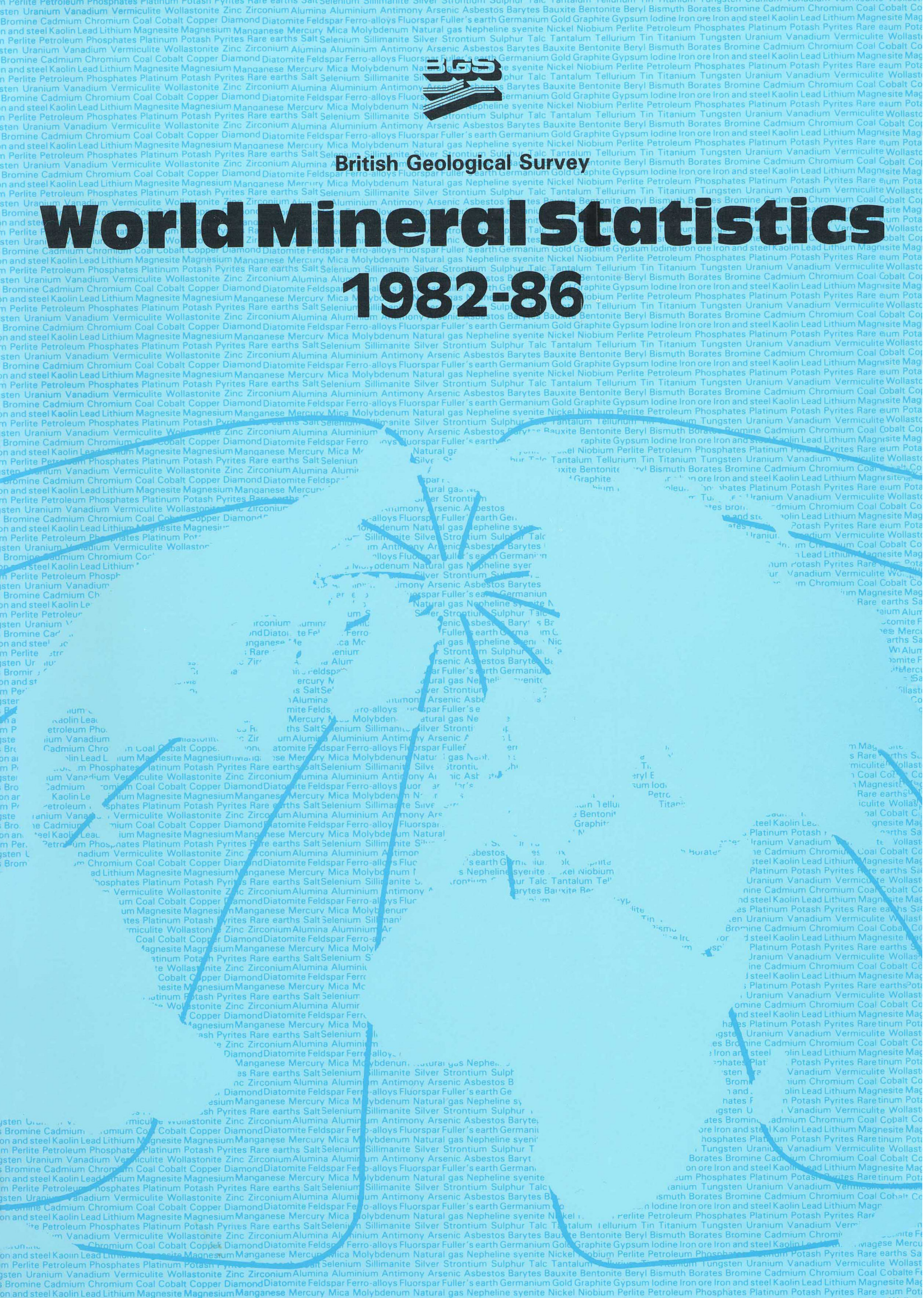




British Geological Survey

World Mineral Statistics 1982-86



BRITISH GEOLOGICAL SURVEY

WORLD MINERAL STATISTICS 1982-86

Production: Exports: Imports

Compiled by G. J. Lofty, N. E. Sharp, J. A. Hillier, E. M. Burton, D. C. Mitchell,
and S. A. Cooke
Research and Graphics by C. D. G. Black

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BRITISH GEOLOGICAL SURVEY

Keyworth, Nottingham NG12 5GG
☎ Plumtree (06077) 6111
Murchison House, West Mains Road, Edinburgh EH9 3LA
☎ 031-667 1000

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.

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All communications regarding the content of this publication should be addressed to the Group Manager, Mineral Resources and Applied Geochemistry, British Geological Survey, 64 Gray's Inn Road, London WC1X 8NG (☎ 01-242 4531).

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Compilers

Staff of the Mineral Intelligence Programme
British Geological Survey, Keyworth

PREFACE

This is the eleventh volume of *World Mineral Statistics*. The first was published in 1978 but publication of similar statistical information by the British Geological Survey and its precursors dates back to 1913 in, for example, *Statistical Summary of the Mineral Industry*. In this issue we continue to feature special graphs and tables which we introduced in 1986.

The paucity of data available from some major trading countries gives rise to problems in the compilation of accurate figures for their trade in mineral materials. Where appropriate, therefore, a reconstruction of either their imports or exports is carried out by searching the official publications of their worldwide trading partners. In this way a high proportion of trade data in particular commodities can generally be traced without breaching confidentiality. This year's trade reconstruction is devoted to five centrally planned economies in Eastern Europe for which trade information is particularly difficult to acquire. As might be expected one of the difficulties in presenting a complete picture of trade in Eastern Europe is that comprehensive details of trade within COMECON are not available to us. The Appendix is printed on a coloured background to remind the reader that the figures are derived indirectly from a number of sources.

The tables of mine and refined metal production are basic indicators of the level of activity in the world mineral industry. Many show a perceptible recovery over the last three or four years, clearly evident from the corresponding production graphs.

This edition features twenty-three price-production graphs including, for the first time, graphs for molybdenum and vanadium. It is possible to fit a trend line to the latter showing that world vanadium production has been growing at the comparatively high rate of 7% per annum since 1950. In general it should be noted that the growth rates shown, with the exception of silver and coal, exceed the actual growth rates experienced towards the end of the period. It is becoming clear that the production growth rates achieved up to the end of the 'seventies' have been replaced by lower rates in the 'eighties'.

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

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

The mineral industry embodies the material end-product of much effort in the geological sciences. It is the hope of the compilers that the data contained in this volume will once again provide a factual basis for those who analyse and monitor this industry. Criticisms and suggestions that might help us to meet the changing needs of this specialisation would be welcomed.

F G Larminie, OBE
Director

British Geological Survey
Keyworth
Nottingham NG12 5GG

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PRODUCTION—PRICE GRAPHS

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22	Vanadium	Facing Vanadium mine production table
23	Zinc	Facing Zinc mine 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 Mineral Intelligence Programme files and is available for consultation.

Arrangement of countries

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

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

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

Production

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

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

Trade

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

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

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

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

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

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

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

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

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

Tables showing trade in metals covered by Standard International Trade Classification (Revision 2) 688.0, 689.1 & 9, and 699.9 (Antimony, Bismuth, Cadmium, Chromium, Cobalt, Manganese, Molybdenum, Tantalum–Niobium, Titanium, Tungsten, Vanadium and Zirconium) include under the term 'metal', unwrought and wrought forms, powder, alloys, waste and scrap, unless these are separately shown. Trade tables of other metals include only unwrought forms under the term 'metal'.

Commodity production – price graphs

These have been inserted adjacent to the relevant production tables. They are computer-generated plots of total annual world production against time. On the same horizontal time axis a specific price for the commodity has been plotted with reference to the right-hand vertical axis. Details of the price used are annotated below each plot. The production data have been taken from the current series of *World Mineral Statistics* and, pre-1970, from its predecessor, the *Statistical Summary of the Mineral Industry*. It should be noted that although mine production and commodity prices are shown on the same plot, any inference about the relationship between the two curves is a matter for the reader.

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

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

Trade reconstruction: appendix

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

Acknowledgements

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

Among the numerous overseas government agencies which have provided valuable information, particular acknowledgement is made to the United States Bureau of Mines; the Department

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

Specialist commodity organisations which have kindly allowed information to be reproduced include the British Sulphur Corporation, the International Lead and Zinc Study Group, the International Tin Council, the UK Iron and Steel Statistics Bureau, ISMA Ltd, the UN Food and Agriculture Organization, and the UNCTAD Committee on Tungsten. In a few instances, information on specific commodities has been obtained directly from company sources.

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

Units

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

tonnes × 0.9842 = long tons

tonnes × 1.1023 = short tons

kilograms × 2.2046 = pounds

kilograms × 32.1507 = troy ounces

cubic metres × 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

STATISTICAL TABLES

Production of Bauxite

tonnes

Country	1982	1983	1984	1985	1986
France	1 687 000	1 661 000	1 607 000	1 530 000	1 379 000
Greece	2 887 855	2 435 246	2 286 145	2 453 798	2 230 360
Italy	23 810	13 118	—	—	—
Spain	7 361	5 208	7 273	2 427	3 000
Hungary	2 627 000	2 917 000	2 993 629	2 814 791	3 022 297
Romania	380 000	420 000	460 000	460 000	500 000
Soviet Union (a)	* 6 400 000	* 6 300 000	* 6 200 000	* 6 400 000	* 6 275 000
Turkey	508 391	306 350	131 573	213 752	280 401
Yugoslavia	3 668 000	3 500 367	3 347 000	3 537 173	3 459 000
Ghana	63 500	70 400	48 500	180 286	226 461
Guinea	11 827 400	12 986 000	14 738 000	13 956 000	14 656 000
Mozambique	—	—	—	5 037	4 247
Sierra Leone	632 000	785 200	1 041 200	1 184 500	1 242 200
Zimbabwe	7 533	23 145	22 726	20 877	24 284
Dominican Republic (b)	152 250	—	—	—	—
Haiti (c)	377 000	—	—	—	—
Jamaica	8 157 652	7 724 983	8 605 000	6 218 900	6 964 000
USA (b)	732 000	679 000	856 000	674 000	453 000
Brazil (d)	3 469 928	4 281 241	5 902 577	5 304 697	* 6 000 000
Guyana	3 110 994	2 234 106	3 035 648	2 153 186	2 073 900
Suriname	3 060 000	2 793 000	3 375 000	3 738 000	3 731 000
China	* 1 950 000	* 1 900 000	* 2 000 000	* 2 100 000	* 2 200 000
India	1 954 261	1 929 272	2 035 646	2 267 777	2 338 434
Indonesia	700 247	777 869	1 003 233	830 471	649 000
Malaysia	589 000	501 790	680 434	491 904	566 170
Australia	23 625 042	24 372 291	31 536 913	31 838 898	32 432 166
World total	78 600 000	78 600 000	91 900 000	88 400 000	90 700 000

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

(a) Includes nepheline concentrates and alunite

(b) Dried bauxite equivalent

(c) Years ended 30 September of that stated

(d) Includes beneficiated and direct shipping ore

Production of Alumina

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	88 103	93 100	105 000	109 700	109 940
France	960 100	861 600	900 000	734 200	738 900
Germany, Federal Republic of	1 286 276	1 346 028	1 417 280	1 367 453	1 249 511
Greece	263 813	267 974	315 301	248 366	307 190
Irish Republic	—	66 000	675 000	555 400	685 500
Italy	698 329	466 000	625 000	555 319	618 374
Spain	440 000	476 000	485 000	476 000	489 000
Czechoslovakia	151 219	152 456	* 150 000	* 150 000	153 345
German Democratic Republic	46 085	42 156	43 239	46 695	46 350
Hungary	743 000	835 512	811 000	798 000	856 333
Romania	514 000	512 000	552 000	548 000	555 000
Soviet Union	* 3 000 000	* 3 200 000	* 3 300 000	* 3 500 000	* 3 700 000
Turkey	84 204	57 420	75 120	113 304	144 396
Yugoslavia	1 018 334	1 009 895	1 135 000	1 138 000	1 117 000
Guinea	578 000	564 000	550 000	577 000	571 000
Canada	1 126 604	1 115 626	1 125 644	1 019 000	1 015 000
Jamaica	1 761 135	1 853 940	1 751 000	1 511 800	1 575 000
USA	* 3 810 000	* 3 540 000	* 4 160 000	* 2 860 000	* 2 500 000
Brazil	551 700	628 900	891 300	1 100 000	1 197 000
Guyana	73 135	—	—	—	—
Suriname	1 052 000	1 154 000	1 237 000	1 242 000	1 471 000
Venezuela	—	594 000	1 142 000	1 110 000	1 269 000
China	* 800 000	* 800 000	* 800 000	* 950 000	* 1 000 000
India	485 000	480 000	569 000	571 000	586 000
Japan	1 212 000	1 378 000	1 488 000	1 336 000	956 000
Australia	6 630 507	7 230 526	8 780 702	8 791 501	9 423 220
World total	27 400 000	28 700 000	33 100 000	31 400 000	32 300 000

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

ALUMINIUM

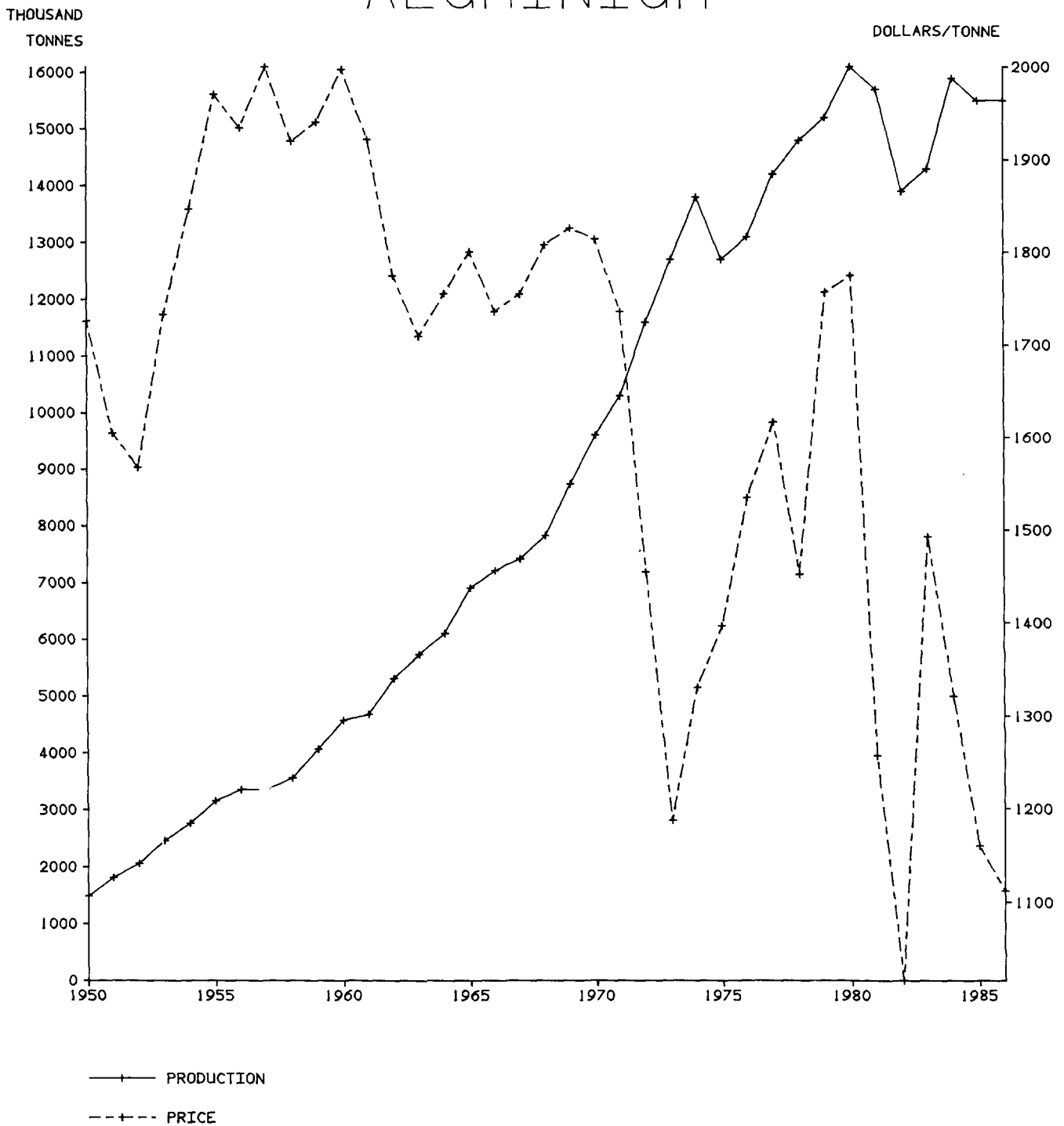


Figure 1 World production of primary aluminium from 1950 to 1986 compared with the yearly average producer price of unalloyed aluminium ingot on the New York Market expressed in constant 1980 US dollars (from 1979, LME price).

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

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

Production of Primary Aluminium

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	240 806	252 525	287 900	275 373	275 876
France	390 413	360 793	341 604	293 196	321 793
Germany, Federal Republic of	722 754	743 313	777 165	745 373	765 048
Greece	136 612	137 210	138 750	125 222	126 000
Italy	232 861	195 694	230 202	224 120	242 632
Netherlands	250 925	235 351	249 170	250 603	267 561
Spain	366 500	357 500	380 800	370 100	354 700
Austria	93 908	94 200	95 833	94 106	92 453
Czechoslovakia	33 830	36 156	31 635	31 725	33 078
German Democratic Republic	* 58 000	* 57 000	* 58 000	* 60 000	* 61 000
Hungary	74 221	74 039	74 202	73 859	73 877
Iceland	75 241	76 077	80 359	73 403	75 929
Norway	638 091	713 014	765 083	742 686	712 009
Poland	42 700	44 400	46 000	47 000	47 500
Romania	208 000	223 000	244 000	247 000	253 000
Soviet Union	* 2 400 000	* 2 400 000	* 2 300 000	* 2 300 000	* 2 350 000
Sweden	81 324	84 935	79 625	82 783	77 100
Switzerland	75 256	75 974	79 173	72 742	80 259
Turkey	36 300	31 045	36 839	54 150	60 017
Yugoslavia	217 338	258 174	279 936	283 450	273 200
Cameroon	78 900	77 400	74 154	81 600	81 100
Egypt	139 914	154 604	172 201	174 666	176 760
Ghana	174 200	42 500	—	48 500	124 600
South Africa	105 500	161 300	167 400	159 809	171 575
Canada	1 064 795	1 091 213	1 221 985	1 282 316	1 355 161
Mexico	41 180	39 706	43 988	42 744	48 000
USA	3 274 000	3 353 000	4 099 000	3 500 000	3 037 000
Argentina	140 500	136 400	137 800	139 900	150 700
Brazil	299 054	400 744	454 999	549 400	757 584
Suriname	42 500	33 600	22 992	28 785	28 715
Venezuela	273 632	335 304	386 000	403 501	421 000
Bahrain	171 000	171 700	177 300	174 800	178 200
China	* 370 000	* 400 000	* 425 000	* 425 000	* 480 000
Dubai	148 739	151 170	155 400	153 200	154 838
India	216 679	204 764	267 902	266 496	257 096
Indonesia	30 500	114 766	198 960	216 820	218 772
Iran	45 000	39 200	42 400	43 000	40 000
Japan	350 706	255 900	286 728	226 547	140 187
Korea, Dem. P.R. of	* 10 000	* 10 000	* 10 000	* 10 000	* 10 000
Korea, Republic of	15 226	12 629	18 252	17 695	18 643
Taiwan	10 120	—	—	—	—
Australia	380 796	478 190	757 798	851 286	881 910
New Zealand	163 420	218 610	242 851	240 835	236 332
World total	13 900 000	14 300 000	15 900 000	15 500 000	15 500 000

Exports of Bauxite, Alumina and Aluminium

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Bauxite	3 870	1 100	2 556	2 286	1 221
Alumina	8 595	8 272	11 756	7 546	8 793
Alumina hydrate	28 423	29 656	32 219	37 575	37 940
Unwrought	60 943	71 197	59 371	65 342	50 409
Unwrought alloys	58 573	61 189	68 189	63 782	66 348
Scrap	60 351	78 865	88 523	90 803	89 886
Belgium-Luxembourg					
Bauxite	1 216	1 699	1 702	1 992	2 873
Alumina	469	757	732	1 353	1 237
Unwrought	4 273	7 100	4 834	8 942	9 134
Unwrought alloys	9 480	9 909	5 443	14 094	15 727
Scrap	40 444	46 757	51 395	46 950	51 888
Denmark					
Bauxite	2 366	414	3 089	2 042	—
Unwrought	2	27	45	37	10
Unwrought alloys	8 283	8 958	9 688	12 094	10 213
Scrap	11 781	15 002	15 747	16 659	20 553
France					
Bauxite	92 369	68 651	245 208	200 733	116 060
Alumina	196 038	178 490	157 999	200 442	113 044
Alumina hydrate	84 994	91 241	73 794	99 663	81 278
Unwrought	95 359	67 557	68 008	38 836	59 512
Unwrought alloys	87 324	93 161	78 396	76 527	83 755
Scrap	60 757	90 365	88 858	90 938	99 519
Germany, Federal Republic of					
Bauxite	33 744	43 934	44 633	42 212	25 979
Alumina	253 697	331 964	443 836	435 349	324 858
Alumina hydrate	184 972	210 476	260 485	233 705	248 489
Unwrought	75 076	80 873	69 381	66 050	71 378
Unwrought alloys	180 344	240 272	224 808	215 644	230 370
Scrap	67 719	77 723	88 175	89 691	104 453
Greece					
Bauxite	1 441 203	1 410 511	1 238 428	1 332 536	1 133 487
Alumina	130 000	110 500	208 500	187 400	135 565
Unwrought (a)	66 608	55 086	48 451	43 198	45 855
Scrap	93	886	1 254	1 115	317
Irish Republic					
Alumina	2 309	31 667	654 077	571 986	669 362
Unwrought (a)	1 876	2 537	1 099	585	1 478
Scrap	3 479	4 246	4 123	5 190	8 093
Italy					
Bauxite	8 240	5 053	12 287	7 273	4 502
Alumina	256 618	160 984	300 468	265 282	308 006
Alumina hydrate	13 410	13 246	24 657	18 139	30 354
Unwrought	30 624	10 495	8 379	17 013	9 611
Unwrought alloys	23 490	30 795	23 842	26 783	24 696
Scrap	3 346	5 721	3 871	5 816	4 240
Netherlands					
Bauxite	4 268	3 490	5 509	5 063	3 983
Alumina	46 957	51 825	64 974	59 124	46 404
Alumina hydrate	49	58	65	51	89
Unwrought	223 807	302 356	136 920	149 398	144 277
Unwrought alloys	126 995	130 925	142 100	147 369	156 983
Scrap	73 669	80 201	93 258	87 062	96 045
Portugal					
Scrap	4 187	6 920	5 158	3 970	3 879
Spain					
Alumina	7 377	2 611	20 725	16 527	42 744
Unwrought	98 962	101 284	152 772	135 624	86 119
Unwrought alloys	46 220	64 642	78 470	72 760	60 269
Austria					
Unwrought	27 635	30 153	28 817	31 072	31 317
Scrap	51 406	59 547	29 843	33 248	43 387
Bulgaria					
Unwrought (a)(f)	* 3 600	* 6 100	* 5 000	* 4 000	* 4 100
Czechoslovakia					
Unwrought (a)(f)	* 15 400	* 19 500	* 18 200	* 21 100	* 15 300

Exports of Bauxite, Alumina and Aluminium

tonnes

Country	1982	1983	1984	1985	1986
Finland					
Unwrought (a)	6 306	10 679	13 575	16 171	16 974
German Democratic Republic					
Unwrought (a)(f)	* 26 600	* 23 400	* 30 400	* 23 000	* 28 200
Scrap (f)	* 9 900	* 12 600	* 6 600	* 9 200	* 7 400
Hungary					
Bauxite	467 375	431 033	430 587	382 335	461 473
Alumina	542 286	658 672	643 993	593 758	664 845
Alumina hydrate	9 667	6 200	6 928	5 594	4 200
Unwrought	48 363	57 822	71 294	50 528	61 200
Scrap	8 740	6 498	8 226	6 928	7 002
Iceland					
Unwrought (a)	61 532	106 904	79 928	70 600	77 490
Norway					
Alumina	1	12	220	915	12 642
Unwrought	332 013	330 131	322 038	307 311	298 122
Unwrought alloys	212 759	307 208	316 637	336 479	348 417
Scrap	21 858	27 517	27 138	28 725	31 126
Poland					
Unwrought (a)	2 317	2 812	3 166	2 980	3 023
Romania					
Unwrought	76 100	121 600	122 400	139 100	...
Soviet Union					
Unwrought (a)(f)	* 433 900	* 494 800	* 488 600	* 450 600	* 475 200
Scrap (f)	* 50 400	* 11 600	* 15 900	* 21 500	* 43 100
Sweden					
Bauxite	673	5	—	541	—
Alumina	740	632	310	513	8 226
Unwrought	2 317	2 392	1 901	1 452	4 345
Unwrought alloys	32 904	36 772	36 297	40 635	35 008
Scrap	2 446	5 053	3 171	8 758	13 434
Switzerland					
Alumina	320	239	288	1 445	423
Unwrought & scrap	52 981	56 825	53 895	49 570	54 583
Turkey					
Bauxite	31 686	57 332	46 845	22 675	11 950
Alumina	...	...	16 845	22 648	23 899
Yugoslavia					
Bauxite	599 695	552 051	651 893	795 476	765 127
Alumina	503 044	509 758	402 588	414 521	561 153
Alumina hydrate	7 342	9 209	17 048	26 118	21 137
Unwrought	90 106	134 976	135 727	128 828	121 516
Unwrought alloys	939	8 658	6 311	13 871	20 711
Scrap	508	1 674	295	265	1 420
Cameroon					
Unwrought & scrap	* 55 400	52 515	52 739	50 834	53 000
Egypt					
Unwrought & scrap	51 719	5 126	1 506	...	24
Ghana					
Bauxite	92 954	8 231	44 000	...	...
Unwrought (a)	193 734	90 161	44 200	20 600	104 400
Guinea					
Bauxite (f)	* 10 200 000	* 10 900 000	* 12 100 000	* 12 200 000	* 11 400 000
Alumina (f)	* 150 000	* 320 000	* 323 000	* 327 000	* 292 000
Sierra Leone					
Bauxite	606 000	950 300	1 044 800	1 087 000	* 1 170 000
South Africa					
Unwrought (a)	26 622	106 108	83 032	92 621	94 695
Scrap (f)	* 300	* 3 100	* 4 100	* 8 800	* 7 700
Canada					
Alumina (b)	28 367	46 001	51 360	52 794	45 434
Unwrought	896 462	925 449	833 026	1 051 006	1 163 875
Scrap	62 796	81 425	106 574	114 671	125 018
Cuba					
Scrap (g)	2 318	4 455	4 085	4 551	4 100
Dominican Republic					
Bauxite	140 555	—	—	—	—
Haiti (e)					
Bauxite	377 051	—	—	—	—

Exports of Bauxite, Alumina and Aluminium

tonnes

Country	1982	1983	1984	1985	1986
Jamaica					
Bauxite	4 079 504	3 120 123	4 559 013	2 325 359	2 939 593
Alumina	1 752 755	1 904 270	1 720 660	1 620 338	1 580 462
Mexico					
Scrap	—	1 613	3 710	2 484	5 313
USA					
Bauxite	120 144	80 086	113 113	74 246	99 161
of which: Re-exports	71 429	5 980	30 879	18 152	30 056
Alumina	555 925	583 669	635 909	299 911	475 360
Alumina hydrate	11 629	12 426	20 244	25 890	18 925
Unwrought	309 811	333 112	225 523	306 893	158 964
Unwrought alloys	54 512	27 839	34 505	40 982	52 125
Scrap	194 443	262 592	258 725	376 136	347 946
Argentina					
Unwrought	83 065	53 831	53 052	98 065	34 800
Brazil					
Bauxite	2 991 302	3 988 633	4 246 914	3 317 341	3 113 183
Alumina	4 939	7 102	43 213	94 214	...
Unwrought (a)	3 676	116 326	147 923	179 130	323 499
Guyana					
Bauxite, dried	690 320	732 633	1 114 940	...	...
Bauxite, calcined	372 818	339 717	543 685	...	...
Alumina	65 074	13 492	—	...	...
Suriname					
Bauxite	497 000	449 000	1 031 000	1 132 000	897 000
Alumina	1 043 000	1 143 000	1 072 000	1 265 000	1 343 000
Unwrought	61 000	29 000	29 000	28 000	29 000
Venezuela					
Alumina	—	131 000	371 372	454 881	508 971
Unwrought	228 614	298 256	224 800	382 921	277 877
Bahrain					
Unwrought (a)	166 014	191 705	156 548	126 773	182 340
China					
Bauxite (f)	* 372 500	* 346 800	* 579 800	* 629 200	* 627 000
Alumina (f)	* 21 000	* 14 600	* 13 900	* 12 500	* 3 700
Unwrought (a)(f)	* 50 600	* 15 200	* 700	* 5 400	* 500
Dubai					
Unwrought (a)	...	...	140 403	148 650	148 841
Scrap	—	5 890	9 986	3 168	3 635
Hong Kong					
Bauxite (Re-exports)	8 120	18 110	17 748	16 566	19 987
Alumina (Re-exports)	9	105	500	61 572	678
Alumina hydrate (Re-exports)	3 106	2 418	113	2 589	3
Unwrought (Re-exports)	48 910	25 150	22 648	48 903	26 085
Scrap	16 810	19 179	19 447	18 423	22 081
India (c)					
Bauxite	387 683	118 867	61 547	...	...
Alumina	37 988	39 642	49 915	...	...
Indonesia					
Bauxite	746 784	786 311	944 332	631 763	525 811
Unwrought	16 026	90 577	135 017	238 708	174 048
Japan					
Alumina	273 130	481 669	488 032	372 317	282 714
Alumina hydrate	66 589	87 530	85 040	109 219	101 759
Unwrought	4 223	500	646	528	971
Unwrought alloys	2 458	1 179	1 637	1 711	1 050
Scrap	630	637	2 259	2 317	1 914
Jordan					
Scrap	896	1 765	4 304	3 245	3 240
Korea, Dem. P.R. of					
Unwrought (a)(f)	...	...	* 200	* 8 700	* 11 400
Malaysia					
Bauxite	418 050	489 931	522 049	362 100	412 400
Scrap	3 191	6 139	6 366	7 115	...
Singapore					
Alumina	691	1 476	1 216	17 665	119 180
of which: Re-exports	690	1 466	1 211	17 650	118 947
Unwrought	5 861	13 454	7 078	7 634	6 444
of which: Re-exports	5 675	12 048	5 300	6 274	5 886
Scrap	7 450	8 789	9 963	10 707	12 434

Exports of Bauxite, Alumina and Aluminium

tonnes

Country	1982	1983	1984	1985	1986
Taiwan					
Alumina	4 498	3 427	3 564	4 734	6 384
Unwrought	583	2 638	3 128	5 830	12 504
Scrap	350	1 563	1 195	2 661	3 096
Australia					
Bauxite	* 4 650 000	* 4 100 000	* 4 900 000	* 4 800 000	* 4 260 000
Alumina	5 951 282	6 377 931	6 905 001	7 169 102	7 687 099
Unwrought (a)	156 068	234 562	419 063	563 716	579 544
Scrap	26 973	25 383	12 715	18 320	46 088
New Zealand (d)					
Unwrought (a)	115 066	162 613	211 191	228 044	207 761
Scrap	2 034	3 399	3 264	2 963	3 681

Notes:

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

Imports of Bauxite, Alumina and Aluminium

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Bauxite, uncalcined	301 911	241 391	298 486	174 778	185 719
Bauxite, calcined	91 186	79 059	126 886	156 255	170 511
Alumina	449 340	481 114	653 026	563 359	546 330
Alumina hydrate	7 694	7 768	8 928	9 434	12 714
Unwrought	75 569	66 645	64 690	48 783	62 435
Unwrought alloys	79 264	96 992	107 453	98 332	119 731
Scrap	4 085	10 896	6 749	4 818	7 811
Belgium-Luxembourg					
Bauxite	26 574	34 802	40 536	36 650	29 130
Alumina	7 699	8 347	9 757	8 769	8 824
Alumina hydrate	15 188	18 251	18 432	19 129	20 066
Unwrought	197 133	205 986	220 564	223 568	231 442
Unwrought alloys	70 311	83 008	91 033	84 300	75 979
Scrap	51 240	53 086	57 981	62 708	71 291
Denmark					
Bauxite	16	18	18	723	554
Alumina	1 145	996	773	737	411
Alumina hydrate	2 377	3 004	3 512	3 666	4 173
Unwrought	1 274	1 189	610	732	1 172
Unwrought alloys	20 882	23 528	29 112	27 644	33 108
Scrap	2 904	3 294	4 302	9 234	5 321
France					
Bauxite	1 253 080	1 078 856	981 080	1 002 750	910 753
Alumina	62 912	75 660	30 957	118 012	103 056
Alumina hydrate	17 294	15 456	19 042	20 912	21 592
Unwrought	214 044	252 132	224 499	222 786	217 800
Unwrought alloys	137 946	142 509	140 458	173 119	210 246
Scrap	59 550	60 016	66 541	53 270	58 812
Germany, Federal Republic of					
Bauxite	3 532 830	3 156 141	4 055 547	4 033 965	3 658 891
Alumina	489 597	486 393	698 385	661 435	717 930
Alumina hydrate	2 599	2 084	3 482	3 303	3 768
Unwrought	372 252	345 497	447 685	460 651	493 216
Unwrought alloys	193 078	246 643	275 088	260 967	290 751
Scrap	173 592	192 452	208 892	202 881	215 152
Greece					
Bauxite	30	789	5 689	1 406	102
Alumina	186	263	362	149	300
Alumina hydrate	219	98	136	182	205
Unwrought (a)	3 971	2 121	6 473	3 644	7 180
Irish Republic					
Bauxite	111 673	562 997	1 126 985	1 322 262	1 079 908
Alumina	4 043	13 026	3 148	4 684	4 414
Unwrought (a)	2 757	2 002	3 065	2 597	3 789
Italy					
Bauxite	1 578 079	1 181 847	1 281 290	1 277 110	1 395 994
Alumina	48 782	253 675	199 595	224 977	298 607
Alumina hydrate	20 764	51 916	72 223	66 368	78 294
Unwrought	107 719	129 076	177 123	196 627	214 678
Unwrought alloys	103 434	125 456	114 697	123 249	133 012
Scrap	94 223	108 017	133 257	148 473	182 129
Netherlands					
Bauxite	126 673	135 623	130 784	162 384	162 760
Alumina	566 795	504 045	565 750	557 748	600 988
Alumina hydrate	25 448	27 344	32 355	31 368	40 597
Unwrought	164 876	244 837	93 184	98 604	105 830
Unwrought alloys	30 626	39 800	39 801	36 606	45 301
Scrap	41 782	48 280	57 473	67 179	76 325
Portugal					
Bauxite	1 730	3 411	1 400	8 374	2 282
Alumina	7 629	6 506	6 372	6 280	8 197
Unwrought	) 49 520	) 42 975	5 697	12 220	12 745
Unwrought alloys	)	)	20 413	21 878	26 238
Spain					
Bauxite	919 062	1 464 593	1 812 156	1 589 476	1 427 274
Alumina	37 281	21 181	23 037	25 235	22 298
Unwrought	14 493	8 194	8 710	7 139	14 411
Unwrought alloys	3 828	4 197	1 872	3 518	7 365
Scrap	8 534	10 142	6 036	9 146	19 083

