sillimanite minerals	14 039	14 259	18 118	9 930	—

Note(s):

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

(a) Including crude

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

(c) Years ended 30 June of that stated

(d) Including chamotte and dinas earth

Sillimanite

Imports of Sillimanite Minerals

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Sillimanite minerals	49 452	44 609	48 717	52 694	87 871
Belgium-Luxembourg					
Sillimanite minerals					
Crude	1 220	537	1 320	...	...
Other	1 274	813	3 217	(b)3 487	(b)7 414
Denmark					
Sillimanite minerals	641	661	1 129	1 162	2 737
France					
Sillimanite minerals					
Crude	2 264	2 604	2 528	...	...
Other	1 187	2 114	3 207	(b)5 331	(b)7 105
Germany, Federal Republic of					
Sillimanite minerals					
Crude	39 360	35 641	30 583	...	...
Calcined	70 813	44 734	49 971	(b)131 409	(b)132 840
Greece					
Sillimanite minerals	201	1 874	811	2	...
Italy					
Sillimanite minerals					
Crude	31 245	16 242	13 509	...	...
Other	9 914	6 512	7 799	(b)25 956	...
Netherlands					
Sillimanite minerals					
Crude	8 659	7 509	3 980	...	...
Other	3 159	2 367	1 037	(b)5 636	(b)8 485
Spain					
Sillimanite minerals	3 327	5 282	5 502	8 819	12 666
Austria					
Sillimanite minerals	85 497	81 258	76 969	2 213	3 338
Norway					
Sillimanite minerals (a)	689	1 763	322	377	437
Yugoslavia					
Sillimanite minerals	...	...	...	7 248	4 400
Canada					
Sillimanite minerals	...	...	...	7 222	6 664
Mexico					
Mullite	1 905	1 284	1 524	2 055	...
Argentina					
Sillimanite minerals	18	152	131	191	...
Japan					
Sillimanite minerals	28 413	28 653	26 609	35 298	37 583
Mullite	(a)17 981	(a)20 146	(a)20 195	762	2 000
Korea, Republic of					
Sillimanite minerals	3 166	3 141	5 582	4 830	11 713
Mullite	4 206	6 300	7 172	4 710	5 157
Australia					
Sillimanite minerals & dinas earth	4 677	3 912	6 286	6 490	...

Note(s):

(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

(b) Including crude

Silver

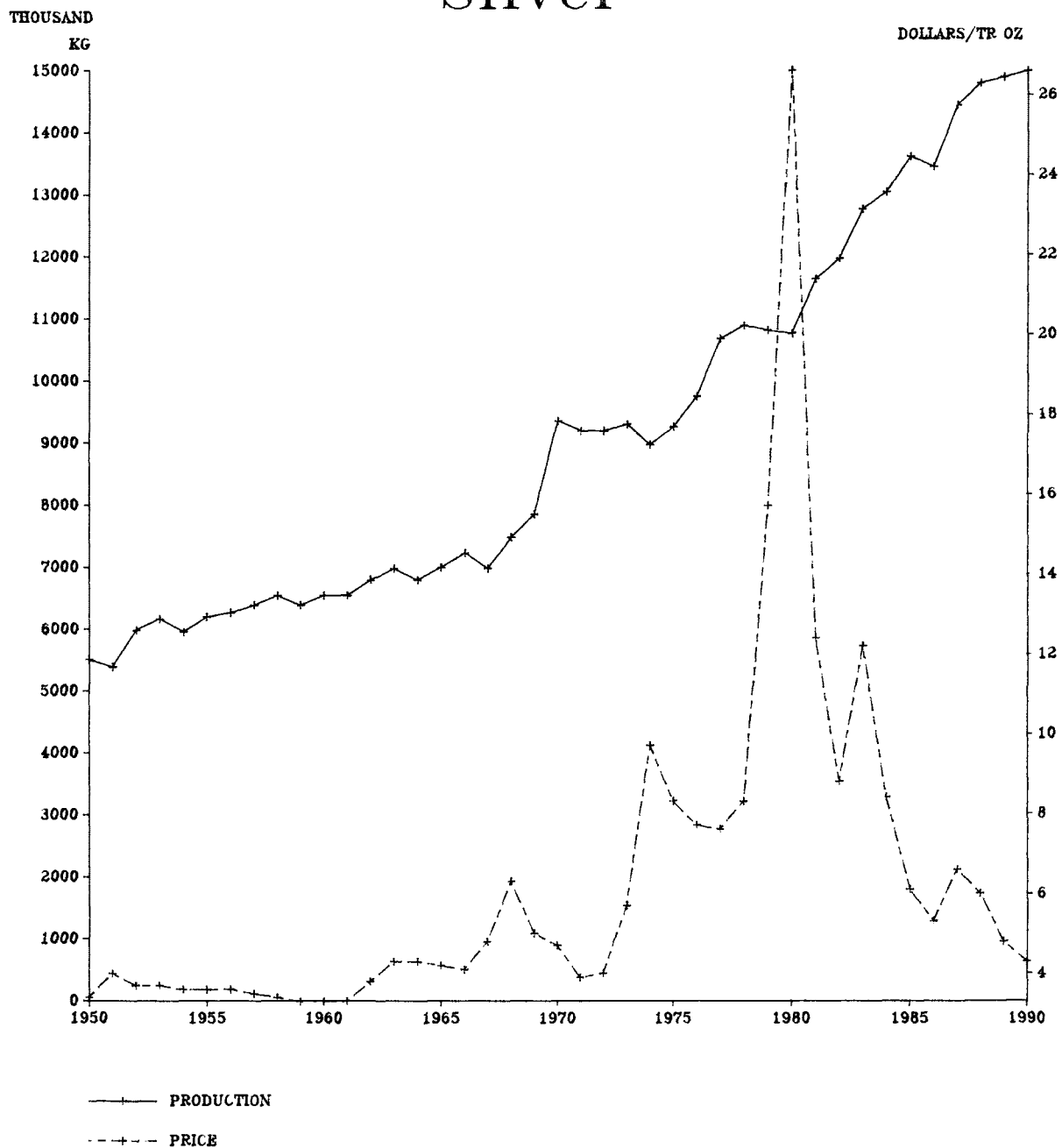


Figure 19 World mine production of silver compared with the yearly average London spot price as reported by *Metal Bulletin* expressed in constant 1985 US dollars.

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

Mine Production of Silver

kilograms (metal content)

Country	1985	1986	1987	1988	1989
United Kingdom	1 720	1 773	2 031	2 113	1 689
France	26 413	25 884	20 724	22 200	21 950
Germany, Federal Republic of	34 300	27 500	30 900	*20 000	*8 500
Greece	50 700	53 700	51 900	61 300	61 200
Irish Republic	8 600	8 150	7 200	5 500	7 200
Italy (a)	71 572	56 338	83 531	91 562	97 000
Portugal	624	714	887	877	815
Spain	366 939	342 389	522 208	*530 000	*530 000
Bulgaria	26 000	26 000	26 000	24 500	20 000
Czechoslovakia	*32 000	*33 000	*34 000	*25 000	*20 000
Finland	48 704	28 966	33 216	28 428	31 220
German Democratic Republic	61 000	*60 000	*60 000	*60 000	*60 000
Greenland	10 400	11 100	13 200	14 300	14 700
Hungary	*500	—	—	—	—
Poland	831 000	829 000	831 000	1 063 000	1 003 000
Romania	*25 000	*23 000	*20 000	*23 000	*25 000
Soviet Union	*1 620 000	*1 600 000	*1 550 000	*1 580 000	*1 500 000
Sweden	231 483	262 708	254 107	207 804	227 715
Turkey	16 800	8 900	8 800	*16 000	21 700
Yugoslavia (a)	156 451	177 446	151 129	138 957	133 018
Algeria	*3 700	*3 700	*3 700	*3 000	*3 000
Ghana	*435	*435	*435	*100	1 100
Morocco	108 000	89 000	162 000	221 000	194 800
Namibia	98 000	106 000	95 000	108 000	108 000
South Africa	209 367	223 590	210 366	201 215	181 698
Tunisia	804	809	700	—	—
Zaire	42 772	34 328	36 767	45 000	46 600
Zambia	18 873	26 780	29 879	29 333	19 802
Zimbabwe	24 851	26 126	25 348	21 896	22 332
Canada	(c)1 197 072	(c)1 087 989	1 452 000	1 484 000	1 371 000
Dominican Republic	49 184	42 185	33 995	44 153	21 786
Honduras	85 936	41 061	23 388	49 483	37 176
Mexico	2 152 959	2 303 142	2 414 954	2 358 907	2 306 091
Nicaragua	923	*800	888	571	1 124
USA	1 226 531	1 073 838	1 240 950	1 661 000	2 007 000
Argentina	67 500	66 371	59 665	79 415	83 436
Bolivia	111 352	95 107	141 772	231 766	267 305
Brazil	55 263	59 514	61 095	89 742	64 000
Chile	517 333	500 077	499 761	506 501	545 412
Colombia	4 768	5 822	5 198	6 562	6 847
Peru (b)	1 915 002	1 925 798	2 054 463	1 551 600	1 839 900
China	*100 000	*105 000	*125 000	*145 000	*165 000
India	25 587	35 266	37 943	40 958	35 499
Indonesia	38 327	46 596	50 485	61 538	65 470
Iran	*20 000	*25 000	*28 000	*25 000	*25 000
Japan	339 485	351 270	281 020	251 971	155 792
Korea, Dem. P.R. of	*270 000	*295 000	*300 000	*310 000	*300 000
Korea, Republic of	68 926	142 700	71 026	48 865	53 428
Malaysia	16 249	14 066	15 776	10 775	12 877
Myanmar	17 700	13 375	9 331	6 843	8 398
Oman	1 900	1 600	1 600	1 900	2 670
Philippines	52 416	51 532	53 452	54 634	47 998
Taiwan	11 386	12 613	9 856	8 388	6 491
Australia	1 085 933	1 022 761	1 119 300	1 134 332	1 075 000
Fiji	442	785	815	988	1 055
New Zealand	...	...	...	1 845	4 837
Papua New Guinea	51 967	57 515	62 871	70 423	93 671
World total	13 611 000	13 464 000	14 421 000	14 781 000	14 966 000

Note(s):

(1) In addition to the countries listed, Saudi Arabia is also believed to produce silver

(a) Smelter and/or refinery production

(b) Recoverable

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

Silver

Exports of Silver

kilograms

Country	1985	1986	1987	1988	1989
United Kingdom					
Metal	563 779	2 006 669	1 512 544	1 020 309	1 443 948
Waste & scrap	574 675	248 999	218 293	...	...
Belgium-Luxembourg					
Metal	1 172 995	1 295 591	952 194	1 000 838	1 298 145
Denmark					
Metal	45 567	48 701	38 537	54 463	38 716
of which: Re-exports	42 889	47 808	37 051	46 748	33 222
France					
Metal	454 838	558 913	568 832	532 610	613 769
Waste & scrap	329 373	143 873	145 969	137 952	279 853
Germany, Federal Republic of					
Metal	1 485 977	1 543 337	1 504 420	1 481 780	2 071 003
Waste & scrap	406 956	1 176 662	1 271 124	...	...
Greece					
Metal	40 636	142 259	57 309	...	1 000
Italy					
Metal	168 100	141 173	28 300	54 387	148 100
Netherlands					
Metal	133 149	152 419	93 457	113 272	101 100
Portugal					
Metal	40	9	118	2 500	300
Spain					
Metal	151 586	63 799	181 503	164 560	160 601
Austria					
Metal	53 566	42 090	238 663	171 174	38 888
Waste & scrap	333	437	17	...	...
Finland					
Metal	37 000	37 000	43 000	31 000	31 000
German Democratic Republic					
Metal (d)	*290 900	*452 500	*217 100	*133 800	*263 600
Norway					
Metal	28 872	37 336	32 355	27 116	33 225
Poland					
Metal	549 000	404 000	619 000	691 000	672 000
Sweden					
Metal	197 000	283 000	319 000	301 000	317 000
Switzerland					
Metal	543 835	687 604	767 286	779 761	879 115
Yugoslavia					
Metal	92 000	220 000	71 000	79 000	77 000
Waste & scrap	1 000	—	—	—	—
Morocco					
Metal	86 407	91 079	146 374	158 154	...
Namibia					
Metal	101 000	97 000	103 000	105 000	111 000
South Africa					
Metal	217 935	228 010	189 273	190 712	170 783
Canada					
Ores & concentrates (b)	338 833	373 312	488 617	...	...
Metal	1 343 251	1 317 350	556 967	1 140 548	1 025 355
Dominican Republic					
Metal	49 184	42 185	33 995	44 153	21 786
Honduras					
Concentrates (b)	65 568	70 140	35 645	...	...
Mexico					
Metal	1 484 243	1 729 233	1 595 000	1 565 233	1 905 000
USA					
Ores & concentrates (b)	8 394	8 846	472	25 450	607
Metal	493 402	464 535	512 104	588 436	708 179
Waste & scrap	355 697	401 822	425 425	498 085	782 099
Bolivia					
Ores & concentrates	*198 600	1 525 209	766 687	*1 015 000	*1 410 000
Chile					
Metal	309 738	336 669	335 300	336 390	358 080
Colombia					
Metal	2 225	1 595	...	...	...

Exports of Silver

Silver
kilograms

Country	1985	1986	1987	1988	1989
Peru					
Metal	696 700	606 500	428 678	282 084	534 100
Venezuela					
Metal	108 974	114 952	9 362	...	...
China					
Metal	(d)*70 700	(d)*47 400	21 490	3 420	2 450
Hong Kong					
Metal	18 999	39 938	35 720	45 332	42 361
of which: Re-exports	15 260	36 514	33 930	43 682	42 150
Waste & scrap	408 507	140 628	224 511	154 151	37 568
of which: Re-exports	281	2 386	642	117 678	30 128
Japan					
Metal	93 413	63 158	71 148	91 303	582 431
Waste & scrap	0	1 000	2 000	22 000	59 000
Korea, Dem. P.R. of					
Metal (d)	*44 800	*49 100	*66 200	*100 300	*14 900
Korea, Republic of					
Ores & concentrates	—	—	—	—	81 000
Metal	42 180	31 233	142 752	81 472	85 883
Malaysia					
Metal	3 732	...	4 630	816	...
Myanmar (c)					
Metal	8 180	14 992	11 115	...	...
Philippines					
Metal	15 476	22 023	4 903	32 566	30 732
Singapore					
Metal	1 852	3 771	8 155	76 105	122 372
of which: Re-exports	784	3 771	8 155	76 105	122 372
Taiwan					
Metal	950	1 244	544	17 513	32 036
Waste & scrap	—	2 085	90 182	20 750	...
Australia					
Silver-lead bullion	360 551	435 312	436 396	499 063	379 000
Silver in all ores, concentrates etc.	248 051	330 580	297 007	387 263	220 000
Metal	167 463	191 756	177 500	33 689	24 000
Fiji					
Metal	460	759	745	...	...
New Zealand (a)					
Metal	1 046	1 241	1 129	1 801	9 001
Papua New Guinea					
Metal	51 967	57 515	62 871	70 423	93 671

Note(s):

- (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) Years ended 30 June of that stated

(b) Ag content

(c) Years ended 31 March following that stated

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

Silver

Imports of Silver

kilograms

Country	1985	1986	1987	1988	1989
United Kingdom					
Metal	1 304 497	1 767 806	1 327 114	1 251 280	920 008
Waste & scrap	643 500	393 173	332 705	...	...
Belgium-Luxembourg					
Metal	1 468 886	1 367 762	1 250 291	909 309	933 163
Denmark					
Metal	113 278	113 410	96 760	111 733	79 130
France					
Metal	518 581	605 591	549 185	699 415	734 708
Waste & scrap	19 742	77 459	92 650	50 804	193 028
Germany, Federal Republic of					
Metal	1 102 366	1 316 429	1 366 252	1 381 466	2 075 274
Waste & scrap	1 428 206	1 143 682	4 003 601	...	...
Greece					
Metal	25 961	55 261	41 890	37 538	91 000
Italy					
Metal	275 000	579 720	806 700	652 254	635 900
Netherlands					
Metal	117 298	157 854	126 606	136 982	121 373
Portugal					
Metal	56 475	70 241	78 763	85 700	98 300
Spain					
Metal	22 638	234 687	223 990	299 859	515 588
Austria					
Metal	184 899	116 877	197 399	175 794	164 580
Bulgaria					
Metal (f)	*2 100	*2 300	*2 500	*6 400	*5 700
Czechoslovakia					
Metal (f)	*15 900	*1 900	*9 900	*21 400	*10 900
Finland					
Metal	86 000	69 000	104 000	114 000	185 000
German Democratic Republic					
Metal (f)	*483 200	*579 300	*288 000	*263 200	*250 000
Iceland					
Metal	715	383	900	500	600
Malta					
Metal	831	1 606	824	1 116	993
Norway					
Metal	61 513	73 057	59 165	54 994	49 368
Sweden					
Metal	167 000	173 000	160 000	175 000	192 000
Switzerland					
Metal	903 449	1 748 798	1 646 764	1 211 052	1 879 370
Turkey					
Metal (b)	6 142	6 130	15 359	10 155	...
Yugoslavia					
Metal	32 000	19 000	17 000	14 000	10 000
Algeria					
Metal	4 041	6 887	13 398	...	...
Egypt					
Metal	783	734	...	...	...
Gabon					
Metal	505	37	...	...	...
Ivory Coast					
Metal	2 930	2 819	...	612	...
Madagascar					
Metal	443	121	176	...	117
Morocco					
Metal	876	691	1 000	1 270	...
Mozambique					
Metal	31	25 283	—	...	...
Senegal					
Metal	107	179	52	...	169
South Africa					
Metal	10 152	81 098	23 058	23 254	23 074
Tunisia					
Metal	1 354	1 343	448	1 966	3 349

Imports of Silver

Country	1985	1986	1987	1988	1989
Canada					
Metal	575 878	165 027	140 970	115 100	231 801
Costa Rica					
Metal	856	1 629	2 022	299	1 049
Jamaica					
Metal	952	965	1 065	827	299
Panama					
Metal	10 290	1 462	817	818	788
Trinidad & Tobago					
Metal	391	...	461	...	798
USA					
Ores & concentrates (c)	362 129	347 770	413 730	510 356	...
Metal	4 661 357	4 337 942	2 399 649	2 539 335	3 223 002
Waste & scrap	117 389	91 881	129 164	173 674	90 753
Argentina					
Metal	13 392	15 181	16 251	...	...
Brazil					
Metal	124 973	167 725	179 641	157 461	...
Chile					
Metal	(f)*600	1 255	1 159	2 019	(f)*2 400
Colombia					
Metal	898	8 256	...	...	...
Ecuador					
Metal	340	1 100	4 000	...	...
Peru					
Metal	400	168	114	218	...
Venezuela					
Metal	27 571	49 789	39 429	...	...
Abu Dhabi					
Metal	1 072	125	20	1 621	...
Brunei					
Metal	493	1 118	—	...	...
China					
Metal	(f)*10 500	(f)*557 500	17 852	27 136	21 304
Cyprus					
Metal	6 957	8 570	8 585	...	...
Dubai					
Metal	3 015	89 062	...	...	...
Hong Kong					
Metal	43 118	56 477	59 655	82 787	171 607
Waste & scrap	440	1 186	3 441	5 147	1 342
India (a)					
Metal	719	106	3 486	4 216	...
Indonesia					
Metal	27	108	60	235	1 000
Iran (d)					
Metal	17 975	6 185	6 152	10 669	...
Israel					
Metal (f)	*14 500	*25 500	*28 800	*27 200	*30 900
Japan					
Ores & concentrates	68 000	1 907 000	4 032 000	7 207 000	9 142 000
Metal	570 787	481 716	657 190	1 014 731	1 265 202
Waste & scrap	701	819	1 320	20 798	37 732
Jordan					
Metal	271	535	—	258	283
Korea, Republic of					
Metal	14 713	11 537	11 276	66 760	129 056
Malaysia					
Metal	52 878	45 609	78 718	136 598	123 519
Philippines					
Metal	38	15	7	227	471
Saudi Arabia					
Metal	12 790	—	—	2 155	6 007