Imports of Bauxite, Alumina and Aluminium

tonnes

Country	1982	1983	1984	1985	1986
Austria					
Bauxite	24 945	27 762	39 174	46 342	36 889
Alumina	212 331	210 953	242 993	295 374	275 911
Alumina hydrate	7 653	6 847	7 673	8 141	7 483
Unwrought	43 909	52 156	74 677	78 148	93 413
Scrap	67 352	68 354	47 516	53 109	61 863
Bulgaria					
Unwrought (a)(f)	* 7 000	* 14 800	* 17 900	* 20 800	* 14 800
Czechoslovakia					
Bauxite	474 000	469 000	349 000	356 000	399 000
Alumina (f)	* 20 400	* 23 300	* 28 100	* 24 800	* 25 400
Unwrought (a)	66 000	88 000	90 000	80 000	78 000
Finland					
Bauxite	5 588	4 152	2 564	3 368	1 687
Alumina	791	727	868	1 173	1 285
Alumina hydrate	26 933	19 888	26 500	28 244	28 863
Unwrought	24 241	23 642	18 307	16 814	18 564
Unwrought alloys	2 975	2 628	2 414	3 524	3 037
Scrap	8 668	22 608	16 289	33 317	46 177
German Democratic Republic					
Bauxite	109 900	103 700	170 600	208 400	178 100
Alumina (f)	* 101 200	* 101 200	* 103 800	* 97 400	* 100 200
Unwrought (a)(f)	* 44 600	* 51 100	* 55 000	* 42 600	* 34 000
Hungary					
Unwrought	137 087	163 000	163 320	165 294	205 007
Iceland					
Alumina	117 331	144 482	147 508	197 129	138 028
Norway					
Bauxite	3 297	4 480	5 420	5 590	5 871
Alumina	1 108 901	1 400 162	1 448 516	1 445 268	1 458 718
Alumina hydrate	28 082	33 447	43 055	33 788	36 931
Unwrought	7 819	1 570	4 162	6 902	3 374
Unwrought alloys	13 110	9 664	27 349	27 780	31 743
Scrap	1 164	1 724	2 874	2 127	3 211
Poland					
Bauxite	41 015	34 400	31 011	37 862	49 311
Alumina	206 716	210 434	226 221	206 591	225 216
Unwrought	83 826	83 465	91 481	86 391	88 207
Romania					
Bauxite (f)	* 580 500	* 534 600	* 669 200	* 685 200	* 610 300
Alumina (f)	* 11 700	* 13 700	* 20 500	* 41 200	* 42 200
Soviet Union					
Bauxite (f)	* 3 470 200	* 3 689 800	* 4 433 600	* 4 827 600	* 4 777 200
Alumina (f)	* 898 000	* 916 700	* 806 200	* 751 400	* 1 167 000
Sweden					
Bauxite	49 838	45 459	61 749	48 280	50 056
Alumina	156 815	145 390	174 059	180 328	127 453
Alumina hydrate	47 761	57 345	77 114	62 405	60 130
Unwrought	30 101	31 274	24 553	26 557	33 617
Unwrought alloys	15 585	18 397	23 990	19 729	20 652
Scrap	2 654	2 807	2 081	1 515	1 621
Switzerland					
Bauxite	379	1 254	2 370	44	512
Alumina	135 364	149 241	162 234	146 751	160 374
Unwrought & scrap	48 076	57 751	63 189	78 745	88 274
Turkey					
Bauxite	—	1 025	7 676	19 408	43 366
Alumina	330	258	210	628	1 004
Unwrought	35 102	59 953	68 493	59 154	38 356
Yugoslavia					
Bauxite	175 645	158 762	185 797	162 968	184 697
Alumina	35 539	101 362	113 226	118 366	151 460
Unwrought	31 050	37 189	33 624	38 561	31 486
Unwrought alloys	340	349	434	755	492

Imports of Bauxite, Alumina and Aluminium

tonnes

Country	1982	1983	1984	1985	1986
Algeria					
Alumina	135	1 233	789	372	...
Unwrought (a)	3 859	3 414	6 810	5 797	...
Cameroon					
Alumina	73 718	154 207	151 640	149 601	...
Ghana					
Alumina	359 395	66 784	...	...	...
Kenya					
Alumina	1 574	1 504	2 756	2 445	2 943
Morocco					
Bauxite	8 142	2 000	3 200	3 220	...
Alumina	2 378	2 793	2 036	2 149	...
Unwrought (a)	1 216	1 520	1 081	1 017	...
Nigeria					
Unwrought (a)	2 125	...	2 933	6 557	1 234
South Africa					
Bauxite	26 966	17 196	20 038	21 068	10 804
Alumina	277 232	357 892	313 863	350 615	307 253
Scrap	2 678	6 070	657	766	...
Tanzania					
Unwrought (a)	4 937	900	994	...	...
Tunisia					
Alumina	24 664	23 235	24 138	20 642	26 859
Canada					
Bauxite	2 574 762	2 329 910	2 451 499	2 074 171	2 112 874
Alumina	939 282	1 063 181	1 349 191	1 543 980	1 724 569
Unwrought	24 380	30 581	44 566	59 739	64 517
Scrap	36 756	54 666	61 782	53 376	69 887
Costa Rica					
Unwrought (a)	26	2 575	2 513	2 005	1 544
Mexico					
Bauxite	43 259	26 658	54 313	46 659	...
Alumina	90 012	121 148	155 295	90 393	...
Alumina hydrate	13 451	33 668	32 763	17 979	...
Unwrought & scrap (a)	39 758	24 960	66 769	76 700	...
Panama					
Unwrought (a)	1 340	500	934	1 308	1 366
USA					
Bauxite, crude dried	11 049 652	7 903 178	10 436 104	7 257 819	6 854 063
Bauxite, calcined	190 042	208 998	232 127	340 590	303 783
Alumina	3 053 700	3 904 559	4 295 151	3 834 490	3 613 300
Unwrought	340 570	396 895	453 315	432 690	766 220
Unwrought alloys	275 815	345 606	427 693	435 940	580 110
Scrap	67 434	88 473	137 673	127 473	162 276
Argentina					
Bauxite	24 555	23 791	25 187	23 665	...
Alumina	251 992	202 293	312 662	296 775	...
Alumina hydrate	9 709	12 200	9 930	6 528	...
Brazil					
Bauxite	8 598	5 020	11 159	8 801	1 018
Alumina	86 995	202 824	183 724	136 637	285 489
Unwrought	5 520	849	1 248	200	) 1 120
Unwrought alloys	5 247	2 109	3 335	2 418)
Scrap	3 750	4 127	210	684	2 564
Colombia					
Bauxite	2 150	5 050	3 537	8 090	...
Alumina	2 413	2 947	4 957	4 103	...
Unwrought (a)	14 265	17 967	17 977	11 641	...
Ecuador					
Unwrought	2 413	3 334	3 420	...	...
Peru					
Bauxite	3 664	6 527	5 923	900	283
Alumina	750	571	1 765	1 862	1 302
Unwrought	3 852	3 304	3 356	...	...
Uruguay					
Bauxite	3 411	3 250	3 350	4 170	3 951
Alumina	290	505	1 291	617	1 202
Unwrought	628	937	1 494	1 614	1 991

Imports of Bauxite, Alumina and Aluminium

tonnes

Country	1982	1983	1984	1985	1986
Venezuela					
Bauxite	66 910	1 719 000	2 522 214	2 404 199	2 855 125
Alumina	592 664	...	6 424	6 478	5 068
Alumina hydrate	10 435	...	1 182	964	1 290
Unwrought	924	342	149	114	3 725
Abu Dhabi					
Scrap	1 117	2 863	2 533	2 099	2 418
Bahrain					
Alumina	1 030 695	298 246	363 599	335 006	...
China					
Alumina (f)	* 31 100	* 73 600	* 70 000	* 81 000	* 107 700
Unwrought (a)	169 566	283 756	252 736	487 862	266 241
Dubai					
Alumina	...	...	283 630	326 904	294 626
Hong Kong					
Bauxite	10 172	17 504	23 630	18 773	20 526
Alumina	321	10	167	31 022	—
Alumina hydrate	3 527	2 298	184	1 796	57
Unwrought	72 204	55 796	35 565	76 071	46 950
Scrap	672	1 083	1 107	888	1 301
India (c)					
Alumina	1 258	...	...	...	...
Unwrought (a)	6 724	13 500	12 300	18 200	39 400
Indonesia					
Alumina	42 991	117 947	22 427	118 320	251 225
Alumina hydrate	23 118	64 469	376 396	107 544	52 271
Unwrought	33 677	20 067	17 183	11 987	9 551
Iran (e)					
Alumina	34 550	135 292	101 522	...	...
Unwrought	4 762	8 185	8 246	...	...
Israel					
Alumina (f)	...	* 1 300	* 1 500	* 1 400	* 1 700
Unwrought (b)	13 757	14 365	12 841	13 848	15 899
Japan					
Bauxite	3 439 361	3 579 739	3 861 875	3 518 991	2 307 459
Alumina	154 288	34 529	141 583	41 732	63 489
Alumina hydrate	1 518	680	1 268	2 273	2 564
Unwrought	1 220 404	1 309 192	1 058 938	1 273 187	1 076 353
Unwrought alloys	226 162	294 540	288 879	302 315	289 662
Scrap	181 667	302 025	243 250	361 053	358 813
Jordan					
Unwrought	518	2 385	2 658	5 330	4 536
Korea, Dem. P.R. of					
Alumina (f)	...	* 20 400	* 24 100	* 28 200	* 11 500
Unwrought (a)(f)	* 3 900	* 2 600	* 600	* 1 600	* 100
Korea, Republic of					
Bauxite	5 334	6 095	9 305	9 177	15 571
Alumina	29 010	26 254	37 273	34 923	36 008
Alumina hydrate	27 942	43 428	40 466	42 564	57 119
Unwrought	77 765	298 895	112 599	124 457	159 860
Unwrought alloys	224 502	34 902	30 629	75 932	24 652
Scrap	7 299	6 089	5 069	5 563	8 799
Malaysia					
Alumina	3 194	5 663	7 074	5 438	...
Unwrought	7 656	20 840	13 922	8 759	...
Unwrought alloys	15 422	21 070	17 773	12 994	...
Pakistan (d)					
Alumina	29 566	1 678	1 454	1 853	2 586
Unwrought	6 413	3 059	1 691	6 674	5 250
Scrap	11 525	14 426	14 276	13 388	16 421
Philippines					
Bauxite	3 762	3 119	3 953	5 005	5 379
Alumina	644	1 998	2 766	3 532	5 380
Unwrought (a)	18 471	14 843	6 614	4 881	6 271
Saudi Arabia					
Bauxite	114 856	142 686	163 647	244 096	162 837
Unwrought	6 318	14 447	13 818	9 316	14 300

Imports of Bauxite, Alumina and Aluminium

tonnes

Country	1982	1983	1984	1985	1986
Singapore					
Alumina	1 313	968	921	38 403	52 877
Alumina hydrate	9 479	8 637	8 418	10 299	50 260
Unwrought	11 085	18 829	10 767	14 435	15 653
Scrap	642	639	796	771	845
Syria					
Alumina	51	3 196	236	555	...
Unwrought & scrap	653	5 746	2 522	3 747	...
Taiwan					
Bauxite	30 373	36 805	55 241	19 518	47 261
Alumina	17 024	3 744	5 268	5 744	2 219
Alumina hydrate	1 569	1 308	1 921	1 936	3 506
Unwrought	88 569	139 145	99 923	147 204	155 956
Scrap	15 775	25 766	6 483	6 237	13 055
Thailand					
Bauxite	285	3 557	11 652	7 506	11 491
Alumina	1 078	1 762	1 473	2 051	3 258
Alumina hydrate	10 773	9 646	9 251	11 296	14 347
Unwrought	55 010	60 569	43 825	39 972	42 206
Unwrought alloys	3 840	4 337	5 415	4 666	5 606
Australia					
Bauxite	...	4 859	1 423	6 128	3 800
Alumina	4 435	3 824	4 730	5 050	4 966
Unwrought (a)	13 922	5 225	709	1 079	736
Scrap	2 433	2 711	2 646	3 105	1 931
New Zealand (d)					
Alumina	346 055	335 757	505 892	463 273	475 486
Unwrought (a)	7 436	6 000	5 202	719	534

Notes:

- 1 Except where alumina hydrate is separately specified, national trade figures for alumina can be considered as inclusive of hydrate
 - 2 In this table the term 'unwrought' aluminium corresponds to item 684.1 of the Standard International Trade Classification (Revision 2) and comprises ingots, blocks, unwrought bars, etc
 - 3 Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys
- (a) Including alloys
(b) Figures may be incomplete as value only given in Israeli trade return for imports from some countries
(c) Years ended 31 March following that stated
(d) Years ended 30 June of that stated
(e) Years ended 20 March following that stated
(f) BGS estimates, based on known exports from certain countries

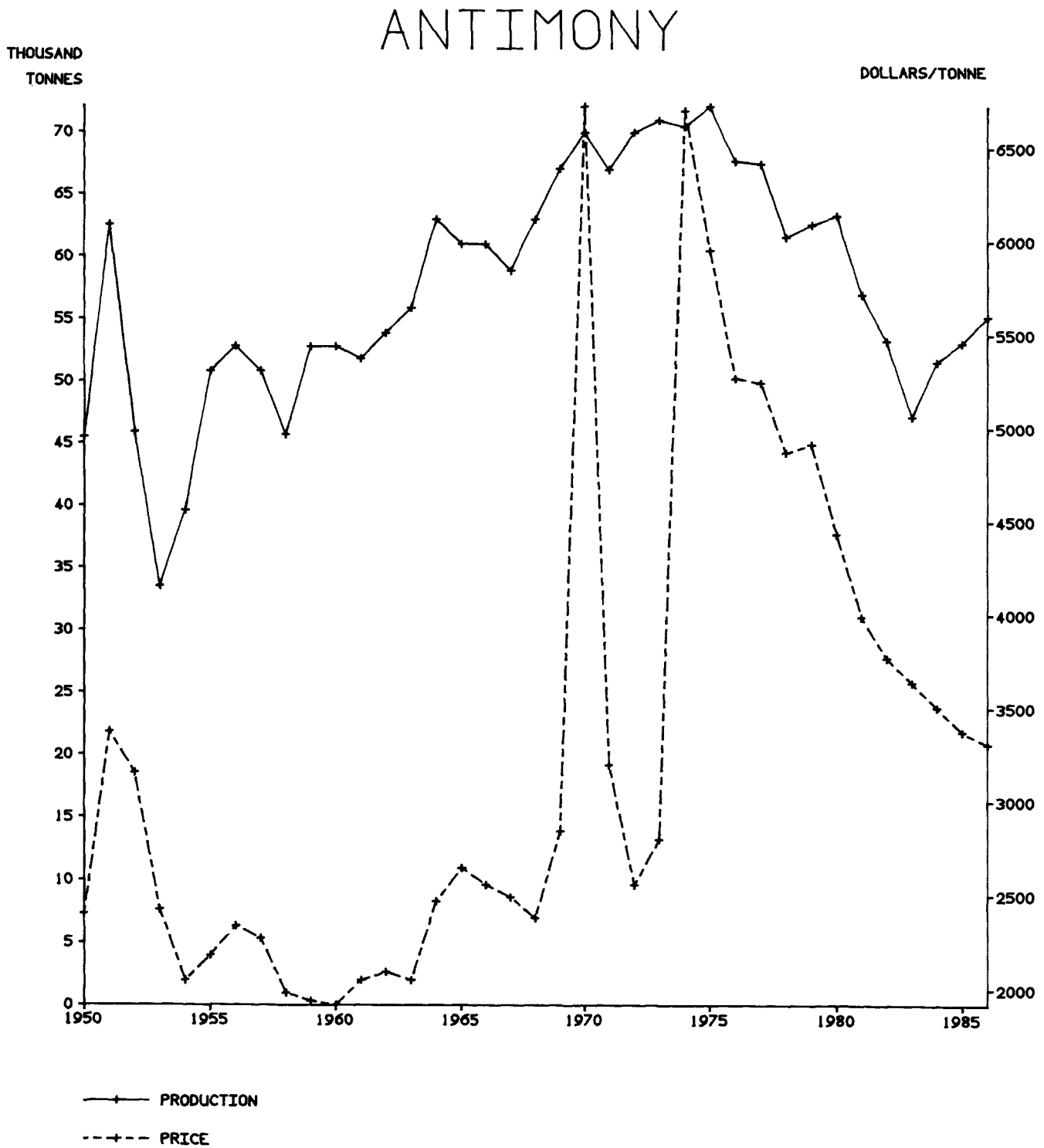


Figure 2 World mine production of antimony from 1950 to 1986 compared with the annual average New York price of RMM brand American antimony f.o.b. Laredo, post-1978 domestic refined, expressed in constant 1980 US dollars.

Constant commodity prices derived from Metal Statistics 1987 published by American Metal Market, using the CPI for the USA taken from International Financial Statistics Yearbook (1987).

Note: The price axis was incorrectly labelled as pounds stg in previous editions.

Mine Production of Antimony

tonnes (metal content)

Country	1982	1983	1984	1985	1986
France	332	111	—	—	—
Italy	339	—	244	495	278
Spain	461	489	583	248	45
Austria	711	705	565	550	558
Czechoslovakia	* 700	* 900	* 1 000	782	782
Soviet Union	* 6 500	* 6 500	* 6 500	* 6 500	* 6 000
Turkey	1 237	1 170	1 729	1 909	1 990
Yugoslavia	1 517	950	945	1 088	859
Morocco	905	470	941	735	928
South Africa	9 127	6 310	7 440	7 390	6 816
Zimbabwe	195	74	256	194	175
Canada	454	385	554	1 075	3 805
Guatemala	—	—	96	1 240	2 018
Honduras	—	—	109	90	* 100
Mexico	1 565	2 519	3 064	4 266	3 337
USA (c)	456	760	505	* 500	* 200
Bolivia	13 978	9 951	9 281	8 925	10 243
Peru (a)	738	713	672	594	670
China	* 12 000	* 13 000	* 13 500	* 13 500	* 14 000
Malaysia	128	134	17	26	—
Pakistan	—	—	6	24	—
Thailand	823	1 474	2 434	1 530	1 258
Australia (b)	1 146	538	1 149	1 458	1 131
World total	53 300	47 200	51 600	53 100	55 200

Notes:

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

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

(b) Includes Sb content of lead and zinc concentrates

(c) Excludes Sb content of antimonial lead

Antimony

Exports of Antimony

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Metal	118	75	84	27	98
Oxide (a)	* 3 200	* 3 800	* 3 900	* 3 700	* 3 600
Belgium-Luxembourg					
Oxide (a)	* 2 100	* 2 400	* 3 000	* 3 200	* 3 300
France					
Ore	177	26	54	209	19
Metal	77	66	55	125	91
Oxide	4 914	5 233	5 931	5 359	4 629
Germany, Federal Republic of					
Metal	10	17	118	104	53
Oxide	422	571	755	592	747
Italy					
Ore	...	27	126	582	30
Metal	4	50	33	1	24
Oxide	220	617	650	362	115
Netherlands					
Metal	22	13	6	59	7
Oxide	331	226	134	243	220
Spain					
Metal	506	401	465	...	43
Austria					
Ore	—	4	4	5	5
Sulphide (b)	74	49	14	46	53
Soviet Union					
Oxide (a)	* 500	* 500	* 700	* 400	* 300
Turkey					
Ore	450	330	1 975	1 860	...
Metal	...	...	336	274	...
Yugoslavia					
Metal	675	110	—	—	—
Morocco					
Ore	1 796	1 105	2 152	1 766	...
South Africa					
Ore (c)	2 219	2 904	4 596	1 452	957
Oxide	(a)* 2 900	(a)* 3 500	7 363	(a)* 3 200	(a)* 5 400
Zimbabwe					
Ore	372	137	419	170	...
Guatemala					
Ores & concentrates	0	—	111	1 130	...
Mexico					
Ores & concentrates	2 253	2 624	3 805	3 291	...
Metal	58	183	115	185	...
USA					
Metal	784	289	484	328	626
Oxide	305	401	574	973	638
Bolivia					
Ore (c)	7 462	8 728	10 027	6 987	7 308
Metal	1 138	1 633	196	377	519
Oxide (c)	2 291	2 559	664	385	652
Peru					
Ores & concentrates (a)	* 630	* 570	* 650	...	* 240
Metal (a)	* 130	* 510	* 140	* 220	* 50
China					
Ores & concentrates (a)	* 3 600	* 2 600	* 7 900	* 14 300	* 12 100
Metal	13 432	12 216	17 321	15 988	21 567
Oxide (a)	* 2 600	* 2 700	* 7 800	* 5 400	* 6 700
Sulphide (a)	* 80	* 70	* 130	* 20	* 490

Exports of Antimony

Country	1982	1983	1984	1985	1986
Japan					
Metal	21	3	6	6	2
Thailand					
Ore	2 796	3 037	5 491	5 417	2 774
Australia					
Ores & concentrates	1 557	1 695	3 158	2 834	...

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

(b) Believed to be crude liquated sulphide

(c) Sb content

Imports of Antimony

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Ore (c)	* 8 100	* 10 000	* 5 800	* 5 800	...
Metal	297	617	296	559	454
Oxide	856	737	976	1 043	1 320
Belgium-Luxembourg					
Ore	3 962	4 265	6 097	5 851	5 188
Metal	198	541	201	215	385
Oxide	283	272	646	776	792
Denmark					
Metal	10	53	15	1	0
Oxide	39	36	45	32	68
France					
Ore	8 844	10 273	11 255	12 074	11 782
Metal	1 143	593	568	431	377
Oxide	357	437	504	661	639
Germany, Federal Republic of					
Ore	1 640	1 705	2 131	1 630	1 845
Metal	441	371	582	782	977
Oxide	3 899	5 167	5 536	4 806	4 581
Greece					
Metal	9	30	12	71	13
Italy					
Metal	252	177	223	247	222
Oxide	427	560	780	893	1 163
Netherlands					
Metal	75	34	35	99	64
Oxide	948	1 053	1 131	1 115	1 125
Portugal					
Metal	—	53	32	33	27
Spain					
Ore	433	348	436	...	630
Metal	29	30	23	...	155
Oxide	301	279	321	...	273
Austria					
Ore	211	—	36	182	678
Metal	48	32	31	80	84
Oxide	116	212	140	173	261
Sulphide	8	0	3	25	35
Bulgaria					
Metal (b)	* 50	...	* 130	* 50	...
Finland					
Metal	16	2	6	6	8
German Democratic Republic					
Oxide (b)	* 300	* 200	* 200	* 100	* 100
Norway					
Metal	30	13	71	22	26
Soviet Union					
Metal (b)	* 500	...	...	...	...
Sweden					
Metal	12	15	2	23	13
Switzerland					
Metal	45	60	34	27	62
Yugoslavia					
Ores & concentrates	2 849	717	1 345	2 401	2 732
Algeria					
Metal	6	0	104	—	...
Canada					
Oxide	780	1 001	1 143	1 189	1 278
USA					
Ore	5 086	5 719	8 973	12 933	9 861
Liquated	80	43	65	151	523
Metal	2 103	1 828	4 096	4 889	7 583
Oxide	9 465	9 620	16 224	9 666	12 266
Argentina					
Ore	150	438	527	...	...

Imports of Antimony

Country	1982	1983	1984	1985	1986
Brazil					
Ore	588	494	34	398	816
Metal	331	650	260	484	727
Oxide	133	162	37	49	26
Sulphide	6	10	17	13	...
Venezuela					
Metal	544	38	118	102	116
India (a)					
Metal	513	...	...	...	...
Oxide	98	...	...	...	...
Japan					
Ores & concentrates	3 993	6 272	6 987	5 091	6 400
Metal	2 493	3 487	5 118	4 269	3 985
Oxide	1 150	1 796	2 467	2 672	3 609
Sulphide	116	115	228	56	126
Korea, Republic of					
Ores & concentrates	391	956	1 250	883	4 655
Metal	32	149	251	58	298
Oxide	126	311	354	337	644
Malaysia					
Metal	26	16	36	60	...
Pakistan (d)					
Metal	40	35	15	32	75
Thailand					
Ores & concentrates	—	776	1 645	3 700	3 002
Metal	25	157	27	20	12
Australia					
Metal	29	26	41	90	211

(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	1982	1983	1984	1985	1986
France	9 700	4 700	3 800	9 400	* 8 000
Germany, Federal Republic of	* 360	* 360	* 360	* 360	* 360
Portugal	157	163	144	204	176
Soviet Union	* 7 800	* 7 900	* 8 000	* 8 100	* 8 100
Sweden	* 9 000	* 9 000	* 10 000	* 10 000	* 10 000
Namibia (a)	1 895	1 126	2 504	2 471	2 208
Canada	* 5 000	* 5 500	* 8 000	* 8 400	* 5 100
Mexico (b)	4 739	4 557	5 496	6 312	* 6 000
USA	8 000	7 300	6 800	2 200	—
Bolivia	295	123	151	311	84
Chile	—	—	* 3 500	* 4 000	* 6 000
Peru	1 910	1 009	1 090	1 257	1 210
Japan	* 100	* 300	* 500	* 500	* 500
Korea, Republic of	306	560	...	...	...

Notes:

- 1 This table includes calculated trioxide equivalents of arsenic metal produced except where this would involve double counting
 - 2 In addition to the countries listed, Argentina, Austria, Belgium, China, Czechoslovakia, German Democratic Republic, Finland, Hungary, Spain, United Kingdom and Yugoslavia are also believed to produce arsenic
- (a) Output of Tsumeb Corp. only, trioxide equivalent of reported black arsenic
(b) Including trioxide equivalent of black arsenic

Exports of Arsenic

Country	1982	1983	1984	1985	1986
United Kingdom					
White arsenic	44	146	2	91	131
Metallic arsenic (a)	58	44	57	54	204
Belgium-Luxembourg					
Metallic arsenic (a)	7	46	92	53	53
France					
White arsenic	7 503	3 246	7 225	10 222	—
Metallic arsenic	90	27	128	80	186
Germany, Federal Republic of					
White arsenic	745	451	151	304	216
Metallic arsenic (a)	9	14	13	17	16
Italy					
White arsenic	106	3	2	24	16
Netherlands					
White arsenic	12	1	3	10	—
Metallic arsenic (a)	48	39	177	89	44
Portugal					
White arsenic	—	64	26	150	139
Namibia					
White arsenic	1 895	1 126	2 504	2 471	2 208
Mexico					
White arsenic	2 466	2 653	3 287	3 399	...
Bolivia					
White arsenic	156	56	125	311	241
China					
White arsenic (b)	* 2 700	* 500	* 400	* 400	* 400
Metallic arsenic (b)	* 50	* 130	* 100	* 140	* 360
Hong Kong					
White arsenic (Re-exports)	295	51	21	66	308
Korea, Republic of					
White arsenic	643	114	187	307	41

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

(a) May include some tellurium

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

Arsenic

Imports of Arsenic

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
White arsenic	7 116	4 393	5 744	5 766	4 298
Metallic arsenic (a)	141	120	160	156	153
Belgium-Luxembourg					
White arsenic	52	20	7	3	0
Metallic arsenic (a)	86	100	123	83	79
Denmark					
White arsenic	10	5	15	15	10
Metallic arsenic (a)	11	1	12	0	0
France					
White arsenic	128	131	31	50	125
Metallic arsenic	117	99	135	91	258
Germany, Federal Republic of					
White arsenic	444	339	344	290	253
Metallic arsenic (a)	77	74	89	74	103
Greece					
White arsenic	97	33	73	74	51
Italy					
White arsenic	598	455	551	416	494
Metallic arsenic (a)	65	32	33	59	65
Netherlands					
White arsenic	13	2	—	2	4
Metallic arsenic (a)	117	63	164	96	37
Spain					
White arsenic	78	133	100	...	182
Metallic arsenic	11	18	28	...	...
Finland					
White arsenic (d)	1 555	1 165	1 183	1 022	1 604
Sweden					
Metallic arsenic	628	730	3 036	0	0
Switzerland					
White arsenic (d)	3	22	4	31	1
Turkey					
White arsenic	...	...	96	160	...
Yugoslavia					
White arsenic	57	73	115	120	148
Metallic arsenic	37	18	42	60	53
Morocco					
White arsenic	5	10	18	11	...
South Africa					
White arsenic (d)	1	90	0	—	...
Metallic arsenic	14	9	22	15	...
USA					
White arsenic	14 599	10 186	13 985	16 473	25 730
Metallic arsenic	136	244	304	407	394
Argentina					
White arsenic	169	5	177	...	...
Brazil					
White arsenic	392	376	246	281	...
Metallic arsenic	2	2	3	2	...
Colombia					
White arsenic	10	12	14	47	...
Uruguay					
White arsenic	24	38	40	21	39
Hong Kong					
White arsenic	157	61	238	99	116
India (b)					
White arsenic	511	...	...	...	...
Metallic arsenic	22	...	...	...	...
Indonesia					
White arsenic	62	29	44	57	101
Japan					
White arsenic	599	272	199	144	161

Imports of Arsenic

Country	1982	1983	1984	1985	1986
Malaysia					
White arsenic	1 332	612	615	1 083	...
Philippines					
White arsenic (d)	218	157	118	14	16
Taiwan					
White arsenic	174	274	411	368	563
Thailand					
White arsenic (d)	289	139	97	61	79
Australia					
White arsenic	862	510	...	...	...
New Zealand (c)					
White arsenic (d)	3 146	1 568	1 938	2 091	2 101

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

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

Production of Asbestos

tonnes

Country	1982	1983	1984	1985	1986
Greece	17 016	31 811	45 376	46 811	* 48 000
Italy	116 410	139 054	147 272	136 006	115 208
Bulgaria	600	700	500	400	500
Czechoslovakia	342	325	...	...	247
Soviet Union	* 2 600 000	* 2 650 000	* 2 700 000	* 2 700 000	* 2 700 000
Turkey	23 283	22 590	29 934	29 039	30 981
Yugoslavia	10 748	9 663	9 441	6 918	8 596
Egypt	424	245	* 325	* 325	* 300
Mozambique	852	—	146	55	—
South Africa					
Amosite	43 457	40 656	33 237	37 856	36 009
Crocidolite	118 197	117 416	88 884	64 731	63 203
Chrysotile	81 140	93 016	75 414	92 318	91 001
Swaziland					
Chrysotile	30 145	28 287	25 832	25 130	20 908
Zimbabwe					
Chrysotile	197 682	153 000	165 300	173 500	163 600
Canada					
Chrysotile	834 249	857 504	836 654	750 190	662 000
USA (a)	63 515	69 906	57 422	57 457	51 437
Argentina	1 218	1 240	1 093	1 244	1 697
Brazil	145 998	158 855	134 788	165 446	204 460
Colombia	5 552	7 032	9 982	12 435	12 196
China	* 110 000	* 160 000	* 135 000	* 150 000	* 150 000
Cyprus					
Chrysotile	18 952	17 288	7 429	16 360	13 011
India					
Amphibole	26 908	23 420	26 338	29 450	25 948
Japan					
Chrysotile	4 135	* 4 000	* 4 000	* 4 000	* 4 000
Korea, Republic of	15 933	12 506	8 062	4 703	2 983
Taiwan	2 392	2 819	1 355	625	—
Australia					
Chrysotile	18 587	3 909	—	—	—
World total	4 500 000	4 600 000	4 500 000	4 500 000	4 400 000

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

(a) Sold or used by producers

Exports of Unmanufactured Asbestos

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	1 860	1 282	964	308	432
Belgium-Luxembourg	1 084	568	349	254	660
France	1 586	3 195	921	979	438
Germany, Federal Republic of	47 239	34 260	14 927	3 064	777
Greece	992	9 396	34 740	29 387	44 468
Italy	48 624	61 164	57 660	66 244	45 187
Netherlands	88	243	217	50	177
Hungary	* 4 900	* 4 800	* 3 200	...	...
Soviet Union (a)	* 304 500	* 289 100	* 277 500	* 293 300	* 256 700
Sweden	—	135	—	—	0
Switzerland	348	389	35	5	15
Yugoslavia	2 588	2 147	2 214	2 018	1 526
South Africa	218 912	213 989	190 754	175 929	157 541
Swaziland	29 573	31 176	24 673	24 675	25 191
Zimbabwe	168 812	161 088	155 385	158 633	167 970
Canada					
Crude	555	931	45	44	127
Fibre	454 430	384 068	430 496	395 206	374 360
Shorts	425 779	368 912	366 207	326 314	377 594
USA	58 767	54 632	39 922	45 656	47 282
Brazil	7 022	11 750	19 716	23 248	29 688
China (a)	* 5 200	* 4 200	* 2 800	* 1 700	* 1 000
Cyprus	19 115	13 631	8 216	16 948	11 781
Hong Kong (Re-exports)	1 141	84	19	155	21
Japan	723	677	431	292	163
Singapore	8 939	8 692	6 715	7 117	4 276
of which: Re-exports	2 404	1 250	487	1 025	4 276
Australia	15 578	4 460	22	—	—

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

Imports of Unmanufactured Asbestos

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	52 260	45 145	41 556	37 639	26 766
Belgium-Luxembourg	27 744	35 332	34 882	25 138	25 017
Denmark	9 701	16 585	13 536	10 362	10 269
France	83 639	76 265	70 170	63 872	65 067
Germany, Federal Republic of	148 845	188 857	74 432	63 172	64 944
Greece	7 102	7 531	3 954	4 653	1 271
Irish Republic	5 777	4 729	5 687	5 243	5 546
Italy	56 884	41 619	41 421	47 952	47 896
Netherlands	5 107	5 751	8 357	5 625	7 087
Portugal	14 815	14 047	8 126	9 932	9 208
Spain	53 211	54 523	47 471	38 022	43 874
Albania (d)	* 2 600	* 2 000	* 1 700	* 1 500	* 1 500
Austria	27 082	26 076	22 654	21 595	15 148
Bulgaria	18 116	26 079	21 452	35 472	24 406
Czechoslovakia	48 699	41 681	45 335	46 783	46 203
Finland	4 291	2 561	3 157	2 479	2 165
German Democratic Republic	61 200	47 000	53 800	54 600	55 700
Hungary	33 688	37 603	35 097	33 596	31 059
Poland	72 705	71 260	69 361	81 690	81 038
Romania (d)	* 2 500	* 1 400	* 800	* 700	* 100
Sweden	1 037	1 000	1 000	1 042	1 069
Switzerland	5 455	12 211	4 772	5 058	3 923
Turkey	20 012	20 575	21 872	25 544	34 112
Yugoslavia	58 611	45 651	45 468	54 373	44 212
Algeria	3 079	27 181	23 503	31 752	...
Burundi	518	28	150	422	...
Egypt	2 367	13 998	15 258	13 090	1 949
Ethiopia	671	1 006	...	353	3
Ghana	20	235	...	...	...
Kenya	530	747	811	766	387
Libya	4 308	...	...	...	...
Morocco	8 086	6 590	4 702	1 110	...
Mozambique	1 543	1 632	767	3	890
Nigeria	77 812	...	37 439	10 778	8 640
Senegal	914	1 042	613	708	341
South Africa	12 878	12 781	20 913	11 528	11 289
Tunisia	6 361	3 728	6 075	5 852	9 207
Zaire	169	340	153	...	...
Canada	573	454	326	374	325
Costa Rica	1 192	382	326	3	7
Cuba (f)	1 208	1 794	1 428	1 658	2 374
El Salvador	3 286	3 955	1 989	...	...
Guatemala	376	681	679	1 101	...
Honduras	864	1 522	1 902	...	...
Mexico	55 732	32 862	53 567	54 790	...
Nicaragua	1 496	2 441	...	...	...
Panama	320	450	150	225	303
USA					
Amosite	389	609	715	121	—
Crocidolite	7 904	6 177	5 656	4 795	1 988
Chrysotile	211 901	177 016	194 949	130 212	102 418
Other unmanufactured	21 538	12 584	8 643	7 301	3 948
Argentina	15 462	14 153	15 022	5 863	...
Brazil	13 192	7 771	3 791	2 591	3 044
Chile	3 740	5 403	(d)* 6 800	(d)* 7 200	(d)* 7 400
Colombia	25 945	13 170	11 970	14 185	...
Ecuador	5 659	6 630	7 891	5 031	5 682
Peru	3 801	3 934	3 216	3 242	6 083
Uruguay	623	1 423	688	596	1 003
Venezuela	7 354	4 734	8 013	4 669	9 519