Silver

Imports of Silver

kilograms

Country	1985	1986	1987	1988	1989
Singapore					
Metal	39 890	97 201	140 172	290 690	544 274
Taiwan					
Metal	47 135	74 739	99 516	139 630	128 930
Thailand					
Metal	93 871	71 808	57 516	63 790	...
Australia					
Metal	2 807	955	15	...	...
New Zealand (e)					
Metal	39 867	40 598	39 682	23 890	38 697

Note(s):

- (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) Years ended 31 March following that stated
 - (b) Including gilt
 - (c) Ag content
 - (d) Years ended 20 March following that stated
 - (e) Years ended 30 June of that stated
 - (f) BGS estimates, based on known exports from certain countries

Sulphur

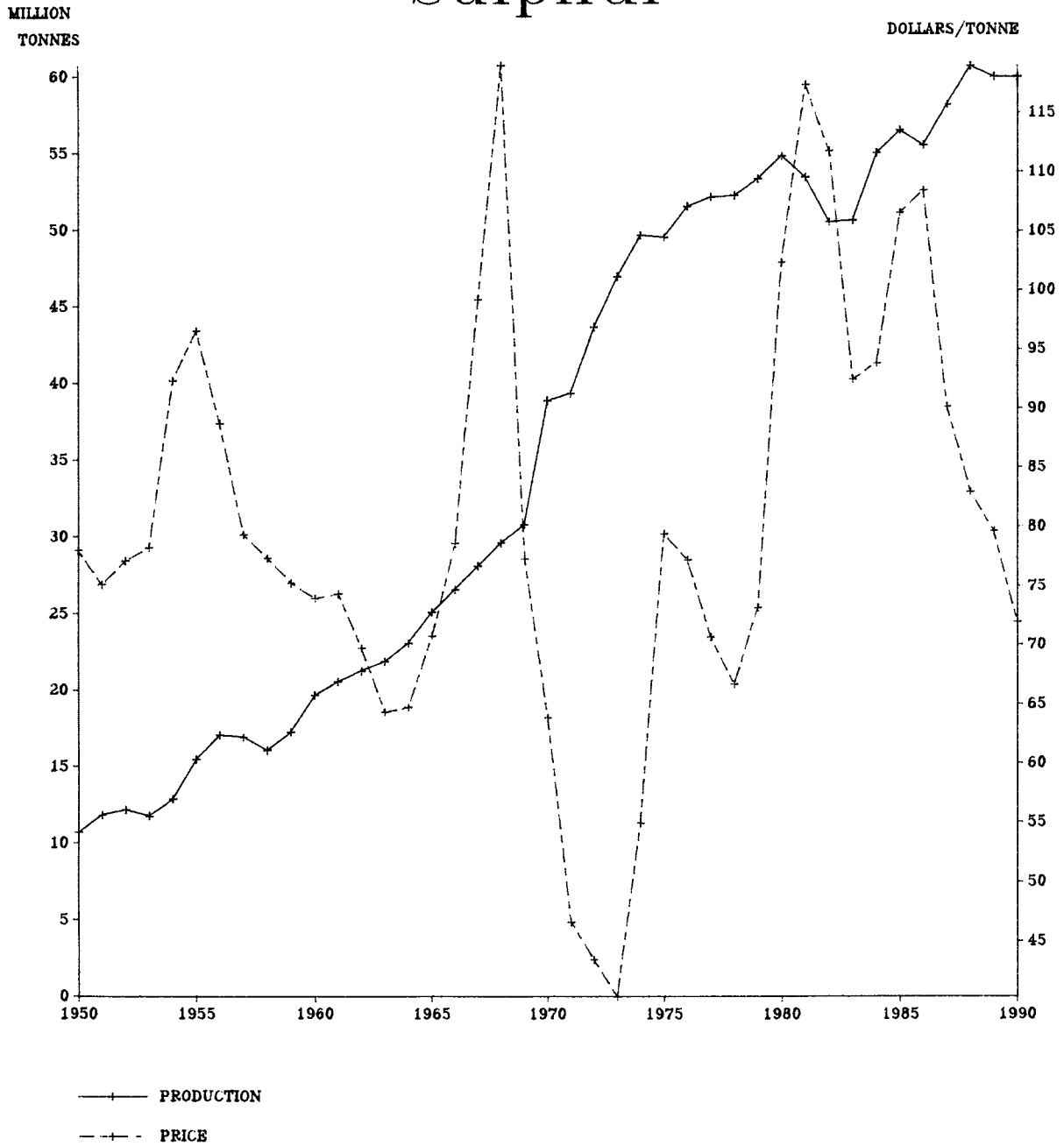


Figure 20 World production of sulphur in all forms compared with the yearly average producer price and, from 1983, the average price f.o.b. mine/plant in the USA, expressed in constant 1985 US dollars.

Production of Sulphur and Pyrites

tonnes (sulphur content)

Country	1985	1986	1987	1988	1989
United Kingdom					
Recovered (a) (c)	53 766	58 261	51 398	54 470	60 205
Recovered (d)	80 000	105 000	119 000	129 000	118 000
Belgium					
Recovered (c)(d)	* 260 000	* 300 000	* 300 000	* 310 000	* 330 000
Denmark					
Recovered (d)	7 376	12 810	10 568	13 571	18 842
France					
Recovered (d)	1 561 400	1 149 100	1 280 000	1 232 000	1 146 000
Germany, Federal Republic of					
Recovered (c)	* 320 000	* 300 000	* 300 000	* 310 000	* 350 000
Recovered (d)	* 1 164 000	* 1 188 000	* 1 240 000	* 1 205 000	* 1 300 000
Recovered (e)	* 285 000	* 285 000	* 285 000	* 280 000	* 250 000
Greece					
Pyrites (45%)	77 968	66 017	* 70 000	* 72 000	* 68 000
Recovered (d)	* 135 000	* 135 000	* 135 000	* 135 000	* 150 000
Italy					
Pyrites (43%)	299 631	309 137	306 905	307 646	323 409
Recovered (d)	* 200 000	* 185 000	* 190 000	* 200 000	* 220 000
Sulphur ore	1 130	—	2 674	...	...
Netherlands					
Recovered (c)(d)	* 250 000	* 250 000	* 245 000	* 245 000	* 285 000
Portugal					
Pyrites (44%)	156 428	141 466	122 787	110 367	90 752
Recovered	* 5 000	* 5 000	* 5 000	* 5 000	* 10 000
Spain					
Pyrites (47%)	1 231 302	1 191 975	1 010 528	894 105	1 055 670
Recovered (c)(d)	* 224 000	* 220 000	* 235 000	* 240 000	...
Austria					
Recovered	35 454	40 334	41 394	47 548	...
Anhydrite	26 547	28 837	13 091	—	...
Bulgaria					
Pyrites (42%)	* 65 000	* 80 000	* 80 000	* 70 000	* 85 000
Recovered	* 53 000	* 62 000	* 65 000	* 60 000	* 98 000
Czechoslovakia					
Pyrites (42%)	62 000	* 60 000	* 60 000	* 60 000	...
Recovered	41 866	41 127	38 023	50 287	60 182
Sulphur ore	6 000	* 6 000	* 6 000	* 6 000	...
Finland					
Pyrites (44%)	248 500	240 580	273 260	270 570	345 240
Recovered (c)	257 000	260 000	317 357	* 240 000	* 214 000
Recovered (d)	49 076	41 823	51 656	39 485	32 949
German Democratic Republic					
Recovered	* 330 000	* 315 000	* 315 000	* 315 000	* 464 000
Hungary					
Pyrites	* 2 000	* 1 000	* 1 000	* 1 000	...
Recovered	* 9 000	* 10 000	* 10 000	* 10 000	...
Norway					
Pyrites (50%)	199 617	190 395	177 843	153 233	121 040
Recovered (c)(d)	* 70 000	* 80 000	* 95 000	* 90 000	* 115 000
Poland					
Frasch (g)	4 876 000	4 894 000	4 966 000	5 000 000	4 864 000
Recovered (c)	* 170 000	* 170 000	* 170 000	* 150 000	* 150 000
Recovered (d)	* 30 000	* 30 000	* 30 000	* 20 000	* 20 000
Anhydrite	* 20 000	* 20 000	* 20 000	* 20 000	* 20 000
Romania					
Pyrites (42%)	* 200 000	* 150 000	* 150 000	* 150 000	* 150 000
Recovered	* 150 000	* 140 000	* 130 000	* 120 000	* 120 000
Soviet Union					
Pyrites (46%)	2 421 000	2 090 000	2 150 000	* 2 150 000	* 2 100 000
Frasch	* 960 000	* 1 100 000	* 1 100 000	* 1 100 000	...
Recovered (c)	* 1 700 000	* 1 700 000	* 1 650 000	* 1 700 000	* 1 650 000
Recovered (d)	* 2 324 000	* 2 400 000	* 3 300 000	* 3 850 000	* 3 500 000
Sulphur ore	* 1 800 000	* 1 900 000	* 1 900 000	* 1 900 000	...

Production of Sulphur and Pyrites

tonnes (sulphur content)

Country		1985	1986	1987	1988	1989
Sweden						
Pyrites (48%)		195 419	215 161	205 706	170 449	144 617
Recovered (c)		*123 000	*125 000	*125 000	*124 000	*99 000
Sulphur ore		22 916	33 763	38 792	...	...
Turkey						
Pyrites (45%)		11 557	4 152	22 035	75 387	82 100
Recovered (d)		*80 000	*70 000	*75 000	*70 000	*75 000
Sulphur ore		43 639	41 275	33 642	28 196	22 842
Yugoslavia						
Pyrites (42%)		212 785	318 948	255 723	359 562	292 543
Recovered (c)(d)		*173 000	*178 000	*178 000	*173 000	*178 000
Algeria						
Recovered (d)		*20 000	*20 000	*20 000	*20 000	*20 000
Egypt						
Recovered (d)		10 000	10 000	10 000	*10 000	*10 000
Libya						
Recovered (d)		*14 000	*14 000	*14 000	*14 000	*14 000
Namibia						
Pyrites (50%)		87 182	94 726	60 130	113 341	98 266
South Africa						
Pyrites (48%)		477 321	498 701	467 531	504 743	460 974
Recovered (d)		(h)*100 000	(h)*110 000	(h)*110 000	(h)*120 000	...
Recovered (c)		89 593	107 716	105 080	233 396	224 465
Zaire						
Recovered (c)		*36 000	*36 000	*36 900	*37 700	...
Zambia						
Pyrites (43%)		28 288	19 197	19 406	28 817	25 056
Recovered		*79 000	*74 000	*74 000	*74 000	...
Zimbabwe						
Pyrites (42%)		24 105	26 253	19 575	16 657	19 976
Recovered		*5 000	*5 000	*5 000	*5 000	*5 000
Canada						
Recovered (c)		881 000	810 000	785 000	879 000	836 000
Recovered (d)		8 102 163	6 965 775	7 322 791	8 106 641	6 520 262
Cuba						
Recovered (d)		*5 000	*5 000	*5 000	*5 000	*5 000
Mexico						
Frasch		1 550 803	1 588 359	1 805 560	1 628 000	1 528 500
Recovered (c)		*160 000	*170 000	*180 000	*250 000	...
Recovered (d)		474 928	456 307	500 911	510 160	555 874
Netherlands Antilles						
Recovered (d)		*32 000	*30 000	*30 000	...	...
Trinidad & Tobago						
Recovered (d)		*5 000	*5 000	*5 000	*5 000	*5 000
USA						
Pyrites (40%)(i)		328 000	309 000	173 000	3 000	4 000
Frasch		5 011 000	4 043 000	3 202 000	3 174 000	3 888 000
Recovered (c)		957 000	919 000	1 003 000	1 125 000	1 190 000
Recovered (d)		5 313 000	5 816 000	6 161 000	6 444 000	6 510 000
Bolivia (f)						
Sulphur ore		2 741	4 730	8 746	6 733	8 167
Brazil						
Pyrites		95 357	97 238	82 446	108 895	77 461
Recovered (c)		79 002	100 033	153 038	152 013	163 724
Recovered (d)		54 591	73 572	77 322	61 396	60 121
Chile						
Recovered (c)		30 073	41 142	*40 000	...	...
Sulphur ore (b)		78 747	57 123	37 048	37 649	15 963
Colombia						
Recovered (d)		17 388	13 936	10 203	8 233	8 700
Sulphur ore		41 374	36 038	41 490	42 617	41 575

Production of Sulphur and Pyrites

tonnes (sulphur content)

Country	1985	1986	1987	1988	1989
Ecuador					
Recovered (d)	*10 000	*10 000	*10 000	*10 000	*10 000
Sulphur ore	*4 000	*4 000	*4 500	*4 500	*4 500
Peru					
Recovered (c)	68 145	*66 300	*66 000	*66 000	...
Venezuela					
Recovered (d)	*88 000	99 380	*125 000	*125 000	*125 000
Abu Dhabi					
Recovered (d)	105 000	*115 000	*105 000	*110 000	...
Bahrain					
Recovered (d)	35 700	46 000	47 500	48 000	...
China					
Pyrites (45%)	*2 200 000	*2 500 000	*3 700 000	*3 900 000	*4 000 000
Recovered	*400 000	*300 000	*500 000	*550 000	*560 000
Sulphur ore	*300 000	*300 000	*300 000	*300 000	*300 000
Cyprus					
Pyrites (44%)	30 624	24 936	50 355	49 784	25 944
India					
Pyrites (37%)	6 442	8 150	10 910	10 973	14 381
Recovered (c)	*120 000	*120 000	*120 000	*125 000	*120 000
Recovered (d)	305	50	—	—	—
Indonesia					
Sulphur ore	4 023	4 525	3 941	3 411	3 890
Iran					
Recovered (d)	*150 000	*250 000	*300 000	*300 000	*400 000
Sulphur ore	*30 000	*30 000	*30 000	*30 000	*30 000
Iraq					
Frasch	*500 000	*600 000	*707 000	*700 000	*800 000
Recovered (d)	*70 000	*200 000	*250 000	*350 000	...
Israel					
Recovered (d)	25 000	29 200	40 200	*50 000	...
Japan					
Pyrites (49%)	252 538	158 367	78 957	70 481	*140 000
Recovered (c)(g)	1 201 245	1 227 442	1 224 207	*1 300 000	*1 320 000
Recovered (d)	1 044 000	985 000	1 012 000	1 077 000	1 176 000
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)	*55 000	*55 000	*55 000	*55 000	*55 000
Recovered (d)	*35 000	*35 000	*35 000	*35 000	*35 000
Kuwait					
Recovered (d)	202 377	268 000	309 000	353 000	560 000
Oman					
Pyrites	*31 000	*31 000	*30 000	*30 000	...
Pakistan					
Recovered	*26 000	*26 000	*26 000	*26 000	*26 000
Philippines					
Pyrites (46%)	76 975	108 597	47 299	174 491	164 000
Recovered (c)	*100 000	*120 000	*140 000	*130 000	*135 000
Qatar					
Recovered (d)	37 000	48 500	53 300	*55 000	...
Saudi Arabia					
Recovered (d)	1 100 000	1 446 000	1 432 000	*1 450 000	*1 550 000
Singapore					
Recovered (d)	*50 000	*50 000	*50 000	*50 000	*50 000
Syria					
Recovered (d)	*35 000	*35 000	*40 000	*40 000	*40 000
Taiwan					
Recovered	42 949	62 980	89 082	86 541	76 060

Production of Sulphur and Pyrites

tonnes (sulphur content)

Country	1985	1986	1987	1988	1989
Australia					
Recovered (c)	435 313	453 012	536 244	*560 000	...
Recovered (d)	11 718	10 200	8 500	*9 000	...
Total Pyrites	9 200 000	9 100 000	9 800 000	10 000 000	10 200 000
Total Frasch	12 900 000	12 200 000	11 800 000	11 600 000	12 200 000
Total Recovered	32 100 000	31 800 000	34 300 000	36 600 000	35 500 000
Total Sulphur ore	2 300 000	2 400 000	2 400 000	2 400 000	2 400 000
World total (all forms)	56 500 000	55 500 000	58 300 000	60 600 000	60 300 000

Note(s):

(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	1985	1986	1987	1988	1989
United Kingdom					
Sulphur					
Crude	1 929	1 584	2 857	3 325	3 931
Sublimed & precipitated	127	600	169	1 089	1 353
Belgium-Luxembourg					
Pyrites	46	125	130	265	245
Sulphur					
Crude	7 511	10 904	32 078	19 883	27 217
Sublimed & precipitated	213	189	292	85	59
Denmark					
Sulphur					
Crude	3 361	3 222	4 209	7 750	8 853
Sublimed & precipitated	499	4 642	2 415	2 254	34
France					
Sulphur					
Crude	536 711	366 873	472 083	537 359	417 132
Refined	1 163	821	2 258	9 424	7 391
Sublimed & precipitated	5 177	2 223	2 793	556	356
Germany, Federal Republic of					
Pyrites	1 217	1 290	1 400	1 318	1 499
Sulphur					
Crude	667 953	686 040	764 327	697 106	626 088
Sublimed & precipitated	502	361	200	235	297
Greece					
Sulphur	13 571	7 023	7 063	743	...
Italy					
Pyrites	4 778	4 676	4 883	5 351	5 780
Sulphur					
Crude	14 455	3 631	450	954	4 178
Sublimed & precipitated	21	449	49	279	481
Netherlands					
Sulphur	22 288	29 104	95 299	92 946	144 210
Spain					
Pyrites	312 087	347 216	248 457	162 984	86 121
Sulphur					
Crude	145	425	10 774	29 485	47 370
Sublimed & precipitated	34	76	47	39	85
Albania					
Pyrites	92 000	(c)*24 900	(c)*14 500	62 000	11 000
Finland					
Pyrites (c)	*88 300	*144 200	*161 500	*288 900	*383 400
Hungary					
Sulphur	15 886	18 856	20 174	34 508	38 081
Norway					
Pyrites	169 308	172 650	108 080	92 688	24 090
Sulphur					
Crude	3 722	2 643	739	800	—
Sublimed & precipitated	1 317	2 751	2 799	1 124	99
Poland					
Sulphur	3 906 000	3 823 000	3 856 000	3 878 000	3 636 000
Soviet Union					
Pyrites	294 000	315 000	309 000	246 000	161 000
Sulphur (c)	*58 100	*68 300	*41 500	*59 200	*42 200
Sweden					
Pyrites	30	14	58 654	4	76
Sulphur					
Crude	1 502	10 246	18 969	15 597	36 528
Sublimed & precipitated	25	9 286	82	2 363	3 077
Switzerland					
Sulphur					
Crude	4 634	6 421	16 877	12 389	14 331
Sublimed & precipitated	27	43	28	1	6
Yugoslavia					
Pyrites	156 132	80 463	65 467	36 928	30 212
South Africa					
Sulphur	8 465	—	1 041	24 852	19 449

Exports of Sulphur and Pyrites

tonnes

Country	1985	1986	1987	1988	1989
Canada					
Pyrites	...	...	—	4 585	10 540
Sulphur	7 818 672	6 257 290	6 571 800	7 381 005	5 516 208
Mexico					
Sulphur	1 643 079	1 047 367	1 444 615	1 738 934	1 208 896
Netherlands Antilles					
Sulphur	6 585	4 000	23 000	20 685	20 205
USA					
Sulphur					
Crude	(d)1 401 511	(d)1 919 495	(d)1 215 832	(d)1 223 357	684 777
Refined	...	...	...	...	159 712
Sublimed & precipitated	...	...	...	...	191 743
Bolivia					
Sulphur	*2 900	6 050	8 790	*6 800	*8 200
Colombia					
Sulphur	1 354	1 641	4 500	2 671	...
Venezuela					
Sulphur	24 000	16 000	20 033	...	...
Bahrain					
Sulphur	26 453	38 040	44 843	13 468	...
China					
Pyrites	...	...	130 315	200 507	230 312
Sulphur					
Crude	(c)*11 000	(c)*54 300	44 622	32 664	8 451
Sublimed & precipitated (c)	*6 800	*3 600	*4 900	*500	*200
Cyprus					
Pyrites	65 423	65 938	21 905	...	...
Iran					
Sulphur (c)	*86 800	*11 600	*46 000	*17 400	*26 600
Japan					
Sulphur					
Crude	165 981	77 815	138 133	170 366	262 621
Sublimed & precipitated	382	1 201	1 692	2 294	1 656
Korea, Republic of					
Sulphur	2 953	3 399	4 960	5 191	5 605
Kuwait					
Sulphur	166 000	360 022	...	...	...
Saudi Arabia					
Sulphur					
Crude	171	266	169 196	148 727	580 942
Sublimed & precipitated	988 240	924 676	371 948	831 785	410 921
Singapore					
Sulphur					
Crude	7 338	(a)15 885	(a)24 815	(a)26 925	(a)21 342
Sublimed & precipitated	7 051	10 600	22 207	23 408	11 719
Taiwan					
Sulphur					
Crude	1 497	1 192	599	227	146
Sublimed & precipitated	75	153	274	76	9
Thailand					
Sulphur					
Crude	324	1 563	2 635	592	...
Sublimed & precipitated	10	406	27	45	...
Australia					
Zinc concentrates (b)	214 100	224 300	221 700	...	...

(a) Re-exports

(b) Recoverable sulphur

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

(d) Including refined, sublimed and precipitated

Imports of Sulphur and Pyrites

Country	1985	1986	1987	1988	1989
United Kingdom					
Pyrites	15 909	15 540	12 830	13 020	8 928
Sulphur					
Crude	806 358	684 569	618 984	682 897	641 460
Sublimed & precipitated	524	563	379	910	1 103
Belgium-Luxembourg					
Pyrites	276 967	260 194	296 979	223 932	147 738
Sulphur					
Crude	492 262	397 666	414 213	449 888	434 603
Sublimed & precipitated	1 352	1 451	2 298	1 788	848
Denmark					
Pyrites	80	71	26	140	—
Sulphur					
Crude	72 939	40 896	48 289	72 813	72 551
Sublimed & precipitated	122	174	142	87	43
France					
Pyrites	1 177	1 144	1 328	1 317	1 188
Sulphur					
Crude	623 421	530 890	642 767	746 655	628 330
Refined	929	2 079	2 959	11 957	8 594
Sublimed & precipitated	78	141	137	535	604
Germany, Federal Republic of					
Pyrites	187 042	203 328	150 525	159 233	65 176
Sulphur					
Crude	252 380	232 639	214 142	176 187	131 334
Sublimed & precipitated	1 154	2 041	1 434	1 009	924
Greece					
Pyrites	41 354	19 082	3 803	10 588	...
Sulphur					
Crude	46 749	101 072	151 689	79 573	...
Sublimed & precipitated	43	81	33	122	...
Irish Republic					
Sulphur					
Crude	327	391	318	295	274
Sublimed & precipitated	45	98	39	85	15
Italy					
Pyrites	167 574	158 971	102 513	118 589	88 116
Sulphur					
Crude	399 494	337 251	283 843	264 903	186 303
Sublimed & precipitated	1 215	1 325	1 202	1 111	1 434
Netherlands					
Pyrites	204	243	302	411	491
Sulphur					
Crude	377 044	289 455	237 546	171 058	199 528
Sublimed & precipitated	603	213	248	398	377
Portugal					
Sulphur	19 825	23 089	22 842	17 913	16 828
Spain					
Sulphur					
Crude	70 862	42 999	42 825	54 839	39 662
Sublimed & precipitated	42	37	51	59	99
Austria					
Pyrites	854	668	655	746	800
Sulphur					
Crude	98 589	90 590	82 590	87 996	84 879
Sublimed & precipitated	336	255	238	242	190
Bulgaria					
Pyrites (a)	*238 000	*210 000	*190 000	*77 000	...
Sulphur (a)	*50 100	*60 000	*53 000	*61 000	...
Czechoslovakia					
Sulphur	505 000	466 000	488 000	486 000	419 000
Finland					
Sulphur					
Crude	78 377	28 183	17 951	42 256	54 016
Sublimed & precipitated	514	13	20	11	12
German Democratic Republic					
Sulphur (a)	*135 000	*135 000	*138 000	*134 000	*137 000

Imports of Sulphur and Pyrites

tonnes

Country	1985	1986	1987	1988	1989
Hungary					
Pyrites	37 568	73 563	53 995	28 362	...
Sulphur	171 503	167 395	158 061	183 662	155 076
Malta					
Sulphur	45	93	81	39	181
Norway					
Pyrites	—	3 948	—	29 164	68 173
Sulphur					
Crude	4 117	6 138	3 371	3 503	3 473
Sublimed & precipitated	61	11	30	42	528
Romania					
Pyrites (a)	*70 300	...	...	...	...
Sulphur	392 900	337 800	418 300	356 300	347 200
Soviet Union					
Sulphur (a)	*1 162 400	*1 719 100	*983 300	*748 000	*885 400
Sweden					
Pyrites	21 970	48 807	65 914	125 817	187 820
Sulphur					
Crude	6 368	8 467	7 885	8 171	5 574
Sublimed & precipitated	12 004	9 898	8 402	7 935	11 315
Switzerland					
Pyrites	84	131	146	218	202
Sulphur					
Crude	48 577	47 320	57 173	54 829	59 932
Sublimed & precipitated	206	120	146	78	43
Turkey					
Pyrites	95 324	31 815	72 135	64 185	38
Sulphur					
Crude	111 006	129 108	108 254	139 115	126 749
Sublimed & precipitated	95	55	59	46	...
Yugoslavia					
Pyrites	61 081	4 584	451	11 197	10 774
Sulphur					
Crude	149 205	164 534	129 365	203 568	138 545
Refined	13 521	7 222	2 481	6 775	5 596
Sublimed & precipitated	584	498	130	175	73
Algeria					
Sulphur					
Crude	118 048	77 978	126 888	115 000	96 000
Sublimed & precipitated	6 294	5	4 104	...	...
Egypt					
Pyrites	16 100	203	4	...	...
Sulphur					
Crude	127 132	69 921	110 312	164 900	...
Sublimed & precipitated	26 131	9 060	38	...	...
Ethiopia					
Sulphur	1 237	2 074	70	2	...
Gabon					
Sulphur	5 250	5 501	5 000	4 000	4 000
Kenya					
Sulphur					
Crude	931	482	6 480	684	5 000
Sublimed & precipitated	5 471	1 047	1 368	1 323	...
Morocco					
Sulphur	1 469 308	1 672 342	2 042 825	2 924 965	1 114 000
Niger					
Sulphur	20 679	25 951	20 000	26 000	19 000
Nigeria					
Sulphur	3 485	772	4 174	6 000	...
Senegal					
Sulphur	119 009	118 679	149 584	155 000	157 636
South Africa					
Pyrites	38	75	196	60	70
Sulphur					
Crude	463 502	319 353	605 563	1 013 582	274 687
Sublimed & precipitated	53	100	56	91	451
Tanzania					
Sulphur	1 230	1 025	4 878	678	11 000

Imports of Sulphur and Pyrites

Country	1985	1986	1987	1988	1989
Tunisia					
Sulphur	556 496	1 096 422	1 119 864	1 305 036	1 234 789
Zimbabwe					
Sulphur	11 484	15 436	29 575	26 000	20 000
Canada					
Pyrites	...	...	...	5 970	4 588
Sulphur					
Crude	3 168	10 760	24 712	32 217	18 311
Sublimed & precipitated	...	...	...	2 314	1 845
Cuba					
Sulphur	157 061	124 535	156 873	166 275	*150 000
El Salvador					
Sulphur	97	4 044	1 154	8 949	228
Guatemala					
Sulphur	1 437	2 901	5 154	951	...
Jamaica					
Sulphur	2 947	302	3 005	3	3 286
Mexico					
Sulphur					
Crude	56 881	329 938	448 566	604 144	...
Sublimed & precipitated	149	35	75	1 133	...
Nicaragua					
Sulphur	135	1 022	1 000	1 000	...
USA					
Pyrites	3 299	40 429	32 501	11 435	29 007
Sulphur	2 288 304	1 427 881	1 599 125	1 995 524	2 240 139
Argentina					
Sulphur	35 473	110 571	105 896	53 882	64 228
Brazil					
Sulphur					
Crude	1 084 955	1 155 291	1 189 846	1 145 282	1 145 365
Sublimed & precipitated	633	792	748	138	...
Chile					
Sulphur	77 339	65 121	71 499	69 540	77 000
Colombia					
Sulphur					
Crude	20 365	25 850	25 700	25 984	...
Sublimed & precipitated	200	81	...	69	...
Ecuador					
Sulphur	1 786	400	1 378	1 367	502
Peru					
Sulphur	4 391	2 784	4 947	6 271	3 000
Suriname					
Sulphur	768	637	1 064	784	781
Uruguay					
Sulphur	11 975	20 144	15 350	21 848	18 000
Venezuela					
Sulphur	14 048	296	268	82	1 000
Bangladesh (b)					
Sulphur	...	52 801	27 998	18 593	41 000
China					
Sulphur	163 247	13	31	20 598	126 553
Cyprus					
Sulphur	2 561	2 823	2 384	2 200	...
Hong Kong					
Sulphur					
Crude	530	5 342	294	345	344
Sublimed	58	294	434	262	849
India (c)					
Sulphur					
Crude	989 861	1 067 139	1 148 785	1 298 963	1 630 000
Sublimed & precipitated	99	218	679	1 362	...
Indonesia					
Sulphur					
Crude	2 624	10 844	33 620	61 970	49 605
Sublimed & precipitated	182 620	221 404	345 495	283 607	249 029

Imports of Sulphur and Pyrites

tonnes

Country	1985	1986	1987	1988	1989
Israel					
Sulphur	245 455	201 387	250 950	253 316	143 832
Japan					
Pyrites	2 281	28 246	205 020	259 652	327 863
Sulphur	87	2 023	68	2 305	287
Jordan					
Sulphur					
Crude	169 300	127 528	168 387	267 996	89 249
Sublimed & precipitated	15 682	35 638	20 723	—	—
Korea, Republic of					
Sulphur					
Crude	592 867	518 369	520 997	585 328	554 925
Sublimed & precipitated	1 025	1 330	1 902	2 531	2 830
Kuwait					
Sulphur	...	50 004	...	...	...
Malaysia					
Sulphur					
Crude	12 290	886	1 631	4 025	6 709
Sublimed & precipitated	10 798	22 796	20 349	15 297	27 873
Pakistan (b)					
Sulphur					
Crude	39 194	25 986	41 035	36 396	44 000
Sublimed & precipitated	445	1 958	810	113	...
Philippines					
Sulphur					
Crude	309	2 015	17 233	8 564	30 357
Sublimed & precipitated	20 382	17 318	1 704	14 062	2 897
Singapore					
Sulphur					
Crude	34	142	168	308	174
Sublimed & precipitated	127	510	216	192	127
Sri Lanka					
Sulphur					
Crude	322	363	1 203	712	...
Sublimed & precipitated	309	280	640	153	...
Syria					
Sulphur					
Crude	55 560	59 201	99 351	28 000	...
Sublimed & precipitated	9	33	27	...	...
Taiwan					
Sulphur					
Crude	74 955	60 515	17 893	59 160	93 505
Sublimed & precipitated	158 334	261 370	153 152	199 815	152 578
Thailand					
Sulphur					
Crude	50 753	57 334	46 703	23 148	...
Refined	4 104	2 561	12 310	81 898	...
Sublimed & precipitated	136	120	224	187	...
Australia					
Sulphur	392 344	398 101	379 560	555 678	416 000
New Zealand (b)					
Sulphur					
Crude	209 696	176 775	78 208	125 304	97 261
Sublimed & precipitated	333	738	687	105	52

(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

Production of Talc

Talc
tonnes

Country	1985	1986	1987	1988	1989
United Kingdom	20 000	12 357	12 529	14 182	15 413
France	317 000	325 000	329 000	320 000	258 000
Germany, Federal Republic of	20 700	21 900	19 800	19 500	20 500
Greece	1 725	17 310	9 507	*1 600	*1 600
Italy	129 614	151 406	150 718	158 722	146 000
Portugal	4 998	5 908	7 702	7 187	8 063
Spain	88 776	73 914	75 307	*80 000	*80 000
Austria	131 454	133 319	129 959	132 974	133 078
Finland	370 491	321 296	417 687	457 410	399 000
Hungary	1 756	1 550	1 685	1 326	1 041
Norway	*60 000	*60 000	*60 000	*60 000	*60 000
Romania	*65 000	*65 000	*65 000	*65 000	*60 000
Soviet Union	*520 000	*520 000	*530 000	*530 000	*530 000
Sweden	14 400	11 233	16 981	*16 000	*16 000
Yugoslavia	27 534	25 656	30 993	29 204	26 614
Egypt	6 229	5 579	6 105	7 268	6 526
South Africa					
Talc	10 220	8 641	8 005	10 111	11 714
Wonderstone (pyrophyllite)	4 227	4 606	3 467	3 162	3 942
Zambia	449	266	258	73	144
Zimbabwe	437	532	516	356	1 513
Canada	126 860	123 037	160 000	134 000	150 000
Mexico	29 900	24 301	17 469	18 320	*20 000
USA					
Talc	1 078 000	1 106 000	1 080 000	1 136 000	1 172 000
Pyrophyllite	73 000	75 000	83 000	97 000	81 000
Argentina					
Talc	15 944	22 353	27 103	26 108	26 658
Pyrophyllite	2 785	2 812	1 260	671	1 310
Brazil					
Talc (b)	343 647	336 706	423 425	(d)*450 000	(d)*450 000
Pyrophyllite (b)	43 401	41 351	51 114	...	...
Chile	1 299	2 257	980	1 070	835
Colombia	8 611	9 013	11 927	10 353	9 196
Paraguay	120	130	180	210	200
Peru	*500	9 108	1 907	*2 500	*2 000
Uruguay	1 308	1 255	1 648	1 460	*1 500
Venezuela	18 700	25 000	*32 000	*32 000	...
China	*1 000 000	*1 000 000	*1 000 000	*1 000 000	*1 000 000
India					
Pyrophyllite	56 199	58 884	51 724	64 923	94 264
Steatite	344 681	378 683	359 448	417 493	414 268
Iran (a)	30 800	*31 000	*31 000	29 261	*30 000
Japan					
Talc	79 044	74 903	45 346	39 887	59 186
Pyrophyllite	1 023 809	962 302	939 165	949 973	922 213
Korea, Dem. P.R. of	*170 000	*170 000	*170 000	*170 000	*170 000
Korea, Republic of					
Talc	194 174	210 631	161 052	146 478	162 098
Pyrophyllite	738 304	587 049	690 819	673 776	770 298
Nepal (c)	6 015	8 780	3 359	4 430	6 726
Pakistan	20 183	23 021	23 278	39 402	38 290
Philippines	345	—	—	27	—
Taiwan	17 560	21 552	22 102	21 603	22 559
Thailand	43 478	39 051	41 850	42 128	47 041
Australia					
Talc	132 074	179 467	206 865	201 740	*200 000
Pyrophyllite	7 317	8 588	6 036	4 030	*4 000
World total	7 400 000	7 300 000	7 500 000	7 600 000	7 700 000

(a) Years ended 20 March following that stated

(b) Including beneficiated and directly shipped material

(c) Years ended 15 July of that stated

(d) Including pyrophyllite

Talc

Exports of Talc

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom	4 842	2 542	2 354	1 978	1 844
Belgium-Luxembourg	41 241	39 929	53 838	64 113	66 483
France	103 460	99 535	111 685	126 413	146 352
Germany, Federal Republic of	8 534	7 587	8 991	6 482	8 366
Greece	109	245	329	259	167
Italy	41 987	43 076	40 473	42 394	41 797
Netherlands	7 762	8 817	12 066	12 810	18 491
Spain	31 197	32 910	31 875	17 213	14 321
Austria	110 150	113 369	120 177	115 565	116 949
Czechoslovakia (a)	*6 500	*6 800	*6 700	*6 300	*6 600
Finland	52 634	48 284	75 867	72 537	90 635
Norway	44 435	42 702	45 100	41 090	44 292
Sweden	12 305	8 145	13 916	14 879	17 205
Switzerland	95	86	144	146	147
Turkey	1 739	782	334	651	135
Egypt	665	843	345	...	...
Canada	(d)26 912	(d)33 999	(d)35 232	45 925	43 740
USA	214 711	211 931	283 693	382 557	321 060
Brazil	4 135	2 197	3 454	3 851	895
China	521 420	582 220	637 896	746 197	943 381
Hong Kong (c)	13 471	29 250	25 204	50 559	50 991
India (b)	12 443	12 339	23 331	15 629	...
Japan	4 792	3 518	2 654	2 658	2 476
Jordan	7 310	10 993	6 357	70	—
Korea, Dem. P.R. of (a)	*20 400	*23 800	*19 800	*21 100	*13 300
Korea, Republic of					
Talc	37 987	42 486	36 580	36 073	34 182
Pyrophyllite	—	—	—	221 903	259 580
Singapore	832	512	890	2 182	1 890
of which: Re-exports	816	508	863	2 169	1 869
Taiwan	509	695	357	246	290
Thailand	2 889	2 364	3 488	1 709	4 921
Australia	122 306	183 357	129 656	168 758	...

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

(b) Years ended 31 March following that stated

(c) Re-exports

(d) Exports to the USA

Imports of Talc

Talc
tonnes

Country	1985	1986	1987	1988	1989
United Kingdom	(c)59 135	68 408	70 675	60 243	73 588
Belgium-Luxembourg	58 735	68 617	83 766	100 218	83 241
Denmark	9 964	9 649	9 870	10 364	12 426
France	16 146	17 929	23 331	22 992	25 979
Germany, Federal Republic of	139 082	148 298	155 536	173 702	194 995
Greece	2 036	2 508	2 739	2 614	3 140
Irish Republic	2 143	1 643	1 654	1 647	1 646
Italy	24 963	28 465	32 429	36 134	45 074
Netherlands	42 241	46 910	59 100	78 801	81 808
Portugal	5 068	6 708	7 757	10 208	9 434
Spain	11 669	13 614	19 971	28 341	27 695
Austria	2 732	6 198	10 698	8 179	12 980
Czechoslovakia (a)	*1 400	*1 500	*2 300	*900	*700
Finland	577	424	440	568	612
German Democratic Republic (a)	*3 200	*1 500	*1 800	*1 700	*3 200
Hungary	3 751	4 368	5 334	6 433	5 973
Norway	8 046	6 302	6 207	11 192	6 613
Poland	20 944	23 154	25 424	30 083	22 905
Soviet Union (a)	*1 000	*1 500	*1 000	*3 000	*3 500
Sweden	26 369	27 289	31 426	32 668	33 919
Switzerland	13 421	14 922	15 059	13 734	15 072
Turkey	420	549	505	689	...
Yugoslavia	4 378	4 856	4 336	5 099	4 389
Algeria	1 631	1 584	956	...	...
Egypt	1 027	975	1 570	...	...
Ivory Coast	2 736	1 720	...	1 505	...
Kenya	3 101	4 721	4 670	5 309	...
Morocco	1 060	1 079	1 417	1 914	...
South Africa	2 545	4 154	5 490	4 500	4 399
Tunisia	1 371	1 044	1 191	1 222	1 262
Canada	41 132	39 362	49 515	38 829	48 438
Costa Rica	809	1 096	991	873	1 144
Dominican Republic	859	462	...	...	...
El Salvador	399	452	515	421	526
Guatemala	266	159	197	296	...
Honduras	251	240	226	231	313
Jamaica	463	1 170	449	636	...
Mexico	149 220	96 200	93 406	107 618	...
Panama	204	265	254	374	367
Trinidad & Tobago	621	507	592	...	604
USA	42 494	50 776	55 607	83 375	76 531
Argentina	451	382	1 049	778	...
Chile	1 580	11 044	*10 000	16 216	...
Colombia	2 244	890	...	2 137	...
Ecuador	778	559	618	676	...
Peru	400	621	1 070	619	166
Venezuela	8 540	8 873	14 877	...	...
Bangladesh (b)	...	1 770	2 384	4 001	...
Cyprus	265	380	595	...	...
Dubai	622	465	...	...	...
Hong Kong	15 972	32 707	30 312	49 804	51 514
Indonesia	13 385	27 722	17 464	28 569	27 744
Israel (a)	*1 400	*700	*1 500	*200	*1 000
Japan	573 901	614 422	579 171	660 570	763 535
Jordan	329	399	471	395	1 074
Korea, Republic of	29 742	41 926	63 937	97 976	123 409
Malaysia	5 473	7 010	6 796	13 757	22 715
Pakistan (b)	988	1 156	13 635	1 564	...