Imports of Unmanufactured Asbestos

tonnes

Country	1982	1983	1984	1985	1986
Burma (e)	7 152	...	...	...	...
China (d)	* 600	* 900	* 600	* 800	* 300
Cyprus	367	375	297	462	224
Dubai	9 217	5 342	912	6 624	4 768
Hong Kong	1 336	101	28	168	82
India (e)	50 041	...	...	...	...
Indonesia	18 765	15 095	10 964	8 149	11 185
Iran (a)	42 568	47 186	41 064	...	...
Israel (c)	4 467	6 316	3 932	3 621	4 158
Japan	229 125	237 413	239 747	261 648	255 732
Korea, Republic of	44 038	113 305	59 693	57 143	68 017
Kuwait	10 145	3 356	1 299	...	...
Malaysia	24 632	25 375	23 146	19 064	...
Pakistan (b)	4 462	3 468	3 172	2 028	3 685
Philippines	2 200	2 385	1 663	1 190	1 151
Saudi Arabia	15 882	8 801	6 660	4 547	4 457
Singapore	9 767	10 215	9 951	6 078	3 987
Sri Lanka	2 399	7 110	5 057	8 590	5 586
Syria	3 885	4 849	2 449	5 928	...
Taiwan	30 020	37 939	31 764	24 519	39 735
Thailand	54 333	55 967	66 545	71 516	49 663
Australia	20 853	10 113	14 432	12 194	9 245
New Zealand (b)	3 891	2 959	1 907	1 304	1 553

(a) Years ended 20 March following that stated

(b) Years ended 30 June of that stated

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

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

(e) Years ended 31 March following that stated

(f) Exports from Canada

Production of Barytes

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	81 000	36 000	63 000	107 344	86 754
Belgium	* 39 900	* 39 900	* 39 000	* 39 900	* 39 900
France	143 000	137 000	139 000	121 000	114 100
Germany, Federal Republic of	165 661	163 965	166 568	171 269	201 565
Greece	119 747	90 187	24 822	3 283	2 227
Irish Republic	266 000	199 000	220 000	213 800	127 500
Italy	178 194	139 090	107 128	127 226	114 132
Portugal	600	637	318	1 094	120
Spain	50 031	52 410	68 919	67 572	49 000
Czechoslovakia	* 61 000	* 61 000	* 60 000	* 60 000	* 60 000
Finland	—	3 400	8 704	6 969	8 690
German Democratic Republic	* 35 000	* 35 000	* 35 000	* 34 000	* 34 000
Poland	90 600	89 900	90 600	91 215	97 993
Romania	* 78 000	* 78 000	* 73 000	* 73 000	* 73 000
Soviet Union	* 520 000	* 520 000	* 530 000	* 540 000	* 540 000
Turkey	114 928	78 974	198 031	230 497	309 568
Yugoslavia	32 014	35 025	41 098	34 338	42 789
Algeria	102 000	* 110 000	* 88 000	60 000	* 60 000
Egypt	3 101	3 185	3 206	2 010	3 385
Kenya	—	300	210	407	420
Morocco	515 672	288 414	561 321	463 380	189 881
South Africa	3 177	6 683	4 467	4 387	8 653
Tunisia	33 900	23 200	12 100	2 200	14 400
Zimbabwe	800	980	700	400	298
Canada	23 552	45 465	64 197	71 049	40 000
Guatemala	7 531	886	215	2 402	* 2 000
Mexico	323 753	357 043	426 095	467 693	375 000
USA (b)	1 674 000	684 000	703 000	670 000	269 000
Argentina	36 597	61 094	44 170	62 329	27 119
Bolivia	607	516	984	1 282	* 1 000
Brazil (d)	116 955	96 274	139 554	100 235	* 110 000
Chile	292 402	114 595	21 722	54 494	53 121
Colombia	3 500	3 839	3 340	5 050	4 198
Peru	375 000	111 000	46 000	22 000	30 000
Afghanistan (c)	1 800	* 1 800	* 1 800	* 1 800	* 1 800
Burma (a)	16 029	9 990	* 11 000	8 148	* 8 000
China	* 900 000	* 1 000 000	* 1 000 000	* 1 000 000	* 1 000 000
India	387 079	325 045	445 011	574 767	327 074
Iran (c)	* 80 000	* 85 000	* 90 000	* 90 000	* 90 000
Japan	58 568	69 242	65 863	75 844	52 848
Korea, Republic of	—	552	—	2 785	3 768
Malaysia	25 272	21 434	23 421	23 394	22 506
Pakistan	22 448	28 240	26 369	29 932	39 047
Philippines	8 697	1 201	—	—	—
Thailand	330 948	187 437	174 918	230 970	142 232
Australia	28 064	11 752	19 511	22 423	5 819
World total	7 300 000	5 400 000	5 800 000	6 000 000	4 800 000

Notes:

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

(a) Years ended 31 March following that stated

(b) Sold or used by producers

(c) Years ended 20 March following that stated

(d) Includes beneficiated and directly shipped material

Exports of Barytes

Country	1982	1983	1984	1985	1986
United Kingdom	11 427	10 462	14 997	17 108	6 720
Belgium-Luxembourg	13 099	30 948	33 912	86 620	55 378
France	94 558	109 752	131 394	95 170	98 185
Germany, Federal Republic of	39 886	37 839	46 028	55 989	39 947
Greece	36 758	5 400	16 000	14 000	22 109
Irish Republic	267 501	227 148	224 555	198 933	121 585
Italy	73 413	46 571	9 510	27 136	3 992
Netherlands	80 306	68 162	59 067	64 442	42 091
Portugal	589	—	—	—	20
Spain	52 740	61 507	51 833	58 958	27 550
Bulgaria	141 049	133 037	130 726	129 095	138 188
Czechoslovakia (b)	* 2 600	* 2 000	* 2 000	* 2 000	* 1 500
German Democratic Republic (b)	* 2 700	* 500	* 1 600	* 600	* 200
Norway	1 611	166	3 515	8 801	10 053
Romania (b)	* 400	* 200	* 700	* 200	* 400
Turkey	171 483	162 408	215 981	191 934	193 667
Yugoslavia	20 452	17 680	20 256	19 790	37 095
Algeria	—	4 000	—	2 500	...
Ivory Coast	1 445	500	1 057	931	...
Morocco	465 340	372 319	570 973	487 982	257 381
Tunisia	259	...	6 112	3 000	—
Canada	481	795	1 247	1 676	6 621
Mexico	123 672	160 621	54 043	34 675	...
Trinidad & Tobago	—	3 757	—	—	...
USA	44 171	20 743	1 398	5 414	12 502
Bolivia	607	516	984	1 282	129
Brazil	19 730	6 300	12 717	7 303	6 000
Peru	130 105	(b)* 118 000	43 291	(b)* 78 900	(b)* 52 800
China	1 091 218	792 285	951 432	946 976	531 195
Hong Kong (Re-exports)	759	886	262	16	120
India (a)	247 618	120 580	347 317	...	...
Indonesia	2 829	5 807	762	3 591	—
Malaysia	4 120	8 802	10 250	8 155	...
Singapore	10 204	15 821	11 303	32 431	12 939
of which: Re-exports	9 623	15 095	6 423	11 975	11 485
Thailand	287 889	205 443	205 557	213 870	79 680
Australia	608	820	1 683	2 022	1 240

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

(a) Years ended 31 March following that stated

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

Imports of Barytes

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	116 386	138 226	158 473	120 346	90 386
Belgium-Luxembourg	8 427	7 250	8 165	8 193	8 439
Denmark	18 269	23 726	11 096	1 914	14 556
France	18 884	18 543	30 855	43 660	35 551
Germany, Federal Republic of	177 686	141 022	209 420	221 614	200 736
Greece	6 039	3 420	40	2 590	5 175
Irish Republic	300	366	423	391	875
Italy	10 328	14 424	11 787	19 388	24 615
Netherlands	75 748	148 833	88 490	94 843	62 341
Portugal	703	1 335	564	1 282	1 466
Spain	1 429	514	392	261	1 011
Austria	6 649	9 278	11 325	5 034	9 067
Finland	2 664	1 613	1 419	1 721	1 769
Hungary	19 129	17 459	13 179	11 663	10 184
Norway	87 836	90 574	107 994	124 048	116 489
Poland	* 5 000	22 814	...	(b)* 5 000	(b)* 5 500
Romania (b)	* 67 900	* 56 100	* 47 600	* 45 100	* 64 500
Soviet Union (b)	* 189 700	* 127 100	* 160 100	* 155 000	* 168 100
Sweden	5 440	4 991	5 321	5 606	6 804
Switzerland	1 795	1 393	1 294	1 348	885
Yugoslavia	498	150	380	270	2 365
Algeria	—	4	150	674	...
Cameroon	11 645	6 466	29 151	8 114	...
Gabon	12 124	6 552	936	8 125	2 716
Ivory Coast	15 855	2 411	6 604	6 952	...
South Africa	1 789	2 384	3 495	1 464	...
Tunisia	484	136	139	154	90
Canada	23 456	29 952	17 685	26 589	10 525
Mexico	190 602	90 251	34	14	...
Trinidad & Tobago	22 543	35 811	12 147	19 809	...
USA	2 126 649	1 267 645	1 611 351	1 929 663	695 778
Argentina	677	708	1 043	1 403	...
Colombia	6 497	7 903	47	9 019	...
Venezuela	146 025	62 266	69 362	85 807	102 679
Abu Dhabi	25 823	38 318	5 566	27 522	6 367
Dubai	8 267	22 294	25 126	2 722	3 592
Hong Kong	1 173	1 252	378	227	425
Indonesia	70 833	74 316	60 457	67 536	57 959
Japan	40 187	46 568	41 681	50 356	30 962
Korea, Republic of	350	469	949	1 113	1 436
Malaysia	16 651	9 409	12 429	12 725	...
Philippines	85	341	44	1 247	43
Saudi Arabia	46 699	73 459	4 124	12 680	475
Singapore	19 494	21 554	11 428	18 116	14 382
Syria	916	3 918	2 979	8 525	...
Taiwan	600	2 867	7 914	4 131	6 636
Australia	3 227	1 166	1 282	1 770	2 306
New Zealand (a)	1 385	1 898	4 623	6 014	3 337

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

(a) Years ended 30 June of that stated

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

Production of Bentonite and Fuller's Earth

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Fuller's earth (a)	187 000	192 000	202 000	216 000	202 000
France					
Bentonite	3 290	3 088	12 200	14 900	...
Germany, Federal Republic of					
Bentonite	...	...	154 000	169 000	179 000
Fuller's earth	821 000	766 000	674 000	701 000	680 000
Greece					
Bentonite	404 755	406 917	778 722	1 054 234	1 317 825
Italy					
Bentonite	237 333	296 816	308 823	304 172	299 638
Fuller's earth	7 000	20 500	30 000	30 400	30 960
Spain					
Bentonite	112 326	82 550	72 582	90 239	...
Attapulgit	42 926	41 654	43 907	59 697	...
Sepiolite	329 240	306 630	283 985	267 393	...
Hungary					
Bentonite	84 934	79 807	64 158	59 853	79 888
Poland					
Bentonite	79 500	71 300	75 500	85 200	94 200
Romania					
Bentonite	* 175 000	* 177 000	* 180 000	* 180 000	* 180 000
Turkey					
Bentonite	* 31 000	21 916	21 970	42 040	55 367
Fuller's earth	127 179	...	...	...	...
Yugoslavia					
Bentonite	126 778	142 503	132 887	148 252	141 726
Algeria					
Bentonite	* 35 000	* 30 000	24 500	* 25 000	* 30 000
Fuller's earth	* 5 100	* 5 000	3 500	* 3 500	...
Egypt					
Bentonite	3 770	2 512	3 353	3 785	5 129
Morocco					
Bentonite	4 457	4 095	1 825	2 876	3 834
Fuller's earth (g)	24 604	27 385	34 358	24 425	35 100
Mozambique					
Bentonite	1 455	250	414	361	1 112
Senegal					
Attapulgit	94 189	98 950	115 498	88 017	77 108
South Africa					
Bentonite	30 827	39 600	41 849	43 472	48 265
Attapulgit	4 596	4 425	4 843	5 885	10 125
Fuller's earth	311	312	—	—	—
Canada					
Bentonite	* 47 000	* 67 500	* 66 500	* 65 000	* 71 000
Guatemala					
Bentonite	9 018	5 885	680	2 727	* 3 500
Mexico					
Bentonite	184 918	226 140	267 348	267 695	...
Fuller's earth	42 488	41 574	45 697	58 000	...
USA					
Bentonite (c)	2 943 633	2 618 925	3 118 847	2 898 710	2 551 900
Fuller's earth (c)(f)	1 526 479	1 734 205	1 722 876	1 868 149	1 732 700
Argentina					
Bentonite	123 254	135 569	81 534	159 206	68 209
Fuller's earth	11 795	6 741	3 611	* 5 000	...
Brazil					
Bentonite	164 060	128 691	201 025	236 368	206 021
Peru					
Bentonite	* 31 000	* 31 000	* 32 000	* 32 000	...
Burma (d)					
Bentonite	985	812	710	851	...
Cyprus	13 324	31 950	32 400	52 000	60 000
India					
Bentonite	142 088	95 069	131 000	161 000	...
Fuller's earth	26 295	35 047	20 435	23 000	...
Iran					
Bentonite	* 11 000	* 10 000	* 10 000	* 10 000	* 10 000

Production of Bentonite and Fuller's Earth

tonnes

Country	1982	1983	1984	1985	1986
Israel					
Bentonite (e)	12 000	6 838	5 898	* 12 000	...
Japan					
Bentonite	484 431	440 923	415 974	461 530	408 864
Pakistan					
Bentonite	1 024	1 069	1 740	1 611	1 362
Fuller's earth	17 342	17 483	19 139	10 647	15 228
Philippines					
Bentonite	4 671	670	38 249	25 026	1 800
Australia					
Bentonite	29 211	30 026	39 172	29 070	39 933
Fuller's earth	14 769	* 15 000	* 15 000	* 15 000	...
New Zealand					
Bentonite	6 220	1 958	6 418	7 400	3 140
World total Bentonite	5 540 000	5 190 000	6 320 000	6 650 000	6 440 000
World total Fuller's earth (b)	3 280 000	3 440 000	3 350 000	3 500 000	3 340 000

Notes:

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

Exports of Bentonite and Fuller's Earth

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Bentonite	22 066	19 169	22 195	40 256	33 695
Fuller's earth	12 049	13 957	16 619	23 111	22 577
Belgium-Luxembourg					
Bentonite	4 804	6 192	1 488	2 041	280
Fuller's earth	232	953	659	482	661
France					
Bentonite	15 304	10 404	7 676	8 295	8 235
Fuller's earth	9 958	10 669	12 033	5 459	2 545
Germany, Federal Republic of					
Bentonite	21 122	31 488	33 552	34 444	33 063
Fuller's earth	3 865	6 361	3 348	4 854	5 301
Greece					
Bentonite	314 533	322 920	380 246	453 714	460 875
Italy					
Bentonite	21 261	40 982	38 144	28 063	20 779
Netherlands					
Bentonite	22 687	22 238	23 916	30 572	30 405
Fuller's earth	762	5 528	9 074	301	575
Spain					
Bentonite	30 554	32 346	24 236	...	33 258
Fuller's earth	2 877	2 646	2 670	...	3 337
Bulgaria					
Bentonite	...	97 306	101 153	86 757	113 005
Hungary					
Bentonite	21 527	16 382	12 920	10 338	11 423
Turkey					
Bentonite	...	...	7 051	29 325	...
Yugoslavia					
Bentonite	533	100	189	292	79
Morocco					
Fuller's earth (a)	18 350	20 737	38 640	32 720	...
Senegal					
Fuller's earth (b)	15 017	18 275	7 996	11 224	2 022
South Africa					
Bentonite	995	380	915	1 445	1 609
USA					
Bentonite	605 745	502 522	510 673	580 659	527 767
Fuller's earth	84 321	92 800	105 039	96 244	109 604
Argentina					
Bentonite	4 888	6 651	6 433	8 665	...
Colombia					
Bentonite	1 441	336	—	850	...

Exports of Bentonite and Fuller's Earth

tonnes

Country	1982	1983	1984	1985	1986
China					
Bentonite (c)	* 700	* 1 100	* 900	* 900	* 1 000
Fuller's earth (c)	* 2 200	* 2 000	* 1 200	* 500	* 300
India (d)					
Bentonite	11 243	21 079	69 237	...	...
Fuller's earth	877	199	306	...	...
Indonesia					
Bentonite	6 909	9 928	5 184	3 009	4 206
Kuwait					
Bentonite	18 118	1 254	3 393	...	...
Philippines	—	—	17 917	34 897	—
Singapore					
Bentonite	19 312	21 913	21 817	13 823	7 376
of which: Re-exports	14 228	19 710	19 524	11 463	7 376
Fuller's earth	11 239	11 813	7 923	6 335	2 105
of which: Re-exports	11 236	11 813	7 923	6 321	2 105
Taiwan					
Bentonite	104	36	45	10	257

Notes:

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

- (a) Smectite
- (b) Attapulgite
- (c) BGS estimates, based on known imports into certain countries
- (d) Years ended 31 March following that stated

Imports of Bentonite and Fuller's Earth

Country	1982	1983	1984	1985	1986
United Kingdom					
Bentonite	46 328	45 751	81 051	83 982	102 572
Fuller's earth	1 381	3 976	5 672	2 013	1 437
Belgium-Luxembourg					
Bentonite	21 336	24 828	19 873	20 166	20 007
Fuller's earth	1 556	7 979	9 470	1 520	1 173
Denmark					
Bentonite	3 555	3 726	3 234	2 669	4 779
Fuller's earth	1 183	983	981	1 129	749
France					
Bentonite	99 081	89 298	95 069	98 366	88 061
Fuller's earth	4 510	1 909	1 898	1 922	2 978
Germany, Federal Republic of					
Bentonite	70 476	82 442	82 612	114 610	116 903
Fuller's earth	5 369	5 649	4 593	6 905	9 769
Greece					
Bentonite	1 250	617	1 657	358	370
Italy					
Bentonite	42 504	39 530	48 559	20 731	31 615
Fuller's earth	2 362	1 961	2 718	3 065	2 575
Netherlands					
Bentonite	84 738	70 786	90 934	74 619	85 191
Fuller's earth	2 762	3 144	2 615	3 455	4 882
Portugal					
Bentonite	26 497	24 281	19 131	22 453	22 115
Fuller's earth	—	—	152	980	883
Spain					
Bentonite	28 418	24 206	28 484	...	27 361
Austria					
Bentonite	839	1 733	1 391	2 432	5 250
German Democratic Republic					
Bentonite (c)	* 10 400	* 14 600	* 15 100	* 12 300	* 13 000
Fuller's earth (c)	* 500	* 900	* 900	* 700	* 1 400
Norway					
Bentonite	36 955	31 374	38 128	40 600	33 683
Fuller's earth	341	278	412	4 131	10 286
Poland					
Bentonite	* 4 600	(c)* 16 400	(c)* 15 100	(c)* 16 800	(c)* 27 100
Sweden					
Bentonite	5 696	2 903	6 653	6 005	9 228
Algeria					
Bentonite (b)	206	37	14	436	...
Ivory Coast					
Bentonite	750	364	467	776	...
Morocco					
Bentonite	358	0	682	200	...
Senegal					
Bentonite	1 505	134	2 104	336	710
Tunisia					
Bentonite	6 928	...	4 844	3 032	4 891
Zimbabwe					
Fuller's earth	379	715	162	2 896	...
Canada					
Bentonite	238 031	187 228	337 048	346 013	326 294
Fuller's earth	1 081	536	4 152	4 970	5 438
Mexico					
Bentonite	5 459	406	496	685	...
USA					
Bentonite	140	693	5 322	7 352	2 509
Fuller's earth	38	—	7	3 461	75
Brazil					
Bentonite	8 057	10 279	14 098	12 774	15 657
Chile					
Bentonite (c)	* 4 900	* 7 300	* 3 600	* 1 000	* 3 900
Colombia					
Bentonite	10 138	2 325	6 736	15 071	...

Imports of Bentonite and Fuller's Earth

tonnes

Country	1982	1983	1984	1985	1986
Peru					
Bentonite	774	762	1 041	893	806
Uruguay					
Bentonite	99	164	108	142	199
Venezuela					
Bentonite	31 804	20 662	16 332	13 505	25 340
Indonesia					
Bentonite	30 679	24 185	25 542	28 189	23 005
Fuller's earth	—	3 867	961	918	529
Korea, Republic of					
Bentonite	1 549	2 860	3 816	5 062	5 414
Kuwait					
Bentonite	10 640	15 263	30 709	...	...
Malaysia					
Bentonite	4 385	7 507	20 797	50 833	...
Fuller's earth	25 734	12 298	5 474	1 814	...
Pakistan (a)	719	901	1 045	283	7 486
Philippines	8 455	4 382	2 048	3 374	1 883
Singapore					
Bentonite	45 614	51 043	35 468	30 132	36 360
Fuller's earth	8 878	11 640	12 531	9 946	5 301
Taiwan					
Bentonite	6 174	9 396	14 040	16 623	18 624
Thailand					
Bentonite	1 417	2 014	4 212	2 914	3 243
Australia					
Bentonite	32 571	17 767	24 419	30 531	24 942

Notes:

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

- (a) Years ended 30 June of that stated
(b) Including crude kaolin
(c) BGS estimates, based on known exports from certain countries

Mine Production of Bismuth

tonnes (metal content)

Country	1982	1983	1984	1985	1986
France	78	97	79	70	95
Italy	28	22	26	54	66
Romania	* 80	* 80	* 80	* 80	* 80
Soviet Union	* 78	* 80	* 80	* 84	* 84
Yugoslavia	49	45	30	68	21
Canada (a)	189	253	166	201	153
Mexico	606	545	433	925	898
USA	* 400	* 400	* 400	* 400	* 400
Bolivia	5	6	3	159	43
Peru (a)	760	678	650	785	680
China	* 260	* 260	* 260	* 260	* 260
Japan	486	570	560	640	* 635
Korea, Republic of	95	100	126	135	136
Australia	* 700	* 700	* 700	* 700	* 700
World total	3 800	3 800	3 600	4 600	4 300

Notes:

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

Bismuth

Exports of Bismuth

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Compounds	2	2	5	3	—
Metal	319	353	418	(a)* 370	(a)* 310
France					
Compounds	49	50	41	61	43
Metal	3	13	12	10	1
Germany, Federal Republic of					
Compounds	93	97	60	39	45
Metal	251	82	427	251	77
Italy					
Metal	18	6	23	40	25
Netherlands					
Compounds	7	1	—	—	1
Metal	55	74	28	12	27
Mexico					
Metal	627	677	496	495	...
USA					
Metal	24	139	177	226	45
Peru					
Metal (a)	* 550	* 460	* 310	* 150	* 220
Japan					
Metal	242	249	158	230	257
Korea, Republic of					
Metal	83	92	136	139	178

Note: 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	1982	1983	1984	1985	1986
United Kingdom					
Metal	351	337	503	402	370
Belgium-Luxembourg					
Compounds	2	4	2	1	1
France					
Compounds	2	25	1	1	0
Metal	197	274	232	207	304
Germany, Federal Republic of					
Compounds	5	10	4	9	6
Metal	331	418	350	385	434
Italy					
Compounds	24	58	65	18	18
Metal	39	40	69	88	110
Netherlands					
Compounds	6	3	2	48	1
Metal	18	25	34	46	21
Spain					
Metal	123	90	103	...	83
Turkey					
Compounds	...	...	4	4	...
Yugoslavia					
Compounds	0	...	4	2	4
Metal	0	...	5	18	4
Morocco					
Compounds	5	3	4	2	...
Mexico					
Metal	81	80	632	134	...
USA					
Metal	919	921	980	928	1 228
Argentina					
Metal	17	20	25	...	...
Brazil					
Compounds (a)	12	9	4	9	...
Metal	34	46	101	35	73
India					
Metal (b)	32	...	...	...	...
Australia					
Metal	11	7	14	6	9

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

(a) Also includes oxide and chloride

(b) Years ended 31 March following that stated

Bromine

Production of Bromine

kilograms

Country	1982	1983	1984	1985	1986
United Kingdom	29 770 000	25 766 000	28 532 000	29 851 000	26 000 000
France	* 17 000 000	* 16 000 000	* 17 000 000	* 20 000 000	* 19 000 000
Germany, Federal Republic of	3 073 000	3 136 000	3 306 000	3 077 000	* 2 500 000
Italy	* 600 000	* 500 000	* 500 000	* 600 000	* 450 000
Spain	* 350 000	* 330 000	* 300 000	* 350 000	* 280 000
Soviet Union	* 68 000 000	* 68 000 000	* 70 000 000	* 70 000 000	* 65 000 000
USA (a)	181 900 000	168 000 000	175 000 000	145 000 000	141 000 000
India	494 000	544 000	246 000	1 089 300	1 229 400
Israel	* 70 000 000	* 70 000 000	* 90 700 000	* 100 000 000	* 105 000 000
Japan	* 12 000 000	* 12 000 000	* 12 000 000	* 12 000 000	* 7 600 000
World total	383 200 000	364 300 000	397 600 000	382 000 000	368 100 000

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

Exports of Bromine

kilograms

Country	1982	1983	1984	1985	1986
United Kingdom	2 150 846	1 917 710	2 017 764	1 970 929	2 307 258
Belgium-Luxembourg	—	2 100	5 000	—	5 000
Germany, Federal Republic of	10 500	12 600	28 300	6 200	3 200
Italy	344	9 746	17 947	72 900	86 000
Netherlands	1 152 000	1 035 000	1 340 000	2 030 000	616 000
German Democratic Republic (a)	* 795 000	* 587 000	* 718 000	* 1 358 000	* 1 491 000
USA	...	2 040 000	30 935 000	2 836 000	8 119 000
Israel (a)	* 15 100 000	* 17 400 000	* 23 800 000	* 27 700 000	* 25 000 000

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

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

Imports of Bromine

Country	1982	1983	1984	1985	1986
United Kingdom	4 629 255	5 169 751	6 169 089	9 275 204	8 453 307
Belgium-Luxembourg	793 600	910 700	1 653 200	1 280 900	1 660 500
Denmark	77 200	51 800	74 100	130 000	76 500
France	4 209 000	4 479 000	5 173 000	6 782 500	4 795 900
Germany, Federal Republic of	3 361 500	4 307 400	5 865 200	7 443 600	7 026 100
Italy	2 484 763	1 273 481	1 736 768	1 614 300	2 612 700
Netherlands	3 296 000	4 053 000	6 933 000	8 007 000	7 627 000
Portugal	1 100	300	600	700	—
Spain	290 000	512 000	284 000	...	45 000
Hungary	579 000	597 000	630 000	649 000	655 000
Turkey	...	...	353	187	...
Yugoslavia	3 000	7 000	9 000	2 000	1 000
Algeria	196	143	419	8	...
Morocco	22	84	18	276	...
South Africa	55 000	15 900	18 200	72 700	...
USA	69	104	4 100	5 003	154 926
Argentina	9 015	14 285	8 000	...	...
Brazil	22 576	11 670	19 842	14 479	...
Colombia	1 823	110	848	219	...
Peru	337	503	546	200	549
Venezuela	2 920	...	...	4 481	2 443
India (a)	278 810	...	...	...	...
Korea, Republic of	154 270	162 356	319 040	356 117	228 360
Pakistan (b)	7 994	4 638	15 266	7 133	11 088
Taiwan	151	44 968	56 621	14 428	121
Thailand	37	24	10	92	3

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

(a) Years ended 31 March following that stated

(b) Years ended 30 June of that stated

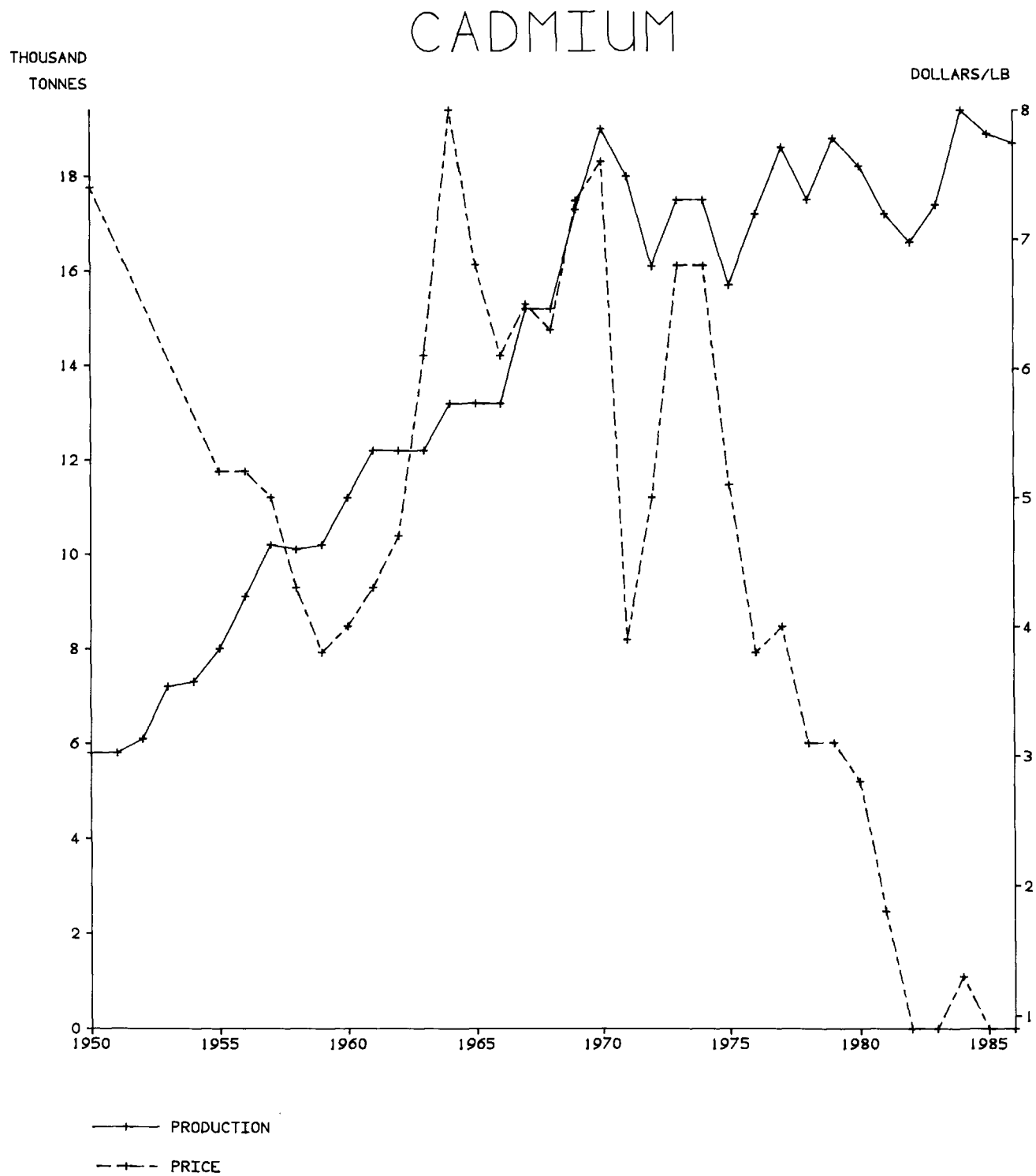


Figure 3 World production of cadmium from 1950 to 1986 compared with the annual average producer price expressed in constant 1980 US dollars.

Constant commodity prices have been derived from Metals Week, as quoted in Metallstatistik (published by Metallgesellschaft, 1987), using the CPI for the USA published in International Financial Statistics Yearbook (1987).

Production of Cadmium

Country	1982	1983	1984	1985	1986
United Kingdom	354	340	390	370	379
Belgium	1 001	1 264	1 472	1 252	1 380
France	803	513	563	337	431
Germany, Federal Republic of	1 030	1 094	1 110	1 095	1 218
Italy	475	386	520	360	300
Netherlands	497	513	636	594	557
Spain	286	278	290	268	247
Austria	48	46	49	52	52
Bulgaria	* 180	* 180	* 175	* 175	* 170
Finland	566	616	614	565	522
German Democratic Republic	* 16	* 15	* 15	* 15	* 18
Norway	103	117	150	150	* 155
Poland	* 500	* 600	* 600	* 610	500
Romania	* 75	* 60	* 60	* 55	* 55
Soviet Union	* 2 800	* 2 750	* 2 750	* 2 750	* 2 700
Turkey	* 10	* 10	* 12	* 16	* 16
Yugoslavia	174	48	270	274	259
Algeria	* 30	* 30	* 24	* 24	* 24
Namibia (a)	110	51	40	59	61
Zaire	281	308	318	295	364
Canada (b)	1 162	1 296	1 757	1 696	1 605
Mexico	607	642	571	734	719
USA (b)	1 007	1 052	1 686	1 603	1 486
Argentina	21	21	24	46	46
Brazil	73	189	224	224	233
Peru	425	443	384	427	385
China	* 300	* 350	* 360	* 380	* 400
India	131	133	143	194	160
Japan	2 021	2 215	2 400	2 555	2 542
Korea, Dem. P.R. of	* 220	* 220	* 260	* 350	* 360
Korea, Republic of	320	460	460	460	460
Australia	1 010	1 121	1 082	910	909
World total	16 600	17 400	19 400	18 900	18 700

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

(b) Includes cadmium sponge and/or secondary metal

Exports of Cadmium

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Metal	144	194	136	104	85
Belgium-Luxembourg					
Metal	547	556	727	804	633
Sulphide	43	44	48	55	60
France					
Metal	361	344	490	273	411
Germany, Federal Republic of					
Metal (a)	617	633	405	296	439
Oxide	14	20	51	38	15
Italy	79	504	147	322	224
Netherlands	646	782	714	615	541
Spain	209	232	184	...	230
Austria	53	51	43	45	55
Bulgaria (b)	* 40	* 30	* 60	* 50	* 50
Finland	658	536	620	569	567
Norway	139	106	137	143	162
Soviet Union	* 450	* 450	* 400	* 400	* 400
Sweden	—	58	15	15	46
Yugoslavia	41	25	38	55	23
Namibia	110	51	40	59	61
Zaire	310	333	308	...	...
Canada	771	1 365	1 388	1 477	1 383
Mexico	354	278	373	503	545
USA	12	173	135	160	38
Peru (b)	* 330	* 300	* 220	* 100	* 150
China (b)	* 400	* 400	* 100	* 100	* 300
Japan	1 145	910	446	382	452
Korea, Republic of					
Metal	152	397	393	145	104
Oxide	—	—	159	179	465
Australia	603	943	899	669	662

(a) Including rhenium

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

Imports of Cadmium

Country	1982	1983	1984	1985	1986
United Kingdom	872	* 1 100	* 820	878	1 095
Belgium-Luxembourg					
Metal	1 199	1 663	1 189	1 174	1 509
Sulphide	21	17	29	27	6
Denmark	3	2	3	3	1
France					
Metal	618	744	921	891	888
Sulphide	54	51	61	42	39
Germany, Federal Republic of					
Metal	783	829	757	546	531
Oxide	487	635	571	532	556
Sulphide	8	17	9	9	6
Italy					
Metal	49	135	107	54	96
Sulphide	12	4	8	6	6
Netherlands					
Metal	155	286	112	129	53
Sulphide	4	27	4	2	4
Austria	3	3	5	1	2
Czechoslovakia	220	201	303	164	170
German Democratic Republic (a)	* 250	* 220	* 140	* 110	* 180
Sweden	224	218	241	260	201
Soviet Union (a)	* 600	* 300	* 300	* 300	* 100
USA	2 305	2 191	1 898	1 988	3 174
Brazil					
Metal	107	157	16	1	3
Oxide	92	94	39	76	118
India (b)	131	...	...	...	...

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

(b) Years ended 31 March following that stated

Production of Chromium Ores and Concentrates

tonnes

Country	1982	1983	1984	1985	1986
Greece	23 238	20 517	50 364	58 948	60 053
Albania	* 675 000	* 685 000	* 720 000	* 825 000	* 850 000
Finland (b)	340 250	245 000	446 400	506 200	612 900
Soviet Union	* 2 940 000	* 2 940 000	* 2 940 000	* 2 940 000	* 3 000 000
Turkey (a)	452 445	345 610	487 405	588 576	* 600 000
Madagascar	44 223	42 920	59 765	126 697	82 910
South Africa	2 469 048	2 493 724	3 407 151	3 698 679	3 907 473
Sudan	10 018	18 557	25 000	16 000	18 000
Zimbabwe	431 600	431 400	476 400	526 500	553 106
Cuba	27 300	33 600	37 900	37 700	50 000
Brazil (a)	275 504	155 022	255 914	189 504	* 200 000
Cyprus	2 878	—	—	—	—
India	356 604	365 366	441 704	567 056	637 522
Iran	* 40 000	* 50 000	* 50 000	* 50 000	* 50 000
Japan	11 178	8 396	7 348	11 450	10 642
Pakistan	4 456	4 992	2 745	5 188	8 299
Philippines (b)	321 866	266 909	260 889	272 031	202 214
Vietnam	* 16 000	* 16 000	* 18 000	* 15 000	* 15 000
New Caledonia	47 251	86 712	87 794	78 820	74 803
World total	8 500 000	8 200 000	9 800 000	10 500 000	10 900 000

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

(a) Includes beneficiated and direct shipping ore

(b) Includes foundry sand and/or lumpy ore

Exports of Chromium

Country	1982	1983	1984	1985	1986
United Kingdom					
Ores & concentrates	980	112	27	171	405
Metal	1 945	3 038	3 889	4 071	3 828
Belgium-Luxembourg					
Ores & concentrates	—	8	51	36	0
Metal	280	65	111	301	121
France					
Ores & concentrates	1 554	1 316	1 069	3 124	951
Metal	590	740	1 630	1 614	1 007
Germany, Federal Republic of					
Ores & concentrates	12 959	8 694	8 877	8 909	12 061
Metal	101	106	252	197	132
Greece					
Ores & concentrates	12 175	12 030	8 625	8 830	10 964
Italy					
Ores & concentrates	437	680	678	1 544	3 710
Metal	2	30	45	139	211
Netherlands					
Ores & concentrates	21 130	18 603	21 377	27 379	30 070
Metal	5	58	117	2	75
Albania					
Ores & concentrates (b)	* 543 000	* 715 000	* 787 000	* 587 000	* 463 000
Austria					
Ores & concentrates	49	622	349	953	555
Finland					
Ores & concentrates	199 806	133 952	273 069	177 153	161 387
Soviet Union					
Ores & concentrates	561 000	496 000	442 000	471 000	474 000
Turkey					
Ores & concentrates	303 822	362 668	439 680	478 069	451 384
Yugoslavia					
Ores & concentrates	12 477	12 454	25 848	13 150	7 919
Madagascar					
Ores & concentrates	63 723	* 66 000	107 548	* 115 000	130 244
South Africa					
Ores & concentrates	1 112 198	1 244 982	1 096 856	1 739 336	1 133 625
Sudan					
Ores & concentrates	16 000	12 000	5 250	2 500	24 000
Cuba					
Ores & concentrates	21 651	28 897	41 212	41 650	...
USA					
Ores & concentrates	60 994	14 145	53 327	94 788	84 820
of which: Re-exports	53 586	4 137	3 497	3 335	1 322
Metal	221	243	243	202	293
China					
Ores & concentrates (b)	* 1 150	* 3 300	...	...	...
Metal (b)	* 250	* 500	* 1 100	* 500	* 1 100
Cyprus					
Ores & concentrates	11 868	11 071	—	—	—
India (c)					
Ores & concentrates	123 048	103 386	238 387	...	...
Iran (a)					
Ores & concentrates	(b)* 1 200	4 200	2 500	(b)* 2 300	...
Japan					
Ores & concentrates	744	852	718	756	283
Philippines					
Ores & concentrates	279 017	146 826	244 028	159 435	130 164
New Caledonia					
Ores & concentrates	18 750	80 570	96 657	86 156	61 104

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

(a) Years ended 20 March following that stated

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

(c) Years ended 31 March following that stated

Imports of Chromium

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Ores & concentrates	64 547	100 475	129 786	137 675	138 572
Metal	(a)* 200	162	185	357	378
Belgium-Luxembourg					
Ores & concentrates	2 108	3 848	4 223	5 231	3 846
Metal	298	284	233	457	536
Denmark					
Ores & concentrates	329	1 532	1 463	1 323	1 473
France					
Ores & concentrates	111 459	54 509	57 596	25 093	24 610
Metal	90	276	290	196	225
Germany, Federal Republic of					
Ores & concentrates	244 279	247 187	337 907	384 473	275 307
Metal	601	921	1 295	1 461	180
Greece					
Ores & concentrates	20	18 720	26 815	35 980	65 152
Irish Republic					
Ores & concentrates	—	3 275	3 803	11	29
Italy					
Ores & concentrates	159 431	192 212	220 529	229 118	152 169
Metal	126	122	244	193	197
Netherlands					
Ores & concentrates	31 355	20 554	23 802	40 239	38 247
Metal	64	132	414	120	67
Portugal					
Ores & concentrates	577	753	859	1 281	1 098
Spain					
Ores & concentrates	72 233	51 198	114 162	79 042	92 194
Austria					
Ores & concentrates	49 906	40 390	56 814	46 607	47 867
Czechoslovakia					
Ores & concentrates	204 000	185 000	176 000	174 000	188 000
German Democratic Republic					
Ores & concentrates (b)	46 800	51 900	39 800	52 300	49 600
Hungary					
Ores & concentrates (c)	14 000	17 000	17 000	15 000	15 000
Norway					
Ores & concentrates	23 311	8 800	538	110	520
Poland					
Ores & concentrates	203 835	169 249	150 993	151 093	145 790
Romania					
Ores & concentrates	(a)* 43 200	(a)* 62 400	(a)* 42 300	101 400	(a)* 47 400
Sweden					
Ores & concentrates	305 050	341 154	553 733	376 575	378 876
Metal	155	187	282	248	322
Yugoslavia					
Ores & concentrates	189 699	202 819	273 679	281 066	286 965
Canada					
Ores & concentrates (b)	11 770	12 577	18 836	16 550	23 521
Mexico					
Ores & concentrates	43 245	32 868	52 714	52 711	...
USA					
Ores & concentrates	459 754	172 990	276 310	375 958	444 753
Metal	1 725	2 707	4 254	3 587	4 069
Argentina					
Ores & concentrates	6 198	14 103	15 862	18 281	...
Brazil					
Ores & concentrates	4 381	5 897	20 674	14 685	10 756
Peru					
Ores & concentrates	5 540	129	1 720	3 427	4 144
Venezuela					
Ores & concentrates	11 000	3 914	11 914	11 307	7 041

Imports of Chromium

Country	1982	1983	1984	1985	1986
China					
Ores & concentrates	224 841	307 479	280 687	364 719	385 156
Japan					
Ores & concentrates	694 521	644 895	823 394	987 240	670 625
Korea, Dem.P.R. of					
Ores & concentrates (a)	* 16 000	* 14 000	* 17 000	* 16 000	* 25 000
Korea, Republic of					
Ores & concentrates	4 846	3 853	5 027	3 875	3 274
Philippines					
Ores & concentrates	0	3 859	24 410	29 947	17
Taiwan					
Ores & concentrates	1 856	1 751	3 514	10 726	19 048
Thailand					
Ores & concentrates	47	108	78	1 400	2 755
Australia					
Ores & concentrates	3 912	970	7 250	3 353	8 523

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

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

(b) Cr₂O₃ content

(c) Exports from Soviet Union

COAL

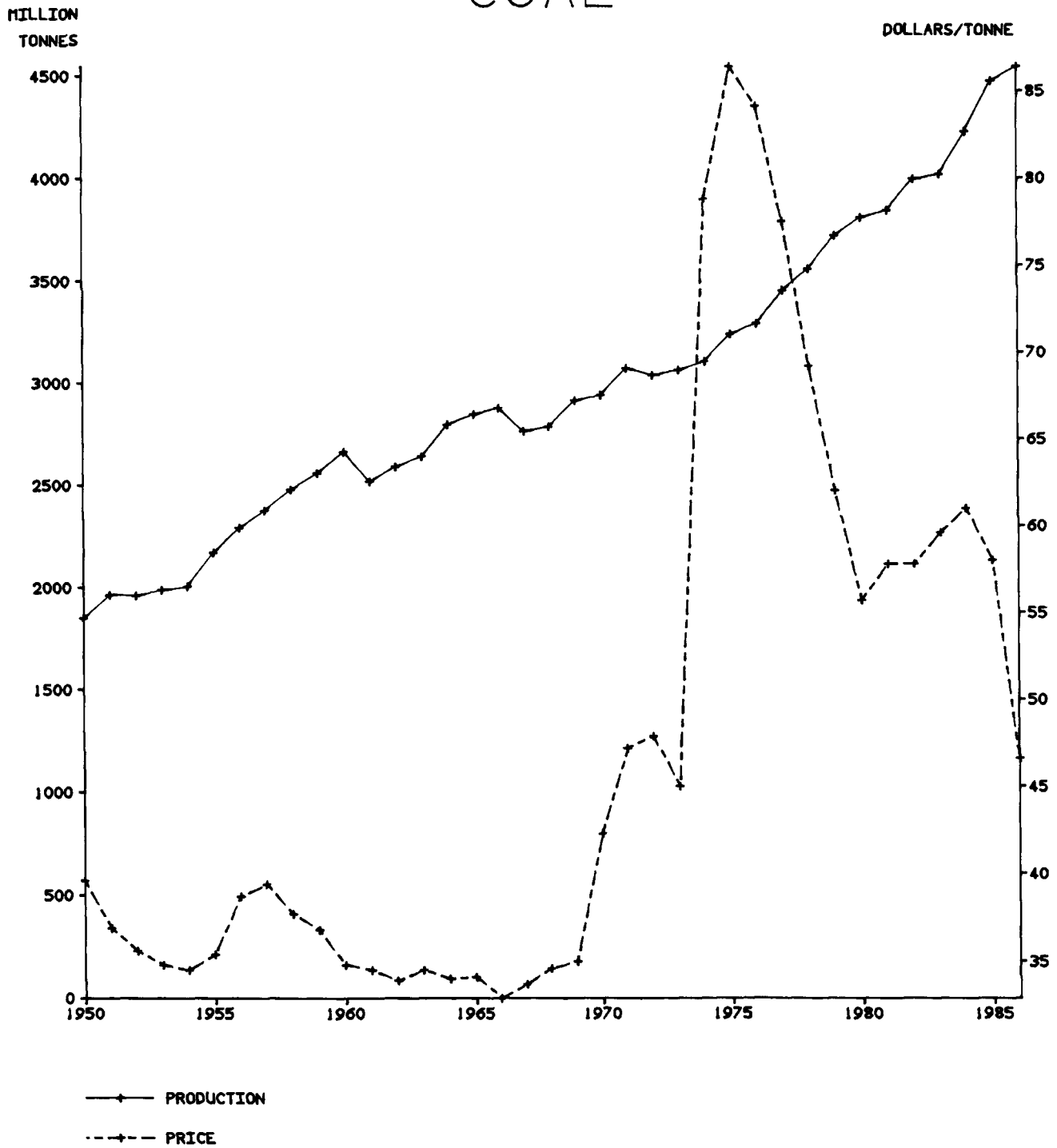


Figure 4 World production of coal from 1950 to 1986 compared with the yearly average export unit value of bituminous coal f.o.b. US ports expressed in constant 1980 US dollars. Trend-line analysis of the production data indicates a growth rate of approximately 2% per annum over 37 years. *Constant commodity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

Production of Coal

Country	1982	1983	1984	1985	1986
United Kingdom					
Anthracite	2 884 000	2 016 000	1 217 000	2 142 000	1 985 000
Bituminous	121 827 000	117 238 000	49 965 000	91 905 000	106 107 000
Belgium					
Anthracite	262 000	187 500	102 300	—	—
Bituminous	6 276 874	5 909 928	6 195 313	6 211 471	5 589 208
France					
Anthracite & bituminous	16 895 000	17 021 000	16 594 000	15 124 000	14 400 000
Lignite	3 065 000	2 605 000	2 426 000	1 839 000	2 088 000
Germany, Federal Republic of					
Anthracite & bituminous	89 014 000	82 202 000	79 426 000	82 398 000	80 801 000
Brown coal	127 307 000	124 281 000	126 739 000	120 667 000	114 310 000
Greece					
Lignite	27 326 248	30 705 519	32 467 048	35 962 200	27 975 862
Irish Republic					
Anthracite & semi-bituminous	62 000	74 800	70 000	56 700	53 500
Italy					
Lignite	1 912 677	1 736 643	1 806 103	1 892 436	1 573 470
Portugal					
Anthracite	178 540	185 228	194 856	238 414	236 504
Spain					
Anthracite	5 205 462	5 370 495	5 475 626	5 810 392	5 644 000
Bituminous	10 217 469	10 048 791	9 813 701	10 280 905	10 485 000
Lignite	23 881 898	24 533 916	24 302 928	23 571 958	22 349 000
Albania					
Brown coal & lignite	* 1 640 000	* 1 779 000	2 010 000	* 2 195 000	* 2 200 000
Austria					
Brown coal & lignite	3 297 488	3 041 260	2 927 939	3 081 086	2 968 978
Bulgaria					
Anthracite & bituminous	241 000	243 000	223 000	223 000	201 000
Brown coal & lignite	31 974 000	32 147 000	32 136 000	30 657 000	34 900 000
Czechoslovakia					
Bituminous	27 463 000	26 915 000	26 421 000	26 223 000	25 658 000
Brown coal	95 504 000	98 878 000	101 084 000	98 634 000	99 131 000
Lignite	3 440 000	3 538 000	3 659 000	3 682 000	3 607 000
German Democratic Republic					
Brown coal	276 038 000	277 968 000	296 341 000	312 156 000	311 260 000
Hungary					
Bituminous	3 038 720	2 826 780	2 573 382	2 639 103	2 324 722
Brown coal	14 753 868	14 406 136	14 448 203	14 016 288	13 821 330
Lignite	8 286 113	7 980 067	8 026 000	7 387 123	6 982 645
Norway					
Spitzbergen (d)—					
Bituminous	440 000	502 000	451 327	507 000	579 807
Poland					
Bituminous	189 314 000	191 092 000	191 592 000	191 642 000	192 080 000
Brown coal	37 649 000	42 532 000	50 378 000	57 746 000	67 259 000
Romania					
Anthracite & bituminous	9 658 000	10 629 000	8 458 000	10 472 000	11 174 000
Lignite	31 061 000	37 357 000	34 971 000	38 513 000	39 400 000
Brown coal	714 000	773 000	850 000	834 000	858 000
Soviet Union					
Anthracite & bituminous	555 400 000	557 800 000	556 500 000	569 000 000	588 000 000
Lignite	162 700 000	158 300 000	155 800 000	157 000 000	163 000 000
Turkey					
Bituminous	7 222 871	6 725 000	7 103 413	7 260 013	...
Lignite	20 542 357	23 847 360	27 199 347	39 437 271	43 983 562
Yugoslavia					
Bituminous	388 514	391 607	388 926	400 321	407 000
Lignite	43 454 000	47 697 002	53 293 000	56 635 000	56 359 000
Brown coal	10 744 000	11 302 692	11 391 663	12 868 179	13 099 000

Coal

Production of Coal

tonnes

Country	1982	1983	1984	1985	1986
Botswana	413 778	395 087	392 854	437 088	499 423
Morocco					
Anthracite	735 000	751 000	837 500	774 500	775 000
Mozambique					
Bituminous	67 000	59 000	107 000	20 400	3 895
Niger	96 300	118 609	123 644	150 635	...
Nigeria					
Sub-bituminous	56 022	53 574	76 077	139 744	144 411
South Africa					
Anthracite	3 525 691	2 227 308	3 228 093	4 909 923	4 989 799
Bituminous	140 650 263	143 386 758	159 714 634	168 708 997	171 870 779
Swaziland					
Bituminous	115 043	101 652	124 569	166 079	172 199
Tanzania					
Bituminous	10 800	10 000	2 200	6 600	5 164
Zaire					
Bituminous	122 858	111 340	121 213	* 110 000	...
Zambia					
Bituminous	603 934	452 867	510 584	471 114	557 099
Zimbabwe					
Bituminous	2 769 000	3 326 000	3 109 000	3 114 000	4 047 000
Canada					
Bituminous	22 396 000	22 556 000	32 062 000	34 195 000	30 538 000
Sub-bituminous	13 021 000	14 464 000	15 422 000	16 871 000	18 225 000
Lignite	7 494 000	7 760 000	9 918 000	9 672 000	8 281 000
Mexico					
Bituminous	7 618 871	8 999 467	9 387 822	9 770 751	...
USA					
Anthracite	4 200 000	3 700 000	3 800 000	4 300 000	3 900 000
Bituminous & lignite	756 100 000	705 800 000	809 000 000	797 300 000	803 800 000
Argentina					
Bituminous	516 891	490 960	509 151	396 000	* 375 000
Brazil					
Bituminous & lignite (e)	6 472 053	6 935 478	7 751 732	7 934 784	7 700 000
Chile					
Bituminous	975 070	1 077 831	1 306 785	1 369 763	1 441 016
Colombia					
Bituminous	4 421 600	5 053 200	6 637 000	9 706 000	10 215 000
Peru					
Anthracite	* 120 000	120 000	130 000	97 000	...
Venezuela					
Bituminous	46 506	39 174	50 870	40 379	57 641
Afghanistan (c)					
Bituminous	145 000	* 165 000	* 170 000	* 180 000	...
Burma (b)	29 119	35 969	* 43 200	* 44 000	...
China	666 000 000	715 000 000	789 000 000	872 000 000	870 000 000
India					
Bituminous	128 504 000	136 274 000	144 513 000	149 211 000	163 338 000
Lignite	6 673 000	7 310 000	7 681 000	7 849 000	7 994 000
Indonesia					
Anthracite & bituminous	480 987	648 241	1 468 154	1 942 135	1 725 356
Iran (c)					
Bituminous	* 700 000	980 000	* 1 000 000	* 1 300 000	* 1 300 000
Japan					
Anthracite & bituminous	17 605 703	16 991 244	16 699 103	16 339 028	16 012 000
Lignite	11 860	10 960	8 605	15 491	...
Korea, Dem.P.R. of					
Anthracite	* 36 500 000	* 36 500 000	* 44 000 000	* 55 000 000	* 55 000 000
Lignite	* 10 200 000	* 10,500 000	* 12 500 000	* 15 000 000	* 15 000 000
Korea, Republic of					
Anthracite	20 115 600	19 860 800	21 370 300	24 542 700	24 252 700
Mongolia					
Anthracite	401 000	408 000	458 000	480 000	) 7 100 000
Lignite	4 520 000	4 566 000	4 973 000	6 038 000)

Production of Coal

Country	1982	1983	1984	1985	1986
Pakistan (a)	1 809 626	1 747 000	2 134 916	2 197 853	2 019 000
Philippines					
Bituminous	556 755	1 019 594	1 216 388	1 258 872	1 235 503
Taiwan					
Bituminous	2 383 579	2 236 065	2 010 775	1 857 858	1 725 024
Thailand					
Lignite	1 963 764	1 866 083	2 337 226	5 146 150	5 542 247
Vietnam					
Anthracite	6 080 000	6 235 000	4 900 000	5 432 000	...
Australia					
Bituminous	99 109 000	99 828 000	116 018 000	) 158 256 000	) 170 067 000
Sub-bituminous	7 992 000	8 998 000	8 288 000		
Brown coal	37 821 000	34 191 000	35 166 000	36 985 000	37 604 000
New Zealand					
Bituminous	427 800	496 400	582 400	* 609 200	) 2 243 910
Sub-bituminous	1 594 700	1 752 200	1 709 100	* 1 572 700	
Lignite	221 900	235 000	235 100	* 226 600	...
World total	3 996 000 000	4 019 000 000	4 228 000 000	4 475 000 000	4 545 000 000

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

(a) Including lignite

(b) Years ended 31 March following that stated

(c) Years ended 20 March following that stated

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

(e) Includes beneficiated and directly shipped material

Exports of Coal

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Anthracite	551 945	517 120	203 240	213 894	352 197
Other coal	6 835 137	5 822 496	2 237 167	2 343 979	2 396 213
Briquettes	126 338	124 555	73 440	98 812	154 710
Belgium-Luxembourg					
Anthracite	71 561	78 985	119 541	69 771	85 903
Other coal	676 747	721 856	1 098 769	1 393 706	1 170 047
Lignite	1 260	258	4 108	17 684	23 137
Briquettes	13 254	17 000	83 967	46 478	13 506
Denmark	1 170	3 091	76 750	71 183	63 587
France					
Anthracite	86 606	120 732	170 756	82 387	64 545
Other coal	717 082	601 240	721 378	958 307	643 330
Lignite	4 630	3 397	2 409	1 748	2 166
Briquettes	21 727	25 704	49 049	63 004	32 716
Germany, Federal Republic of					
Coal (b)	9 944 737	10 581 581	10 489 141	8 957 013	7 190 136
Brown coal	217 977	214 979	307 022	455 917	441 676
Briquettes	872 308	854 965	1 179 654	1 286 379	952 547
Irish Republic (b)	3 430	4 866	25 196	16 637	12 360
Italy (b)	4 492	5 234	11 703	40 437	5 588
Netherlands					
Anthracite	188 252	185 777	169 639	322 113	215 300
Other coal	480 937	648 451	1 095 189	1 463 254	2 165 804
Briquettes	3 850	2 206	3 482	6 562	4 754
Spain					
Coal (b)	12 669	3 773	1 710	2 000	...
Briquettes	4 673	1 184	1 722	...	...
Austria					
Brown coal	15 291	9 422	8 180	8 493	5 301
Czechoslovakia					
Coal	2 822 000	2 928 000	2 672 000	2 676 000	2 539 000
Brown coal	2 710 000	2 679 000	2 644 000	2 832 000	2 814 000
German Democratic Republic					
Briquettes	3 000 000	3 285 000	3 971 000	3 313 000	3 485 000
Hungary					
Brown coal	35 085	22 712	17 222	293 978	—
Norway	96 386	127 492	187 835	235 498	122 726
Poland					
Coal	28 462 000	35 148 000	42 918 000	36 155 000	34 315 000
Brown coal	941 000	200 000	200 000	201 000	...
Soviet Union					
Coal (c)	* 20 126 000	* 20 980 000	* 22 674 000	* 25 779 000	* 29 462 000
Brown coal (c)	* 78 400	* 96 400	* 124 100	* 141 000	* 144 200
Sweden (b)	912	1 456	22 958	112 014	58 400
Turkey					
Coal	4 452	...	—	2 000	—
Lignite	25 000	* 30 000	1 365	—	2 000
Yugoslavia					
Brown coal	509 631	231 260	67 434	260 602	279 909
Lignite	60 082	164 371	151 656	243 692	129 763
Morocco					
Anthracite	24 755	40 200	65 940	62 433	49 534
Mozambique	108 400	17 300	15 100	26	1 666
South Africa					
Anthracite	1 927 870	1 564 416	2 769 760	3 875 564	4 405 577
Other coal	26 261 852	28 566 816	35 390 764	41 033 738	41 080 626
Swaziland	77 273	76 161	83 376	101 057	153 664
Zimbabwe	66 251	113 761	174 776	118 844	64 645
Canada	15 528 486	16 974 376	24 354 988	27 572 324	25 899 686
USA					
Anthracite	889 053	720 428	617 249	1 166 752	1 324 594
Other coal	95 477 268	69 750 160	73 294 538	82 881 376	76 219 485
Lignite	47 893	114 490	8 087	29 739	37 262
Briquettes	108 838	98 210	101 105	77 182	64 056
Colombia	173 729	277 527	720 242	3 129 634	...

Exports of Coal

Country	1982	1983	1984	1985	1986
China	6 730 000	6 860 000	7 040 000	7 770 000	9 820 000
India (a)	116 267	54 984	99 824	215 000	...
Indonesia					
Anthracite	94 371	251 810	136 420	115 876	57 041
Other coal	116 368	172 648	745 924	964 862	942 405
Japan	25 060	15 274	13 621	4 242	1 167
Korea, Dem. P.R. of (c)	* 40 500	* 30 300	* 92 600	* 387 200	* 405 600
Australia	49 791 000	60 504 000	75 856 000	87 902 000	92 022 000
New Zealand (d)	135 097	204 452	279 998	392 799	368 972

Note: This table excludes bunker shipments

(a) Years ended 31 March following that stated

(b) Including anthracite

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

(d) Years ended 30 June of that stated

Imports of Coal

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Anthracite	616 871	672 254	1 268 607	1 207 002	595 267
Other coal	3 445 445	3 783 895	7 625 715	11 525 071	9 958 292
Briquettes	89 395	97 182	241 639	230 390	109 419
Belgium-Luxembourg					
Anthracite	1 526 643	1 216 802	1 289 315	1 418 617	1 662 811
Other coal	9 398 103	6 735 525	8 074 165	8 096 674	7 092 103
Brown coal	116 132	113 801	205 252	264 131	265 294
Briquettes	187 749	198 677	199 552	295 668	193 246
Denmark					
Coal	9 662 819	8 822 365	9 807 382	12 715 760	12 146 567
Briquettes	59 228	41 926	38 977	47 636	38 953
France					
Anthracite	1 054 155	1 176 799	1 140 061	1 283 734	1 462 792
Other coal	20 801 922	18 592 259	19 490 727	17 173 052	15 780 317
Lignite	6 778	6 030	8 644	18 292	41 389
Briquettes	313 624	275 495	234 756	253 106	227 510
Germany, Federal Republic of					
Anthracite	67 927	71 048	28 473	32 899	29 722
Other coal	10 568 689	9 051 123	8 818 429	9 827 923	9 966 747
Brown coal	2 666 888	2 639 788	2 603 590	2 452 321	2 478 185
Briquettes	1 388 776	1 544 170	1 665 396	1 477 124	1 310 697
Greece					
Anthracite	24 762	—	35	18	9 000
Other coal	360 841	527 457	1 110 862	1 549 893	1 824 000
Irish Republic					
Anthracite	40 610	58 364	42 122	86 883	60 248
Other coal	1 195 501	1 367 947	1 351 802	1 823 653	2 562 144
Briquettes	15 286	15 043	23 108	20 462	35 457
Italy					
Anthracite	294 930	110 257	539 867	674 473	883 766
Other coal	17 579 153	15 665 615	19 637 618	20 124 350	19 063 025
Lignite	41 766	44 059	43 597	63 562	5 511
Briquettes	37 285	33 666	53 125	156 526	291 624
Netherlands					
Anthracite	329 366	224 502	240 099	388 001	344 366
Other coal	8 546 038	7 512 067	9 824 539	11 106 174	11 943 606
Brown coal	120 707	88 707	92 739	106 276	112 655
Briquettes	28 282	31 528	57 926	54 889	23 160
Portugal					
Anthracite	8 025	2 912	15 658	97 467	384 000
Other coal	354 130	422 912	474 358	1 371 069	1 509 000
Spain					
Coal	7 175 547	5 908 964	6 994 182	* 8 000 000	8 498 286
Lignite	4 512	3 441	2 311	...	2 092
Briquettes	12 842	167 206	477 333	...	143 537
Albania (e)	* 308 000	* 188 000	* 271 000	* 275 000	* 138 000
Austria					
Anthracite	18 003	26 735	51 784	55 084	26 689
Other coal	2 833 702	2 933 274	3 721 039	3 522 148	3 703 909
Brown coal	601 331	363 518	191 121	341 149	206 854
Briquettes	470 274	449 963	466 403	507 387	501 111
Bulgaria					
Anthracite	1 746 010	1 719 962	1 861 835	2 526 043	1 972 230
Other coal	5 480 497	5 366 618	5 338 392	5 527 640	5 321 579
Czechoslovakia					
Coal	4 980 000	5 028 000	4 565 000	4 686 000	4 896 000
Briquettes	652 000	676 000	708 000	736 000	658 000
Finland					
Anthracite	89 585	70 390	74 723	78 971	77 006
Other coal	4 594 492	4 319 984	3 508 482	5 010 236	5 376 721
Briquettes	4 437	13 458	7 998	6 591	5 861
German Democratic Republic (c)	4 739 000	4 198 000	3 619 000	5 098 000	7 014 000
Hungary					
Coal (c)	1 996 684	1 756 113	1 609 833	2 517 775	2 316 774
Briquettes	489 471	514 560	589 021	676 275	818 076
Iceland	24 629	37 557	54 822	68 618	73 519
Malta	24 343	52 398	94 401	212 081	184 235

Imports of Coal

Country	1982	1983	1984	1985	1986
Norway (a)					
Anthracite	63 267	85 685	94 982	97 093	102 349
Other coal	741 689	461 980	673 209	815 964	667 214
Poland					
Anthracite	30 000	21 000	—	—	22 000
Other coal	972 000	1 021 000	1 031 000	1 060 000	1 150 000
Romania	3 631 000	5 312 800	5 300 000	6 084 500	...
Soviet Union (e)	* 8 869 000	* 10 000 000	* 12 834 000	* 10 373 000	* 11 693 000
Sweden					
Anthracite	26 143	31 910	18 283	30 437	19 304
Other coal	2 856 200	3 053 687	3 952 067	4 837 865	4 414 297
Switzerland					
Coal (c)	471 399	344 274	543 702	473 541	613 799
Briquettes	45 197	40 872	42 075	45 314	35 560
Turkey	1 038 710	901 674	1 932 653	2 139 261	2 645 000
Yugoslavia					
Anthracite	219 889	213 120	200 967	246 578	210 984
Other coal	3 317 030	3 791 833	3 411 698	4 033 498	3 812 619
Brown coal	1 149	70 444	96 476	115 414	56 821
Briquettes	113 679	78 587	50 422	46 657	129 884
Algeria	681 502	1 170 417	1 499 425	1 138 456	...
Botswana	20 281	29 760	27 224	27 076	...
Egypt	1 400 977	979 584	987 352	1 266 274	1 186 687
Ghana	* 2 000	* 2 000	* 2 000	* 2 000	...
Kenya	46 505	32 217	83 168	96 423	74 707
Madagascar	19 062	27 569	7 318	430	11 989
Malawi	60 986	43 728	41 266	32 850	27 746
Morocco	41 211	216 805	155 763	420 743	...
Mozambique	69 395	72 023	3 792	57 790	7 857
South Africa	795	987	1 761	1 058	...
Tunisia	14 207	18 038	23 880	20 661	12 258
Zaire	1 532	69 300	59 390	...	...
Zimbabwe	38 215	3 785	* 36 000	...	...
Canada					
Anthracite	214 373	205 386	227 781	235 228	342 143
Other coal	15 488 032	14 509 685	18 824 107	14 781 199	13 026 147
Cuba	107 786	75 219	85 271	89 718	...
Mexico					
Coal	644 751	272 869	366 315	582 991	...
Lignite	6 571	5 372	6 062	6 744	...
USA					
Coal	673 516	1 152 669	) 1 167 252	1 639 449	1 844 023
Briquettes	19 590	17 747	)	204 651	181 645
Argentina	739 485	492 088	536 995	763 838	...
Brazil					
Anthracite	41 545	32 661	30 038	26 622	) 9 077 000
Other coal	4 194 337	6 262 363	8 073 572	8 233 640)
Chile	208 893	288 681	342 000	372 000	...
Peru	24 568	48 664	51 365	51 364	26 573
Venezuela	38 167	* 40 000	33 601	46 821	51 980
Burma	* 200 000	* 180 000	* 175 000	* 180 000	...
China	2 160 000	2 130 000	2 430 000	2 310 000	2 470 000
Hong Kong	1 454 698	3 418 316	4 462 239	5 523 189	6 392 528
India (d)	1 007 160	539 000	350 000	1 817 000	...
Indonesia	2 593	932	558	45 833	335 600
Iran (b)	64 908	64 612	* 50 000	* 100 000	...
Israel	990 000	2 136 000	2 669 000	3 063 000	...
Japan					
Anthracite	630 197	913 389	1 511 193	1 950 132	1 970 840
Other coal	78 461 180	73 752 601	86 307 274	91 039 940	89 376 192
Lignite	44 206	43 315	24 870	31 585	25 415
Korea, Dem. P.R. of	* 450 000	* 400 000	* 450 000	* 450 000	...