Talc

Imports of Talc

tonnes

Country	1985	1986	1987	1988	1989
Philippines	5 620	7 147	8 464	9 800	10 234
Saudi Arabia	2 769	2 918	3 004	3 538	4 445
Singapore	3 986	6 205	5 163	7 127	6 508
Sri Lanka	1 789	1 355	1 467	1 777	...
Syria	2 782	1 099	3 318	...	...
Taiwan	10 744	12 230	22 726	37 337	54 693
Thailand	18 891	22 118	26 518	29 962	...
Australia	352	151	266	509	...
New Zealand (b)	2 495	2 371	2 217	1 945	1 586

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

(b) Years ended 30 June of that stated

(c) Excludes a small quantity which is suppressed by Customs and Excise

Production of Tantalum and Niobium Minerals

Country		1985	1986	1987	1988	1989
Portugal						
Columbite-tantalite	(25%,25%)	2	5	—	—	—
Spain						
Tantalite	(—,25%)	18	13	*10	*11	*11
Mozambique						
Tantalite	(10%,45%)	4	3	—	—	—
Microlite	(5%,50%)	6	3	—	—	—
Namibia						
Tantalite	(—,14%)	3	8	14	7	6
Nigeria						
Columbite	(43%,6%)	101	13	48	56	44
Rwanda						
Columbite-tantalite	(30%,23%)	28	28	12	7	...
Zaire						
Columbite-tantalite	(27%,27%)	158	38	57	34	42
Zimbabwe						
Columbite-tantalite	(11%,28%)	40	33	37	66	32
Canada						
Pyrochlore	(42%,—)	4 900	4 900	4 400	5 600	5 800
Tantalite	(3%,30%)	106	107	—	37	253
Brazil						
Pyrochlore	(42%,—)	31 311	30 865	18 323	36 100	28 200
Columbite-tantalite	(20%,30%)	323	414	446	402	700
Djalmaite	(1%,50%)	15	30	17	...	...
Malaysia						
Columbite	(40%,14%)	76	34	228	—	—
Struverite	(—,10%)	120	18	141	40	242
Thailand						
Columbite-tantalite	(17%,25%)	432	121	183	124	109
Struverite	(—,6%)	309	241	423	788	99
Australia						
Columbite-tantalite	(20%,33%)	110	140	121	277	555
World total concentrates		38 000	37 000	24 000	44 000	36 000
Nb content		*15 600	*15 200	*9 800	*17 700	*14 600
Ta content		*400	*300	*300	*400	*600

Note(s):

- (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

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Tantalum	20	12	18	38	48
Niobium	9	6	16	...	...
France					
Tantalum	32	18	21	25	27
Germany, Federal Republic of					
Niobium & tantalum ores	1 895	54	6	95	157
Tantalum	117	93	93	115	130
Niobium	82	90	113	...	...
Italy					
Tantalum	2	11	16	5	17
Netherlands					
Niobium & tantalum ores	154	4	—	—	—
Tantalum	1	27	15	—	20
Austria					
Tantalum	17	21	18	38	31
Nigeria					
Columbite	257	48	126	...	...
Zaire					
Columbite-tantalite	84	146	119	...	...
Canada					
Niobium & tantalum ores (a)	*4 900	*4 900	*5 100	*4 000	*5 200
Tantalum	...	...	...	255	67
USA					
Tantalum ores & concentrates	52	32	54	97	9
Tantalum	303	272	296	357	500
Niobium	*55	*55	*60	*55	...
Brazil					
Columbite-tantalite	270	273	187	346	215
Japan					
Tantalum	12	11	18	30	22
Malaysia					
Columbite & tantalite	45	25	136	23	—
Tin slags	9 709	8 654	14 444	19 585	14 350
Singapore					
Tantalum ores & concentrates (b)	3	393	12	125	...
Tin slags	1 012	571	1 378	1 463	544
of which: Re-exports	97	488	242	690	200
Taiwan					
Tantalum	22	5	21	140	30
Thailand					
Columbite & tantalite	88	13	61	243	32
Tin slags	330	70	935	2 110	1 061
Australia					
Columbite-tantalite	268	198	440	208	...

Note(s):

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

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

(b) Re-exports

Imports of Tantalum and Niobium

Country	1985	1986	1987	1988	1989
United Kingdom					
Tantalum	38	41	63	66	84
Niobium	25	19	21	...	...
Belgium-Luxembourg					
Niobium & tantalum ores	1 949	2 046	1 845	534	24
Tantalum	20	40	36	55	23
Niobium	13	6	3	—	—
France					
Tantalum	49	36	44	45	30
Niobium	73	24	40	...	...
Germany, Federal Republic of					
Niobium & tantalum ores (a)	506	1 089	1 142	...	...
Tantalum	174	148	178	202	218
Niobium	34	30	18	...	...
Italy					
Tantalum	4	4	3	5	4
Niobium	3	33	56	...	...
Austria					
Tantalum	41	19	54	68	65
USA					
Tantalum concentrates	349	355	292	639	1 787
Niobium concentrates	1 295	1 295	2 078	1 689	2 227
Tantalum	97	237	112	236	111
Niobium	4	6	23	20	9
Japan					
Tantalum ores & concentrates	221	66	35	...	...
Niobium ores & concentrates	1 974	1 651	1 336	1 010	816
Tantalum	79	45	48	107	64
Singapore					
Tantalum ores & concentrates	68	0	10	201	...
Tin slags	8 481	9 585	9 749	2 993	2 085

Note(s):

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

(a) Including other ores

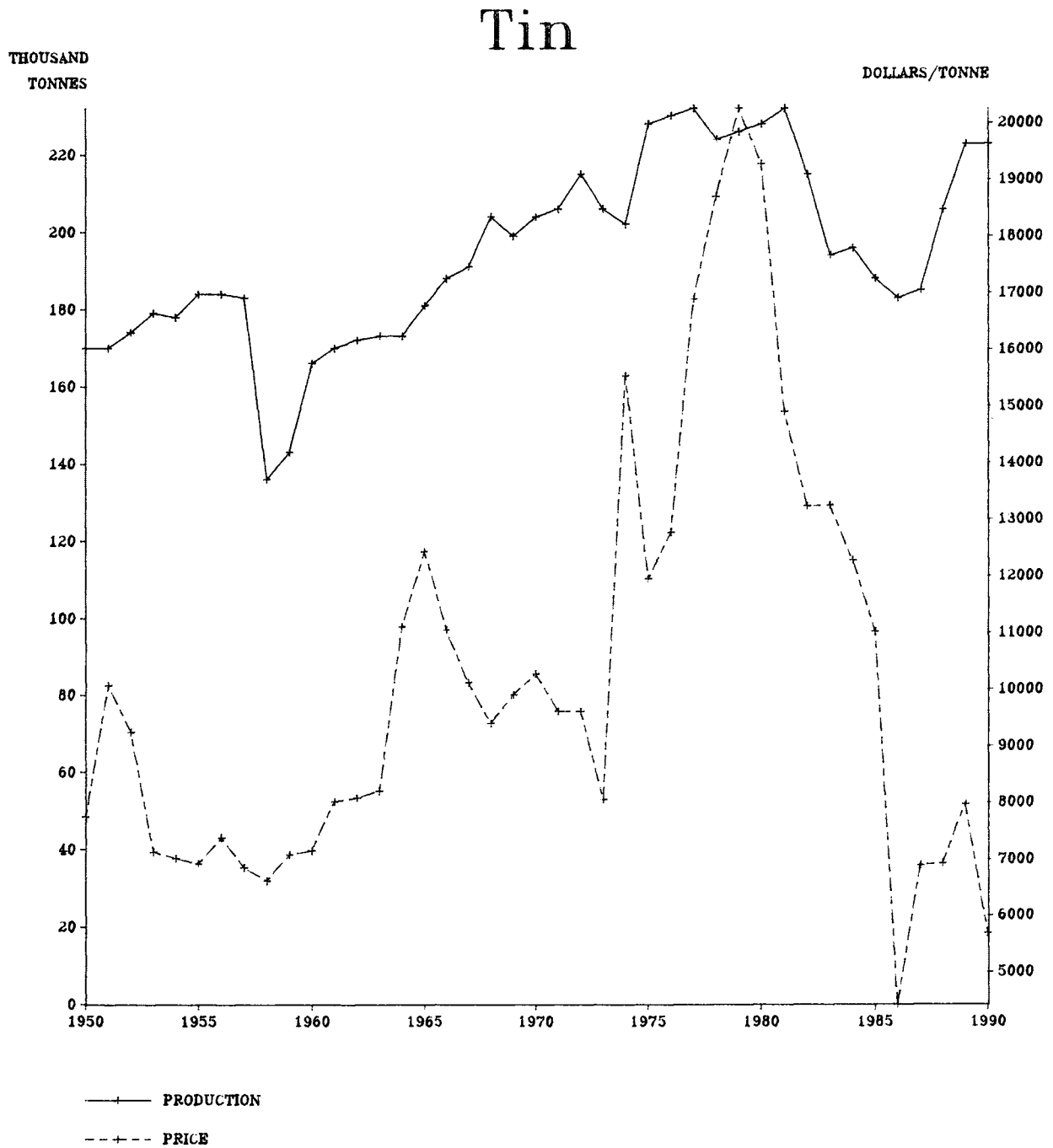


Figure 21 World mine production of tin compared with the LME mean yearly average cash price of tin and, from 1986, *Metal Bulletin* free market spot price, expressed in constant 1985 US dollars.

Mine Production of Tin

tonnes (metal content)

Country	1985	1986	1987	1988	1989
United Kingdom	5 204	4 276	4 033	3 419	3 846
Portugal	263	211	64	57	63
Spain	637	296	77	66	64
Czechoslovakia	250	200	500	*600	*300
German Democratic Republic	2 300	*2 800	3 200	3 000	2 000
Soviet Union	*16 000	*16 000	*15 000	*15 000	*14 000
Namibia	994	880	1 097	1 187	1 128
Niger	183	124	94	100	50
Nigeria	963	146	156	245	279
Rwanda	1 161	42	243	168	762
South Africa	2 153	2 055	1 438	1 377	1 306
Zaire	2 907	2 351	2 226	1 943	1 642
Zimbabwe	1 207	1 079	1 037	855	849
Canada (a)	119	2 356	3 397	3 840	3 599
Mexico	380	585	369	274	159
USA	*100	*100	*100	*100	*100
Argentina	454	379	186	446	405
Bolivia	16 136	10 479	8 128	10 504	15 049
Brazil	26 514	26 405	28 523	44 102	50 232
Peru (b)	3 807	4 817	5 263	4 378	5 069
China	*20 000	*25 000	*28 000	*30 000	*33 000
Indonesia	21 759	24 049	26 093	30 590	31 736
Japan	510	500	86	—	—
Laos	*540	*400	*260	*240	*276
Malaysia	36 884	29 134	30 388	28 866	32 034
Mongolia	1 000	1 000	1 200	1 200	1 300
Myanmar	1 751	1 495	939	529	567
Thailand	16 576	16 775	14 750	13 982	14 668
Vietnam	*500	*500	*600	*700	*800
Australia	6 374	8 515	7 691	7 023	7 709
World total	188 000	183 000	185 000	205 000	223 000

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

(b) Recoverable

Tin

Smelter Production of Tin

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom	7 548	9 227	12 135	9 014	3 584
Netherlands	6 033	5 104	3 834	3 478	4 529
Portugal	460	137	13	20	*50
Spain	3 300	1 965	1 671	806	1 967
Czechoslovakia	507	240	545	515	562
German Democratic Republic	*2 300	*3 300	*3 900	*4 100	*4 000
Soviet Union	*18 500	*17 000	*18 000	*17 000	*16 500
Nigeria	1 079	91	561	427	358
Rwanda	948	—	—	—	—
South Africa	2 683	2 804	1 688	2 410	2 600
Zaire	83	56	90	118	60
Zimbabwe	1 207	1 079	1 037	855	849
Mexico	1 533	1 483	1 730	1 514	*3 000
USA	*3 000	3 213	3 905	1 467	1 000
Argentina	231	258	146	188	*160
Bolivia (a)	12 859	7 673	2 667	5 491	9 690
Brazil	24 702	25 152	28 841	41 857	44 240
China	*24 600	*26 000	*25 000	*24 000	28 300
Indonesia	20 418	22 080	24 200	28 365	29 916
Japan	1 391	1 281	895	846	809
Korea, Republic of	1 600	1 266	1 834	2 500	2 400
Malaysia	45 500	43 788	44 363	47 403	50 900
Myanmar	500	649	309	110	500
Singapore	4 000	500	1 100	900	600
Thailand	17 996	19 672	15 438	14 675	14 571
Vietnam	*570	*620	*645	*600	*600
Australia	2 683	1 399	563	422	424
World total	206 000	196 000	195 000	209 000	222 000

(a) Refined, including alloys

Exports of Tin

Tin
tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Concentrates	2 641	5 085	3 840	5 424	1 944
Unwrought	7 292	13 640	14 763	13 981	5 371
Unwrought alloys	1 605	2 972	2 818	2 352	1 277
Scrap	456	688	529	374	613
Belgium-Luxembourg					
Unwrought	240	1 644	2 023	2 122	2 734
Unwrought alloys	2 289	1 594	1 083	1 978	1 258
Scrap	68	84	64	60	53
Denmark					
Unwrought	1 101	1 084	18	11	5
Unwrought alloys	224	347	107	37	7
Scrap	180	261	200	390	528
France					
Concentrates	7	2 091	42	—	3
Unwrought	347	174	92	167	48
Unwrought alloys	99	22	56	38	123
Scrap	352	321	300	468	442
Germany, Federal Republic of					
Unwrought	1 158	1 289	538	521	610
Unwrought alloys	2 660	2 215	1 367	1 039	1 230
Scrap	87	123	276	282	369
Irish Republic					
Scrap	1 366	1 416	2 132	1 495	1 782
Italy					
Unwrought (a)	197	163	131	184	160
Scrap	60	200	72	61	162
Netherlands					
Unwrought	1 116	2 407	1 706	1 103	1 507
Unwrought alloys	1 012	798	782	806	968
Scrap	224	174	197	380	611
Spain					
Unwrought	168	213	0	(a)5	179
Unwrought alloys	34	12	6	...	51
Scrap	56	—	275	84	120
Sweden					
Unwrought	60	38	102	62	74
Unwrought alloys	104	84	81	95	100
Switzerland					
Unwrought	198	161	97	(a)110	(a)128
Scrap	90	28	41	39	84
Namibia					
Concentrates	1 494	1 332	1 632	1 770	1 686
Niger					
Concentrates (b)	126	108	20	63	...
Nigeria					
Unwrought (a)	400	215	250	543	287
Rwanda					
Concentrates	685	600	183	...	...
South Africa					
Concentrates (b)	703	203	—	—	—
Unwrought (a)	449	1 007	526	205	345
Zaire					
Concentrates	5 095	4 545	3 328	* 3 000	* 1 500
Canada					
Concentrates (b)	(e)393	(e)3 725	(e)2 783	3 593	2 790
Scrap	...	...	...	1 003	3 205
Jamaica					
Scrap	538	406	480	355	249
USA					
Unwrought (a)	2 875	3 237	1 915	1 573	1 036
of which: Re-exports	1 397	1 689	597	363	132
Scrap	26 185	47 351	28 136	39 102	17 191

Tin

Exports of Tin

tonnes

Country	1985	1986	1987	1988	1989
Argentina					
Tin-silver ore	1 030	—	185	1 005	126
Bolivia					
Concentrates	* 16 400	22 753	20 239	* 11 500	* 12 000
Unwrought	11 424	8 207	1 849	6 071	9 908
Brazil					
Unwrought (a)	20 042	19 152	21 027	33 637	33 994
Peru					
Concentrates	2 567	4 631	4 661	4 123	1 675
China					
Concentrates	...	...	16 710	23 855	21 828
Unwrought (a)	7 249	7 421	15 894	10 717	9 874
Hong Kong					
Concentrates (d)	4 768	3 709	6 912	16 248	18 449
Unwrought	5 570	1 944	2 176	3 149	6 048
of which: Re-exports	5 287	1 768	1 819	3 074	5 810
Indonesia					
Concentrates	3 240	4 694	1 545	1 139	766
Unwrought (a)	21 104	23 804	24 241	26 990	29 714
Japan					
Unwrought (a)	96	56	87	119	484
Malaysia					
Unwrought (a)	57 482	40 658	50 318	49 586	49 498
Scrap	495	204	217	505	...
Myanmar					
Concentrates (c)	780	9 451	750	625	680
Singapore					
Concentrates	9 728	4 892	10 421	7 560	3 259
of which: Re-exports	9 215	4 892	10 421	7 560	3 259
Unwrought	20 339	29 914	29 820	27 673	27 954
of which: Re-exports	14 684	27 934	28 300	26 422	26 659
Scrap	137	75	77	228	471
of which: Re-exports	98	39	15	144	355
Thailand					
Unwrought	17 963	14 784	13 561	9 925	...
Unwrought alloys	1 674	245	108	2 792	...
Australia					
Concentrates	10 562	14 588	13 794	14 266	15 341
Unwrought (a)	430	192	271	223	215

Note(s):

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

(a) Including alloys

(b) Sn content

(c) Years ended 31 March following that stated

(d) Re-exports

(e) Including scrap

Imports of Tin

Tin
tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Concentrates	20 713	30 166	26 280	20 239	18 504
Unwrought	3 924	4 249	2 905	2 084	4 675
Unwrought alloys	3 424	3 442	2 327	2 467	3 092
Scrap	563	303	446	517	1 207
Belgium-Luxembourg					
Concentrates	556	102	35	54	57
Unwrought	1 562	1 991	1 859	2 549	1 945
Unwrought alloys	2 291	1 545	289	201	321
Scrap	404	337	238	646	566
Denmark					
Unwrought	50	81	46	68	35
Unwrought alloys	310	1 925	189	182	109
Scrap	3	504	3	25	109
France					
Unwrought	6 648	7 889	7 320	8 041	8 133
Unwrought alloys	477	399	288	484	617
Germany, Federal Republic of					
Concentrates	2 351	504	144	3 780	695
Unwrought	17 313	17 552	17 937	19 867	18 926
Unwrought alloys	1 825	1 334	1 547	1 642	1 870
Scrap	224	303	365	351	421
Greece					
Unwrought	365	477	377	—	...
Irish Republic					
Unwrought (a)	54	60	95	70	59
Italy					
Unwrought	5 135	5 734	6 123	6 112	5 890
Unwrought alloys	501	595	458	562	333
Netherlands					
Concentrates	10 677	9 986	5 593	5 608	9 280
Unwrought	2 271	1 302	2 486	2 579	2 714
Unwrought alloys	899	1 369	627	719	1 105
Scrap	455	355	444	309	458
Portugal					
Unwrought (a)	182	655	786	776	641
Spain					
Concentrates	4 262	3 071	1 848	1 273	2 354
Unwrought (a)	252	1 575	1 838	2 266	2 431
Austria					
Unwrought	501	523	512	501	492
Czechoslovakia					
Unwrought (a)	3 058	3 200	2 819	2 558	2 619
Finland					
Unwrought (a)	112	214	142	111	132
Hungary					
Unwrought & semi-manufactures	1 277	1 422	1 674	950	657
Norway					
Unwrought	342	448	396	417	448
Unwrought alloys	141	113	85	85	83
Poland					
Unwrought	3 029	3 625	2 713	3 520	...
Soviet Union					
Concentrates (e)	*2 200	*800	*2 500	*800	*100
Unwrought (a)(e)	*11 600	*10 000	*8 100	*6 700	*1 000
Sweden					
Unwrought	502	558	458	487	454
Unwrought alloys	68	95	22	62	109
Scrap	90	59	128	153	128
Switzerland					
Unwrought	977	1 369	1 011	(a)994	(a)983
Turkey					
Unwrought (a)	1 007	1 097	1 051	897	61