Coal

Imports of Coal

tonnes

Country	1982	1983	1984	1985	1986
Korea, Republic of					
Anthracite	2 448 589	805 131	819 231	2 658 937	4 482 657
Other coal	9 044 396	10 150 926	12 193 393	17 131 446	16 436 470
Malaysia					
Anthracite	8 464	5 525	7 050	15 722	...
Other coal	98 268	361 378	384 679	476 166	...
Pakistan (f)	538 307	472 871	499 523	715 569	797 750
Philippines	120 303	70 687	504 825	1 152 634	960 102
Sri Lanka	48 071	28 162	468	1 032	11 160
Taiwan	5 589 187	6 510 177	7 684 357	10 270 099	11 003 486
Thailand					
Coal	98 954	99 173	145 249	245 646	182 584
Briquettes	8 482	18 408	44 981	37 048	0
Australia	12 183	19 255	22 064	26 640	1 654
New Caledonia	64 990	96 801	52 186	220 855	202 885

(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

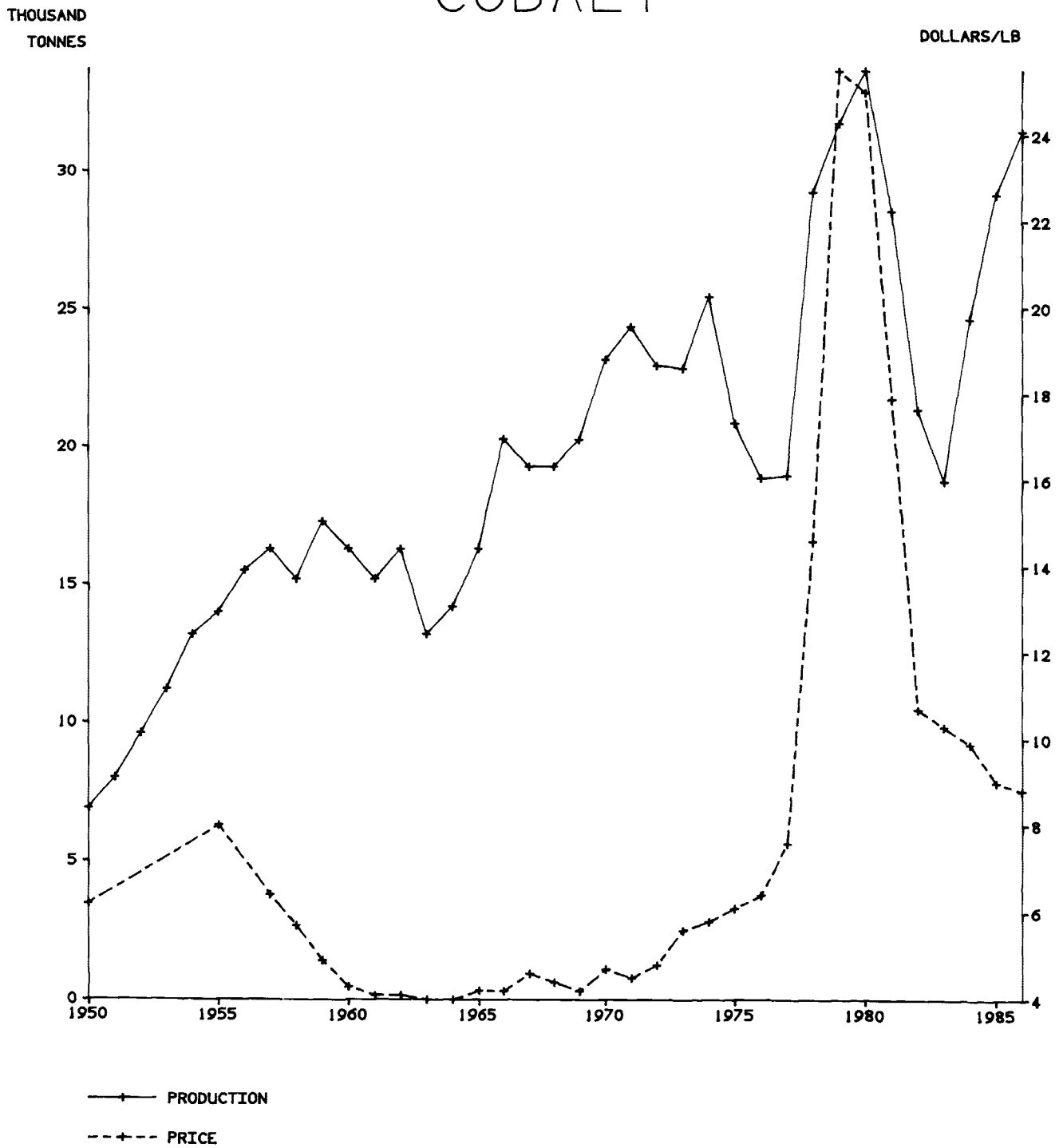


Figure 5 World mine production of cobalt from 1950 to 1986 compared with the annual average producer price expressed in constant 1980 US dollars.
 Constant commodity prices to 1983 derived from AFRIMET INDUSSA price, using the CPI for the USA taken from International Financial Statistics Yearbook (1987).

Mine Production of Cobalt

tonnes (metal content)

Country	1982	1983	1984	1985	1986
Albania	* 400	* 450	* 600	* 600	* 650
Finland	1 293	1 157	1 241	1 092	630
Soviet Union	* 2 350	* 2 400	* 2 600	* 2 700	* 2 800
Botswana	254	223	259	222	162
Morocco	792	—	—	—	—
Zaire	5 573	5 370	9 077	10 677	14 258
Zambia	2 446	2 407	3 472	4 359	4 344
Zimbabwe	98	73	77	91	76
Canada	1 274	1 410	2 123	2 067	2 297
Cuba	* 1 500	* 1 600	* 1 300	* 1 300	* 1 400
Philippines	466	165	64	911	92
Australia	3 132	2 196	2 125	3 036	2 914
New Caledonia	1 803	1 385	1 750	2 171	1 923
World total	21 400	18 800	24 700	29 200	31 500

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

Production of Cobalt Metal

tonnes

Country	1982	1983	1984	1985	1986
Belgium (a)	...	...	...	...	...
France	501	131	116	123	* 100
Germany, Federal Republic of	* 150	—	—	—	—
Czechoslovakia (b)	...	...	...	...	...
Finland	2 181	1 453	2 384	2 230	1 348
Norway	991	879	1 191	1 525	1 528
Soviet Union	* 4 300	* 4 500	* 4 700	* 4 800	* 4 900
Zaire	5 573	5 370	9 077	10 677	14 258
Zambia	2 446	2 407	3 472	4 359	4 344
Canada	784	1 153	1 628	2 270	2 000
USA	461	93	—	—	—
Japan	1 942	1 371	905	1 320	1 340
World total	19 300	17 400	23 500	27 300	29 800

Note: In addition to the production listed above, several countries, including the United Kingdom, France, Federal Republic of Germany and USA, are known to produce substantial amounts of cobalt compounds

- (a) Production not reported. Much of the metal recorded under Zaire is believed to be further processed in Belgium
- (b) Czechoslovakia is thought to recover cobalt from materials imported from Cuba. However no data are available to enable a reliable estimate to be made

Exports of Cobalt

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Metal	514	743	920	754	711
Oxides	500	385	359	430	601
Belgium-Luxembourg (a)					
Metal	* 1 300	* 2 200	* 1 800	* 1 500	* 1 600
Oxides	* 700	* 1 400	* 1 400	* 1 000	* 1 300
France					
Metal	780	1 133	1 216	961	680
Oxides	165	111	47	9	7
Germany, Federal Republic of					
Metal	817	885	1 270	913	1 589
Oxides	25	86	112	87	57
Italy	63	34	81	56	86
Netherlands					
Metal	117	158	47	286	35
Oxides	40	38	60	48	78
Austria					
Oxides	6	2	54	31	16
Finland					
Metal	1 297	1 325	1 077	1 108	925
Oxides	—	159	966	535	522
Norway	1 007	816	1 270	1 529	1 638
Sweden	65	67	58	125	78
Morocco					
Ore	5 017	1 852	0	—	...
Zaire	6 900	9 600	13 351	...	...
Zambia	3 186	...	3 329	1 505	...
Canada					
Metal	585	887	1 487	1 552	1 805
Oxides	212	192	373	268	374
Cuba					
Oxide, sinter & sulphide (b)	* 1 500	* 1 500	* 1 300	* 1 300	...
USA					
Metal	665	787	744	648	845
Oxides	240	348	506	424	358
Hong Kong					
Oxides (Re-exports)	—	16	19	29	31
Japan					
Oxides	10	66	74	12	24
Korea, Republic of					
Oxides	—	—	17	31	21

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

(b) Co content

Imports of Cobalt

Country	1982	1983	1984	1985	1986
United Kingdom					
Metal	1 219	1 918	1 832	1 692	2 416
Oxides	363	344	502	377	526
Belgium-Luxembourg					
Oxides	62	34	30	35	64
Denmark					
Metal	16	24	27	25	23
Oxides	10	8	10	6	9
France					
Ore	5 767	—	—	—	—
Metal	1 721	1 397	1 574	1 374	1 241
Oxides	231	211	314	201	280
Germany, Federal Republic of					
Metal	1 451	2 008	2 678	2 122	2 848
Oxides	308	409	448	441	374
Italy					
Metal	252	328	409	415	620
Oxide	131	161	184	230	235
Netherlands					
Metal	140	240	100	177	66
Oxides	192	246	282	253	280
Portugal					
Oxide	3	7	6	8	15
Spain					
Metal	247	162	119	...	197
Oxides	86	113	84	97	114
Austria					
Oxides	3	5	8	6	11
Finland					
Metal	2	4	6	4	...
German Democratic Republic (b)	* 200	* 130	* 100	* 100	* 100
Norway					
Metal	341	166	(c) 2 290	491	370
Oxides	2	129	11	9	1
Sweden					
Metal	273	233	372	488	433
Oxides	3	6	6	8	10
Turkey					
Oxides	42	60	37	35	54
Yugoslavia					
Oxides	20	25	34	43	33
Kenya					
Oxides	25	27	31	0	0
South Africa					
Metal	77	91	81	177	157
Oxides	9	16	23	17	...
Mexico					
Metal	90	84	117	124	...
Oxides	74	...	...	...	...
USA					
Metal	5 397	7 194	10 471	7 526	5 291
Oxide	164	183	320	111	232
Argentina					
Metal	27	57	28	...	...
Brazil					
Metal	239	377	282	405	557
Oxide	21	21	5	10	...
Venezuela					
Oxides	14	...	34	24	13
Hong Kong					
Oxide	26	28	23	19	49
India (a)					
Metal	113	...	...	...	...

Cobalt

Imports of Cobalt

tonnes

Country	1982	1983	1984	1985	1986
Indonesia					
Oxides	64	95	276	33	27
Japan					
Metal	2 014	2 071	2 588	2 323	3 468
Oxide	305	517	411	259	460
Korea, Republic of					
Metal	88	182	139	148	444
Oxides	9	12	21	8	29
Malaysia					
Metal	113	9	48	90	...
Oxides	26	9	115	22	...
Taiwan					
Oxides	23	56	43	23	66
Australia					
Metal	18	27	30	34	...
Oxide	25	28	29	46	33

(a) Years ended 31 March following that stated

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

(c) Includes nickel scrap containing some cobalt

Mine Production of Copper

tonnes (metal content)

Country	1982	1983	1984	1985	1986
United Kingdom	649	652	657	592	602
France	137	350	310	253	294
Germany, Federal Republic of	1 300	1 200	1 000	900	800
Greece	100	200	300	300	300
Irish Republic	1 573	—	—	—	—
Italy	138	1 556	876	127	—
Portugal	2 287	2 335	2 707	2 562	2 316
Spain	47 614	54 818	63 105	60 960	51 300
Albania	14 000	15 000	14 100	15 000	15 000
Bulgaria	65 000	68 000	73 000	78 000	80 000
Czechoslovakia	9 300	9 800	10 200	10 100	* 10 000
Finland	41 739	38 570	34 529	32 186	24 100
German Democratic Republic	* 13 000	* 12 000	* 12 000	* 12 000	* 11 000
Norway	27 590	22 568	25 042	19 252	21 887
Poland	376 000	402 300	431 000	432 000	435 000
Romania	* 30 000	* 28 000	* 30 000	* 30 000	* 28 000
Soviet Union	* 1 010 000	* 1 020 000	* 1 020 000	* 1 030 000	* 1 030 000
Sweden	52 682	75 338	90 448	92 205	87 400
Turkey	32 789	24 767	31 075	29 860	30 700
Yugoslavia	119 299	129 506	137 568	142 207	138 544
Algeria	200	200	200	200	200
Botswana	18 375	20 266	21 517	21 703	21 322
Congo	100	100	—	100	—
Morocco	20 723	22 936	21 380	19 678	18 500
Mozambique	224	250	263	124	274
Namibia	48 800	52 100	50 000	42 966	44 392
South Africa	195 643	212 112	206 550	205 052	192 936
Zaire	505 385	504 207	502 616	502 100	502 600
Zambia	529 641	591 300	576 000	510 800	512 858
Zimbabwe	24 800	21 560	22 687	20 700	20 600
Canada (a)	612 455	653 040	721 826	738 637	698 527
Cuba	2 674	2 688	2 701	3 076	3 257
Honduras	758	* 650	* 770	* 790	...
Mexico	239 091	206 062	189 111	178 904	167 405
USA	1 146 975	1 038 098	1 102 613	1 105 758	1 147 277
Argentina	37	318	223	361	317
Bolivia	2 270	1 982	1 610	1 665	337
Brazil	24 482	40 000	44 376	49 723	* 45 000
Chile	1 242 200	1 257 500	1 290 700	1 356 400	1 399 800
Colombia	113	162	234	—	—
Peru	356 300	322 200	364 732	391 400	397 364
Burma	101	4 200	12 000	16 700	8 100
China	* 175 000	* 175 000	* 180 000	* 190 000	* 200 000
Cyprus	841	1 148	1 267	1 065	594
India	24 000	43 800	47 000	48 000	49 200
Indonesia	75 136	78 608	85 619	88 750	100 490
Iran	43 000	57 600	43 300	* 40 000	* 50 000
Israel	4 100	—	—	—	—
Japan	50 658	46 045	43 309	43 208	34 924
Korea, Dem. P.R. of	* 12 000	* 10 000	* 10 000	* 10 000	* 10 000
Korea, Republic of	320	389	464	308	215

Copper

Mine Production of Copper

tonnes (metal content)

Country	1982	1983	1984	1985	1986
Malaysia	30 906	29 136	29 288	30 506	28 301
Mongolia	95 000	95 000	128 000	136 000	140 000
Oman	—	11 300	16 200	17 600	16 700
Philippines	292 086	271 403	233 359	222 189	217 023
Australia	245 322	261 476	235 671	259 765	248 368
Papua New Guinea	170 004	183 191	164 447	175 048	178 593
World total	8 000 000	8 100 000	8 300 000	8 400 000	8 400 000

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

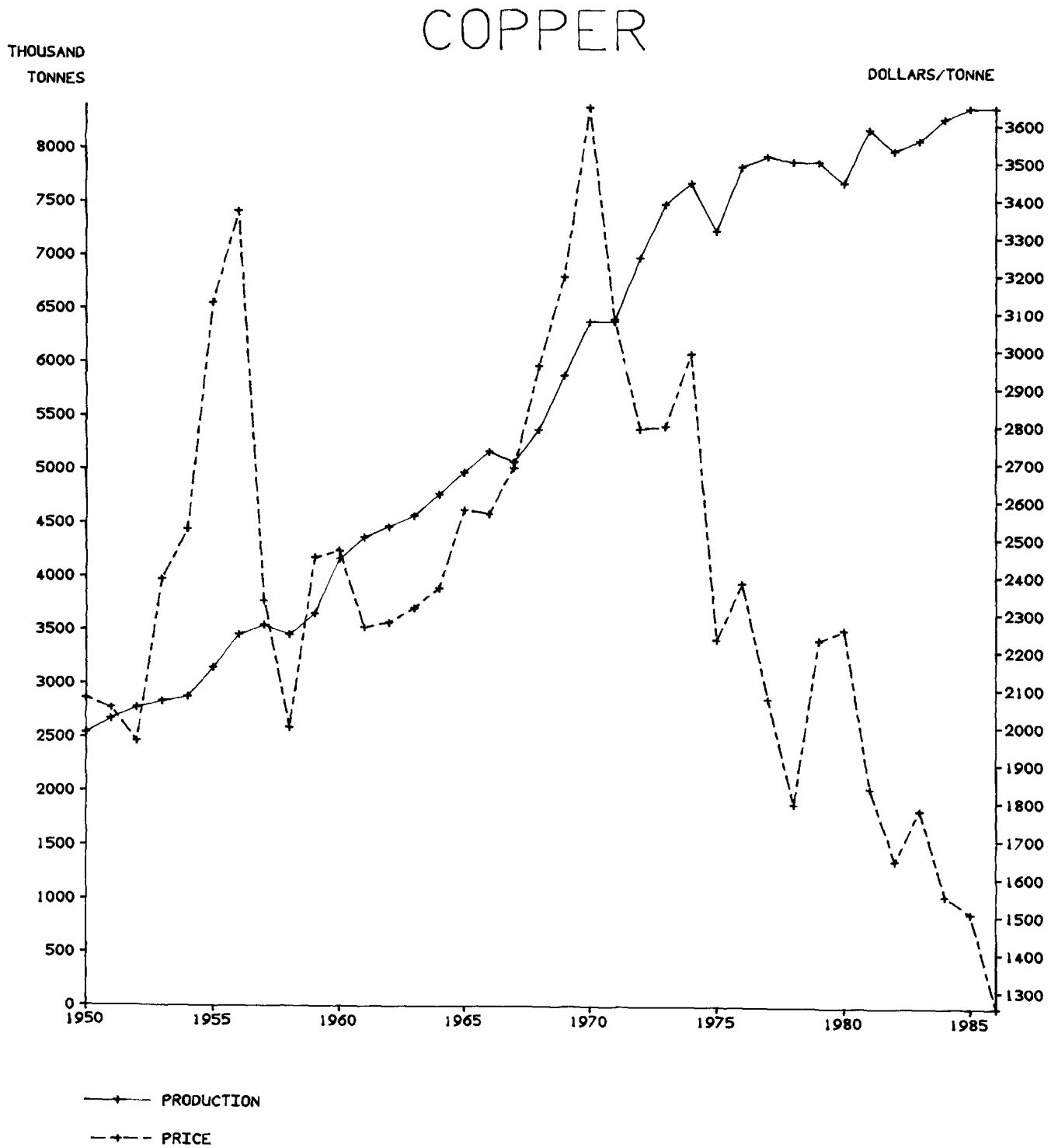


Figure 6 World mine production of copper from 1950 to 1986 compared with the yearly average producer price of domestic refinery electrolytic wirebars on the New York Market expressed in constant 1980 US dollars.

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

Smelter Production of Copper

tonnes

Country	1982	1983	1984	1985	1986
Belgium	* 2 500	* 2 800	* 500	* 900	* 900
Germany, Federal Republic of	161 800	159 100	148 800	152 400	161 900
Portugal	1 300	400	1 300	1 000	* 1 000
Spain	109 000	84 000	88 200	88 000	103 500
Albania	12 000	12 000	12 600	13 000	14 000
Bulgaria	62 000	60 000	70 000	70 000	70 000
Czechoslovakia	30 317	33 019	33 000	33 400	31 686
Finland	66 333	74 455	83 266	71 285	84 500
German Democratic Republic	* 17 000	* 17 000	* 14 000	* 14 000	* 15 000
Hungary	2 639	2 765	3 050	3 318	3 552
Norway	24 358	25 658	36 821	37 828	35 200
Poland	360 000	357 000	365 000	380 000	370 000
Romania	40 000	40 200	38 000	36 000	36 000
Soviet Union	* 1 130 000	* 1 120 000	* 1 120 000	* 1 140 000	* 1 155 000
Sweden	72 504	78 756	79 775	74 668	83 358
Turkey	25 683	19 113	32 023	33 887	35 466
Yugoslavia	84 013	86 833	105 118	125 934	127 200
Namibia	49 500	54 200	48 600	47 611	50 147
South Africa	191 800	192 300	180 800	168 400	184 000
Zaire (a)	469 406	468 658	467 843	469 447	472 900
Zambia (a)	584 790	562 722	531 945	544 176	514 090
Zimbabwe	30 500	31 200	24 200	24 400	29 600
Canada	380 798	409 723	470 642	489 728	472 700
Mexico	77 373	91 994	80 304	80 649	* 75 000
USA	975 695	927 739	1 014 016	943 457	908 087
Brazil	4 812	63 083	61 334	93 880	115 990
Chile	1 046 800	1 058 900	1 098 300	1 088 500	1 124 100
Peru	323 200	295 900	331 136	354 021	335 000
China	* 205 000	* 195 000	* 220 000	* 245 000	* 300 000
India	32 585	33 992	40 400	33 557	39 291
Iran	* 18 000	* 8 500	* 47 900	* 40 000	* 50 000
Japan	1 046 300	1 061 929	928 974	932 560	962 128
Korea, Dem. P.R. of	* 30 000	* 30 000	* 25 000	* 30 000	* 30 000
Korea, Republic of	119 400	124 000	100 200	112 700	123 200
Philippines	—	57 600	109 200	133 800	124 300
Taiwan	47 500	37 900	61 700	60 600	63 800
Australia	175 536	173 619	179 822	167 669	168 855
World total	8 000 000	8 100 000	8 300 000	8 300 000	8 500 000

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

(a) Including leach cathodes

Production of Refined Copper

Country	1982	1983	1984	1985	1986
United Kingdom	134 132	144 366	136 834	125 426	125 574
Belgium (a)	501 634	431 264	427 707	456 935	457 779
France	46 585	43 865	40 702	43 699	41 300
Germany, Federal Republic of	394 072	420 325	378 998	414 165	421 918
Italy	19 600	31 200	50 300	64 300	65 400
Portugal	4 556	4 561	5 320	4 500	5 300
Spain	171 900	158 600	156 400	151 700	155 075
Albania	* 9 500	* 10 000	* 11 000	* 11 000	* 11 500
Austria	31 600	33 061	33 255	33 626	32 579
Bulgaria	55 200	68 000	70 000	73 000	74 000
Czechoslovakia	25 636	25 746	26 068	26 414	26 182
Finland	47 969	55 376	57 318	58 766	64 200
German Democratic Republic	* 60 000	* 68 000	* 69 000	* 73 000	* 69 000
Hungary	22 773	24 040	25 863	23 018	22 097
Norway	18 564	22 705	30 323	31 074	30 457
Poland	348 027	360 100	372 300	387 000	388 000
Romania	* 50 000	* 47 000	* 45 000	* 42 000	* 45 000
Soviet Union	* 1 350 000	* 1 400 000	* 1 380 000	* 1 400 000	* 1 400 000
Sweden	62 304	63 357	61 245	57 229	84 500
Turkey	34 700	37 900	51 400	60 600	75 100
Yugoslavia	126 870	123 708	127 611	135 442	140 393
Egypt	7 218	7 642	4 181	4 013	3 671
South Africa	142 500	157 700	148 400	145 500	143 200
Zaire	175 115	227 231	224 774	226 800	218 400
Zambia	584 500	576 100	523 300	479 446	460 437
Zimbabwe	25 700	25 400	22 800	22 500	25 300
Canada	337 780	464 333	504 262	499 626	493 445
Mexico	74 424	86 903	79 806	122 600	* 120 000
USA	1 694 300	1 583 800	1 489 500	1 436 300	1 479 400
Brazil	61 812	103 003	101 671	142 880	165 990
Chile	852 500	834 200	879 700	884 300	942 500
Peru	224 536	194 669	219 037	226 787	225 600
China	* 300 000	* 310 000	* 320 000	* 320 000	* 320 000
India	27 000	28 100	32 600	28 020	35 740
Iran	* 1 000	* 5 000	* 5 000	* 12 000	* 12 000
Japan	1 074 974	1 091 929	935 156	935 977	943 037
Korea, Dem. P.R. of	* 30 000	* 32 000	* 35 000	* 38 000	* 40 000
Korea, Republic of	128 377	143 806	150 176	159 242	177 841
Oman	—	3 800	15 200	14 300	14 600
Philippines	—	38 800	99 200	130 300	137 200
Taiwan	47 377	37 960	48 436	46 734	50 439
Australia	178 138	202 603	197 217	194 339	185 795
World total	9 500 000	9 700 000	9 600 000	9 700 000	9 900 000

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

(a) Including alloys

Exports of Copper

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Ore & matte	115	817	3 077	3 432	6 376
Unwrought—					
Unrefined	60	497	303	366	791
Refined	17 433	16 742	21 220	14 624	14 974
Alloys	15 149	15 564	16 927	16 561	14 147
Scrap	92 719	104 703	101 194	109 108	125 322
Belgium-Luxembourg					
Ore	630	674	742	532	573
Burnt cupreous pyrites	152 161	9 365	4 520	3 935	27
Unwrought—					
Matte, cement & unrefined	11 902	11 324	) 210 868	207 841	232 593
Refined	287 857	221 244)		
Alloys	6 717	8 338	8 354	10 032	10 666
Scrap	30 553	27 835	32 176	30 411	28 288
Denmark					
Unwrought	158	51	1 331	521	60
Unwrought alloys	1 147	1 842	2 512	1 044	1 671
Scrap	11 907	15 709	14 509	15 786	14 130
France					
Ore	648	448	293	341	608
Matte & cement	3 146	2 603	4 812	2 041	1 171
Unwrought—					
Unrefined	3 471	6 619	2 930	7 318	4 045
Refined	5 944	17 589	4 204	7 188	9 219
Alloys	2 374	2 021	3 057	2 402	2 043
Scrap	112 338	126 003	120 467	128 600	121 830
Germany, Federal Republic of					
Matte & cement	41	2 569	1 124	627	828
Unwrought—					
Unrefined	18 771	16 988	22 314	18 475	14 018
Refined	71 490	93 169	72 979	72 294	72 945
Alloys	13 131	12 748	15 719	14 798	15 133
Scrap	61 514	67 128	78 064	77 294	70 084
Irish Republic					
Ores & concentrates	7 430	360	—	—	—
Unwrought	481	530	903	1 062	825
Scrap	8 260	8 051	8 897	6 928	6 312
Italy					
Ore	657	1 970	8 860	1 685	25
Matte & cement	440	2 890	1 060	1 192	556
Unwrought—					
Unrefined	297	217	129	266	395
Refined	2 339	5 885	10 578	10 834	4 698
Alloys	5 929	7 042	3 110	3 011	3 712
Scrap	19 042	20 305	14 235	14 814	10 898
Netherlands					
Unwrought	1 377	432	534	1 379	602
Unwrought alloys	4 024	6 141	7 001	8 082	5 464
Scrap	53 616	59 055	62 443	73 072	63 208
Portugal					
Ore	—	2 990	1 352	—	1
Unwrought	3 617	1 172	3 927	4 187	1 565
Scrap	104	1 001	855	575	518
Spain					
Ore	36 383	32 067	50 205	74 977	59 398
Burnt cupreous pyrites	277 899	55 597	13 355	...	4 889
Matte	—	1 197	1 418	1 959	3 134
Unwrought	70 913	72 523	67 097	69 425	63 362
Unwrought alloys	2 403	5 176	4 784	3 049	1 102
Scrap	301	915	450	571	607
Austria					
Unwrought	17 242	21 341	15 550	21 113	19 512
Unwrought alloys	2 333	1 687	6 038	5 646	4 816
Scrap	5 022	9 075	15 451	19 525	18 655
Bulgaria					
Unwrought (f)	* 100	...	* 1 200	* 600	* 500

Exports of Copper

Country	1982	1983	1984	1985	1986
Finland					
Ore	12 175	14 096	—	—	—
Unwrought—					
Unrefined	13 773	14 987	17 656	8 564	15 676
Refined	4 425	11 670	4 833	8 481	4 867
Alloys	1 192	1 882	1 790	1 714	2 219
Scrap	209	1 337	2 126	2 275	1 162
German Democratic Republic					
Unwrought (f)	* 5 000	* 12 200	* 12 600	* 11 200	* 14 600
Hungary					
Scrap	2 290	1 563	2 090	2 457	1 704
Norway					
Ore	92 712	92 465	72 619	82 851	106 237
Unwrought—					
Unrefined	6 691	6 224	5 949	5 949	5 288
Refined	18 106	20 261	29 379	28 256	29 131
Alloys	1 193	297	56	104	139
Scrap	4 271	7 730	5 761	5 257	7 316
Poland					
Unwrought	176 447	183 203	179 970	181 948	169 431
Soviet Union					
Unwrought (f)	* 59 200	* 66 100	* 99 800	* 91 500	* 96 200
Scrap (f)	* 13 600	* 14 200	* 12 600	* 33 900	* 27 200
Sweden					
Ore	45 172	33 829	71 164	108 609	83 164
Unwrought—					
Unrefined	25 652	40 197	37 891	38 623	18 461
Refined	28 366	23 039	22 924	12 209	37 887
Alloys	2 967	3 887	5 226	3 374	2 304
Scrap	2 222	1 963	1 592	3 642	4 866
Switzerland					
Unwrought—					
Refined	870	1 560	712	2 593	60
Alloys	4 854	5 518	5 256	5 790	5 249
Scrap	13 259	18 886	15 518	13 268	12 244
Yugoslavia					
Ore	0	2 095	6	85 391	15 000
Unwrought	7 321	4 102	2 395	3 392	13 682
Scrap	3 048	6 062	3 201	2 436	1 634
Algeria					
Ore	800	1 128	—	—	...
Scrap	1 303	3 389	1 226	3 228	...
Botswana					
Matte (b)	19 300	20 200	21 400	19 400	17 400
Ivory Coast					
Matte & scrap	1 209	1 338	1 405	1 308	...
Morocco					
Ore	60 291	69 531	72 174	60 615	61 509
Matte	1 815	3 270	1 363	2 524	...
Scrap	2 616	2 539	2 376	2 361	...
Namibia					
Unwrought	44 400	46 800	46 100	49 300	43 400
Senegal					
Scrap	623	809	1 079	999	713
South Africa					
Ores & concentrates (b)	15 387	17 310	25 087	29 999	25 897
Unwrought	106 989	119 037	93 549	98 408	93 534
Scrap (f)	* 11 800	* 13 300	* 11 000	* 17 000	* 10 700
Tunisia					
Unwrought & scrap (g)	1 050	1 933	2 237	1 655	1 051
Zaire					
Ores & concentrates	80 000	83 200	65 305	* 80 000	* 60 000
Unwrought—					
Unrefined (e)	323 332	231 782	241 567	236 321	275 733
Refined	156 035	218 470	221 669	226 354	222 785

Copper

Exports of Copper

tonnes

Country	1982	1983	1984	1985	1986
Zambia					
Unwrought, refined	602 583	570 453	530 093	504 986	466 346
Zimbabwe					
Unwrought	22 355	24 276	21 309	17 165	21 660
Canada					
Ores, concentrates & matte (b)	257 934	313 796	332 377	296 928	341 392
Unwrought	233 118	298 555	346 017	277 126	304 892
Scrap	51 745	53 469	52 676	62 996	70 753
Cuba					
Concentrates	2 789	2 527	2 543	3 201	...
Scrap (a)	1 411	2 075	2 799	7 450	6 165
Mexico					
Concentrates (b)	161 461	110 757	102 601	102 887	98 600
Unwrought, unrefined	9 473	10 905	14 713	10 565	17 890
Trinidad & Tobago					
Scrap	373	455	475	875	...
USA					
Ores & concentrates (b)	195 277	42 738	61 384	116 390	174 348
Unwrought—					
Unrefined	2 008	7 454	8 379	17 984	15 967
Refined	31 624	82 007	92 327	52 819	12 477
Alloys	5 175	7 160	3 912	11 895	3 838
Scrap	146 955	137 761	189 203	281 571	299 667
Bolivia					
Ore (b)	2 139	1 926	1 333	1 245	568
Chile					
Ores, concentrates & matte (b)	203 100	196 500	178 900	274 100	281 300
Unwrought—					
Unrefined	198 700	224 300	210 500	190 000	199 400
Refined	809 100	830 600	830 400	891 900	895 700
Colombia					
Ore	857	615	894	300	...
Peru					
Ore	92 181	* 110 000	94 297	(f)* 90 700	(f)* 154 400
Unwrought—					
Unrefined	97 091	92 722	96 823	126 705	94 731
Refined	204 051	161 757	174 664	182 588	193 028
Cyprus					
Cement copper	2 011	1 103	3 059	1 692	1 148
Dubai					
Scrap	—	5 285	5 111	4 920	6 025
Hong Kong					
Unwrought (Re-exports)	431	144	3 059	4 001	1 630
Scrap	19 302	22 212	22 802	24 444	27 948
Indonesia					
Ores & concentrates	191 749	229 053	188 428	204 421	298 584
Iran (c)					
Ore	7 500	3 000	13 019	...	...
Israel (h)					
Cement copper	5 535	4 795	1 544	—	—
Scrap	2 623	2 237	1 775	2 115	2 288
Japan					
Unwrought	48 417	182 829	22 414	58 621	85 084
Scrap	417	410	176	549	5 163
Jordan					
Scrap	543	1 505	655	1 224	1 060
Korea, Republic of					
Unwrought	10 700	25 251	2 933	4 035	5 756
Scrap	336	2 716	1 517	751	1 180
Malaysia					
Ore	121 060	121 875	125 886	125 767	118 930
Scrap	6 661	8 297	9 685	12 354	...
Oman					
Unwrought	1	4 143	13 276	12 725	16 309

Exports of Copper

Country	1982	1983	1984	1985	1986
Pakistan (d)					
Scrap	—	320	18 756	21 671	1 010
Philippines					
Ores & concentrates	1 060 405	787 508	450 438	344 201	359 781
Unwrought	—	18 112	80 631	129 901	130 228
Scrap	621	2 062	9 314	6 979	8 150
Saudi Arabia					
Scrap	8 013	14 094	16 268	21 437	19 453
Singapore					
Unwrought	699	14	1 564	4 525	7 086
of which: Re-exports	—	14	1 562	4 515	6 999
Scrap	15 328	19 507	17 882	21 726	23 757
Taiwan					
Unwrought	184	227	300	89	49
Scrap	8 911	8 095	6 496	7 452	6 187
Australia					
Ores & concentrates	159 980	248 265	202 190	269 898	233 263
Matte & cement	13 911	4 963	3 977	8 000	—
Unwrought—					
Unrefined	7 213	8 413	5 350	40	—
Refined	45 235	77 632	75 452	71 482	66 820
Alloys	539	318	455	1 525	...
Scrap	411	599	451	318	...
New Zealand (d)					
Unwrought	40	40	266	9	32
Scrap	1 858	2 003	1 409	1 339	744
Papua New Guinea					
Ores & concentrates (b)	173 261	182 473	167 107	168 712	178 774

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

- (a) Imports into the Netherlands
- (b) Cu content
- (c) Years ended 20 March following that stated
- (d) Years ended 30 June of that stated
- (e) Including leach cathodes
- (f) BGS estimates, based on known imports into certain countries
- (g) Including matte
- (h) Figures may be incomplete as value only given in Israeli trade return for exports to some countries

Imports of Copper

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Ore & matte	687	1 000	2 409	1 245	10
Unwrought—					
Unrefined	68 135	82 592	87 422	65 366	79 522
Refined	255 441	200 680	225 864	247 875	263 454
Alloys	1 302	504	1 044	887	1 141
Scrap	10 021	10 025	8 117	13 328	10 540
Belgium-Luxembourg					
Ore	15 960	10 706	2 047	3 315	3 722
Burnt cupreous pyrites	70	1 951	—	1 331	24
Unwrought—					
Matte, cement & unrefined	213 831	194 275	213 954	215 520	239 974
Refined	255 273	141 671	180 884	199 548	215 181
Alloys	4 605	3 338	1 888	6 415	8 940
Scrap	113 628	131 918	115 165	152 481	119 423
Denmark					
Unwrought	67	330	148	125	412
Unwrought alloys	843	584	1 626	1 876	1 933
Scrap	4 244	3 141	5 165	4 487	7 172
France					
Ore	298	46	356	283	79
Burnt cupreous pyrites	—	661	2 863	4 834	4 564
Matte & cement	70	64	—	—	946
Unwrought—					
Unrefined	22 451	14 435	17 667	21 284	22 301
Refined	367 823	338 995	341 562	325 429	334 526
Alloys	4 901	3 836	4 925	4 740	4 831
Scrap	28 745	32 714	31 623	34 407	43 108
Germany, Federal Republic of					
Ore	553 963	496 262	550 531	549 080	581 423
Burnt cupreous pyrites	410 134	25 792	37 889	40 852	45 961
Matte & cement	6 309	11 358	2 724	7 086	8 543
Unwrought—					
Unrefined	81 223	68 903	85 517	77 989	69 778
Refined	423 208	403 807	465 575	442 128	447 922
Alloys	37 551	45 363	41 706	41 928	36 031
Scrap	177 122	205 405	211 757	269 855	248 067
Greece					
Matte & cement	6 864	15 582	13 367	9 959	12 486
Unwrought	15 916	19 091	20 216	22 614	28 217
Unwrought alloys	1 827	182	98	167	129
Scrap	2 129	23	447	0	9
Irish Republic					
Unwrought	330	131	275	246	179
Scrap	530	286	484	380	152
Italy					
Unwrought—					
Unrefined	1 061	2 717	11 085	13 810	5 182
Refined	318 919	297 164	311 854	332 813	349 116
Alloys	6 160	6 828	13 803	16 822	15 668
Scrap	71 728	82 442	112 098	120 860	145 097
Netherlands					
Unwrought	20 648	25 598	23 851	19 669	23 095
Unwrought alloys	1 806	895	1 075	1 613	1 006
Scrap	38 211	38 047	43 123	62 001	57 512
Portugal					
Ore	7 522	1 030	4 365	3 052	—
Unwrought	13 801	13 947	15 072	13 793	12 246
Scrap	326	188	79	109	309
Spain					
Ore	127 518	164 798	146 958	125 319	225 963
Matte & cement	13 155	7 178	8 032	3 127	2 217
Unwrought—					
Unrefined	22 796	17 878	20 869	23 571	16 499
Refined	11 676	19 791	24 621	23 346	31 472
Alloys	1 192	1 151	999	1 277	1 997
Scrap	43 720	32 121	23 296	31 114	29 981

Imports of Copper

Country	1982	1983	1984	1985	1986
Austria					
Unwrought—					
Unrefined	8 711	8 467	9 728	9 724	5 021
Refined	4 911	1 293	4 100	2 292	5 777
Alloys	1 784	1 074	1 199	1 299	1 700
Scrap	29 009	27 729	30 616	44 156	31 960
Bulgaria					
Unwrought (a)	* 1 500	* 700	* 1 300	* 2 000	...
Czechoslovakia					
Unwrought	59 000	66 000	62 000	67 000	65 000
Finland					
Ore	74 305	103 800	120 130	152 619	187 820
Unwrought—					
Refined	18 435	18 716	15 104	21 873	15 909
Alloys	392	301	178	483	686
Scrap	2 318	702	463	438	114
German Democratic Republic					
Ores & concentrates (a)	* 3 800	* 3 800	* 12 200	* 10 700	...
Unwrought (a)	* 36 900	* 47 400	* 50 700	* 52 800	* 49 600
Scrap (a)	* 21 700	* 25 300	* 21 600	* 21 900	* 24 000
Hungary					
Unwrought (c)	33 428	31 785	30 112	28 129	36 600
Scrap	6 463	6 678	7 958	6 051	6 041
Norway					
Matte	437	6 367	3 604	2 488	584
Unwrought	590	468	656	330	290
Unwrought alloys	1 425	1 162	1 386	2 387	2 791
Scrap	47	71	92	526	56
Poland					
Unwrought	1 295	—	17 138	19 991	18 211
Romania					
Unwrought (a)	* 26 800	* 23 000	* 17 500	* 10 700	* 9 900
Soviet Union					
Ore (a)	* 97 000	...	...	* 12 000	* 3 000
Unwrought	(a)* 3 600	* 7 000	* 7 000	* 7 000	* 9 000
Sweden					
Ore	92 449	90 133	48 058	88 957	48 571
Matte & cement	8 516	8 020	4 642	4 963	7 012
Unwrought	73 797	71 046	60 636	57 857	57 149
Unwrought alloys	3 672	4 394	4 566	3 417	5 096
Scrap	10 567	22 473	18 076	19 706	10 831
Switzerland					
Unwrought—					
Refined	8 615	8 370	8 928	11 637	13 707
Alloys	748	674	1 020	1 403	1 512
Scrap	3 695	2 201	3 290	6 845	6 263
Turkey					
Ore	—	16 202	23 292	33 168	42 614
Unwrought	6 164	26 110	24 460	35 452	54 346
Scrap	2 697	928	324	619	3
Yugoslavia					
Concentrates	9 691	—	—	—	—
Unwrought	45 226	18 715	24 457	33 032	19 519
Unwrought alloys	7 108	8 129	7 366	6 217	4 383
Scrap	176	401	441	947	206
Algeria					
Unwrought	2 251	724	1 059	480	...
Egypt					
Unwrought (b)	3 102	626	2 098	6	1 750
Libya					
Unwrought	539	...	...	...	...
Morocco					
Unwrought	617	724	774	664	...
South Africa					
Unwrought	2 911	884	967	665	...
Unwrought alloys	133	94	73	56	...
Scrap	107	166	312	877	6 930

Imports of Copper

tonnes

Country	1982	1983	1984	1985	1986
Canada					
Ores & concentrates (d)	12 361	24 231	36 225	76 136	70 700
Unwrought	28 028	24 559	25 562	19 128	20 894
Unwrought alloys	6 731	9 837	12 367	11 424	13 285
Scrap	41 127	71 542	76 335	85 200	65 768
Cuba					
Unwrought	5 154	4 328	5 637	8 380	...
Mexico					
Unwrought & scrap	23 626	19 918	34 754	89 916	...
USA					
Ores & concentrates (d)	93 903	89 272	13 246	3 957	4 722
Matte (d)	4 251	3 974	* 2 100	3 906	668
Unwrought—					
Unrefined (d)	102 211	80 419	60 683	28 504	47 445
Refined	284 773	482 983	504 369	381 088	491 690
Alloys	2 270	6 762	22 544	12 989	16 781
Scrap	41 830	65 091	55 012	55 227	111 626
Argentina					
Unwrought, refined	39 062	31 205	40 008	28 051	...
Brazil					
Ores & concentrates	10 544	89 159	87 553	164 015	261 304
Unwrought—					
Unrefined	21 796	2 250	13 068	17 314	) 107 815
Refined	182 841	54 187	93 852	60 037)
Scrap	1 437	441	854	3 227	7 707
Colombia					
Unwrought	888	3 270	2 643	2 401	...
Venezuela					
Unwrought—					
Refined	2 683	) 2 249	5 600	6 402	11 274
Alloys	256	)	...	221	910
China					
Ores & concentrates (a)	* 91 800	* 92 700	* 113 600	* 103 500	* 176 700
Unwrought	110 938	485 863	254 045	355 652	171 118
Hong Kong					
Unwrought	1 093	748	5 789	5 391	2 356
Scrap	2 010	2 896	7 394	9 148	6 784
India (e)					
Unwrought	55 871	61 300	48 600	69 500	74 258
Scrap	44 697	...	...	...	...
Indonesia					
Unwrought	17 527	16 678	17 535	16 065	17 903
Unwrought alloys	592	289	268	231	391
Iran (f)					
Unwrought	3 756	7 553	256	...	...
Scrap	4 737	565	740	...	...
Israel					
Unwrought (a)	* 450	* 400	* 1 300	* 300	* 700
Japan					
Ores & concentrates	3 627 797	3 135 228	2 930 184	3 009 571	3 036 896
Matte & cement	478	4 394	1 311	132	33
Unwrought	373 748	246 276	535 860	390 634	300 215
Unwrought alloys	574	244	2 245	2 517	2 819
Scrap	56 418	57 486	92 595	81 660	79 467
Korea, Republic of					
Ore	394 250	371 278	347 665	355 210	389 143
Matte & cement	8 495	15 865	25 911	33 127	18 897
Unwrought	30 112	37 675	53 966	60 275	99 682
Scrap	94 433	42 787	32 364	32 592	74 949
Malaysia					
Unwrought	3 288	17 959	18 308	20 745	...
Pakistan (g)					
Scrap	5 081	412	331	79	1

Imports of Copper

Country	1982	1983	1984	1985	1986
Philippines					
Unwrought	5 610	5 714	151	5	8
Singapore					
Unwrought	411	255	876	2 250	5 660
Scrap	5 090	4 020	3 436	3 587	7 401
Taiwan					
Ores & concentrates	85 427	134 083	212 923	160 931	179 704
Unwrought	27 402	64 006	91 134	47 665	109 475
Scrap	23 367	30 441	34 017	28 401	42 507
Thailand					
Unwrought	6 298	10 778	15 835	19 223	20 228
Scrap	222	235	83	49	10
Australia					
Unwrought	2 176	4 430	7	23	265
Unwrought alloys	97	27	18	25	...
Scrap	2 143	1 200	1 174	1 161	...
New Zealand (g)					
Unwrought	2 560	1 883	2 490	3 427	1 627

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

- (a) BGS estimates, based on known exports from certain countries
- (b) Including matte and scrap
- (c) Including semi-manufactures
- (d) Cu content
- (e) Years ended 31 March following that stated
- (f) Years ended 20 March following that stated
- (g) Years ended 30 June of that stated

Production of Diamond

carats

Country	1982	1983	1984	1985	1986
Soviet Union	* 10 600 000	* 10 700 000	* 10 700 000	* 10 800 000	* 10 800 000
Angola	1 221 150	1 006 520	923 669	717 028	200 000
Botswana	7 562 000	10 897 000	12 904 000	12 608 000	13 138 000
Central African Republic	276 573	295 357	337 150	353 481	357 379
Ghana	684 200	339 300	348 800	631 801	557 301
Guinea	* 40 000	* 40 000	48 000	112 000	203 795
Lesotho	42 119	—	—	—	—
Liberia (a)	432 909	329 924	238 877	137 572	242 152
Namibia	1 014 464	969 400	931 300	909 500	1 009 600
Sierra Leone	290 000	368 598	107 359	101 191	62 453
South Africa	9 152 886	10 311 778	10 120 712	10 205 936	10 226 963
Swaziland	—	—	16 837	21 128	40 000
Tanzania	297 000	215 000	277 000	255 736	173 972
Zaire	6 164 000	11 982 000	18 459 000	19 617 000	23 304 000
Brazil	529 760	311 589	800 927	* 450 000	* 625 000
Guyana	11 492	12 362	7 496	11 868	9 379
Venezuela	435 272	278 915	272 922	215 272	233 503
China	* 1 000 000	* 1 000 000	* 1 000 000	* 1 000 000	* 1 000 000
India	13 007	14 286	15 887	16 271	16 642
Indonesia	* 15 000	* 27 000	* 27 000	* 27 000	* 27 000
Australia	457 000	6 200 227	5 692 193	7 070 062	29 232 453
World total	40 200 000	55 300 000	63 200 000	65 300 000	91 500 000

Note: This table does not show production of synthetic diamond

(a) Exports

Exports of Diamond

carats

Country	1982	1983	1984	1985	1986
United Kingdom					
Industrial	6 875 321	3 494 914	2 298 780	6 463 161	7 835 713
Other	24 520 616	29 006 530	30 547 167	32 308 258	37 187 999
Belgium-Luxembourg					
Rough	38 557 375	33 888 227	36 745 317	44 561 153	55 514 230
Cut	3 051 028	3 349 982	3 561 441	3 932 737	3 889 064
Industrial	9 027 296	9 468 688	11 793 810	9 761 317	10 908 673
France					
Rough	—	264	2 171	79 648	3 878
Cut	93 426	98 034	46 788	75 867	24 083
Industrial	205 303	148 930	358 172	270 584	248 381
Dust	217 950	304 565	351 830	661 550	896 390
Germany, Federal Republic of					
Industrial	249 798	314 850	431 591	452 399	236 063
Other	134 503	120 698	128 435	127 319	174 279
Irish Republic					
Industrial	10 000	—	115 000	685 000	—
Italy					
Industrial	23 870	9 300	4 208	49 029	1 108
Other	436 936	900 663	1 230	1 954	14 292
Netherlands					
Rough	220 574	100 716	184 830	170 555	249 931
Cut	202 932	219 956	237 351	202 676	142 686
Industrial	632 768	480 787	661 750	762 316	1 183 953
Portugal	51 717	65 539	60 489	66 708	86 529
Spain					
Industrial	£309 000	£632 000	£652 000	£798 000	£40 000
Other	£541 000	£266 000	£333 000	£2 702 000	£165 000
Austria					
Industrial	5 000	...	95 000	20 000	5 000
Other	20 000	25 000	20 000	10 000	25 000
Malta	£1 877 000	£3 105 000	£3 025 000	£2 697 000	£2 312 000
Soviet Union (f)	* 551 600	* 364 300	* 618 200	* 687 200	* 1 033 000
Sweden					
Industrial	£66 000	£199 000	£56 000	£57 000	£33 000
Other	£5 350 000	£3 335 000	£2 904 000	£1 948 000	£1 243 000
Central African Republic					
Gem	)	219 200	226 400	238 800	...
Industrial	) 264 800	63 300	100 000	104 100	...
Ghana					
Industrial	703 581	60 456	323 000	...	...
Ivory Coast	...	13 132	23 159	5 000	13 581
Kenya	75 415	1 720	17 640	95 000	17 500
Lesotho	53 580	—	—	—	—
Liberia	433 000	329 924	238 877	137 572	242 152
Sierra Leone	303 400	330 900	318 300	321 000	314 589
South Africa (c)					
Rough	£461 436 000	£641 800 000	£558 899 000	£614 699 000	...
Cut	£65 195 000	£96 391 000	£132 224 000	£137 541 000	...
Industrial	£8 634 000	£5 376 000	£4 516 000	£9 098 000	...
Tanzania	...	...	299 245	285 710	195 000
Tunisia					
Industrial	60 000	...	125 000	155 000	265 000
Other	115 000	...	370 000	445 000	780 000
Zaire	6 164 000	11 713 000	18 130 000	22 442 176	23 300 000
Canada					
Cut (Re-exports)	62 578	36 894	56 798	55 134	49 414
Industrial (Re-exports)	344 780	299 340	102 636	342 232	539 194
Dust	191 879	77 850	271 131	1 211 990	648 844
of which: Re-exports	191 850	74 850	269 340	1 211 490	647 138

Exports of Diamond

carats

Country	1982	1983	1984	1985	1986
USA					
Rough	2 675 960	2 001 703	1 739 936	1 807 846	1 800 589
of which: Re-exports	2 675 960	2 001 703	1 737 804	1 805 471	1 797 509
Cut	484 347	486 846	532 574	572 452	726 420
of which: Re-exports	299 476	162 473	149 544	134 407	168 441
Industrial	2 065 215	3 184 601	3 301 116	3 291 223	3 563 727
of which: Re-exports	1 650 510	1 932 607	2 441 922	1 734 890	1 894 607
Dust (b)	30 706 308	42 311 999	47 992 891	51 592 844	51 162 598
of which: Re-exports	1 118 829	1 240 924	779 447	1 867 827	4 323 607
Brazil	18 360	1 805	20 830	1 625	...
Guyana	1 749	—	—	...	...
Venezuela					
Rough	65 000	...	...	190 000	190 000
Industrial	295 000	...	...	...	—
Hong Kong	694 234	392 855	405 509	697 648	858 030
of which: Re-exports	685 572	387 548	399 582	695 023	855 556
India (d)					
Gem	4 518 126	5 355 237	...	...	...
Israel (a)					
Cut	2 459 000	2 565 000	2 633 000	3 139 000	3 827 000
Japan					
Industrial	6 123	22 639	29 369	4 694	89 188
Other	1 038	583	2 173	1 192	15 513
Korea, Republic of	£144 000	£340 000	£467 000	£810 000	£1 133 000
Malaysia					
Cut	£517 000	£2 100 000	£5 003 000	£6 277 000	...
Singapore					
Rough	£114 000	£9 000	£595 000	—	£21 000
of which: Re-exports	£108 000	£9 000	£539 000	—	—
Cut	£7 643 000	£4 908 000	£12 932 000	£11 668 000	£5 800 000
of which: Re-exports	£7 272 000	£3 945 000	£10 943 000	£11 332 000	£5 314 000
Industrial	£747 000	£360 000	£938 000	£342 000	£180 000
of which: Re-exports	£513 000	£263 000	£901 000	£166 000	£180 000
Sri Lanka					
Industrial	—	—	—	5 554	331 715
Other	—	—	14 426	279 811	348 915
Taiwan					
Industrial	310 000	1 615 000	180 000	9 800 000	12 440 000
Other	11 075 000	8 380 000	27 990 000	6 600 000	12 340 000
Thailand	65 563	49 447	123 814	99 952	133 692
Australia					
Gem	(e) 10 822	3 015 385	2 682 585	2 670 546	1 562 764
Industrial	269 526	1 046 103	903 480	561 451	1 813 194

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

- (a) Figures may be incomplete as value only given in Israeli trade return for exports to some countries
 (b) May include synthetic material
 (c) Values shown are for the common customs area
 (d) Years ended 31 March following that stated
 (e) Re-exports
 (f) BGS estimates, based on known imports into certain countries

Imports of Diamond

carats

Country	1982	1983	1984	1985	1986
United Kingdom	£969 891 705	£1 398 637 051	£1 438 041 669	£1 376 511 719	£1 711 289 733
Belgium-Luxembourg					
Rough	29 267 085	31 731 755	37 746 620	42 855 082	55 831 368
Cut	2 453 910	2 576 938	2 698 445	2 662 239	3 508 531
Industrial	18 312 529	14 148 153	16 534 385	18 750 532	18 232 730
France					
Rough	9 443	89 677	949 325	23 950	15 025
Cut	1 099 717	469 559	297 018	662 310	309 391
Industrial	694 744	489 081	479 777	1 347 679	253 252
Dust	4 125 495	4 334 170	4 663 900	5 284 730	5 806 325
Germany, Federal Republic of					
Rough	18 061	24 967	9 678	20 405	11 325
Cut	474 943	509 479	461 321	401 563	479 011
Industrial	864 233	939 371	1 082 628	1 166 858	1 180 203
Irish Republic					
Industrial	3 380 000	1 015 000	5 000	3 015 000	2 930 000
Italy					
Industrial	169 727	114 613	179 458	187 880	153 921
Other	196 650	171 443	193 540	219 958	222 122
Netherlands					
Rough	332 238	373 147	394 046	456 201	332 423
Cut	160 376	130 338	201 484	205 906	161 756
Industrial	277 335	237 469	545 383	567 090	1 130 572
Portugal	250 972	530 834	143 244	154 911	155 000
Spain					
Rough	£80 300	£121 000	£120 000	£103 000	£28 000
Industrial	£614 700	£855 000	£829 000	£1 403 000	£964 000
Other	£15 614 000	£17 657 000	£11 059 000	£19 706 000	£4 276 000
Austria					
Industrial	40 000	15 000	65 000	55 000	50 000
Other	115 000	75 000	40 000	80 000	80 000
Bulgaria (a)	* 126 800	* 86 700	* 87 300	* 179 200	* 138 500
Czechoslovakia (a)	* 101 900	* 30 200	* 103 500	* 52 900	* 55 600
Finland					
Industrial	10 000	10 000	10 000	15 000	425 000
Other	20 000	15 000	15 000	35 000	30 000
Hungary					
Industrial	31 025	23 819	18 926	21 474	30 386
Malta					
Rough	£3 141 000	£3 245 000	£3 734 000	£2 487 000	£2 892 000
Cut	—	£100	—	—	£100
Industrial	£286 000	£344 000	£4 000	£73 000	£225 000
Norway	20 000	45 000	40 000	100 000	260 000
Romania (a)	* 284 400	* 435 900	* 521 500	* 387 200	* 376 700
Sweden					
Industrial	£363 000	£425 800	£478 000	£577 000	£414 000
Other	£12 089 000	£9 836 000	£9 564 000	£7 167 000	£5 230 000
Turkey					
Industrial	140 000	60 000	100 000	260 000	265 000
Other	735 000	735 000	—	115 000	75 000
Yugoslavia					
Industrial	£529 000	£314 000	£773 000	£756 000	£762 000
Other	£205 000	£118 000	£238 000	£238 000	£192 000
Dust	£468 000	£510 000	£742 000	£796 000	£862 000
Algeria					
Industrial	£529 000	£487 000	£229 000	£311 000	...
Kenya					
Rough & cut	—	—	30 000	...	...
South Africa					
Rough	230 500	83 500	208 500	230 500	258 000
Cut	8 000	15 000	17 500	37 000	20 000
Industrial	1 384 000	1 547 000	278 500	359 000	1 450 000
Tunisia					
Industrial	5 000	...	200 000	270 000	35 000
Other	160 000	...	385 000	665 000	720 000
Canada					
Cut	200 582	275 711	263 143	297 961	295 907
Industrial	1 090 627	1 168 149	1 382 677	1 360 396	1 760 007
Dust	885 816	1 577 841	2 378 496	2 647 489	4 128 282

Imports of Diamond

carats

Country	1982	1983	1984	1985	1986
Costa Rica					
Industrial	560 000	160 000	330 000	330 000	160 000
El Salvador					
Industrial	225 000	70 000	235 000	...	...
Honduras					
Industrial	...	805 000	...	...	...
Mexico					
Rough	10 000	—	...	...	...
Panama					
Industrial	910 000	100 000	625 000	25 000	—
USA					
Rough	885 735	1 008 851	1 240 982	1 042 183	1 288 018
Cut	3 744 094	5 238 650	2 606 491	7 108 435	7 884 765
Industrial	4 623 637	6 078 997	8 241 025	9 334 533	8 947 358
Bort	145 900	45 604	219 295	390 389	251 608
Dust	3 324 035	3 975 219	6 827 639	6 753 549	7 260 957
Argentina					
Industrial	45 000	15 000	360 000	...	...
Dust	429 700	360 220	...	...	...
Brazil					
Rough	715	750	—	—	...
Cut	4 210	1 925	225	260	...
Industrial	128 305	105 675	48 575	88 730	...
Dust	1 772 635	2 918 510	3 001 360	3 355 145	...
Venezuela					
Rough	85 000	...	...	—	—
Industrial	855 000	...	...	1 109 000	415 000
Abu Dhabi	25 000	50 000	40 000	1 175 000	30 000
China					
Industrial	266 124	358 123	502 298	551 052	759 872
Other (a)	* 22 200	* 19 400	* 65 600	* 68 900	* 123 700
Cyprus	£486 000	£675 000	£1 088 000	£984 000	£847 000
Dubai					
Industrial	...	...	115 000	...	...
Other	...	...	49 685	26 295	16 440
Hong Kong					
Rough	221 450	118 739	87 054	90 611	105 825
Cut	1 220 652	1 167 524	1 248 658	1 343 518	1 984 785
Industrial	127 489	20 190	148 748	234 076	427 305
India (d)					
Rough	36 646 703	...	...	...	...
Industrial	1 270 000	...	...	...	...
Israel					
Rough (c)	4 662 000	5 693 000	6 438 000	8 123 000	9 717 000
Cut (c)	197 000	296 000	401 000	444 000	478 000
Industrial (c)	2 667 000	3 565 000	4 325 000	5 779 000	6 778 000
Japan					
Rough	19 292	17 108	29 605	18 129	151 272
Cut	823 757	906 574	1 042 415	1 177 040	1 571 921
Industrial	757 507	793 890	681 713	721 704	737 530
Dust	881 650	987 205	1 399 120	1 267 595	1 305 535
Korea, Republic of					
Cut	£373 000	£123 000	£171 000	£767 000	£959 000
Industrial	£405 000	£532 000	£721 000	£682 000	£772 000
Other	£207 000	£161 000	£452 000	£951 000	£521 000
Dust	28 600	135 000	387 210	62 900	106 335
Malaysia					
Rough	£1 669 000	£402 000	£918 000	£222 000	...
Cut	£1 014 000	£3 637 000	£16 401 000	£18 770 000	...
Industrial	£49 000	£325 000	£19 000	£36 000	...
Philippines					
Industrial	22 900	33 117	150 867	178 802	1 067 311
Qatar	13 105	30 890	5 090	...	...
Saudi Arabia					
Industrial	225 000	110 000	55 000	40 000	6 090 000
Other	165 000	585 000	77 000	90 000	60 000

Imports of Diamond

carats

Country	1982	1983	1984	1985	1986
Singapore					
Rough	£164 000	£312 000	£996 000	£101 000	£136 000
Cut	£27 170 000	£40 868 000	£32 703 000	£23 437 000	£27 022 000
Industrial	£2 030 000	£741 000	£1 409 000	£1 174 000	£439 000
Sri Lanka					
Industrial	—	—	47	3 704	251 980
Other	70 281	173	61 595	168 737	303 194
Taiwan					
Industrial	285 000	8 380 000	535 000	620 000	1 580 000
Other	1 990 000	1 515 000	80 000	105 000	1 250 000
Dust	1 735 000	4 615 000	3 930 000	7 075 000	4 455 000
Thailand					
Rough	819 056	251 233	963 131	318 261	511 943
Cut	140 161	279 492	214 962	134 235	259 998
Industrial	3 485	1 400	13 261	12 965	7 255
Australia					
Gem	75 801	71 981	96 966	114 185	112 120
Industrial	1 024 470	1 120 405	1 471 714	1 787 148	2 244 893
New Zealand (b)					
Industrial	£65 000	£72 000	£93 000	£251 000	£220 000
Other	£1 699 000	£2 111 000	£2 639 000	£2 380 000	£2 434 000

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

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

Production of Diatomite

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	* 500	* 300	* 200	* 200	* 300
Denmark (a)					
Diatomite	3 903	3 518	...	...	...
Moler (d)	* 98 500	(e) 70 672	(e) 63 745	(e) 72 029	92 975
France (b)	244 349	221 300	247 400	269 900	* 240 000
Germany, Federal Republic of	42 700	44 200	49 000	48 400	49 500
Italy	* 20 000	* 25 000	* 28 000	* 30 000	* 27 000
Portugal	1 770	1 870	1 600	1 600	2 120
Spain (b)	63 365	55 638	73 013	96 251	* 80 000
Iceland	24 528	25 502	27 265	29 388	22 897
Romania	* 290 000	* 290 000	* 300 000	* 300 000	* 300 000
Soviet Union	* 235 000	* 235 000	* 240 000	* 245 000	* 250 000
Turkey	2 688	9 600	6 540	* 3 000	* 3 000
Yugoslavia	9 612	12 270	7 249	7 927	10 749
Algeria	* 4 500	* 4 500	* 1 800	* 2 700	* 2 700
Kenya	1 783	1 570	1 512	1 420	1 450
South Africa	712	1 088	258	947	1 800
Canada	* 2 000	1 955	4 100	* 2 500	* 9 000
Costa Rica	470	* 450	* 450	—	—
Mexico	56 342	43 967	44 634	45 781	* 45 000
USA (c)	556 000	562 000	569 000	576 000	570 000
Argentina	6 789	10 981	5 227	7 879	6 365
Brazil (f)	13 146	8 678	7 721	12 731	* 13 000
Chile	387	741	1 712	2 317	2 684
Colombia	* 600	* 600	* 600	* 600	* 600
Peru	* 7 300	14 000	* 7 000	* 15 000	* 15 000
Korea, Republic of	55 249	55 968	48 496	53 613	54 841
Thailand	80	425	471	410	204
Australia	1 561	7 921	6 430	7 587	9 048
World total	1 740 000	1 700 000	1 750 000	1 840 000	1 810 000

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

(a) Sales

(b) Including tripoli

(c) Sold or used by producers

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

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

(f) Includes beneficiated and directly shipped material

Exports of Diatomite

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	377	309	611	177	521
Denmark					
Diatomite	4 515	) 65 509	67 960	73 113	74 112
Moler	59 943)			
Moler bricks	21 359	20 736	25 535	19 956	19 105
France	26 999	26 984	31 655	32 334	31 729
Germany, Federal Republic of	2 344	2 660	2 021	1 510	1 247
Italy	2 590	3 240	3 003	4 114	3 037
Netherlands	756	1 066	876	1 796	486
Spain	1 852	3 268	2 233	3 250	4 087
Austria	815	1 137	2 425	2 471	2 203
Czechoslovakia (a)	* 2 100	* 2 400	* 3 100	* 4 200	* 4 800
Hungary	* 2 000	(a)* 2 700	(a)* 3 200	(a)* 2 800	(a)* 5 000
Iceland	24 966	24 508	26 486	27 123	23 424
Sweden	690	694	71	611	46
Switzerland	42	86	32	40	50
Turkey	138	15	363	62	3
Yugoslavia	—	—	394	1 504	655
Kenya	511	382	298	208	428
Mexico	1 660	3 116	4 081	4 469	...
USA	128 349	132 426	115 282	108 944	119 298
Japan	2 165	1 322	2 200	2 599	1 506
Singapore (Re-exports)	377	795	366	202	115
Taiwan	49	95	226	60	34

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

Imports of Diatomite

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	14 352	17 601	20 881	23 915	26 412
Belgium-Luxembourg	6 535	6 400	8 008	8 463	8 304
Denmark	7 632	7 966	6 110	5 526	5 570
France	8 709	9 816	8 638	7 212	5 755
Germany, Federal Republic of	37 780	36 791	37 363	39 162	38 856
Greece	559	744	1 888	1 693	2 145
Irish Republic	469	453	329	364	146
Italy	4 743	5 347	4 669	5 044	8 916
Netherlands	15 275	16 150	24 376	64 815	77 143
Portugal	3 608	3 763	4 000	4 172	3 789
Spain	2 207	2 607	2 579	2 743	3 339
Austria	7 958	11 395	11 142	12 931	14 721
Czechoslovakia (b)	* 900	* 2 500	* 2 500	* 2 900	* 2 500
Finland	3 925	4 312	4 295	4 739	5 506
German Democratic Republic (b)	* 1 700	* 1 600	* 1 500	* 1 100	* 1 600
Norway	1 609	1 578	1 640	2 177	1 986
Poland	* 800	(b)* 1 300	(b)* 700	(b)* 2 200	(b)* 1 500
Romania (b)	* 2 000	* 900	* 800	* 1 000	* 1 000
Sweden	3 039	3 148	2 566	2 826	2 298
Switzerland	12 067	10 209	6 244	6 920	6 303
Turkey	106	73	142	81	146
Yugoslavia	446	617	543	1 144	1 187
Algeria	267	67	12	277	...
Cameroon	...	...	* 300	* 100	* 400
Gabon	354	171	375	348	384
Ivory Coast	163	173	132	129	...
Kenya	130	19	171	1	0
Morocco	36	107	247	53	...
South Africa	7 172	5 849	5 333	6 039	4 399
Tunisia	142	133	144	189	167
Zaire	88	248	100	...	...
Zimbabwe	197	146	83	421	...
Canada	23 130	23 298	23 891	24 226	26 338
Costa Rica	361	342	212	271	64
Dominican Republic	479	...	587	...	...
El Salvador	346	544	445	...	...
Guatemala	549	714	427	416	...
Honduras	283	305	397	...	...
Mexico	216	368	190	101	...
Nicaragua	234	644	...	...	...
Panama	443	222	306	314	433
USA	229	314	307	4 491	710
Argentina	1 662	1 466	2 810	2 033	...
Brazil	1 829	2 217	1 302	1 401	...
Colombia	1 232	630	561	1 005	...
Ecuador	1 519	700	595	449	501
Peru	1 353	1 076	1 838	842	1 460
Venezuela	7 719	7 150	4 837	9 670	4 656
Cyprus	195	115	176	156	203
Hong Kong	427	484	562	602	984
India (d)	119	...	...	...	...
Indonesia	179	1 188	1 075	637	769
Iran (c)	508	980	1 304	...	...
Israel (b)	...	* 700	* 600	* 1 000	* 800
Japan	8 984	10 280	3 985	3 164	3 901
Malaysia	1 110	971	715	489	...
Pakistan (a)	240	464	17 575	198	254

Imports of Diatomite

Country	1982	1983	1984	1985	1986
Philippines	1 259	1 093	474	148	408
Saudi Arabia	49 756	10 518	6 871	4 252	2 586
Singapore	1 061	1 031	1 146	866	963
Sri Lanka	13	29	3 419	15	83
Taiwan	2 743	3 143	4 692	3 544	4 296
Thailand	30	60	98	36	153
Australia	11 477	9 884	11 115	12 479	10 637
Fiji	42	87	104	58	...
New Zealand (a)	1 384	1 197	1 370	1 067	1 353

(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

(d) Years ended 31 March following that stated

Production of Feldspar

tonnes

Country	1982	1983	1984	1985	1986
France	200 600	175 200	208 900	171 500	216 000
Germany, Federal Republic of	331 400	256 200	286 200	261 400	246 500
Italy	848 000	942 000	1 030 000	1 116 375	1 237 058
Portugal	41 327	33 509	29 003	29 011	33 740
Spain (c)	131 071	116 137	136 943	136 190	129 000
Austria	2 960	1 063	2 554	13 570	2 850
Finland	69 108	53 226	64 733	174 219	47 049
Norway (d)	62 812	57 960	67 820	80 095	* 65 000
Poland	78 176	47 600	46 300	60 100	57 200
Romania	* 84 000	* 85 000	* 85 000	* 86 000	* 86 000
Soviet Union	* 330 000	* 330 000	* 330 000	* 340 000	* 340 000
Sweden (e)	54 669	52 913	49 833	41 720	* 50 000
Turkey	* 5 000	9 212	* 10 000	* 20 000	12 180
Yugoslavia	42 685	41 372	34 824	49 480	48 000
Egypt	4 317	6 091	5 879	19 073	18 020
Kenya	—	700	682	879	* 900
Morocco	1 025	* 1 000	* 1 000	* 1 000	* 1 000
Mozambique	696	317	185	67	—
Nigeria	* 1 000	* 1 000	* 1 000	* 1 000	803
South Africa	47 854	45 114	39 018	33 012	52 762
Zambia	362	226	184	185	214
Zimbabwe	866	1 645	1 399	2 300	2 027
Guatemala	5 674	6 000	4 986	4 454	* 4 200
Mexico	115 559	117 518	84 791	* 100 000	* 100 000
USA (e)	558 000	644 000	644 000	635 000	667 000
Argentina	15 091	20 065	17 948	8 442	10 227
Brazil	78 854	64 041	84 033	99 053	* 100 000
Chile	469	3 356	3 026	2 565	2 275
Colombia	30 091	31 400	32 766	34 348	35 722
Peru	* 10 000	* 3 000	* 4 000	—	—
Uruguay	838	1 129	1 950	* 1 000	* 1 000
Venezuela	37 000	37 398	40 497	42 440	34 929
Burma (a)	6 712	6 106	6 218	2 861	* 3 000
Hong Kong	1 744	5 275	23 101	26 777	35 208
India	45 981	47 289	42 859	44 303	46 288
Iran (b)	* 2 500	* 2 600	* 2 500	* 2 700	* 2 700
Japan	461 528	451 478	511 493	526 502	* 482 000
Korea, Republic of	85 040	109 896	127 057	145 414	130 895
Pakistan	7 145	5 953	5 486	5 633	11 575
Philippines	15 213	6 524	11 486	5 866	6 661
Sri Lanka	2 922	2 609	3 155	2 878	7 270
Taiwan	10 620	11 866	15 452	11 055	26 290
Thailand	19 326	47 908	74 404	104 586	115 163
Australia	4 335	4 244	3 898	6 704	10 006
World total	3 900 000	3 900 000	4 200 000	4 400 000	4 500 000