Tin

Imports of Tin

tonnes

Country	1985	1986	1987	1988	1989
Yugoslavia					
Unwrought (a)	1 387	1 565	1 068	1 456	1 134
Algeria					
Unwrought (a)	454	161	310	500	...
Egypt					
Unwrought & scrap	440	265	190	300	...
Morocco					
Unwrought (a)	156	158	127	122	...
Canada					
Unwrought	3 698	3 925	3 791	4 115	3 959
Mexico					
Concentrates	5 503	6 311	7 042	3 415	13 075
Scrap	156	135	140	467	...
USA					
Concentrates (b)	1 639	4 031	2 967	2 837	216
Unwrought	33 830	35 768	41 150	43 632	34 235
Unwrought alloys	3 377	1 018	1 610	1 924	6 373
Scrap	737	925	1 453	916	976
Argentina					
Unwrought	469	1 344	726	551	632
Chile					
Unwrought	296	333	497	389	...
Colombia					
Unwrought (a)	317	378	311	329	334
Peru					
Unwrought (a)	158	324	312	130	173
Venezuela					
Unwrought (a)	967	782	1 015	1 149	544
Hong Kong					
Concentrates	6 100	1 755	7 985	18 308	20 457
Unwrought	3 983	3 568	4 655	6 152	6 877
India (f)					
Unwrought (a)	1 766	3 615	2 150	2 944	3 503
Scrap	12 254	7 211	2 488	2 729	...
Iran (d)					
Unwrought	269	313	452	176	...
Japan					
Unwrought	28 297	31 769	31 997	32 004	32 673
Unwrought alloys	1 983	542	1 591	3 513	3 010
Korea, Republic of					
Concentrates	2 687	1 532	3 698	4 123	3 691
Unwrought (a)	1 603	3 755	4 296	4 924	10 380
Malaysia					
Concentrates	13 634	23 806	31 408	40 030	42 398
Unwrought (a)	795	601	805	1 469	1 041
Philippines					
Unwrought (a)	360	465	797	733	671
Singapore					
Concentrates	8 315	5 501	12 064	8 846	3 831
Unwrought	1 119	12 742	11 021	5 764	2 506
Scrap	337	281	536	621	510
Taiwan					
Unwrought (a)	1 724	4 512	4 409	5 343	4 588

Imports of Tin

Tin
tonnes

Country	1985	1986	1987	1988	1989
Australia					
Unwrought	136	186	177	431	...
New Zealand (c)					
Unwrought (a)	153	139	156	264	73

Note(s):

- (1) In this table the term 'unwrought' tin corresponds to item 687.1 of the Standard International Trade Classification (Revision 3) and comprises ingots, pigs, unwrought bars, sticks, etc.
- (a) Including alloys
- (b) Sn content
- (c) Years ended 30 June of that stated
- (d) Years ended 20 March following that stated
- (e) BGS estimates, based on known exports from certain countries
- (f) Years ended 31 March following that stated

Production of Titanium Minerals

tonnes

Country	1985	1986	1987	1988	1989
Portugal					
Ilmenite	227	232	141	59	111
Finland					
Ilmenite	53 000	—	—	—	—
Norway					
Ilmenite	735 842	802 426	852 323	898 035	929 830
Soviet Union					
Ilmenite	*445 000	*450 000	*450 000	*460 000	*460 000
Rutile	*10 000	*10 000	*10 000	*10 000	*10 000
Sierra Leone					
Ilmenite	—	—	5 600	42 118	62 310
Rutile	80 611	97 101	113 252	126 358	128 198
South Africa (c)	255 000	255 000	317 000	*350 000	*400 000
Canada (a)					
Ilmenite (d)	2 560 000	*2 500 000	*2 500 000	*2 400 000	*2 800 000
USA					
Ilmenite (b)	*290 000	*290 000	*290 000	*300 000	*300 000
Brazil					
Ilmenite	68 827	61 414	169 303	142 167	144 200
Rutile	389	311	392	1 514	2 600
China					
Ilmenite	*145 000	*145 000	*145 000	*150 000	...
India					
Ilmenite	143 000	*140 000	*140 000	*140 000	*140 000
Rutile	6 800	*7 000	*7 000	*7 000	*7 000
Malaysia					
Ilmenite	315 736	414 941	509 202	486 305	520 127
Sri Lanka					
Ilmenite	114 954	133 873	128 500	97 085	107 254
Rutile	8 605	8 443	7 200	13 759	5 589
Thailand					
Ilmenite	1 078	13 489	26 278	16 455	16 955
Leucoxene	488	797	800	1 798	30
Australia					
Ilmenite	1 418 867	1 237 694	1 498 087	1 442 894	1 696 000
Rutile	211 615	215 774	246 263	246 204	243 000
Leucoxene	13 809	14 143	11 290	12 946	18 000
World total					
Ilmenite (Wt. of concs)	7 000 000	6 900 000	7 700 000	7 600 000	8 500 000
Rutile (Wt. of concs)	374 000	395 000	435 000	456 000	457 000
All forms (TiO ₂ content)	*3 884 000	*3 855 000	*4 262 000	*4 269 000	*4 723 000

Note(s):

- (1) The figures in this table refer to gross tonnage of titanium concentrates
- (2) Some ilmenite is converted to synthetic rutile in Australia, India, Japan, Taiwan and USA
- (a) Canada produces some ilmenite which is sold as such and not processed into slag, but tonnages are small
- (b) Including a mixed product containing ilmenite, leucoxene and rutile
- (c) Ti content of titanium minerals and slag
- (d) Processed into slag. In 1989 Canada produced 1050 000 tonnes (80% TiO₂)

Exports of Titanium

Country	1985	1986	1987	1988	1989
United Kingdom					
Ilmenite	1 125	—	16 187	33	1
Metal	2 512	2 094	2 036	3 089	4 592
Oxides	120 134	136 715	158 537	165 607	169 012
Belgium-Luxembourg					
Metal	173	109	213	243	293
Oxides	68 898	70 850	71 343	100 548	108 579
France					
Titanium minerals	247	108	1 785	481	4 735
Metal	1 717	1 189	881	2 143	3 115
Oxides	155 082	161 104	156 571	160 887	167 340
Germany, Federal Republic of					
Ilmenite	7 556	920	348	1 112	1 380
Other titanium minerals	7 520	4 144	3 494	2 634	3 467
Metal	1 868	1 276	1 415	2 370	3 778
Oxides	220 838	229 431	235 606	236 833	229 693
Italy					
Titanium minerals	1 906	1 335	31	1 280	440
Metal	130	211	156	454	900
Oxides (b)	*22 700	*25 500	*23 000	*28 400	*32 700
Netherlands					
Ilmenite	739	525	3 087	2 426	1 975
Other titanium minerals	29 925	35 208	64 248	52 808	46 833
Metal	73	61	48	104	289
Oxides	35 060	35 955	33 891	40 508	41 526
Spain					
Oxides	39 934	23 997	26 836	21 943	23 811
Czechoslovakia					
Oxides (b)	*2 600	*3 300	*3 500	*2 500	*3 600
Finland					
Oxides (b)	*46 500	*50 400	*52 800	*51 800	*54 600
Norway					
Titanium minerals	641 910	693 265	715 915	692 879	678 364
Oxides (b)	*9 800	*8 900	*14 900	*11 500	*18 200
Soviet Union					
Metal (b)	*1 200	*700	*700	*3 200	*5 100
Sweden					
Metal	430	288	402	445	536
Oxides	568	608	651	637	426
Switzerland					
Oxides	(f)397	(f)139	(f)128	918	1 566
Yugoslavia					
Oxides	16 209	17 961	19 794	20 932	22 410
Sierra Leone					
Rutile	77 931	120 542	...	126 729	...
South Africa					
Titanium minerals & slag (a)	222 000	243 000	272 000	...	...
Canada					
Titanium slag	*750 000	*750 000	*800 000	*850 000	*950 000
Metal	(d)480	(d)597	(d)493	440	480
Oxides	(d)24 151	(d)22 235	(d)15 905	32 470	44 536
USA					
Titanium minerals	25 183	4 842	4 024	10 162	20 138
Metal	9 470	16 151	10 899	11 162	13 695
Oxides	93 640	105 180	120 896	123 326	213 566
Brazil					
Titanium minerals	2 832	5 474	6 600	...	2 643
China					
Metal (b)	*400	*100	*400	*900	*800
Oxides (b)	*3 900	*6 200	*10 300	*25 100	*22 300
Hong Kong					
Oxides (c)	2 743	2 840	4 784	13 210	14 544
India (e)					
Ilmenite	17 956	14 605	42 352	119 108	...

Titanium

Exports of Titanium

tonnes

Country	1985	1986	1987	1988	1989
Japan					
Metal	7 330	6 143	7 073	10 759	13 584
Oxides	61 662	69 346	78 441	81 495	86 433
Korea, Republic of					
Oxides	2 148	1 497	3 215	3 921	5 936
Malaysia					
Ilmenite	249 218	397 696	302 587	367 363	346 279
Singapore					
Oxides	821	1 445	1 461	2 683	3 452
of which: Re-exports	810	1 287	1 189	2 623	3 131
Sri Lanka					
Ilmenite	134 550	139 400	105 000	94 700	...
Rutile	6 800	11 860	—	5 982	...
Taiwan					
Oxides	29	395	12	501	767
Australia					
Ilmenite	1 151 921	1 034 209	1 045 497	1 040 585	1 008 000
Rutile	211 723	229 665	256 781	244 482	258 000
Leucoxene	16 779	13 474	10 685	12 976	23 000
Oxides (b)	*24 900	*29 500	*28 900	*26 500	*50 700

Note(s):

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

Imports of Titanium

Country	1985	1986	1987	1988	1989
United Kingdom					
Ilmenite	277 971	283 274	293 474	299 561	380 392
Other titanium minerals	88 900	90 380	122 735	157 342	108 965
Titanium slag	36 607	38 143	37 666	47 825	46 483
Metal	7 959	8 854	12 626	16 686	15 967
Oxides	34 400	37 864	37 193	41 452	48 560
Belgium-Luxembourg					
Ilmenite	71 237	56 604	67 450	72 379	78 549
Other titanium minerals	51 062	50 210	65 255	29 728	36 592
Metal	1 313	859	877	1 640	1 162
Oxides	29 808	29 579	33 859	35 655	45 800
Denmark					
Oxides	10 569	11 144	11 632	13 389	15 224
France					
Ilmenite	124 164	171 650	62 971	101 730	61 493
Other titanium minerals	108 892	94 086	132 942	144 675	139 535
Titanium slag	63 686	110 446	115 508	120 457	167 709
Metal	2 701	1 775	2 638	3 716	6 017
Oxides	46 502	46 451	48 200	60 241	66 233
Germany, Federal Republic of					
Ilmenite	467 169	432 551	465 354	449 361	459 017
Other titanium minerals	19 193	18 053	18 075	20 988	16 955
Titanium slag	246 179	229 223	239 572	244 726	255 792
Metal	3 976	2 902	3 126	5 185	6 616
Oxides	81 916	91 228	97 672	121 803	138 118
Greece					
Oxides	9 546	10 215	9 200	...	...
Irish Republic					
Oxides	3 071	3 300	1 791	1 553	1 419
Italy					
Ilmenite	141 419	36 524	119 145	46 967	50 086
Other titanium minerals	4 760	18 324	6 105	1 602	...
Titanium slag	83 365	85 752	77 930	84 753	...
Metal	3 010	3 472	3 409	3 858	3 494
Oxides	55 216	60 176	62 446	71 264	83 575
Netherlands					
Ilmenite	4 816	3 717	5 204	4 766	2 062
Other titanium minerals	35 014	43 749	59 251	75 071	34 939
Titanium slag	36 594	45 260	46 919	46 157	50 197
Metal	215	234	344	353	771
Oxides	29 312	28 618	32 187	43 856	50 163
Portugal					
Oxides	9 460	10 646	12 193	8 189	5 383
Spain					
Ilmenite	186 184	104 153	133 841	138 556	140 167
Other titanium minerals	2 433	2 767	2 100	4 269	1 815
Metal	1 128	1 789	449	533	806
Oxides	10 419	12 769	13 839	19 636	27 492
Austria					
Oxides	11 915	11 913	12 708	15 793	18 267
Bulgaria					
Titanium minerals (b)	*2 300	*2 600	*3 800	*3 000	*3 000
Oxides (b)	*3 500	*2 500	*1 800	*2 100	*2 200
Czechoslovakia					
Oxides (b)	*3 800	*3 200	*3 200	*3 000	*2 900
Finland					
Titanium minerals (b)	*21 200	*41 700	*50 500	*43 100	...
Oxides	2 498	2 083	3 580	2 330	3 027
German Democratic Republic					
Oxides (b)	*20 100	*20 900	*22 400	*25 100	*23 900
Norway					
Oxides	6 609	7 601	7 309	7 693	9 287
Romania					
Titanium minerals (b)	*6 400	*5 000	*8 600	*4 800	*8 200
Oxides (b)	*7 500	*5 600	*2 800	*2 000	*2 600
Soviet Union					
Titanium minerals (b)	*89 200	*5 000	...	*19 200	*8 100
Oxides (b)	*9 800	*5 300	*11 600	*15 300	*16 500

Titanium

Imports of Titanium

tonnes

Country	1985	1986	1987	1988	1989
Sweden					
Titanium minerals	4 636	2 676	2 405	1 376	1 809
Metal	644	704	500	551	1 011
Oxides	23 899	24 856	25 532	26 731	28 267
Switzerland					
Oxides	(a)2 348	(a)1 693	(a)2 004	18 552	22 088
Turkey					
Titanium minerals	3 196	9 337	4 527	3 219	...
Oxides	17 165	17 478	22 198	15 873	...
Yugoslavia					
Titanium minerals	27 275	48 147	48 463	46 058	52 518
Oxides	4 294	5 300	4 535	5 014	5 387
Algeria					
Oxides	14 299	15 253	12 206	...	...
Egypt					
Oxides	60	424	1 085	...	...
Kenya					
Oxides	678	518	785	524	...
Morocco					
Oxides	3 293	2 904	3 716	3 517	...
South Africa					
Oxides	1 104	631	786	1 384	1 041
Zimbabwe					
Oxides	1 253	1 253	1 192	...	...
Canada					
Titanium minerals (g)	1 959	2 894	19 311	32 061	58 246
Metal	589	480	392	1 637	2 621
Oxides	25 154	27 693	30 618	22 412	21 046
Mexico					
Ilmenite	29 577	47 129	44 562	29 101	...
Rutile sand	2 527	2 173	1 484	2 064	...
USA					
Ilmenite	460 543	423 045	308 524	418 976	459 403
Rutile (c)	162 988	200 118	225 650	260 087	264 895
Titanium slag	264 742	328 285	418 633	434 645	386 146
Metal	5 283	4 812	3 984	6 648	7 769
Oxides	177 671	183 863	174 290	185 758	166 378
Argentina					
Titanium minerals	526	1 994	1 780	2 015	1 032
Brazil					
Ilmenite	15 000	15 000	10 000	50 000	105 000
Rutile	2 994	2 614	3 026	3 491	3 006
Oxides	5 107	15 089	17 274	17 516	34 743
Chile					
Oxides	(b)*2 600	4 384	4 530	3 883	(b)*3 900
Colombia					
Oxides	7 623	8 708	...	...	...
Uruguay					
Oxides	2 580	5 291	5 958	3 881	...
Venezuela					
Oxides	11 541	13 805	19 751	18 573	...
China					
Metal (b)	*100	*200	*300	*300	*500
Oxides (b)	*23 500	*20 300	*19 400	*16 100	*22 400
Hong Kong					
Oxides	7 492	8 283	11 308	20 906	24 014
India (d)					
Oxides	6 231	14 849	13 137	10 315	...
Indonesia					
Oxides	15 131	14 112	14 182	12 088	18 055
Iran (f)					
Oxides	2 903	2 905	2 529	3 098	...
Israel					
Oxides	1 537	(b)*1 100	...	4 904	3 563

Imports of Titanium

Country	1985	1986	1987	1988	1989
Japan					
Titanium minerals	604 044	670 436	570 377	642 209	616 090
Titanium slag	95 476	89 956	88 387	...	...
Metal	...	...	...	924	1 062
Oxides	39 212	40 034	45 677	48 980	71 306
Jordan					
Oxides	1 921	808	1 922	2 203	1 402
Korea, Republic of					
Rutile sand	5 270	6 125	6 822	6 940	6 806
Titanium minerals	34 300	43 969	57 096	55 177	62 102
Metal	111	204	341	486	757
Oxides	22 651	28 143	28 688	37 048	41 785
Malaysia					
Titanium minerals	200	2 123	3 759	20 662	5 399
Oxides	7 623	7 616	8 755	10 299	15 980
Pakistan (e)					
Oxides	2 437	2 851	3 416	3 677	...
Philippines					
Titanium minerals	487	966	1 305	1 550	1 535
Oxides	5 483	8 218	10 537	7 934	14 945
Saudi Arabia					
Oxides	4 701	4 252	5 775	6 427	5 102
Singapore					
Oxides	6 854	8 725	8 508	11 100	14 976
Taiwan					
Oxides	32 536	43 592	47 505	48 703	56 933
Thailand					
Rutile	1 867	485	1 400	2 033	...
Oxides	1 828	1 708	2 210	15 122	...
Australia					
Oxides	1 250	1 213	1 167	742	...
New Zealand (e)					
Oxides	6 626	6 357	8 192	6 505	6 839

Note(s):

- (1) Significant quantities of titanium slag are traded, but it is not always possible to identify this material in national trade accounts
 - (2) So far as possible, the term 'oxides', as used in this table, includes oxides and oxide based pigments classified under Standard International Trade Classification (Revision 3) items 522.56 and 533.1
 - (3) Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys
- (a) Excluding oxide based pigments
 - (b) BGS estimates, based on known exports from certain countries
 - (c) Including synthetic rutile
 - (d) Years ended 31 March following that stated
 - (e) Years ended 30 June of that stated
 - (f) Years ended 20 March following that stated
 - (g) Ti content

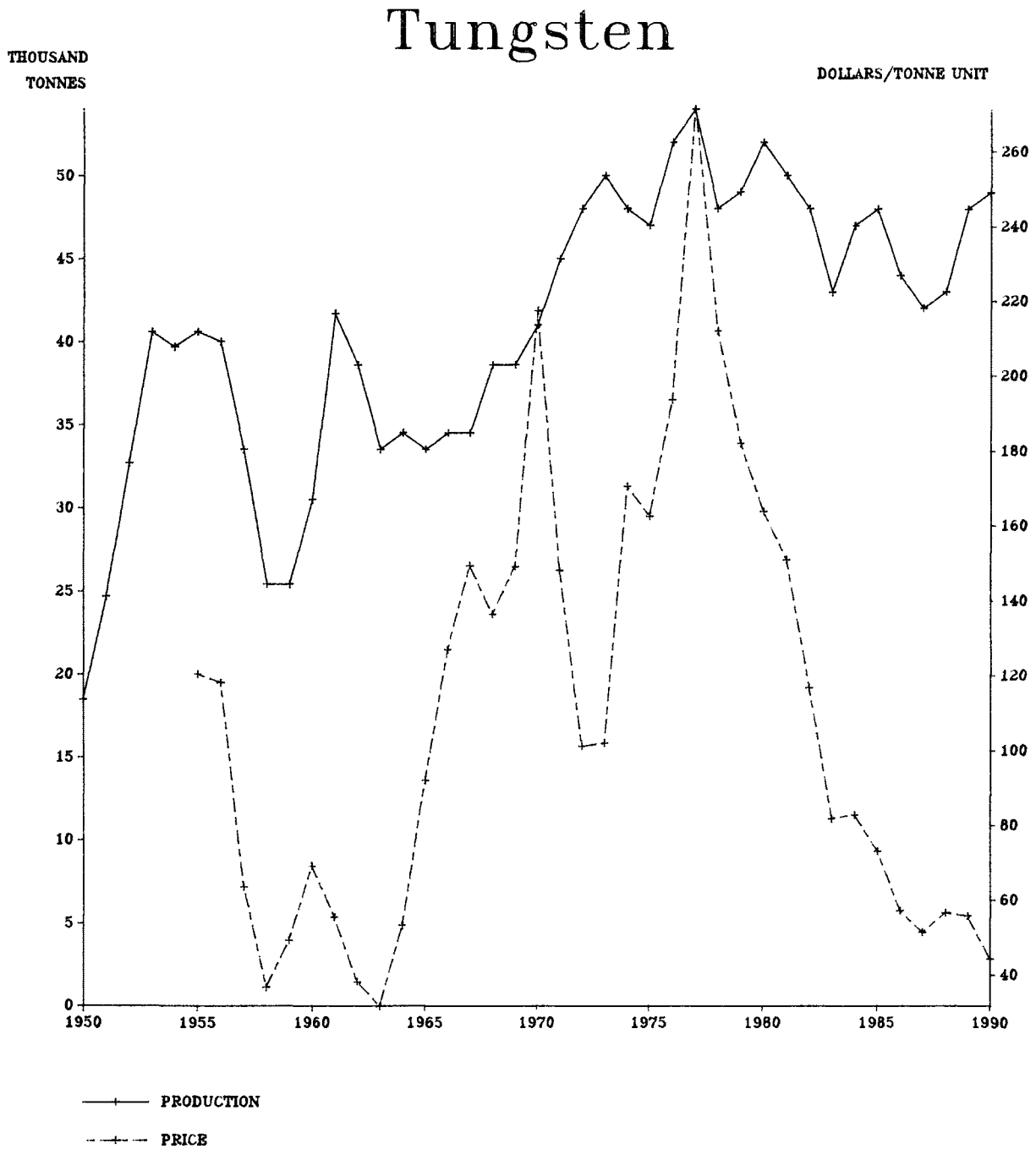


Figure 22 World mine production of tungsten compared with the annual average UK price of concentrate (65% WO₃) c.i.f. European ports and, from 1979, weighted average International Tungsten Indicator price, expressed in constant 1985 US dollars.