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

- (a) Years ended 31 March following that stated
- (b) Years ended 20 March following that stated
- (c) Including pegmatite
- (d) Underground: production of ground withheld
- (e) Sold or used by producers

Exports of Feldspar

Country	1982	1983	1984	1985	1986
United Kingdom	618	452	456	316	357
France	54 613	54 455	59 566	53 523	46 847
Germany, Federal Republic of	15 176	17 465	16 570	20 312	26 313
Italy	32 930	36 431	35 469	39 139	29 413
Netherlands	1 251	1 124	2 179	1 421	1 114
Portugal (a)	4 398	4 480	1 240	1 895	7 267
Spain (a)	1 858	659	3 482	...	2 578
Finland (a)	41 891	35 498	35 299	35 209	40 301
Norway	61 032	71 040	81 026	86 708	74 185
Sweden (a)	24 516	24 690	30 950	21 803	22 273
Switzerland (a)	129	97	169	159	153
Turkey	3 049	5 045	1 034	2 911	...
Yugoslavia	1 010	3 311	3 793	6 722	2 228
South Africa	1 389	459	620	—	913
Guatemala (c)	2 162	3 123	3 542	3 041	...
USA (a)	9 793	8 494	9 144	8 435	11 596
Brazil	5 000	4 000	2 000	5 000	10 000
China (a)(b)(c)	* 27 500	* 29 000	* 40 900	* 35 400	* 52 800
Hong Kong (c)	11 665	17 039	36 957	38 571	50 555
of which: Re-exports	11 665	16 970	24 257	28 721	28 165
India (d)	18 291	14 569	37 689	...	...
Japan	24 246	28 886	31 770	27 646	32 822
Korea, Republic of	23 551	31 679	22 988	22 746	16 759
Singapore (a)	2 915	4 894	4 938	4 314	3 585
of which: Re-exports	2 901	4 894	4 928	4 306	3 585
Thailand	3 707	12 621	16 982	35 198	46 064

(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	1982	1983	1984	1985	1986
United Kingdom	83 681	55 737	54 335	55 879	59 337
Belgium-Luxembourg	21 355	21 895	24 778	17 806	18 372
Denmark	5 896	3 873	5 678	6 558	4 932
France	18 844	19 353	19 846	23 497	23 627
Germany, Federal Republic of	54 006	54 355	51 164	46 213	55 193
Greece	2 426	2 217	2 229	1 529	4 446
Irish Republic (a)(c)	7 586	6 333	6 425	7 612	8 119
Italy	9 747	10 319	13 117	12 453	7 119
Netherlands	13 038	12 931	21 609	20 167	19 749
Portugal	(a) 2 621	295	277	253	319
Spain (a)	15 972	15 035	18 067	...	19 830
Austria (a)	5 095	4 301	4 485	4 474	4 466
German Democratic Republic (a)(b)	* 14 600	* 16 700	* 18 700	* 22 700	* 10 600
Hungary	1 000	—	350	337	352
Norway	24	132	125	231	187
Poland	7 928	...	9 944	10 034	11 630
Sweden (a)	9 791	12 465	11 419	11 860	13 392
Switzerland (a)	7 883	7 571	11 890	17 301	11 691
Yugoslavia	1 529	906	769	910	490
Algeria (a)	3 564	3 642	2 255	3 407	...
Egypt (a)(c)	2 157	1 398	2 648	990	8 331
Morocco (a)	565	1 505	1 798	749	...
Tunisia	1 463	1 537	2 329	1 934	1 561
Costa Rica (c)	1 814	2 235	2 623	2 229	2 954
Mexico	3 286	884	794	408	...
Panama (c)	430	1 100	865	712	3 398
USA	44	58	23	864	1 136
Venezuela	1 205	545	1 267	837	981
Hong Kong (c)	14 440	16 267	21 842	23 989	37 396
Indonesia (a)	10 653	7 230	13 522	6 872	12 504
Israel (a)(b)	...	* 300	* 200	* 100	* 3 200
Japan (a)	6 114	7 915	9 611	7 802	6 766
Jordan (a)(c)	405	903	2 251	640	928
Korea, Republic of	39	13	37	804	771
Malaysia (a)(c)	12 260	16 572	16 145	24 247	...
Philippines (a)(c)	1 855	2 474	2 667	1 633	1 535
Saudi Arabia (a)(c)	965	1 336	1 663	890	275
Singapore (a)	6 035	7 856	7 812	5 992	4 413
Syria (a)(c)	200	1 027	4 006	878	...
Taiwan (a)(c)	69 312	99 169	110 482	140 593	158 131
Thailand (a)	2 179	1 499	1 054	1 196	531
Australia (a)	2 076	1 385	18 424	...	...
New Zealand (a)(c)(d)	1 446	1 119	1 385	1 139	832

(a) May include some leucite and nepheline

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

(c) Including some fluorspar

(d) Years ended 30 June of that stated

Production of Fluorspar

Country	1982	1983	1984	1985	1986
United Kingdom	201 000	131 300	137 000	167 390	133 420
France	239 650	193 650	232 050	232 000	238 500
Germany, Federal Republic of	78 600	80 700	83 300	83 100	88 800
Greece	345	275	83	35	150
Italy	166 340	177 670	188 263	152 212	145 436
Spain	241 603	232 334	295 666	305 609	* 300 000
Czechoslovakia	* 96 000	* 96 000	* 96 000	* 95 000	* 95 000
German Democratic Republic	* 100 000	* 100 000	* 100 000	* 100 000	* 100 000
Romania	* 20 000	* 20 000	* 20 000	* 20 000	* 20 000
Soviet Union	* 540 000	* 540 000	* 550 000	* 560 000	* 560 000
Sweden	2 854	2 042	3 454	3 169	...
Turkey	* 2 000	* 2 000	2 258	9 804	1 604
Egypt	750	342	118	60	80
Kenya	88 726	59 084	46 578	57 949	50 851
Morocco	50 200	60 300	65 900	74 350	83 000
South Africa	330 835	267 602	319 206	349 207	333 885
Tunisia	36 900	38 600	44 500	42 200	36 300
Mexico	735 093	604 781	699 429	730 447	766 800
USA	69 869	* 55 000	* 65 000	* 60 000	* 71 000
Argentina	23 727	28 985	23 157	31 842	38 721
Brazil (a)	57 371	70 629	75 711	83 102	* 85 000
China	* 525 000	* 525 000	* 650 000	* 750 000	* 750 000
India	24 902	22 616	21 928	20 270	18 296
Korea, Dem. P.R. of	* 40 000	* 40 000	* 40 000	* 40 000	* 40 000
Korea, Republic of	3 667	6 361	4 672	705	243
Mongolia	* 670 000	* 700 000	* 740 000	* 740 000	* 740 000
Pakistan	814	335	703	3 175	4 353
Thailand	257 108	206 648	287 379	298 899	167 909
World total	4 600 000	4 300 000	4 800 000	5 000 000	4 900 000

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

(a) Includes beneficiated and directly shipped material

Exports of Fluorspar

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	18 044	12 034	8 200	7 504	5 137
Belgium-Luxembourg	3 431	3 524	1 902	237	20
France	71 096	47 356	60 928	56 185	45 701
Germany, Federal Republic of	13 219	12 920	16 518	15 833	13 100
Italy	65 284	60 994	70 801	44 786	11 743
Netherlands	1 101	135	290	224	408
Spain	119 570	162 450	151 313	...	171 600
German Democratic Republic (b)	* 43 600	* 48 100	* 46 500	* 41 800	* 43 000
Sweden	1 013	4 794	1 847	4 939	557
Kenya	74 890	48 893	52 180	60 726	41 132
Morocco	62 024	56 434	74 200	64 245	...
South Africa	232 635	246 462	343 432	283 023	288 070
Tunisia	1 410	...	3 150	7 250	6 100
Mexico	347 621	437 591	707 634	564 622	...
USA	9 592	8 689	11 128	9 060	14 730
China	617 702	523 029	634 481	734 182	700 130
Japan (a)	486	458	327	157	157
Korea, Republic of	—	—	513	—	—
Thailand	182 388	183 002	230 407	199 640	137 619

(a) May include some leucite and nepheline

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

Imports of Fluorspar

Country	1982	1983	1984	1985	1986
United Kingdom	1 400	10 759	* 20 000	* 18 000	(b)* 20 600
Belgium-Luxembourg	11 988	7 744	8 310	7 773	7 662
Denmark	502	517	586	499	486
France	1 571	1 535	15 425	13 151	12 990
Germany, Federal Republic of	205 698	176 124	194 558	233 280	208 560
Greece	648	6 024	4 986	9 642	11 720
Irish Republic (a)(c)	7 586	6 333	6 425	7 612	8 119
Italy	57 048	88 099	97 836	91 645	82 274
Netherlands	24 168	18 684	18 330	27 152	23 148
Portugal	—	2 248	1 860	571	435
Albania (b)	* 1 600	* 1 100	* 300	* 700	* 1 000
Austria	10 617	11 895	14 416	13 090	12 356
Bulgaria (b)	* 300	* 200	* 800	* 850	* 200
Finland	5 763	4 406	6 455	8 605	6 382
Hungary	7 874	6 305	8 034	7 715	6 481
Norway	35 846	39 084	43 925	47 089	47 021
Poland	35 756	...	20 779	20 561	23 907
Romania (b)	* 5 900	* 7 500	* 4 800	* 12 600	* 4 200
Soviet Union (b)	* 136 400	* 88 300	* 117 500	* 105 000	* 48 900
Sweden	12 837	6 476	11 932	9 929	10 648
Turkey	70	23	21	636	...
Yugoslavia	5 801	8 052	6 751	9 298	9 223
Algeria	4 959	14	1 187	1 049	...
Egypt (a)(c)	2 157	1 398	2 648	990	8 331
Canada	126 594	141 928	166 709	111 726	164 114
Costa Rica (c)	1 814	2 235	2 623	2 229	2 954
Panama (c)	430	1 100	865	712	3 398
USA	500 667	397 580	650 432	552 576	483 208
Chile (b)	...	* 3 000	* 3 000	* 3 000	* 3 000
Venezuela	200	155	329	649	302
Hong Kong (c)	14 440	16 267	21 842	23 989	37 396
India	5 024	...	...	...	...
Japan	413 535	435 383	513 284	570 656	527 236
Jordan (a)(c)	405	903	2 551	640	928
Korea, Republic of	18 352	19 200	29 947	46 093	28 598
Malaysia (a)(c)	8 989	10 911	12 105	20 673	...
Philippines (a)(c)	1 855	2 474	2 667	1 633	1 535
Saudi Arabia (a)(c)	965	1 336	1 663	890	275
Syria (a)(c)	200	1 027	4 006	878	...
Taiwan (a)(c)	69 312	99 169	110 482	140 593	158 131
Thailand	681	1 783	703	983	392
Australia	20 331	12 676	25 885	26 192	23 640
New Zealand (a)(c)(d)	1 446	1 119	1 385	1 139	832

(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

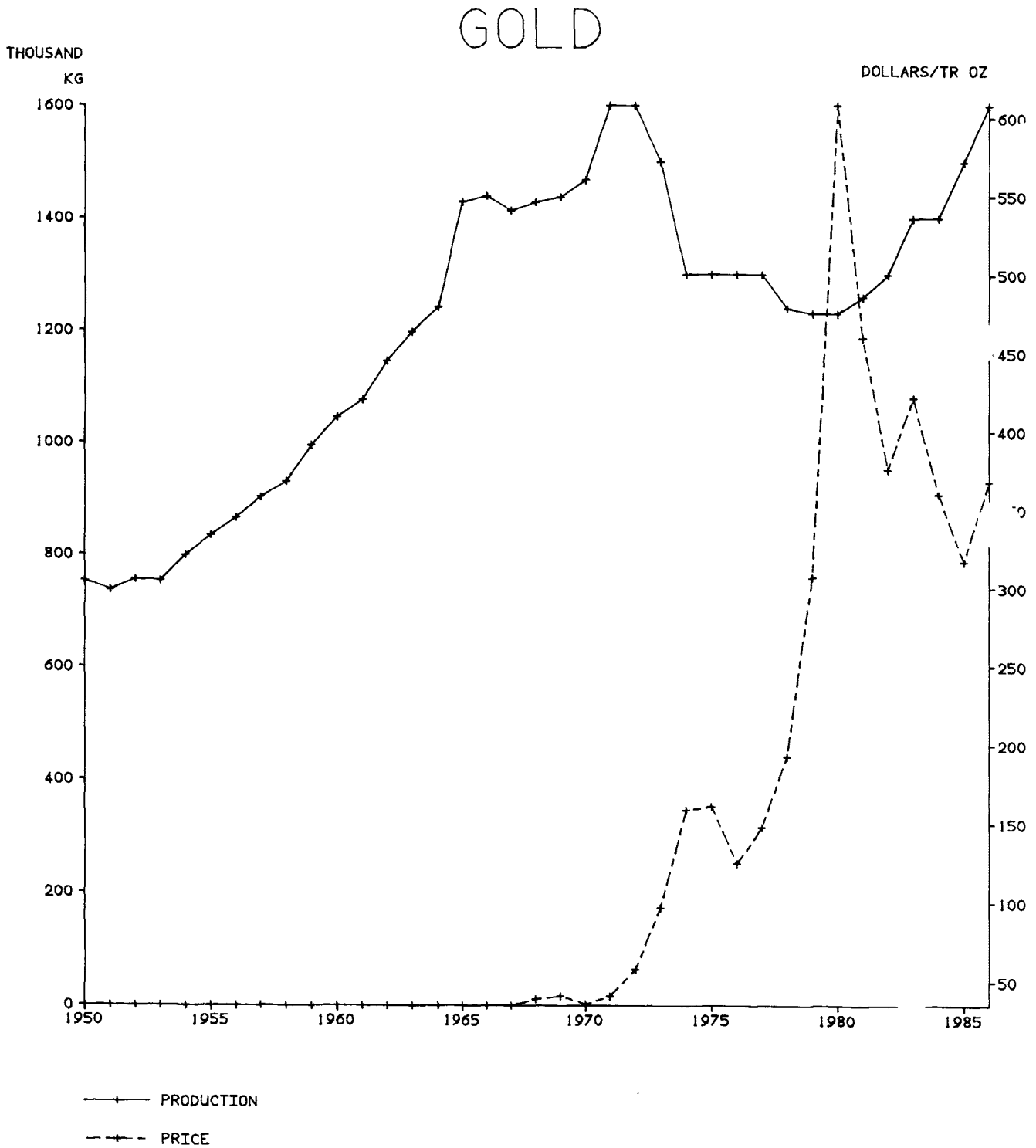


Figure 7 World mine production of gold from 1950 to 1986 compared with the actual price expressed in US dollars per troy ounce (London).
Prices taken from International Financial Statistics Yearbook (1987) published by the International Monetary Fund.

Mine Production of Gold

kilograms (metal content)

Country	1982	1983	1984	1985	1986
France	2 180	2 760	2 498	2 751	2 355
Germany, Federal Republic of	56	* 60	* 50	* 60	* 60
Portugal	211	199	193	229	192
Spain	3 742	5 434	8 097	10 254	...
Finland	756	872	1 046	996	1 172
Hungary	* 1 500	* 1 000	* 600	* 600	* 600
Romania	* 2 000	* 2 000	* 2 000	* 2 000	* 2 000
Soviet Union	* 266 000	* 268 000	* 269 000	* 270 000	* 275 000
Sweden	2 447	3 369	4 408	4 710	4 228
Yugoslavia (d)	3 592	4 238	3 892	4 460	4 498
Botswana	15	11	18	13	25
Burundi	* 3	11	35	25	...
Cameroon	4	8	* 8	* 8	8
Central African Republic	47	95	236	249	212
Congo	3	8	3	13	9
Ethiopia (b)	492	* 450	* 500	* 500	* 500
Gabon	* 20	* 20	41	31	63
Ghana	10 280	8 601	8 923	9 311	8 930
Kenya	1	3	14	11	11
Liberia (a)	381	449	328	147	610
Madagascar	3	3	2	0	* 3
Mali	* 400	* 400	500	* 500	* 500
Rwanda	15	39	8	8	6
Sierra Leone	271	* 370	* 570	* 590	* 370
South Africa	664 420	679 665	681 930	672 944	640 026
Sudan	* 12	40	30	52	53
Tanzania	7	24	39	55	85
Uganda	215	...	2	...	...
Zaire	1 869	6 001	3 644	3 171	2 752
Zambia (c)	418	316	379	246	58
Zimbabwe	13 367	14 101	14 877	14 691	14 853
Canada	64 735	73 512	83 446	87 562	104 655
Costa Rica (e)	985	775	595	* 1 000	* 1 000
Dominican Republic	12 016	11 012	10 522	10 219	8 879
El Salvador	103	20	9	* 10	* 10
Honduras	53	67	87	* 90	* 30
Mexico	6 104	6 930	7 058	7 524	7 767
Nicaragua	1 692	1 444	* 1 100	762	746
USA	45 589	62 287	64 840	76 996	116 118
Argentina	632	727	688	882	800
Bolivia	1 249	1 531	1 270	561	768
Brazil	25 517	53 684	37 218	29 673	24 124
Chile	16 907	17 759	16 829	17 240	17 947
Colombia	14 702	13 642	22 727	35 533	39 788
Ecuador	1 207	1 200	1 800	2 400	9 870
French Guiana	163	250	315	407	* 400
Guyana	269	143	328	321	436
Peru	4 306	4 815	5 100	6 430	8 846
Venezuela	902	1 033	1 741	2 214	2 576
China	* 56 000	* 57 000	* 59 000	* 65 000	* 68 000
India	2 244	2 156	1 988	1 850	1 931
Indonesia	2 144	2 262	2 279	2 508	3 301
Japan	3 267	3 139	3 218	5 903	10 327
Korea, Dem. P.R. of	* 5 000	* 5 000	* 5 000	* 5 000	* 5 000
Korea, Republic of	1 734	2 242	2 462	2 403	4 648
Malaysia	2 812	2 628	2 788	2 768	2 749
Philippines	25 954	25 397	25 727	33 063	35 430
Taiwan	2 232	1 629	1 176	953	910

Gold

Mine Production of Gold

kilograms (metal content)

Country	1982	1983	1984	1985	1986
Australia	26 961	30 591	40 309	58 521	75 079
Fiji	1 423	1 246	1 676	1 888	2 856
New Zealand	242	301	672	886	1 265
Papua New Guinea	17 775	18 320	18 573	31 025	36 733
Solomon Islands	41	* 35	80	29	27
World total	1 300 000	1 400 000	1 400 000	1 500 000	1 600 000

Notes:

1 In several countries, for example Brazil, Colombia and Indonesia, a certain amount of gold produced in very small operations is not recorded in the official statistics used in compiling this table; in the case of Brazil this amount is thought to be substantial

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

(a) Exports

(b) Years ended 6 July of that stated

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

(d) Metal production

(e) Central Bank purchases

Exports of Gold

Country	1982	1983	1984	1985	1986
United Kingdom					
Metal—					
Refined	589 437	721 618	523 297	425 395	474 642
Other	5 858	3 319	4 631	4 990	6 239
Waste & scrap	12 493	940	30 962	25 392	2 954
Belgium-Luxembourg					
Metal	50 979	24 400	22 967	28 003	18 761
Waste & scrap	£2 233 000	£17 656 000	£6 481 000	£3 001 000	£3 378 000
Denmark					
Waste & scrap	9 779	10 014	12 204	11 072	8 031
of which: Re-exports	1 045	3 018	4 964	3 825	...
France					
Metal	24 972	11 858	24 135	18 944	23 765
Waste & scrap	8 454	54 702	37 667	125 100	122 100
Germany, Federal Republic of					
Metal	65 669	37 660	48 901	46 541	65 608
Waste & scrap	1 819	17 303	10 818	49 836	15 892
Irish Republic					
Metal	£564 000	£826 000	£936 000	£642 000	£646 000
Waste & scrap	£496 000	£291 000	£459 000	£608 000	£650 000
Italy					
Metal	1 315	1 671	3 063	5 169	2 932
Netherlands					
Metal	27 807	4 840	3 059	1 935	1 331
Waste & scrap	61 000	75 000	42 000	20 000	35 000
Spain					
Metal	1 185	40 001	3 876	...	3 798
Austria					
Metal	559	625	435	510	542
Finland					
Metal	419	659	809	757	892
Norway					
Metal	392	412	433	273	318
Waste & scrap	812	1 429	316	318	155
Soviet Union					
Metal (c)	* 58 800	* 26 000	* 21 000	* 28 800	* 64 400
Sweden					
Metal	3 000	3 000	4 000	5 000	7 000
Waste & scrap	7 000	9 000	7 000	13 000	24 000
Switzerland					
Metal	799 867	557 808	889 793	929 893	921 911
Ghana					
Metal	10 266	862	8 880	...	...
Liberia					
Metal	381	449	328	147	610
Sierra Leone					
Metal	311	64	642	572	370
South Africa					
Metal (a)	£4 645 000 000	£6 045 000 000	£6 037 000 000	£5 399 000 000	£5 210 000 000
Zaire					
Metal	2 100	5 200	2 498	1 085	...
Zimbabwe					
Metal	14 280	13 281	10 843	12 115	...
Canada					
Ores & concentrates (b)	5 114	6 146	5 815	5 969	7 188
Metal	88 404	78 783	124 483	112 697	165 834
Dominican Republic					
Metal (d)	82 255	52 322	48 079	59 387	51 064
Nicaragua					
Metal	1 392	1 222	...	...	...
USA					
Ore (b)	96	404	103	76	221
Metal—					
Unrefined	5 634	2 177	2 255	2 984	14 898
Refined	68 764	61 148	111 418	92 662	359 817
Other	2 163	2 051	2 212	37 062	2 374
Waste & scrap	36 971	37 266	44 289	31 566	30 657

Gold

Exports of Gold

kilograms

Country	1982	1983	1984	1985	1986
Chile					
Metal	6 824	5 863	7 516	8 552	8 205
Colombia					
Ore	80 000	141 698	199 000	174 200	...
Peru					
Metal	4 888	5 189	5 469	5 465	...
Hong Kong					
Metal (Re-exports)	25 783	35 671	1 499	2 117	47 959
Waste & scrap (Re-exports)	—	508	675	1 304	5 068
Japan					
Metal	17 999	8 128	6 341	4 463	5 827
Jordan					
Metal (Re-exports)	1 132	1 333	3	939	1 809
Korea, Dem. P.R. of					
Metal (c)	* 8 500	* 7 300	* 10 800	* 7 300	* 4 800
Philippines					
Ores & concentrates (b)	14 706	11 413	9 190	10 338	12 273
Singapore					
Metal	—	—	3 459	1 981	4 129
Waste & scrap	—	—	919	759	1 280
Taiwan					
Waste & scrap	—	—	17 860	21 446	19 462
Australia					
Ores, concentrates & unrefined metal (b)	3 283	2 872	1 156	1 921	2 796
Refined metal	9 794	17 743	30 461	47 958	55 939
Fiji					
Metal	1 426	1 237	1 650	1 863	...
Papua New Guinea					
Metal	17 775	18 320	18 573	31 025	36 733

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

(a) Values shown are for the common customs area

(b) Au content

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

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

Imports of Gold

Country	1982	1983	1984	1985	1986
United Kingdom					
Ores & concentrates	30 945	334	11 544	852	1 930
Metal—					
Unrefined	6 400	18 323	3 450	4 786	9 654
Refined	527 311	509 162	436 670	347 880	480 352
Other	8 609	6 193	8 455	19 228	28 075
Waste & scrap	156 360	108 517	175 111	162 774	161 604
Belgium-Luxembourg					
Metal	263 610	240 784	61 809	65 353	53 012
Waste & scrap	£1 132 000	£1 065 000	£1 694 000	£1 903 000	£1 805 000
Denmark					
Metal	602	687	763	824	1 120
Waste & scrap	100	45	439	634	593
France					
Metal	32 290	56 211	92 973	48 870	50 383
Waste & scrap	4 584	2 269	1 242	1 400	26 800
Germany, Federal Republic of					
Metal	120 639	61 113	73 145	83 125	100 310
Waste & scrap	126 366	176 898	97 997	176 469	187 094
Greece					
Metal	915	1 992	1 530	2 572	2 643
Irish Republic					
Metal	£2 059 000	£3 582 000	£2 697 000	£4 138 000	£4 128 000
Italy					
Metal	201 966	151 015	202 487	231 954	217 255
Netherlands					
Metal	28 018	6 947	4 711	5 869	5 040
Waste & scrap	2 000	2 000	3 000	6 000	10 000
Portugal					
Metal	1 462	105	188	228	649
Spain					
Metal	2 269	1 212	248	...	3 634
Waste & scrap	145 000	33 400	35 603	...	3 000
Austria					
Metal	3 623	4 419	3 275	3 345	4 522
Finland					
Metal	1 048	1 019	910	892	756
Malta					
Metal	495	162	1 913	1 263	2 355
Norway					
Metal	854	621	582	632	753
Waste & scrap	16	547	2	15	61
Sweden					
Metal	£4 576 000	£5 382 000	£3 771 000	£4 639 000	£8 363 000
Waste & scrap	£190 000	£282 000	£231 000	£202 000	£295 000
Switzerland					
Metal	1 017 543	753 593	766 297	883 081	1 195 002
Algeria					
Metal	3 681	4 520	2 254	2 751	...
South Africa					
Metal	108	267	3 410	420	...
Waste & scrap	86	11	1 685	—	...
Tunisia					
Metal	882	...	449	387	290
Bermuda					
Metal	432	780	...	1 704	...
Canada					
Ores & concentrates (c)	445	951	553	475	712
Metal	51 656	65 467	67 873	95 872	115 134
USA					
Ore (c)	10 579	8 819	7 446	2 489	2 288
Metal—					
Unrefined (a)	15 027	23 582	52 033	56 969	59 731
Refined	131 809	111 950	195 827	197 853	429 252

Gold

Imports of Gold

kilograms

Country	1982	1983	1984	1985	1986
Brazil					
Metal	606	1 109	55	78	43
Ecuador					
Metal	2 138	377	10	...	...
Venezuela					
Metal	237	...	17	27	1
Brunei					
Metal	342	84	113	...	...
Cyprus					
Metal	704	843	1 102	1 307	1 480
Hong Kong					
Metal	122 370	30 173	165 427	162 627	51 259
Indonesia					
Metal	29 650	450	1 500	340	20
Iran (d)					
Metal	...	296	2	...	...
Israel					
Metal	£58 833 500	£57 694 000	£94 371 000	£104 853 000	£104 863 000
Japan					
Metal	139 778	104 418	191 984	196 815	607 830
Waste & scrap	1 071	5 449	1 329	1 011	1 666
Jordan					
Metal	2 357	1 074	25 168	13 664	3 647
Korea, Republic of					
Metal	1 221	1 786	1 954	11 545	5 895
Macao					
Metal	—	247	876	2 600	17
Malaysia					
Metal	3 042	2 779	7 366	7 721	...
Philippines					
Metal	33	71	309	267	298
Saudi Arabia					
Metal	15 055	22 960	18 675	18 140	3 458
Singapore					
Metal	—	—	4 433	3 295	3 878
Taiwan					
Metal	36 667	33 844	52 165	34 496	27 565
Thailand					
Metal	13 228	4 535	2 379	4 360	4 063
Australia					
Metal	2 231	3 161	3 527	7 972	7 263
New Zealand (b)					
Metal	358	553	1 062	1 745	549

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

(a) Including waste and scrap

(b) Years ended 30 June of that stated

(c) Au content

(d) Years ended 20 March following that stated

Production of Graphite

tonnes

Country	1982	1983	1984	1985	1986
Germany, Federal Republic of (b)	10 600	12 000	12 400	12 800	13 200
Italy	3 209	2 299	—	—	—
Austria (a)	24 451	40 418	43 789	30 764	36 167
Czechoslovakia	21 977	26 666	* 27 000	* 35 000	25 254
Norway	7 451	8 063	10 067	2 684	—
Romania	* 12 500	* 12 600	* 12 400	* 12 000	* 12 000
Soviet Union	* 75 000	* 80 000	* 80 000	* 82 000	* 83 000
Turkey	3 360	4 805	...	...	3 586
Madagascar	15 211	13 496	14 155	14 700	16 188
Zimbabwe	8 225	19 862	12 334	10 450	15 004
Mexico	36 174	44 327	41 529	35 378	37 300
Brazil (d)	21 544	27 636	32 680	43 664	* 45 000
Burma (c)	244	272	234	* 200	* 200
China	* 185 000	* 185 000	* 185 000	* 185 000	* 185 000
India	61 803	42 778	39 106	33 586	38 412
Korea, Dem. P.R. of	* 25 000	* 25 000	* 25 000	* 25 000	* 25 000
Korea, Republic of	26 965	33 266	58 563	71 479	97 218
Sri Lanka	8 804	5 768	5 768	7 472	* 7 000
Thailand	630	86	—	—	—
World total	548 000	584 000	605 000	607 000	640 000

Notes:

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

(a) Crude

(b) Including production from imported crude graphite

(c) Years ended 31 March following that stated

(d) Includes beneficiated and directly shipped material

Exports of Graphite

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	2 956	3 123	3 862	2 563	3 739
Belgium-Luxembourg	31	2 746	3 254	74	62
France	791	891	555	807	496
Germany, Federal Republic of	10 030	9 978	12 210	11 522	9 844
Italy	1 823	2 787	5 481	445	244
Netherlands	596	152	253	89	87
Austria	13 384	11 405	11 552	11 826	10 284
Czechoslovakia (a)	* 2 000	* 3 000	* 2 800	* 3 100	* 2 800
Norway	8 244	7 311	8 888	6 161	954
Soviet Union (a)	* 400	* 600	...	...	...
Sweden	135	13	117	128	5
Madagascar	14 875	11 685	14 527	16 125	13 595
Zimbabwe	...	9 720	11 989	15 440	14 700
Mexico	28 428	19 420	21 323	19 298	...
USA	9 528	8 729	6 667	9 240	13 089
Brazil	5 395	5 578	5 082	8 725	9 890
China (a)	* 59 000	* 55 200	* 78 800	* 71 800	* 80 100
Hong Kong (Re-exports)	188	53	856	508	3 036
India (b)	2 069	1 187	1 871	...	...
Japan	2 084	2 515	2 927	2 553	2 666
Korea, Dem. P.R. of (a)	* 7 000	* 2 200	* 11 000	* 5 800	* 4 600
Korea, Republic of	21 757	32 694	39 864	48 353	30 969
Sri Lanka	2 903	4 223	7 215	9 170	9 824
Taiwan	352	100	237	188	204

Note: This table excludes synthetic graphite

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

(b) Years ended 31 March following that stated

Imports of Graphite

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	17 862	28 352	19 540	23 460	23 101
Belgium-Luxembourg	811	963	992	827	951
Denmark	1 254	1 225	1 414	1 316	1 388
France	4 677	3 662	4 578	5 276	5 571
Germany, Federal Republic of	32 432	28 869	31 983	33 998	37 793
Greece	252	333	272	765	791
Italy	5 137	4 104	6 280	5 955	6 867
Netherlands	863	564	954	636	1 204
Portugal	248	146	95	123	148
Spain	2 446	1 905	2 004	2 519	3 994
Austria	2 653	3 738	7 134	3 280	4 966
Bulgaria (d)	* 500	* 400	* 2 000	* 2 000	* 1 400
Czechoslovakia (d)	* 500	* 500	* 300	* 300	* 400
Finland	480	263	37	84	82
German Democratic Republic	7 945	6 359	5 712	6 634	5 289
Hungary	1 481	1 722	1 549	993	1 302
Norway	693	496	573	495	441
Poland	6 775	6 688	7 445	6 082	3 929
Sweden	534	401	675	743	570
Switzerland	167	112	141	108	237
Turkey	326	334	474	555	440
Yugoslavia	1 854	2 996	2 220	2 267	2 234
Algeria	136	263	481	632	...
Egypt	479	227	921	518	165
Mauritius	609	1 046	390	1 030	714
South Africa	1 630	2 129	4 122	3 834	2 751
Mexico	363	196	14	46	...
USA	48 217	39 540	52 840	47 842	38 817
Argentina	241	312	301	183	...
Venezuela	737	594	701	927	681
Hong Kong	549	494	1 545	1 499	3 685
India (c)	130	...	...	...	...
Indonesia	231	161	98	150	968
Iran (a)	421	611	526	...	...
Japan	53 138	54 195	85 009	78 857	58 645
Korea, Republic of	414	443	1 260	1 084	3 180
Malaysia	531	834	1 183	908	...
Pakistan (b)	986	1 418	1 777	1 566	845
Philippines	206	141	199	73	122
Singapore	583	455	1 125	427	407
Taiwan	7 942	10 957	6 574	8 428	8 513
Thailand	369	733	532	722	827
Australia	1 429	795	979	1 199	1 460
New Zealand (b)	79	67	113	36	108