Mine Production of Tungsten

tonnes (metal content)

Country	1985	1986	1987	1988	1989
France	735	987	—	—	—
Portugal (c)	1 765	1 657	1 209	1 379	1 385
Spain	458	495	80	80	81
Austria	1 967	1 454	970	950	1 177
Czechoslovakia	*50	*50	*45	*50	*50
Soviet Union	*9 200	*9 200	*9 200	*9 200	*9 200
Sweden	402	360	336	352	80
Turkey	448	475	384	393	*400
Rwanda	310	24	85	41	—
Uganda	18	15	30	75	...
Zaire (b)	17	27	21	20	16
Zimbabwe	14	2	1	1	0
Canada (a)	3 197	1 959	—	—	—
Mexico	282	294	213	206	170
USA	996	780	34	350	400
Argentina	17	20	14	13	20
Bolivia	1 643	1 094	638	900	1 171
Brazil (a)	1 090	875	800	738	679
Peru	771	742	259	432	961
China	*17 000	*19 000	*20 000	*23 000	*23 000
India	28	23	26	19	12
Japan	463	482	209	212	223
Korea, Dem. P.R. of	*1 000	*1 000	*500	*500	*500
Korea, Republic of	2 580	2 455	2 375	2 029	1 701
Malaysia	21	4	—	—	—
Mongolia	*1 500	*1 500	*1 500	*2 000	*2 000
Myanmar (b)	945	715	493	450	464
Thailand (c)	586	475	652	605	560
Australia (c)	1 970	1 600	1 150	1 281	1 371
World total	49 000	48 000	41 000	45 000	46 000

(a) Mainly scheelite

(b) Including tin-wolframite concentrates

(c) Wolframite and scheelite

Tungsten

Exports of Tungsten

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Tungsten ore	184	156	597	449	41
Metal	833	496	483	467	766
Carbide	900	923	623	378	463
Belgium-Luxembourg					
Metal	253	151	197	204	158
France					
Tungsten ore	484	353	242	99	0
Metal	499	427	414	431	443
Carbide	244	218	169	198	331
Germany, Federal Republic of					
Metal	1 322	1 244	1 225	1 034	1 444
Italy					
Metal	186	186	240	158	130
Netherlands					
Tungsten ore	1 166	97	82	165	74
Metal	523	510	813	598	1 104
Portugal					
Tungsten ore	2 604	1 455	2 048	2 384	1 930
Spain					
Tungsten ore	714	743	140	87	115
Austria					
Tungsten ore	0	114	60	66	—
Metal	1 485	1 085	823	1 119	1 318
Sweden					
Tungsten ore	193	394	265	688	598
Metal	194	52	84	96	10
Carbide	131	89	70	53	22
Switzerland					
Metal	63	38	33	89	92
Turkey					
Tungsten ores & concentrates	521	680	832	433	...
Rwanda					
Tungsten ores & concentrates	270	305	45	25	...
Zaire					
Tungsten ore	64	60	53	18	...
Zimbabwe					
Tungsten ore	36	—	—	...	...
Canada					
Tungsten ores & concentrates (a)	*2 800	*1 400	—	1	...
Mexico					
Tungsten ores & concentrates	1 093	772	633	465	317
USA					
Tungsten ores & concentrates	175	34	2	153	151
Metal	2 844	2 016	1 637	1 810	2 088
Ammonium paratungstate (a)	72	10	285	174	127
Carbide	683	369	388	619	1 374
Bolivia					
Tungsten ore	*2 500	2 279	1 827	*1 500	*2 100
Brazil					
Tungsten ore	514	137	—	—	—
Peru					
Tungsten ores & concentrates	1 560	1 010	598	1 006	1 432
China					
Tungsten ores & concentrates	21 267	23 624	23 117	27 290	30 901
Metal	156	365	337	408	791
Hong Kong					
Tungsten ore (c)	1 717	2 013	3 692	2 008	3 925
Israel					
Metal	515	344	...	...	...

Exports of Tungsten

Country	1985	1986	1987	1988	1989
Japan					
Metal	235	260	269	312	588
Korea, Dem. P.R. of					
Tungsten ores & concentrates (a)	*800	*800	...	...	...
Korea, Republic of					
Tungsten ore	747	514	466	203	48
Metal	364	261	288	328	526
Carbide	543	582	499	574	704
Myanmar (b)					
Tungsten ores & concentrates	920	1 457	823	600	...
Singapore					
Tungsten ore	1 438	732	1 166	708	614
of which: Re-exports	1 420	732	1 166	708	614
Metal	68	52	86	165	120
of which: Re-exports	39	3	28	10	43
Thailand					
Tungsten ore	1 142	923	1 179	1 069	719
Australia					
Wolframite ores & concentrates	1 335	843	146	3	...
Scheelite ores & concentrates	1 965	1 683	1 909	2 202	(d)1 887

Note(s):

- (1) Significant amounts of tungsten are traded in the forms of ammonium paratungstate (APT) and carbide. Though statistics are included where available, most countries do not separately distinguish these forms in their trade accounts
 - (2) Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys
- (a) W content
(b) Years ended 31 March following that stated
(c) Re-exports
(d) Including wolframite ores and concentrates

Tungsten

Imports of Tungsten

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Tungsten ore	627	549	311	20	85
Metal	632	558	424	792	624
Carbide	554	404	467	584	473
Belgium-Luxembourg					
Metal	263	258	232	345	305
Carbide	574	534	298	309	276
Denmark					
Carbide	205	250	266	...	...
France					
Tungsten ore	351	179	38	—	4
Metal	331	195	230	256	215
Carbide	242	247	160	293	288
Germany, Federal Republic of					
Tungsten ore	3 843	3 184	3 454	4 105	4 819
Metal	1 314	1 194	1 463	1 443	1 813
Carbide	437	552	501	642	980
Italy					
Tungsten ore	181	145	156	41	40
Metal	130	137	128	135	229
Carbide	377	346	443	394	...
Netherlands					
Tungsten ore	1 145	227	380	436	310
Metal	451	661	555	423	778
Spain					
Metal	481	76	37	33	44
Austria					
Tungsten ore	3 810	3 106	2 215	1 249	807
Metal	1 141	941	838	925	2 583
Finland					
Metal	18	24	29	39	28
Poland					
Tungsten concentrates	1 170	2 450	1 440	820	—
Soviet Union					
Tungsten concentrates	*11 600	*14 000	*14 200	*14 200	*14 000
Sweden					
Tungsten ore	1 150	1 329	268	756	659
Metal	42	211	172	233	261
Carbide	117	286	310	198	585
Switzerland					
Metal	98	64	61	75	71
Turkey					
Metal	50	37	66	71	34
Yugoslavia					
Metal	17	19	17	38	13
South Africa					
Tungsten ores & concentrates	542	515	367	436	312
Metal	25	...	16	32	45
Carbide	80	55	104	69	...
Canada					
Metal	(d)149	(d)97	(d)87	218	209
Mexico					
Metal	110	51	69	74	160
USA					
Tungsten ore	10 476	5 693	7 908	14 853	15 679
Metal	825	792	1 290	1 856	2 212
Ammonium paratungstate (a)	1 351	1 219	1 512	655	431
Carbide	463	416	558	633	703
Hong Kong					
Tungsten ore	3 799	3 626	1 278	1 419	3 658
India (c)					
Tungsten ore	475	360	343	468	*400
Metal	60	48	105	51	...
Israel					
Metal	804	302	139	253	...

Imports of Tungsten

Country	1985	1986	1987	1988	1989
Japan					
Tungsten ore	2 869	1 769	1 938	2 785	2 316
Metal	350	256	283	465	378
Korea, Republic of					
Metal	34	169	120	67	78
Malaysia					
Metal	42	146	102	281	335
Singapore					
Tungsten ore	1 699	1 235	1 175	764	685
Metal	100	101	105	130	154
Taiwan					
Metal	46	56	118	96	132
Australia (b)					
Metal	17	...	...	...	105

Note(s):

- (1) Significant amounts of tungsten are traded in the forms of ammonium paratungstate (APT) and carbide. Though statistics are included where available, most countries do not separately distinguish these forms in their trade accounts
 - (2) Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys
- (a) W content
 - (b) Years ended 30 June of that stated
 - (c) Years ended 31 March following that stated
 - (d) Imports from the USA

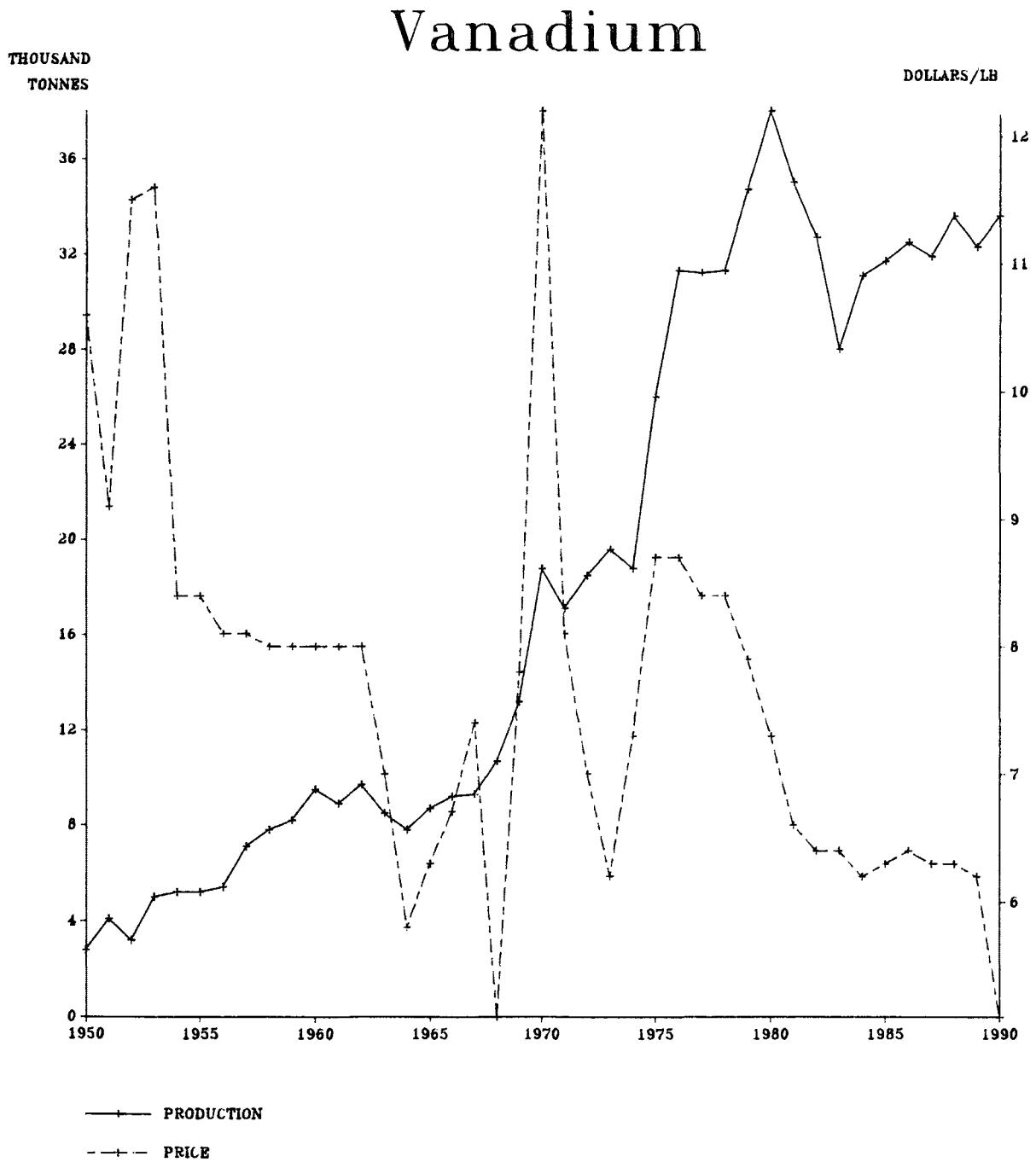


Figure 23 World mine production of vanadium compared with the annual average price in the USA of vanadium in vanadium pentoxide expressed in constant 1985 US dollars.

Mine Production of Vanadium

Vanadium
tonnes (metal content)

Country	1985	1986	1987	1988	1989
Finland	1 660	—	—	—	—
Soviet Union	*9 500	*9 600	*9 600	*9 600	*9 600
South Africa	14 021	16 629	15 943	17 632	18 568
USA	*2 000	*1 800	*1 900	*1 900	*2 200
China	*4 500	*4 500	*4 500	*4 500	*5 500
World total	31 700	32 500	31 900	33 600	35 900

Note(s):

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

Vanadium

Exports of Vanadium

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Metal	12	14	142	24	44
Belgium-Luxembourg					
Vanadiferous residues	4 685	7 631	3 095	3 080	2 765
Pentoxide	451	465	291	116	202
Vanadium-titanium pig iron	91	—	46	—	36
Metal	337	95	0	28	2
Denmark					
Vanadium-titanium pig iron	—	0	17	8	37
France					
Vanadiferous residues	181	323	96	529	134
Pentoxide	10	182	11	269	84
Vanadium-titanium pig iron	20	213	196	—	—
Metal	120	94	0	58	1
Germany, Federal Republic of					
Vanadiferous residues	4 296	2 735	3 742	195	871
Pentoxide	...	700	504	447	155
Vanadium-titanium pig iron	377	272	75	75	90
Metal	393	209	312	369	408
Italy					
Vanadiferous residues	1 901	1 238	657	3 163	...
Netherlands					
Vanadium-titanium pig iron	29	36	—	—	—
Finland					
Pentoxide (a)	*2 600	*1 800	*1 500	...	...
Soviet Union					
Vanadiferous residues	*12 000	*10 000	*10 000	*10 000	*10 000
South Africa					
Pentoxide (b)	22 018	29 726	26 251	28 281	29 550
USA					
Pentoxide	1 385	1 401	1 369	1 342	3 171
China					
Pentoxide (a)	*3 100	*4 700	*4 500	*4 900	*3 500

Note(s):

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

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

(b) Includes V₂O₅ content of vanadiferous residues

Imports of Vanadium

Country	1985	1986	1987	1988	1989
United Kingdom					
Pentoxide	260	373	255	104	256
Metal	129	155	238	235	232
Belgium-Luxembourg					
Vanadiferous residues	18 091	9 123	12 087	61	5 498
Pentoxide	4 049	4 056	4 194	3 717	5 929
Metal	350	96	0	10	0
France					
Pentoxide	2 216	1 416	127	88	252
Vanadium-titanium pig iron	8	8	—	75	75
Metal	141	35	111	141	90
Germany, Federal Republic of					
Vanadiferous residues	31 635	30 018	32 439	27 933	32 559
Pentoxide	1 870	1 806	1 554	1 623	1 454
Metal	267	66	40	59	25
Italy					
Vanadiferous residues	2 508	2 178	1 538	806	...
Pentoxide	69	15	95	84	...
Metal	35	71	22	...	...
Netherlands					
Vanadiferous residues	1 028	1 957	—	—	—
Spain					
Pentoxide	145	117	216	42	1
Austria					
Vanadiferous residues	...	...	...	21 137	22 827
Pentoxide	...	...	...	2 258	1 917
Turkey					
Pentoxide	101	0	137	109	...
Vanadium-titanium pig iron	...	500	2 670	895	...
Canada					
Pentoxide	1 130	1 177	1 410	1 468	1 263
USA					
Vanadiferous residues	1 466	13 083	22 251	17 834	45 636
Pentoxide	111	719	463	688	448
Brazil					
Pentoxide	1 210	984	998	979	1 033
Japan					
Pentoxide	3 786	3 101	2 763	5 339	4 313
Metal	...	...	...	173	154

Note(s):

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

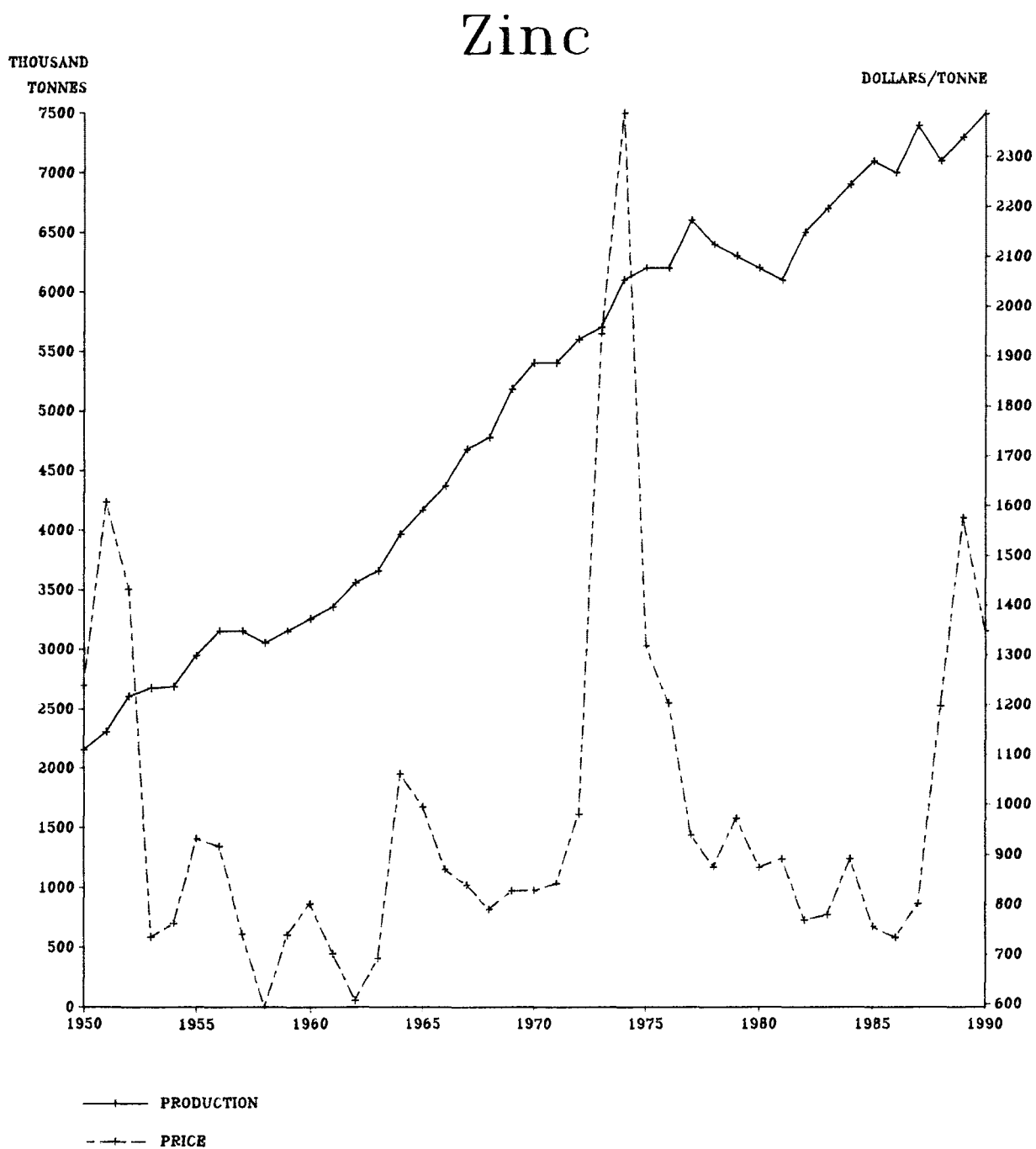


Figure 24 World mine production of zinc compared with the LME settlement price of high grade zinc and, from 1989, special high grade zinc expressed in constant 1985 US dollars. Trend-line analysis of the production data indicates a growth rate of approximately 3% per annum.

Mine Production of Zinc

tonnes (metal content)

Country	1985	1986	1987	1988	1989
United Kingdom	5 043	5 605	6 522	5 502	5 771
France	40 572	39 534	31 339	31 100	25 010
Germany, Federal Republic of	117 600	103 700	98 900	75 600	63 900
Greece	21 107	22 257	20 700	21 200	24 600
Irish Republic	191 700	181 700	177 000	176 500	168 800
Italy	45 438	26 303	33 200	37 900	44 000
Spain	234 695	233 307	272 556	274 711	281 724
Austria	24 259	17 844	16 983	19 134	15 749
Bulgaria	68 000	60 000	*68 000	46 600	56 900
Czechoslovakia	7 200	6 700	6 900	6 600	6 600
Finland	60 620	58 920	55 104	63 879	58 218
Greenland	70 300	62 000	69 000	77 000	72 000
Hungary	1 606	418	—	—	—
Norway	27 352	23 032	22 356	17 528	15 023
Poland	190 900	183 900	185 800	220 000	204 000
Romania	*40 000	*39 000	*40 000	*42 000	*45 000
Soviet Union	*1 000 000	*970 000	*950 000	*960 000	*940 000
Sweden	221 298	227 648	229 353	200 393	173 515
Turkey	39 674	40 574	42 223	37 447	36 800
Yugoslavia	89 347	94 590	74 000	71 200	88 930
Algeria	13 500	13 400	13 000	10 000	10 000
Congo	2 300	600	—	—	—
Morocco	15 250	17 170	10 165	10 935	17 300
Namibia	29 897	34 069	39 508	37 250	41 499
South Africa	96 943	101 859	112 686	89 551	77 334
Tunisia	5 600	4 500	5 900	9 000	9 500
Zaire	76 245	79 770	84 841	75 700	72 800
Zambia	31 900	31 605	35 400	27 450	23 500
Canada	1 172 238	1 290 765	1 481 544	1 347 424	1 216 139
Honduras	50 916	22 674	16 644	23 475	27 983
Mexico	275 412	271 351	271 480	262 228	283 958
USA	251 900	220 800	232 900	256 400	288 300
Argentina	35 713	39 540	35 648	36 849	43 155
Bolivia	38 110	33 472	39 292	56 957	74 790
Brazil	123 811	123 901	132 962	155 531	175 998
Chile	22 288	10 504	19 618	19 182	18 370
Peru (a)	582 600	597 576	612 477	485 429	597 412
China	395 000	395 700	458 200	527 300	620 400
India	53 000	45 000	53 300	59 100	65 200
Iran	25 000	29 000	36 000	25 000	25 000
Japan	253 021	222 071	165 675	147 217	131 794
Korea, Dem. P.R. of	*185 000	*225 000	*220 000	*220 000	*200 000
Korea, Republic of	45 746	37 282	23 530	21 820	23 202
Myanmar	2 900	3 000	1 700	1 600	1 400
Philippines	1 880	1 569	1 128	1 435	1 345
Saudi Arabia	...	...	...	1 500	2 600
Thailand	51 228	69 159	63 112	77 719	76 335
Vietnam	10 000	10 000	*10 000	*10 000	*10 000
Australia	759 083	711 958	778 386	760 308	803 000
World total	7 100 000	7 000 000	7 400 000	7 100 000	7 300 000

(a) Recoverable

Zinc

Production of Slab Zinc

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom	74 278	85 902	81 360	76 028	79 773
Belgium (a)	289 562	288 787	308 580	323 758	306 022
France	247 250	257 376	290 812	304 032	287 344
Germany, Federal Republic of	366 900	371 800	380 100	356 300	353 500
Italy	210 075	230 400	247 000	242 117	246 000
Netherlands	201 712	196 156	207 111	211 019	202 962
Portugal	5 900	5 700	5 800	5 500	5 000
Spain	213 300	199 300	213 600	245 400	246 400
Austria	25 585	23 567	24 963	26 321	27 473
Bulgaria	90 000	89 000	*93 000	*90 000	86 800
Finland	144 553	138 841	158 831	149 758	154 230
German Democratic Republic	*20 900	*20 000	*18 000	*18 000	*18 500
Norway	92 762	90 475	116 593	122 203	120 404
Poland	180 000	179 200	176 500	173 566	163 727
Romania	35 420	46 418	45 960	39 631	29 849
Soviet Union	*1 050 000	*1 065 000	*1 020 000	*1 035 000	*1 020 000
Turkey	22 200	15 400	20 200	22 500	24 200
Yugoslavia	83 398	89 286	118 067	127 524	119 394
Algeria	35 700	29 700	19 000	37 500	28 000
South Africa	93 704	80 803	96 051	85 193	85 000
Zaire	64 046	63 928	54 875	61 400	54 000
Zambia	22 766	22 493	21 025	20 220	12 900
Canada	692 406	570 981	609 909	703 206	669 677
Mexico	175 354	173 724	184 755	192 529	193 279
USA	333 772	316 281	343 934	329 786	358 209
Argentina	32 877	31 523	34 289	35 448	*34 000
Brazil	120 737	135 296	148 036	143 974	162 255
Peru	162 725	155 882	144 619	119 739	137 800
China	306 200	336 200	383 100	425 400	450 900
India	70 947	73 828	68 899	68 940	71 572
Japan	739 624	706 032	665 618	678 175	664 507
Korea, Dem. P.R. of	*180 000	*210 000	*225 000	*225 000	*215 000
Korea, Republic of	110 961	127 229	186 016	225 987	241 743
Thailand	62 108	58 552	66 868	64 694	62 674
Vietnam	*10 000	*10 000	*10 000	*10 000	*10 000
Australia	293 186	307 615	312 075	306 172	294 000
World total	6 900 000	6 800 000	7 100 000	7 300 000	7 200 000

(a) Including alloys

Exports of Zinc

Zinc
tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Ores & concentrates	108	5 225	8 852	9 330	13 363
Unwrought	8 060	11 448	4 197	7 089	8 896
Unwrought alloys	8 556	10 681	9 440	6 610	7 442
Scrap	17 846	17 285	22 461	25 079	30 256
Belgium-Luxembourg					
Ore	17 433	11 086	21 564	52 277	84 368
Unwrought	157 077	137 028	157 485	154 652	166 242
Unwrought alloys	32 433	48 904	55 943	46 392	35 969
Scrap	12 302	10 155	8 408	15 674	20 167
Denmark					
Unwrought (a)	42	79	279	96	67
Scrap	4 078	3 789	5 035	5 631	5 040
France					
Ore	102 056	85 555	49 307	31 190	26 823
Unwrought	68 653	59 715	70 507	66 222	71 426
Unwrought alloys	2 408	5 412	5 628	9 291	14 345
Scrap	11 502	14 102	12 233	23 086	28 844
Germany, Federal Republic of					
Ore	*191 300	*151 900	*174 800	*135 100	*125 500
Unwrought	114 326	97 278	93 628	109 226	97 171
Unwrought alloys	18 800	17 774	16 060	18 733	22 112
Scrap	16 181	18 328	17 993	29 468	29 165
Greece					
Ores & concentrates	43 300	45 250	49 240	40 300	46 833
Scrap	373	628	665	198	809
Irish Republic					
Ores & concentrates	370 754	368 974	352 778	347 856	336 092
Italy					
Ore	25 283	14 908	14 900	21 325	20 230
Unwrought	43 762	45 998	57 892	50 803	45 243
Unwrought alloys	2 010	2 843	2 169	1 546	3 606
Scrap	4 512	4 159	6 540	4 750	7 584
Netherlands					
Unwrought	173 861	174 891	182 548	179 807	161 996
Unwrought alloys	7 539	6 815	2 529	3 834	5 181
Scrap	10 544	11 924	17 542	23 652	29 290
Spain					
Ore	119 509	126 443	79 481	109 613	140 647
Unwrought (a)	127 214	94 198	105 532	146 231	147 646
Austria					
Unwrought	4 371	4 035	4 704	7 066	6 360
Scrap	1 123	1 543	2 338	2 399	2 539
Bulgaria					
Unwrought (a)(b)	*23 600	*22 500	*19 400	*16 000	*22 900
Czechoslovakia					
Ore (b)	*15 700	*14 200	*7 400	*2 800	*1 900
Finland					
Ore	—	—	—	1 608	2 690
Unwrought	127 056	110 945	108 189	122 720	134 006
Unwrought alloys	13 308	16 812	26 160	5 417	4 487
Scrap	436	1 209	1 385	2 595	4 424
Greenland					
Ores & concentrates	121 621	118 839	113 804	136 392	130 494
Hungary					
Scrap	3 824	1 881	2 045	1 937	2 281
Norway					
Ore	10 959	8 355	7 185	4 796	6 831
Unwrought	71 757	67 058	98 931	94 932	100 709
Unwrought alloys	6 883	10 177	7 265	5 912	4 212
Scrap	308	539	590	1 083	2 179
Poland					
Unwrought	28 050	22 562	19 080	25 191	16 000
Soviet Union					
Unwrought (a)(b)	*22 600	*22 700	*28 000	*48 100	*33 900
Sweden					
Ore	428 161	440 016	461 033	373 196	327 410
Unwrought (a)	1 104	973	1 257	833	201
Scrap	2 457	2 877	4 574	3 170	4 628

Zinc

Exports of Zinc

tonnes

Country	1985	1986	1987	1988	1989
Switzerland					
Unwrought	137	27	1	(a)411	(a)386
Scrap	1 182	1 222	868	1 192	1 208
Turkey					
Ores & concentrates	5 554	11 207	12 858	28 692	11 524
Unwrought	1 664	7 597	1 174	922	...
Yugoslavia					
Concentrates	—	314	—	1 735	4 117
Unwrought (a)	14 882	25 268	38 884	22 394	15 350
Algeria					
Unwrought	9 444	28 772	3 236	—	—
Morocco					
Ore	30 816	28 789	23 797	23 098	...
Namibia					
Concentrates	49 881	69 201	66 618	78 656	75 776
South Africa					
Ores & concentrates (c)	12 840	29 510	15 506	19 648	18 951
Unwrought	7 658	1 171	—	272	234
Tunisia					
Ore	4 705	10 600	15 256	17 510	19 425
Zaire					
Unwrought	60 470	73 860	46 115	38 813	...
Zambia					
Unwrought	19 880	5 157	36 098	13 739	12 700
Canada					
Ore (c)	396 102	450 252	613 180	850 243	657 841
Unwrought	(a)555 616	(a)427 175	(a)441 220	539 061	495 177
Unwrought alloys	...	...	...	17 759	13 819
Scrap	18 083	23 157	24 501	16 942	11 583
Honduras					
Ores & concentrates (c)	34 937	36 866	18 129	...	...
Mexico					
Ores & concentrates	214 656	197 774	157 516	142 328	169 146
Unwrought	78 100	74 361	71 522	80 543	90 803
USA					
Ore (c)	23 264	11 005	158 803	195 533	255 394
of which: Re-exports	—	7 737	141 882	161 944	176 517
Unwrought (a)	5 273	3 544	3 572	5 605	8 104
Scrap	38 615	63 269	82 280	95 147	97 703
Argentina					
Ores & concentrates	7 761	7 602	7 679	5 115	6 877
Unwrought	8 900	761	—	—	12 395
Bolivia					
Ore	*70 700	74 243	82 297	*112 400	*167 700
Brazil					
Unwrought	—	0	—	6 511	20 216
Chile					
Concentrates	36 765	27 582	39 204	34 352	39 754
Peru					
Concentrates	746 680	860 706	863 850	693 582	764 531
Unwrought (a)	113 760	108 514	80 480	51 381	91 260
China					
Ores & concentrates	...	...	37 220	108 175	115 266
Unwrought (a)	2 368	56 768	95 338	13 838	20 109
Hong Kong					
Unwrought (a)(g)	4 495	31 244	68 391	29 924	37 922
Scrap	78	33	109	1 105	3 912
of which: Re-exports	—	—	—	368	1 171
Indonesia					
Scrap	599	2 478	516	507	109
Iran (d)					
Ore	17 650	62 013	58 800	57 772	...
Japan					
Unwrought	33 427	23 382	51 854	21 129	17 862
Unwrought alloys	1 814	1 580	1 383	5 513	4 065
Scrap	1 436	1 880	3 233	5 017	5 973

Exports of Zinc

Zinc
tonnes

Country	1985	1986	1987	1988	1989
Korea, Dem. P.R. of					
Ores & concentrates (b)	*11 800	*11 000	...	*2 000	...
Unwrought (a)(b)	*34 600	*55 800	*68 900	*95 000	*74 500
Korea, Republic of					
Unwrought (a)	533	1 720	38 032	70 657	73 583
Malaysia					
Scrap	690	1 076	1 175	385	...
Myanmar (e)					
Concentrates	5 685	8 879	9 050	...	...
Philippines					
Concentrates	4 487	3 404	2 128	2 885	3 931
Scrap	179	304	495	622	888
Saudi Arabia					
Scrap	9 170	11 132	7 504	2 637	2 606
Singapore					
Unwrought	2 955	3 584	5 576	31 751	40 378
of which: Re-exports	2 535	3 231	4 822	30 980	39 412
Scrap	662	650	538	926	2 366
Taiwan					
Unwrought (a)	110	146	200	4 368	8 387
Thailand					
Unwrought (a)	20 057	27 825	17 616	12 967	13 376
Australia					
Ores & concentrates	836 324	875 233	865 984	979 652	999 000
Unwrought	214 549	217 422	240 689	208 000	203 000
Scrap	881	1 227	1 716	3 605	...
New Zealand (f)					
Scrap	521	707	791	1 179	1 046

Note(s):

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

(a) Including alloys

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

(c) Zn content

(d) Years ended 20 March following that stated

(e) Years ended 31 March following that stated

(f) Years ended 30 June of that stated

(g) Re-exports

Imports of Zinc

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Ores & concentrates	185 406	200 898	177 233	187 826	207 603
Unwrought	130 705	101 858	114 248	134 000	127 344
Unwrought alloys	4 763	4 123	7 242	4 957	6 312
Scrap	996	2 673	4 601	6 487	6 578
Belgium-Luxembourg					
Ore	568 469	520 277	588 803	611 709	605 123
Unwrought (a)	51 546	49 090	40 535	41 017	41 712
Scrap	10 081	7 310	14 070	20 247	18 513
Denmark					
Unwrought	12 369	11 889	10 205	12 065	10 917
Unwrought alloys	2 338	2 826	2 472	2 169	2 228
Scrap	52	86	474	898	88
France					
Ore	540 090	513 512	512 825	523 738	533 365
Unwrought	61 332	64 107	70 364	88 328	83 591
Unwrought alloys	27 691	34 702	30 968	22 834	25 435
Scrap	5 590	7 529	8 880	10 029	11 418
Germany, Federal Republic of					
Ore	592 709	620 810	664 024	604 455	595 494
Unwrought	156 436	161 687	159 908	180 163	186 489
Unwrought alloys	11 377	12 528	11 308	12 925	15 623
Scrap	19 823	15 514	16 546	28 916	30 539
Greece					
Unwrought (a)	17 344	16 764	15 410	7 789	10 900
Irish Republic					
Unwrought (a)	1 298	1 359	1 603	1 877	2 830
Scrap	152	57	393	188	347
Italy					
Ore	395 978	443 572	441 883	429 581	392 304
Unwrought	63 325	54 548	63 654	58 760	75 609
Unwrought alloys	15 025	14 018	16 198	12 502	14 200
Scrap	10 563	8 237	5 086	9 657	11 164
Netherlands					
Ore	444 706	396 439	439 522	478 840	419 139
Unwrought	21 332	24 960	26 499	36 072	36 108
Unwrought alloys	897	1 517	1 449	1 343	1 272
Scrap	12 290	11 686	7 788	4 176	8 144
Portugal					
Unwrought (a)	10 999	11 144	13 549	13 131	13 112
Scrap	2 178	2 199	1 813	2 542	456
Spain					
Ore	34 950	34 614	33 743	33 398	48 764
Unwrought (a)	1 730	7 173	6 919	6 501	9 528
Scrap	252	1 322	1 282	2 164	1 887
Austria					
Ore	10 793	10 133	16 688	15 326	26 184
Unwrought	8 686	11 433	10 282	16 243	13 441
Scrap	198	68	383	355	1 030
Bulgaria					
Ore (h)	*38 900	*35 900	*51 600	*60 900	*66 600
Czechoslovakia					
Unwrought (a)	58 000	61 000	57 000	54 000	62 000
Finland					
Ore	183 143	189 686	195 806	187 411	154 442
Unwrought (a)	103	79	95	63	550
German Democratic Republic					
Ore (h)	*77 300	*67 400	*80 200	*76 800	*76 100
Unwrought (a)(h)	*21 900	*20 500	*29 500	*36 000	*29 700
Hungary					
Unwrought (g)	20 543	28 167	27 567	26 358	19 186
Iceland					
Unwrought (a)	75	71	92	131	129
Malta					
Unwrought (a)	134	145	109	179	162

Imports of Zinc

Zinc
tonnes

Country	1985	1986	1987	1988	1989
Norway					
Ore	104 461	110 468	171 939	99 332	84 719
Unwrought (a)	819	377	855	510	1 429
Scrap	5 551	5 900	3 959	1 722	3 064
Poland					
Unwrought	5 254	2 226	2 994	2 486	...
Soviet Union					
Ore (h)	*82 900	*107 600	*88 800	*52 100	*72 600
Unwrought (a)(h)	*29 100	*16 600	*38 800	*60 300	*29 300
Sweden					
Unwrought	32 269	32 943	36 111	39 718	40 080
Unwrought alloys	3 035	3 130	3 502	3 598	3 014
Switzerland					
Unwrought	26 363	30 186	23 386	(a)20 379	(a)20 030
Scrap	24	141	123	0	80
Turkey					
Unwrought	27 573	24 064	33 616	19 371	1 146
Yugoslavia					
Concentrates	58 669	38 590	45 145	45 402	54 079
Unwrought (a)	39 281	18 773	1 425	7 756	13 799
Algeria					
Ores & concentrates	2 696	83 859	100 820	...	...
Egypt					
Unwrought (b)	10 735	11 412	7 158	...	...
Ivory Coast					
Unwrought (b)	4 610	3 021	...	2 796	...
Kenya					
Unwrought (a)	7 699	8 237	10 015	8 689	...
Morocco					
Unwrought (a)	3 373	2 397	19 177	2 923	...
Nigeria					
Unwrought (a)	4 965	1 211	1 875	...	...
South Africa					
Unwrought	3 685	5 024	2 429	(a)5 390	(a)14 067
Scrap	263	40	1 802	261	201
Tanzania					
Unwrought (a)	3 528	...	999	859	...
Tunisia					
Unwrought (b)	1 674	2 271	1 168	2 348	4 128
Canada					
Ores & concentrates (c)	(b)17 119	(b)36 410	(b)31 949	37 970	40 564
Unwrought	1 816	7 440	11 032	8 027	4 707
Scrap	...	...	...	2 474	1 379
Costa Rica					
Unwrought (a)	4 217	3 647	4 551	4 549	5 467
Dominican Republic					
Unwrought	1 390	2 003	...	...	...
Guatemala					
Unwrought (a)	2 352	1 531	2 823	3 352	...
Honduras					
Unwrought (a)	892	1 370	1 534	246	1 029
Jamaica					
Unwrought	548	629	981	815	708
Nicaragua					
Unwrought (a)	1 271	1 031	...	...	...
Panama					
Unwrought (a)	384	323	237	...	...
Trinidad & Tobago					
Unwrought	605	401	298	35	12
USA					
Ore (c)	91 392	197 735	425 516	405 710	388 596
Unwrought (a)	610 762	666 989	705 991	740 868	712 186
Scrap	3 247	4 521	4 025	5 727	9 291

Zinc

Imports of Zinc

tonnes

Country	1985	1986	1987	1988	1989
Argentina					
Unwrought	60	4 457	5 867	1 880	...
Brazil					
Ores & concentrates	75 316	76 853	95 246	94 238	100 402
Unwrought (a)	28 584	23 153	49 208	7 486	...
Chile					
Unwrought (a)	6 036	5 761	9 687	9 250	(h)*7 800
Colombia					
Unwrought (a)	14 917	12 614	...	18 946	...
Ecuador					
Unwrought (a)	4 012	3 867	87 418	53 692	2 436
Uruguay					
Unwrought	1 014	1 497	1 950	1 882	...
Venezuela					
Unwrought	15 117	11 778	18 633	21 228	...
Unwrought alloys	3 024	5 400	8 237	12 694	...
China					
Unwrought (a)	268 628	116 945	68 153	61 985	19 198
Hong Kong					
Unwrought	10 355	42 596	66 435	20 866	25 458
Unwrought alloys	22 358	27 665	29 217	44 633	29 779
Scrap	178	539	599	1 176	3 647
India (d)					
Ores & concentrates	12 550	19 714	10 935	22 537	...
Unwrought	34 138	28 432	87 119	74 932	29 900
Unwrought alloys	40 638	29 397	3 690	2 052	...
Scrap	3 689	2 695	4 293	2 808	...
Indonesia					
Unwrought (a)	50 612	48 558	49 176	51 705	44 447
Scrap	495	392	654	936	476
Iran (e)					
Unwrought	9 291	11 981	5 065	4 751	...
Israel					
Unwrought	(b)4 941	(b)6 201	(b)7 833	(a)7 956	(a)7 240
Japan					
Ore	856 648	916 166	974 026	1 068 407	1 028 985
Unwrought	64 970	92 753	105 319	112 772	132 746
Unwrought alloys	5 579	8 691	11 566	17 530	17 968
Scrap	345	57	4	764	759
Jordan					
Unwrought	603	1 128	981	692	1 005
Korea, Republic of					
Ores & concentrates	162 946	179 136	408 138	456 345	449 999
Unwrought (a)	11 399	117 492	36 387	20 453	20 345
Scrap	10 572	13 109	10 007	12 881	2 890
Macao					
Unwrought	1 901	1 423	1 504	4 071	2 503
Malaysia					
Unwrought	10 243	8 987	8 815	17 518	15 994
Unwrought alloys	7 987	5 907	9 695	6 451	...
Pakistan (f)					
Unwrought	15 357	11 868	14 766	15 385	...
Philippines					
Unwrought (a)	13 000	18 897	21 091	27 556	29 981
Saudi Arabia					
Unwrought	6 177	8 762	6 822	9 443	6 683
Singapore					
Unwrought	9 372	11 763	26 496	45 365	52 520
Scrap	415	221	574	520	737
Sri Lanka					
Unwrought (a)	1 031	1 524	1 422	1 571	...
Syria					
Unwrought (b)	198	158	580	...	...

Imports of Zinc

Zinc
tonnes

Country	1985	1986	1987	1988	1989
Taiwan					
Unwrought	39 410	56 406	64 459	63 574	56 908
Unwrought alloys	15 013	22 594	19 659	18 109	13 910
Scrap	19 837	69 369	110 814	151 681	163 383
Thailand					
Unwrought	13 352	2 764	2 554	1 398	...
Unwrought alloys	616	1 931	2 238	2 435	...
New Zealand (f)					
Unwrought (a)	24 675	19 642	20 403	17 061	19 148

Note(s):

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

Zirconium

Production of Zirconium Minerals

tonnes

Country	1985	1986	1987	1988	1989
Soviet Union	*85 000	*85 000	*85 000	*85 000	*85 000
South Africa (a)	160 533	*140 000	*140 000	*150 000	*160 000
USA	*70 000	*85 000	*90 000	114 651	*115 000
Brazil (b)	21 039	15 116	18 140	28 029	32 970
China	*15 000	*15 000	*15 000	*15 000	*15 000
India	*15 000	*16 000	*16 000	*17 000	*17 000
Malaysia	11 652	12 633	17 828	25 671	18 704
Sri Lanka	4 061	910	2 500	...	...
Thailand	1 292	1 705	1 532	5 098	1 496
Australia	501 440	451 824	456 590	505 888	511 000
World total	885 000	823 000	843 000	949 000	959 000

Note(s):

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

(a) Including baddeleyite (ZrO_2)

(b) Including caldasite rock containing zircon and baddeleyite

Exports of Zirconium

Country	1985	1986	1987	1988	1989
United Kingdom					
Concentrates	491	315	376	345	844
Metal	179	123	92	94	216
Belgium-Luxembourg					
Concentrates	102	0	28	509	678
Metal	6	14	25	273	21
France					
Concentrates	175	415	967	3 291	3 286
Germany, Federal Republic of					
Concentrates	15 051	15 621	15 287	7 913	5 139
Metal	88	104	75	78	59
Italy					
Concentrates	5 073	8 137	11 137	9 325	5 648
Metal	74	22	144	230	786
Netherlands					
Concentrates	40 008	36 548	23 788	14 742	15 552
Spain					
Concentrates	300	110	135	641	1 264
Zirconium sand	1 841	2 393	1 677	6 095	1 470
Sweden					
Metal	79	126	101	82	89
South Africa					
Concentrates	161 339	*120 000	*67 000	...	...
USA					
Concentrates	15 334	15 868	20 103	22 966	50 621
Metal	1 122	1 111	1 297	1 288	1 375
Malaysia					
Concentrates	2 499	4 015	11 930	28 263	13 178
Australia					
Concentrates	495 891	445 690	465 003	471 614	482 000

Note(s):

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

Zirconium

Imports of Zirconium

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom					
Concentrates	48 827	33 275	37 308	43 411	55 228
Metal	103	178	314	159	253
Belgium-Luxembourg					
Concentrates	5 954	3 112	2 522	3 719	2 227
Metal	174	242	208	198	181
France					
Concentrates	51 305	38 932	49 120	45 761	52 164
Metal	166	154	255	306	193
Germany, Federal Republic of					
Concentrates	78 929	83 002	58 895	...	...
Metal	489	395	425	402	415
Italy					
Concentrates	84 627	48 175	78 234	82 863	84 814
Metal	60	54	31	285	210
Netherlands					
Concentrates	40 856	38 464	29 927	27 707	45 304
Portugal					
Concentrates	1 858	1 895	2 285	...	...
Spain					
Concentrates	37 210	25 813	35 300	42 646	39 765
Zirconium sand	599	2 004	4 600	6 200	9 372
Austria					
Concentrates	...	...	...	1 836	1 821
Bulgaria					
Concentrates (a)	*1 700	*1 000	*2 500	*1 200	*1 100
Czechoslovakia					
Concentrates (a)	*2 300	*2 200	*2 400	*1 500	*800
Finland					
Concentrates	2 495	3 540	1 519	—	2 589
Soviet Union					
Concentrates (a)	...	*3 800	*4 000	*8 200	*3 200
Sweden					
Concentrates	3 113	4 269	1 139	232	32
Metal	256	296	253	262	273
Turkey					
Concentrates	387	644	757	620	...
Zirconium sand	2 660	3 141	5 252	5 719	...
Canada					
Concentrates	14 820	10 043	...	7 623	10 426
Metal	369	303	269	282	296
Mexico					
Zirconium sand	4 678	1 217	770	8 467	...
USA					
Concentrates	39 724	68 764	67 918	76 332	73 129
Metal	408	317	382	356	500
Argentina					
Concentrates	131	61	178	119	...
Zirconium sand	1 258	2 814	3 174	3 660	4 494
Brazil					
Concentrates	12 135	12 699	7 172	15 058	8 908
Japan					
Concentrates	238 321	171 709	177 474	197 592	172 848
Metal	638	498	415	510	641
Korea, Republic of					
Concentrates	5 928	10 844	19 002	24 430	21 813
Malaysia					
Concentrates	518	474	880	710	3 146
Philippines					
Zirconium sand	234	357	593	589	579
Taiwan					
Zirconium sand	1 053	792	1 829	6 732	6 617

Note(s):

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

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

Production of Beryl

tonnes

Country	1985	1986	1987	1988	1989
Portugal	2	—	35	4	*4
Soviet Union	*1 900	*2 000	*2 000	*2 000	*2 000
Madagascar	130	*50	0	15	30
Mozambique	3	1	—	—	—
Rwanda	27	—	—	—	—
South Africa	5	3	0	0	—
Zambia	0	1	1 131	1 343	880
Zimbabwe	38	103	85	32	46
USA	5 205	5 927	5 499	5 313	4 592
Argentina	31	50	46	39	89
Brazil (a)	878	812	693	594	576

Note(s):

(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	1985	1986	1987	1988	1989
Finland	7 119	8 540	8 125	10 727	...
Soviet Union	*200 000	*200 000	*200 000	*200 000	*200 000
Turkey	954 359	928 010	980 150	1 230 828	1 114 280
USA (a)	1 151 000	1 135 000	1 256 000	1 149 000	1 114 000
Argentina	158 252	191 871	184 796	269 574	261 308
Chile	4 773	6 440	13 438	32 122	130 512
Peru	*10 000	22 557	14 295	*15 000	*18 000
China	*27 000	*27 000	*27 000	*27 000	*27 000

Note(s):

(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	1985	1986	1987	1988	1989
Austria	5	6	7	6	6
Soviet Union	*11	*11	*11	*12	*12
USA (a)	*22	*22	*25	*21	*20
China	*6	*6	*6	*6	*6
Japan	10	9	5	4	3

Note(s):

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

(a) Including production of secondary metal

Magnesium

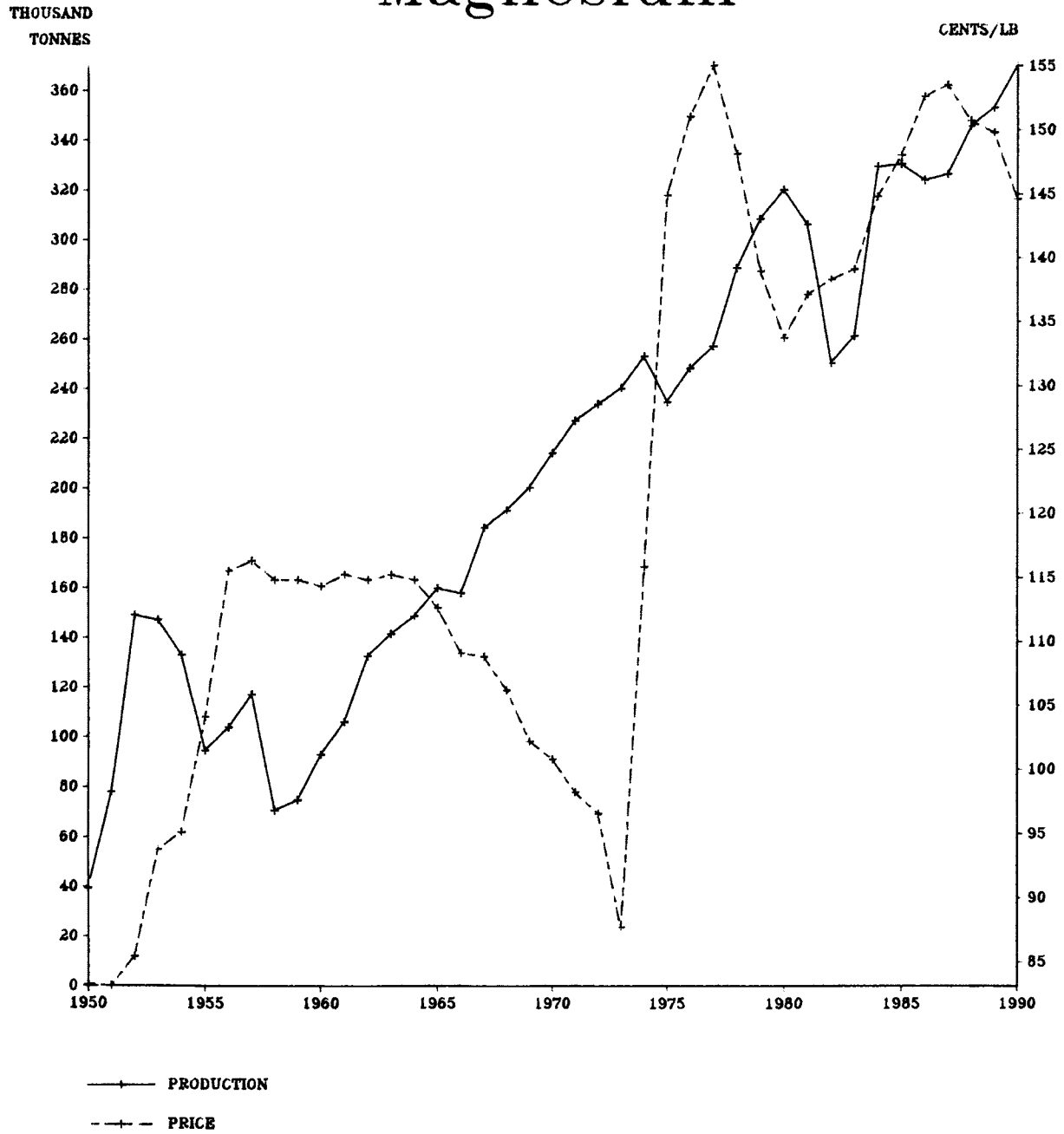


Figure 25 World production of primary magnesium metal compared with the price of magnesium ingot (99.8%) according to *American Metal Market* expressed in constant 1985 US dollars.

Production of Primary Magnesium Metal

tonnes

Country	1985	1986	1987	1988	1989
France	13 639	13 361	13 605	13 776	14 600
Italy	7 862	7 245	7 626	5 589	5 768
Norway	54 704	56 864	56 853	50 317	49 827
Soviet Union	*85 000	*86 000	*86 000	*90 000	*85 000
Yugoslavia	4 918	4 897	5 932	6 176	6 106
Canada	8 446	8 748	9 373	8 000	7 200
USA	135 728	125 639	124 396	141 983	152 066
Brazil	2 615	4 356	5 488	5 866	5 613
China	*9 000	*9 000	*9 000	*14 000	*15 000
Japan	8 456	8 116	8 180	9 012	12 075

Production of Nepheline Syenite

tonnes

Country	1985	1986	1987	1988	1989
Norway	227 465	218 421	244 789	244 665	262 400
Soviet Union	1 615 000	1 638 000	1 660 000	1 640 000	*1 600 000
Canada	467 186	467 491	508 000	547 000	552 000

Production of Perlite

tonnes

Country	1985	1986	1987	1988	1989
Greece	400 929	541 495	569 183	*570 000	*570 000
Italy	*80 000	*73 000	*70 000	*71 000	*71 000
Czechoslovakia (a)	*44 000	41 443	42 305	43 390	45 396
Hungary	94 460	109 360	112 410	120 562	108 678
Soviet Union	*600 000	*600 000	*600 000	*600 000	*600 000
Turkey	60 146	103 129	143 958	154 231	142 890
Mexico	37 261	46 170	39 428	39 150	39 900
USA	615 000	667 000	706 000	753 000	655 000
Argentina	16 131	19 960	...	...	...
Japan	*75 000	*75 000	*75 000	*75 000	*77 000
Philippines	3 883	24 400	34 298	3 170	*3 600
Australia	2 740	3 838	5 054	4 736	*5 400
New Zealand	—	—	—	2 938	2 500

Note(s):

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

(a) Expanded

Production of Selenium Metal

tonnes

Country	1985	1986	1987	1988	1989
Belgium	*230	*250	*230	*250	*250
Finland	19	24	20	24	27
German Democratic Republic	26	*25	*25	*25	...
Sweden	46	24	31	30	*30
Yugoslavia	44	54	66	61	55
Zambia	13	22	27	24	21
Canada	360	345	300	275	219
Mexico	42	23	29	13	20
USA	195	161	227	286	253
Chile	50	47	46	44	*45
Peru	15	12	11	5	9
Japan	497	427	481	471	471
Australia	*37	...	...	...	...

Note(s):

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

Production of Strontium Minerals

tonnes

Country	1985	1986	1987	1988	1989
United Kingdom	23 039	14 739	22 655	25 553	20 885
Italy	4 611	4 667	177	---	---
Spain	39 100	31 740	26 558	41 981	*30 000
Turkey	*35 000	*35 000	*35 000	54 000	*59 000
Algeria	*5 400	*5 400	*5 400	*5 400	*5 400
Mexico	32 320	24 042	47 739	38 794	36 841
Argentina (a)	983	1 133	1 349	2 241	1 193
Cyprus	1 400	7 365	6 300	---	---
Iran (b)	20 000	22 000	*22 000	39 194	...
Pakistan	688	997	1 114	941	956

Note(s):

- (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

(b) Years ended 20 March following that stated

Production of Tellurium Metal

tonnes

Country	1985	1986	1987	1988	1989
Belgium	70	...	...	...	...
Canada	19	17	*15	*10	*10
USA	*75	*75	*75	*75	*75
Peru	15	10	7	4	8
Japan	66	56	53	55	51

Note(s):

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

Mine Production of Uranium

tonnes (metal content)

Country	1985	1986	1987	1988	1989
Belgium	44	50	54	50	51
France	3 248	3 237	3 376	3 370	3 334
Portugal	105	99	126	142	129
Spain	201	214	223	228	269
Yugoslavia	29	68	70	79	70
Gabon	939	917	794	930	890
Namibia	3 400	3 500	3 540	3 510	3 077
Niger	3 181	3 113	2 968	2 962	2 980
South Africa	4 877	4 630	3 965	3 886	2 944
Canada	10 866	11 722	12 437	12 461	11 427
USA	4 300	5 200	5 000	5 051	5 318
Argentina	126	173	95	142	52
Brazil	72	26	104	15	30
India	115	125	127	*120	*120
Australia	3 206	4 154	3 780	3 531	3 655
World total	34 700	37 200	36 700	36 500	34 300
World total (U ₃ O ₈ equivalent)	40 900	43 900	43 300	43 000	40 500

Note(s):

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

Production of Vermiculite

tonnes

Country	1985	1986	1987	1988	1989
Egypt	52	93	317	236	102
Kenya	1 515	2 544	3 887	3 707	2 436
South Africa	184 070	193 657	228 863	209 177	224 500
Zimbabwe	60	60	325	884	1 498
Mexico	350	220	161	191	*280
USA (a)	285 000	288 000	275 000	276 000	249 000
Argentina	4 887	5 207	18 612	19 300	590
Brazil (b)	9 291	14 150	16 825	18 849	19 000
India	1 805	4 933	2 439	4 052	2 764
Japan	*17 000	*15 000	*15 000	*15 000	*15 000
Australia	615	657	1 409	1 165	...

Note(s):

(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	1985	1986	1987	1988	1989
Finland	16 917	16 797	15 041	19 165	21 634
Mexico	13 512	9 356	10 993	10 779	*10 750
USA	72 000	65 000	72 000	81 000	*80 000
India	26 040	23 819	31 021	34 286	44 042

Note(s):

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

ISBN 0 85272 190 0



BGS £50 net