Note: 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

Production of Gypsum

Country	1982	1983	1984	1985	1986
United Kingdom					
Gypsum	2 674 000	2 916 000	3 082 000	3 130 000	3 363 000
Anhydrite	67 261	51 000	56 000	59 000	53 000
Belgium (a)(d)	131 030	...	...	...	...
France					
Gypsum	6 102 000	5 557 000	5 820 000	5 286 000	5 259 000
Anhydrite	...	834 500	909 681	935 075	...
Germany, Federal Republic of					
Gypsum	1 102 500	1 919 500	1 756 700	1 396 400	1 482 600
Anhydrite	595 000	620 000	560 000	607 000	505 000
Greece	685 883	645 431	582 741	* 640 000	* 650 000
Irish Republic	371 000	352 400	325 000	304 100	288 700
Italy	1 331 982	1 388 187	1 003 677	1 260 893	* 1 400 000
Luxembourg	* 900	* 400	* 400	* 400	* 400
Portugal	237 364	249 092	227 708	241 893	* 230 000
Spain	5 048 649	5 620 395	5 365 795	5 524 511	* 5 500 000
Austria					
Gypsum	585 988	611 224	600 094	569 671	586 432
Anhydrite	141 532	139 697	140 023	124 322	115 317
Bulgaria	375 575	385 000	393 000	388 000	* 390 000
Czechoslovakia (a)	794 000	848 000	842 000	771 600	743 100
German Democratic Republic (d)	309 682	296 932	302 300	311 700	304 500
Poland (d)	224 000	217 000	250 000	235 900	264 000
Romania	* 1 630 000	* 1 630 000	* 1 814 000	* 1 542 000	* 1 600 000
Soviet Union	* 4 900 000	* 4 900 000	* 4 900 000	* 4 900 000	* 5 000 000
Switzerland	* 90 000	* 180 000	* 220 000	* 220 000	* 200 000
Turkey	70 227	75 572	53 080	78 058	128 051
Yugoslavia	640 000	623 000	607 000	600 000	595 000
Algeria	* 200 000	* 250 000	* 250 000	* 250 000	* 270 000
Angola	* 20 000	* 20 000	* 20 000	* 20 000	* 20 000
Egypt (f)	845 000	721 000	810 000	841 000	906 000
Ethiopia	* 4 000	* 4 000	* 4 200	* 4 500	* 4 500
Kenya	300	1 350	320	74 078	11 060
Libya	175 000	180 000	* 180 000	* 180 000	* 180 000
Mauritania	—	—	800	5 470	* 5 400
South Africa	534 991	518 353	535 286	458 399	404 205
Sudan	6 000	8 000	8 200	6 350	50 000
Tanzania	16 000	6 800	7 600	14 411	14 144
Tunisia	24 700	* 50 000	* 55 000	* 60 000	* 65 000
Canada (a)	6 160 982	7 644 442	8 380 079	8 704 386	8 900 000
Cuba	* 127 000	* 130 000	* 130 000	* 130 000	* 130 000
Dominican Republic	278 304	146 723	* 200 000	329 000	* 350 000
Guatemala	20 940	21 623	10 998	17 137	28 322
Honduras	* 20 000	* 22 000	* 22 000	* 22 000	* 22 000
Jamaica	107 500	108 000	180 200	179 000	117 000
Mexico	2 042 484	2 958 085	2 945 222	2 366 019	* 3 000 000
Nicaragua	20 290	11 350	* 10 000	8 310	* 8 200
USA	9 560 000	11 688 000	12 990 000	13 359 000	* 14 700 000
Argentina	615 540	578 188	566 943	580 875	* 600 000
Brazil (e)	612 096	428 099	420 978	529 613	* 570 000
Chile	89 636	66 337	167 477	195 911	192 847
Colombia	280 600	238 071	260 408	250 038	295 042
Ecuador	2 000	* 3 000	* 3 000	* 3 000	* 3 000
Paraguay	6 500	4 000	6 000	2 500	* 2 500
Peru	* 350 000	* 350 000	* 350 000	* 350 000	* 350 000
Uruguay	122 284	151 832	74 091	* 100 000	* 100 000
Venezuela	297 313	206 469	142 386	188 754	250 226

Gypsum

Production of Gypsum

tonnes

Country	1982	1983	1984	1985	1986
Afghanistan	3 000	* 3 000	* 3 000	* 3 000	* 3 000
Burma (b)	18 115	21 507	39 200	39 000	39 000
China	* 3 500 000	* 4 300 000	* 4 800 000	* 5 700 000	* 6 500 000
Cyprus	28 900	32 000	22 100	16 100	19 200
India	965 572	988 025	1 257 756	1 289 307	1 591 137
Iran (c)	* 5 000 000	* 5 500 000	* 5 000 000	* 5 000 000	* 5 000 000
Iraq	* 170 000	* 170 000	* 300 000	* 300 000	* 300 000
Israel	42 000	42 000	46 000	* 45 000	* 45 000
Jordan	39 959	41 188	111 524	91 965	70 083
Laos	60 000	70 000	82 000	* 110 000	* 100 000
Lebanon	* 5 000	* 5 000	* 5 000	* 3 000	* 3 000
Mongolia	* 32 000	* 32 000	* 32 000	* 32 000	* 32 000
Pakistan (a)	329 055	310 578	368 554	409 550	373 000
Saudi Arabia	92 908	143 524	152 869	155 482	140 736
Syria	70 000	78 750	79 580	106 250	* 110 000
Taiwan	2 045	3 022	1 882	2 199	2 247
Thailand	753 433	760 361	1 110 660	1 273 459	1 665 557
Vietnam	* 25 000	* 25 000	* 25 000	* 25 000	* 25 000
Yemen Arab Republic	21 923	23 138	24 295	* 24 000	* 24 000
Australia	1 863 719	1 509 800	1 931 205	1 744 470	1 671 001
World total	63 700 000	70 800 000	74 100 000	74 900 000	79 000 000

(a) Including anhydrite

(b) Years ended 31 March following that stated

(c) Years ended 20 March following that stated

(d) Calcined

(e) Includes beneficiated and directly shipped material

(f) Years ended 30 June of that stated

Exports of Gypsum

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Crude	3 250	4 018	2 721	4 295	2 569
Calcined	13 273	17 693	13 927	12 060	14 852
Belgium-Luxembourg					
Crude	56 227	69 301	51 816	40 453	17 077
Calcined	57 916	67 627	58 291	76 460	77 128
Denmark					
Crude & calcined	371	690	1 855	2 001	3 134
France					
Crude	874 307	785 054	918 172	1 061 618	1 083 869
Calcined	271 717	262 936	270 505	232 431	225 554
Germany, Federal Republic of					
Crude	165 578	167 261	131 915	120 921	115 991
Calcined	161 833	142 545	133 486	153 666	163 929
Greece	15 150	38 951	392	61	19
Irish Republic					
Crude	27 143	2 192	831	1 439	1 387
Calcined	27 101	38 983	50 708	61 184	54 809
Italy					
Crude	174	897	3 133	4 054	7 378
Calcined	11 094	11 269	11 174	12 718	6 425
Netherlands					
Crude	970	26 932	24 520	36 231	35 874
Calcined	1 786	1 877	2 371	5 922	17 788
Spain					
Crude & calcined	1 119 802	1 935 217	2 274 742	2 192 572	2 486 198
Austria					
Crude	72 970	105 715	99 577	84 167	64 024
Calcined	93 552	84 748	92 227	57 293	55 271
German Democratic Republic					
Calcined	101 758	84 863	88 663	105 498	97 812
Norway					
Crude	2 537	—	2 341	—	—
Poland	* 100	* 38 000	66 163	50 596	(a)* 4 000
Romania					
Calcined (a)	* 20 000	* 15 100	* 16 900	* 18 500	* 12 300
Soviet Union (a)	* 24 300	* 23 400	* 19 800	* 23 400	* 13 700
Sweden					
Crude & calcined	809	789	496	377	409
Switzerland					
Crude & calcined	13 992	14 027	13 847	11 970	15 143
Turkey					
Crude & calcined	254	2 649	854	3 657	5 536
Yugoslavia	124	119	2 269	8 826	10 556
Kenya	1	1 839	702	812	1 623
Morocco					
Crude	221 792	106 020	124 750	140 350	...
Calcined	2 932	3 378	2 356	4 506	...
South Africa	2 769	3 003	2 184	1 599	663
Canada					
Crude	4 775 755	5 187 032	6 229 110	5 880 430	5 906 184
Dominican Republic	65 345	52 754	4 097	13 243	* 25 000
Guatemala	13 275	10 792	13 281	9 091	...
Jamaica	87 634	57 730	170 553	160 548	100 143
Mexico	1 329 917	3 656 886	3 911 840	1 942 256	...
Nicaragua	2 100	1 314	...	...	...
USA					
Crude	5 123	4 237	5 284	4 085	13 155
Calcined	106 626	101 976	113 491	70 835	127 758
Argentina	2 682	3 759	5 012	8 676	...
Bolivia	756	...	...	...	...
Colombia	463	200	76	60	...
Venezuela	8 633	...	17 918	8 750	—

Gypsum

Exports of Gypsum

tonnes

Country	1982	1983	1984	1985	1986
China (a)	* 9 800	* 12 600	* 10 100	* 12 200	* 19 200
Cyprus					
Crude	—	—	2 045	4 449	10 659
Calcined	7 629	4 932	4 883	1 342	1 565
Dubai					
Crude & calcined	1 862	2 226	1 176	...	...
Hong Kong (Re-exports)	2 185	6 738	1 677	7 307	4 709
India (b)	21 093	519	18 565	...	...
Japan					
Crude	2 636	4 483	4 137	689	694
Calcined	6 537	5 556	5 521	5 453	4 143
Korea, Republic of					
Crude	3 368	85	96	34	34
Calcined	351 928	59 074	24 130	19 000	35
Saudi Arabia					
Crude & calcined	38 361	39 976	29 517	16 085	14 414
Singapore					
Crude & calcined	1 483	1 784	2 316	2 666	2 739
of which: Re-exports	1 417	1 649	2 076	2 563	2 543
Syria	22 090	30 565	181	11 563	...
Taiwan	350	734	228	553	726
Thailand					
Crude	370 695	484 755	771 194	892 243	1 226 606
Calcined	6 454	6 372	8 514	14 025	90 766
Australia					
Crude & calcined	606 891	803 144	732 221	520 761	428 584

Note: 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

Imports of Gypsum

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Crude	26 492	37 357	30 566	52 042	34 148
Calcined	51 623	48 225	56 521	57 213	52 023
Belgium-Luxembourg					
Crude	209 920	203 107	267 177	265 187	345 419
Calcined	161 263	161 155	153 351	136 607	162 542
Denmark					
Crude	165 100	196 319	206 835	150 825	199 781
Calcined	53 890	77 382	11 912	8 000	8 979
France					
Crude	24 916	24 812	17 626	27 817	60 572
Calcined	8 382	8 534	8 195	11 401	30 176
Germany, Federal Republic of					
Crude	596 588	623 347	686 562	775 736	760 252
Calcined	116 301	135 146	136 688	101 124	94 389
Greece					
Crude	109	73	98	111	125
Calcined	878	739	698	803	1 297
Irish Republic					
Crude	1 526	1 488	1 454	1 487	3 832
Calcined	3 948	3 424	3 653	3 160	7 124
Italy					
Crude	242	132	187	254	777
Calcined	14 682	11 463	9 283	13 189	14 692
Netherlands					
Crude	213 734	279 596	280 379	269 597	251 780
Calcined	114 643	93 586	137 184	156 792	202 425
Portugal					
Crude	38 995	33 280	36 478	38 022	47 618
Calcined	728	771	945	1 241	1 544
Spain					
Crude & calcined	1 279	753	879	19 055	1 453
Austria					
Crude	3 134	2 499	5 344	6 117	6 471
Calcined	6 493	6 418	5 908	5 709	6 279
Czechoslovakia	21 000	21 000	24 000	26 000	23 000
Finland					
Crude	130 437	173 302	175 509	166 283	183 044
Calcined	3 753	2 960	2 820	2 748	2 729
Hungary					
Calcined	89 583	79 940	87 973	82 133	77 830
Iceland	3 747	8 183	5 174	7 124	4 538
Norway					
Crude	130 707	128 265	172 412	146 742	146 727
Calcined	14 755	14 445	6 798	56 812	64 591
Sweden					
Crude	299 097	251 654	293 204	286 282	284 810
Calcined	4 960	5 478	5 820	6 163	6 891
Switzerland					
Crude	32 013	32 989	30 580	31 898	30 456
Ground & calcined	34 229	34 535	35 825	38 198	38 751
Algeria					
Crude & calcined	168	110	3	181	...
Egypt	1 354	622	...	...	...
Gabon					
Crude & calcined	6 998	8 668	564	1 466	808
Ghana	6 426	2 138	...	...	...
Ivory Coast					
Crude	53 151	35 902	27 664	26 888	...
Calcined	3 745	4 071	2 568	4 014	...
Kenya	15 745	25 997	15 698	1 832	2 140
Libya					
Crude & calcined	368	...	...	5 234	...

Gypsum

Imports of Gypsum

tonnes

Country	1982	1983	1984	1985	1986
Mauritius					
Crude & calcined	1 267	540	—	—	—
Melilla	598	496	282	...	...
Mozambique					
Crude & calcined	4 585	20 040	72	0	12
Reunion					
Crude & calcined	6 728	12 018	6 786	7 730	...
Senegal					
Crude	15 219	18 910	23 592	22 264	14 210
Calcined	216	86	314	611	500
South Africa					
Crude & calcined	7 026	9 523	8 609	7 331	6 407
Tunisia					
Crude & calcined	381	300	680	848	520
Zaire					
Crude & calcined	5 460	9 557	463	...	...
Zimbabwe	2 293	1 619	2 293	1 796	...
Bahamas	2 687	1 389	699	2 230	930
Canada					
Crude	93 843	100 939	131 809	121 803	221 647
Calcined	18 925	24 728	21 427	24 632	21 307
Costa Rica					
Crude	6 859	9 464	17 761	23 622	) 20 574
Calcined	769	571	930	1 064	
El Salvador					
Crude	15 039	10 443	12 658	...	...
Calcined	242	152	321	...	...
Guadeloupe	4 518	17 133	...	9 967	10 690
Martinique	9 903	6 787	...	8 257	9 749
Mexico					
Crude	13 772	1 731	7 338	6 300	...
Calcined	8 631	4 165	5 492	5 070	...
Panama	9 530	18 172	15 961	9 011	9 756
Trinidad & Tobago					
Crude & calcined	6 084	6 640	2 048	3 407	...
USA					
Crude	6 094 265	7 285 451	8 078 000	9 001 399	8 671 930
Ground & calcined	2 234	4 297	10 000	1 961	22 011
Brazil	801	1	1	1	...
Colombia	63 860	40 522	26 544	62 047	...
Ecuador	133 204	10 282	54 139	15 287	15 858
Uruguay					
Crude & ground	2 074	699	874	1 340	960
Venezuela	78 704	35 140	25 565	90 702	76 289
Abu Dhabi	1 916	555	963	1 380	1 212
Bahrain	12 967	18 477	2 429	13 186	...
Hong Kong	104 289	77 842	89 364	103 210	110 865
Indonesia	294 349	356 155	384 301	304 939	197 521
Israel (a)	* 1 100	* 1 200	* 1 000	* 1 100	* 1 600
Japan					
Crude	222 286	201 326	255 426	304 834	775 279
Calcined	524	825	827	860	1 070
Jordan	2 178	3 182	2 383	2 015	1 248
Korea, Republic of	17 337	218 722	222 204	151 864	227 812
Kuwait	85 634	54 921	33 214	...	...
Macao	—	12 032	6 685	14 584	19 060
Malaysia					
Crude & calcined	125 499	137 754	170 782	185 990	...
Oman	291	6 422	10 788	20 992	33 206
Philippines					
Crude	60 075	74 739	68 289	127 351	145 977
Calcined	3 890	4 749	3 577	3 276	5 007
Saudi Arabia	59 140	96 788	111 172	107 639	66 335

Imports of Gypsum

tonnes

Country	1982	1983	1984	1985	1986
Singapore					
Crude & calcined	117 305	149 291	141 613	97 845	56 130
Sri Lanka	2 623	14 998	7 037	15 108	12 446
Taiwan					
Crude	123 611	180 328	260 406	333 373	322 403
Calcined	189 282	168 896	72 290	78 465	78 715
Thailand					
Crude & calcined	1 830	662	570	655	933
Australia	1 136	1 555	1 146	1 246	2 343
Fiji	3 566	3 056	5 040	40	...
New Caledonia					
Crude & calcined	—	830	1 839	1 734	4 076
New Zealand (b)					
Crude	135 138	102 488	130 006	140 277	139 083
Calcined	516	470	394	334	309

Note: 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

Production of Iodine

kilograms

Country	1982	1983	1984	1985	1986
Soviet Union	* 2 000 000	* 2 000 000	* 2 000 000	* 2 000 000	* 2 000 000
USA	* 800 000	* 900 000	* 800 000	* 800 000	* 700 000
Chile	2 596 000	2 792 500	2 661 000	3 020 000	3 076 000
China	* 450 000	* 450 000	* 450 000	* 450 000	* 450 000
Indonesia	28 920	25 297	24 970	13 150	5 790
Japan	7 180 000	7 273 000	7 302 000	7 251 000	7 389 000
World total	13 100 000	13 400 000	13 200 000	13 500 000	13 600 000

Exports of Iodine

kilograms

Country	1982	1983	1984	1985	1986
United Kingdom	132 869	96 046	96 738	224 044	197 053
Belgium-Luxembourg	154 700	171 100	123 300	66 400	26 000
Denmark	400	1 600	6 500	33 600	133 600
France	72 000	48 000	52 000	60 900	97 300
Germany, Federal Republic of	44 600	49 500	74 400	63 800	47 100
Italy	237	1 154	3 050	1 800	50 300
Netherlands	15 000	34 000	17 000	14 000	12 000
Portugal	...	100	200	1 200	—
Spain	1 000	200	1 228	...	6 000
Chile	2 186 000	3 265 000	2 856 000	3 016 000	3 042 000
Indonesia	17 900	2 000	28 000	2 000	—
Japan (a)	5 198 774	6 281 747	5 229 939	6 605 257	6 640 532
Taiwan	2 550	1 500	1 700	2 379	1 400

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

Imports of Iodine

Country	1982	1983	1984	1985	1986
United Kingdom	1 470 589	2 043 114	2 069 652	1 329 097	1 546 232
Belgium-Luxembourg	139 900	226 200	194 200	179 500	103 800
Denmark	2 100	2 400	4 400	4 200	6 200
France	1 032 000	1 122 000	880 000	893 800	866 500
Germany, Federal Republic of	1 133 800	1 190 200	961 300	1 879 500	1 703 600
Greece	2 000	1 000	1 000	1 000	2 000
Italy	315 200	213 170	293 957	538 300	557 300
Netherlands	206 000	322 000	367 000	458 000	376 000
Portugal	12 500	20 200	10 800	20 500	16 000
Spain	158 000	168 000	189 021	...	228 000
Hungary	88 800	48 600	35 000	44 500	26 600
Turkey	...	...	5 503	4 006	...
Yugoslavia	51 000	73 000	53 000	85 000	51 000
Algeria	625	1 532	3 358	2 072	...
Morocco	697	359	695	512	...
Tunisia	1 693	...	2 014	2 780	1 443
Canada	111 000	193 000	275 000	426 000	397 000
Dominican Republic	2 299	...	...	...	...
USA	2 144 907	2 840 530	2 298 400	2 441 066	2 576 068
Argentina	24 013	10 251	15 600	...	...
Brazil	201 678	147 002	222 540	260 544	...
Colombia	6 530	5 373	8 247	13 164	...
Ecuador	2 342	2 380	6 508	1 740	2 750
Peru	965	1 077	1 679	800	2 845
Uruguay	400	500	1 100	500	1 200
Venezuela	48 588	...	...	8 631	9 611
India (a)	421 763	...	...	...	...
Indonesia	39 692	54 491	11 486	35 963	13 449
Korea, Republic of	6 632	10 901	15 536	13 464	14 451
Pakistan (b)	1 600	7 741	11 153	16 533	15 358
Taiwan	4 504	11 844	18 739	34 814	22 811
Thailand	1 824	1 569	2 895	2 803	3 022
Australia (b)	17 600	33 446	24 306	19 460	...

(a) Years ended 31 March following that stated

(b) Years ended 30 June of that stated



Figure 8 World production of iron ore from 1950 to 1986 compared from 1954 with the yearly average price of 60% Swedish ore c.i.f. Rotterdam expressed in constant 1980 US dollars.

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

Production of Iron Ore

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	470 100	384 000	379 300	274 400	289 000
France	19 411 000	15 967 000	15 029 000	14 459 000	12 300 000
Germany, Federal Republic of (f)	1 304 000	976 000	977 000	1 034 000	717 000
Italy	195 034	67 700	237 700	...	...
Portugal (f)	27 100	35 500	36 000	73 210	50 612
Spain	8 261 826	7 939 654	7 981 174	6 462 977	6 089 400
Albania (b)	702 000	850 000	1 082 000	1 130 000	* 1 200 000
Austria	3 330 000	3 540 000	3 600 000	3 270 000	3 120 000
Bulgaria	1 552 000	1 803 000	2 063 000	1 985 000	2 179 000
Czechoslovakia	1 861 000	1 903 000	1 869 000	1 859 000	1 784 000
Finland	883 800	865 715	1 099 920	898 810	643 000
German Democratic Republic	41 000	40 000	36 000	—	—
Hungary	467 000	441 000	383 000	311 000	—
Norway	3 545 120	3 545 477	3 837 042	3 496 570	3 659 498
Poland	49 300	10 000	10 900	11 300	8 800
Romania	2 146 000	1 987 000	1 916 000	2 287 000	2 431 000
Soviet Union	244 411 000	245 200 000	247 104 000	248 000 000	250 000 000
Sweden	15 768 000	13 696 000	17 806 000	20 525 000	20 490 000
Turkey	3 055 090	3 629 563	4 049 425	3 994 534	5 297 283
Yugoslavia	5 106 000	5 018 284	5 411 448	5 481 626	6 618 000
Algeria	3 892 000	3 684 000	3 664 000	3 376 000	3 359 000
Egypt	2 209 251	2 065 057	1 887 974	2 121 717	1 998 813
Liberia	18 028 000	15 599 000	14 857 000	14 369 000	14 233 000
Mauritania	7 660 000	7 402 000	9 105 320	9 200 000	9 170 000
Morocco	223 820	173 010	162 967	180 028	195 600
South Africa (c)	24 553 600	16 604 923	24 495 995	24 414 154	24 482 538
Tunisia	274 457	314 000	309 623	309 338	310 000
Zimbabwe	837 316	924 000	925 000	1 098 000	1 115 000
Canada (g)	33 197 561	32 958 678	39 929 907	39 501 601	36 167 000
Mexico	8 154 900	8 039 900	8 317 200	7 819 900	7 700 000
USA	36 002 000	38 165 000	52 092 000	49 533 000	39 614 000
Argentina	586 852	608 557	628 000	630 000	789 543
Brazil (a)	93 159 018	88 715 604	112 057 012	128 174 116	132 000 000
Chile	6 469 670	5 973 672	7 115 792	6 509 986	7 008 975
Colombia	469 850	456 000	443 840	438 746	508 082
Peru	5 774 000	4 358 000	4 076 000	5 104 000	5 200 000
Venezuela	11 680 000	9 297 000	13 055 000	14 754 000	17 396 000
China	* 107 320 000	* 113 660 000	* 121 900 000	* 131 500 000	* 142 480 000
India	41 997 000	38 672 000	41 943 000	44 186 000	48 821 000
Indonesia (d)	144 493	124 903	82 967	130 930	152 271
Iran (e)	750 000	* 850 000	* 850 000	* 850 000	* 850 000
Japan (d)	362 449	295 503	323 375	336 025	292 000
Korea, Dem. P.R. of	* 8 000 000	* 8 000 000	* 8 000 000	* 8 000 000	* 8 000 000
Korea, Republic of	620 100	655 300	625 200	668 100	582 400
Malaysia	340 300	113 700	193 827	181 660	207 963
Philippines	5 573	2 645	—	—	14 978
Thailand	26 750	40 304	60 670	93 800	37 330
Australia	87 693 780	71 037 299	89 046 000	97 447 000	94 015 000
New Zealand	2 791 621	2 203 380	2 417 113	2 536 462	2 601 345
World total	816 000 000	779 000 000	873 000 000	909 000 000	916 000 000

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

- (a) Includes beneficiated and direct shipping ore
- (b) Nickeliferous iron ore
- (c) Including by-product magnetite
- (d) Including iron sand
- (e) Years ended 20 March following that stated
- (f) Including manganiferous iron ore
- (g) Including shipments of by-product iron ore

Exports of Iron Ore

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	685	965	343	5 710	1 008
Belgium-Luxembourg					
Iron ore	401	1 433	302	15 263	1 057
Burnt pyrites	21 597	50 696	50 314	149 816	149 601
Denmark	14 551	11 565	6 647	6 834	4 870
France	5 836 355	5 030 858	4 752 054	4 627 846	4 168 429
Germany, Federal Republic of					
Iron ore	6 424	9 190	3 732	2 576	4 591
Burnt pyrites	51 219	38 932	32 478	16 930	16 581
Greece					
Burnt pyrites	14 300	0	—	...	—
Irish Republic	1 980	23	—	—	—
Italy					
Iron ore	165	87	678	35	2 520
Burnt pyrites	39 271	28 679	45 045	22 873	43 208
Netherlands (b)	148 920	13 850	45 392	55 203	47 741
Portugal					
Burnt pyrites	12 000	—	0	40	—
Spain					
Iron ore	1 868 923	1 579 639	1 973 178	2 128 000	1 790 542
Burnt pyrites	2 712	569	1 126	4 000	4 889
Norway					
Iron ore	2 166 227	2 945 494	3 083 237	2 577 892	2 532 249
Burnt pyrites	168 208	142 899	136 340	107 445	33 109
Soviet Union	42 836 000	42 805 000	45 922 000	43 880 000	46 948 000
Sweden					
Iron ore	12 597 000	14 191 000	17 600 000	18 371 000	17 219 000
Burnt pyrites	57 000	0	0	0	1 000
Switzerland (b)	2 772	41	75	28	29
Yugoslavia					
Burnt pyrites	58 454	61 195	45 740	59 727	29 143
Algeria	1 419 991	1 398 182	974 452	450	48 000
Liberia	16 370 251	15 703 974	16 870 127	12 965 737	14 383 060
Mauritania	7 753 000	7 402 000	9 526 400	9 333 000	8 929 000
Morocco					
Burnt pyrites	237 400	139 637	116 538	161 673	...
Sierra Leone	—	356 000	373 000	* 100 000	—
South Africa	11 355 632	7 811 402	11 869 778	10 226 420	8 850 166
Canada	27 281 255	25 527 958	30 737 477	32 216 269	31 008 244
USA (b)	3 228 955	3 841 931	5 073 164	5 114 168	4 553 414
Bolivia (c)	4 891	7 001	4 192	—	11
Brazil	84 408 515	74 199 952	90 294 409	94 217 889	95 500 000
Chile	5 767 067	4 594 000	5 230 000	4 824 000	4 650 488
Peru	5 596 000	4 182 000	4 091 000	5 242 000	4 212 000
Venezuela	6 616 000	6 245 000	8 456 000	9 032 000	10 027 000
India (d)	21 737 727	22 070 543	25 525 972	28 840 000	32 225 000
Malaysia	25 445	31 075	16 636	13 134	34 797
Philippines					
Iron ore	3 751 608	3 284 801	4 050 631	4 034 354	3 603 981
Burnt pyrites	18 423	15 408	13 709	11 751	7 917
Australia	72 711 000	74 039 000	85 480 000	86 914 000	79 678 000
New Zealand (a)	2 705 667	2 355 001	2 067 668	2 227 140	2 408 027

(a) Years ended 30 June of that stated

(b) Including burnt pyrites

(c) Fe content of concentrates

(d) Years ended 31 March following that stated.

Imports of Iron Ore

Country	1982	1983	1984	1985	1986
United Kingdom					
Iron ore	10 572 403	13 164 214	14 138 152	15 404 459	14 557 723
Burnt pyrites	210 265	230 660	295 647	250 183	249 267
Belgium-Luxembourg					
Iron ore	18 613 043	17 519 395	19 701 313	18 996 516	18 056 269
Burnt pyrites	59 996	38 721	55 160	1 574 252	52 264
Denmark					
Iron ore	183 114	62 855	1 330	1 662	3 391
Burnt pyrites	15 304	13 977	20 348	19 710	28 981
France					
Iron ore	14 942 736	12 552 833	16 088 410	16 219 754	16 190 467
Burnt pyrites	51 978	82 404	70 196	44 487	47 390
Germany, Federal Republic of					
Iron ore	38 909 559	35 497 187	42 568 169	45 007 234	41 632 480
Burnt pyrites	20 224	62 426	51 184	35 550	31 966
Italy (a)	16 131 078	13 799 673	19 243 947	18 294 000	17 600 602
Netherlands (a)	6 160 403	4 979 959	7 238 702	8 508 191	7 066 463
Portugal	262 723	470 415	147 431	683 298	542 955
Spain	4 620 000	4 202 000	4 220 470	5 023 000	4 286 833
Albania (d)	* 158 900	* 172 900	* 71 100	* 3 000	...
Austria					
Iron ore	3 241 201	2 390 940	3 889 886	3 684 492	3 201 141
Burnt pyrites	33 962	20 882	10 411	19 860	12 776
Bulgaria	2 359 985	2 312 519	2 286 333	2 214 834	2 248 384
Czechoslovakia	11 640 000	11 683 000	11 108 000	11 268 000	11 264 000
Finland	1 493 211	1 299 321	1 856 315	1 755 577	1 986 999
German Democratic Republic (b)	1 932 000	1 842 000	1 971 000	2 681 000	2 598 000
Hungary	3 756 651	3 966 804	4 169 685	2 381 513	3 414 036
Norway	47 293	225 640	39 813	230 175	17 715
Poland	13 493 000	13 787 000	17 110 000	16 973 000	16 644 000
Romania	14 397 000	14 477 000	14 963 000	15 207 000	16 417 000
Sweden	5 000	19 000	38 000	68 000	68 000
Switzerland (a)	21 050	8 016	10 049	6 418	11 240
Turkey	1 170 757	1 329 494	1 655 668	1 724 869	2 526 000
Yugoslavia	1 476 539	1 567 500	1 566 357	2 179 583	1 346 968
Kenya	29	15	14 500	16 250	...
Libya	15 727	...	...	...	...
Nigeria (a)	96 716	...	15 225	371 845	340 758
Tunisia	32 305	11 061	—	12 532	70 689
Canada	3 359 286	4 013 109	4 946 893	5 800 193	5 367 245
Mexico	1 076	160	131	2 137	209 000
Trinidad & Tobago	201 746	246 596	199 755	318 284	...
USA (a)	14 951 482	13 541 778	17 435 339	16 221 626	17 017 575
Argentina	2 105 789	1 903 509	2 213 022	2 454 801	2 900 000
Abu Dhabi	31 248	30 419	0	—	37 073
China	3 752 273	3 924 101	5 957 437	10 046 592	13 715 719
Dubai	10 000	26 499	24 000	12 000	14 650
Indonesia					
Iron ore	121 039	127 999	198 460	132 850	754
Burnt pyrites	178 786	60 450	1 268 438	1 188 126	1 668 893
Japan	(c) 121 827 155	(c) 109 180 816	125 372 449	124 512 701	115 233 834
Korea, Republic of					
Iron ore	11 509 940	10 121 155	10 287 389	12 418 239	11 941 199
Burnt pyrites	45 543	49 394	131	—	—
Malaysia	33 497	27 650	414 284	830 524	...
Pakistan (e)	707 833	765 091	924 405	1 188 443	1 311 662
Philippines	3 825 051	2 277 767	3 615 003	3 388 907	2 575 443

Imports of Iron Ore

tonnes

Country	1982	1983	1984	1985	1986
Qatar	—	...	619 371	...	...
Saudi Arabia	95 695	294 657	1 044 173	324 637	1 384 625
Singapore	25 256	13 013	7 441	12 581	10 167
Taiwan					
Iron ore	4 048 764	4 956 581	5 199 177	4 896 129	5 358 016
Burnt pyrites	21 014	13 757	15 151	11 360	9 460
Australia	90 956	52 096	52 101	24 221	59 174

(a) Including burnt pyrites

(b) Fe content of concentrates

(c) Including manganiferous iron ore

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

(e) Years ended 30 June of that stated

Production of Pig-Iron

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	8 326 900	9 477 000	9 487 100	10 381 400	9 685 500
Belgium	7 836 000	8 034 000	8 968 000	8 720 000	8 048 000
France	14 714 000	13 500 000	14 706 000	15 072 000	13 708 000
Germany, Federal Republic of	27 066 000	26 352 000	29 737 000	31 143 000	28 593 000
Greece	110 000	138 000	138 000	* 140 000	* 140 000
Italy	11 538 346	10 313 210	11 631 973	12 062 547	11 916 398
Luxembourg	2 586 820	2 316 300	2 767 930	2 753 800	2 649 700
Netherlands	3 616 600	3 747 400	4 925 600	4 818 700	4 628 200
Portugal	222 233	365 796	381 799	423 000	429 000
Spain	5 843 148	5 667 252	5 319 000	5 457 000	4 865 000
Austria	3 114 985	3 320 260	3 745 315	3 703 992	3 348 600
Bulgaria	1 564 590	1 626 878	1 583 155	1 713 240	1 605 000
Czechoslovakia	9 525 000	9 466 000	9 561 000	9 562 000	9 573 000
Finland	1 943 800	1 898 458	2 033 700	1 891 000	1 978 000
German Democratic Republic	2 149 400	2 206 800	2 356 700	2 578 200	2 737 600
Hungary	2 181 000	2 047 000	2 097 000	2 095 152	2 054 347
Norway	456 490	565 392	545 972	596 031	563 532
Poland	8 436 000	9 635 000	9 893 000	9 707 000	10 478 000
Romania	8 637 000	8 190 000	9 557 000	9 212 000	9 329 000
Soviet Union	106 723 000	110 453 000	110 893 000	109 977 000	114 000 000
Sweden	1 967 697	2 194 737	2 420 166	2 609 793	2 534 000
Switzerland	10 000	10 000	54 000	66 000	79 000
Turkey	2 379 497	2 952 754	3 014 847	3 371 000	3 666 000
Yugoslavia	2 703 000	2 844 681	2 855 000	3 120 000	3 063 000
Algeria	1 059 000	1 113 000	800 000	800 000	* 800 000
Egypt	172 347	171 077	144 106	103 306	112 705
South Africa	6 804 000	4 998 000	5 254 800	6 574 200	5 774 000
Tunisia	93 300	141 200	143 500	138 600	144 600
Zimbabwe	478 017	583 963	379 721	674 219	644 000
Canada	8 000 149	8 566 621	9 643 260	9 665 427	9 248 530
Mexico	5 103 069	5 033 903	5 373 731	5 095 305	5 050 000
Trinidad & Tobago	217 900	302 300	239 000	243 200	337 200
USA	39 319 000	44 243 000	47 138 000	45 326 000	39 772 000
Argentina	1 940 300	1 862 000	1 818 000	2 320 000	1 624 000
Brazil	11 053 828	13 199 122	17 468 949	19 256 593	20 464 206
Chile	453 338	539 459	593 501	579 820	592 000
Colombia	246 000	268 000	269 789	246 171	319 797
Peru	203 978	139 656	62 030	206 883	273 000
Venezuela	2 357 000	2 766 000	2 812 000	3 076 000	* 3 400 000
China	35 551 000	37 380 000	40 010 000	43 840 000	49 940 000
India	9 606 000	9 158 000	9 292 000	9 722 000	10 566 000
Iran (a)	600 000	* 700 000	* 700 000	* 700 000	* 700 000
Japan	77 658 000	72 936 000	80 403 000	80 569 000	74 651 000
Korea, Dem. P.R. of	* 5 300 000	* 5 500 000	* 5 750 000	* 7 750 000	* 8 500 000
Korea, Republic of	8 445 000	8 024 000	8 764 000	8 833 000	9 017 000
Pakistan	472 649	473 604	563 600	803 147	895 437
Taiwan	161 112	183 625	213 483	225 730	197 536
Thailand	6 338	159	—	—	—
Australia	5 956 000	5 045 000	5 329 000	5 607 000	5 889 000
World total	454 900 000	460 600 000	491 800 000	503 500 000	498 600 000

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

(a) Years ended 20 March following that stated

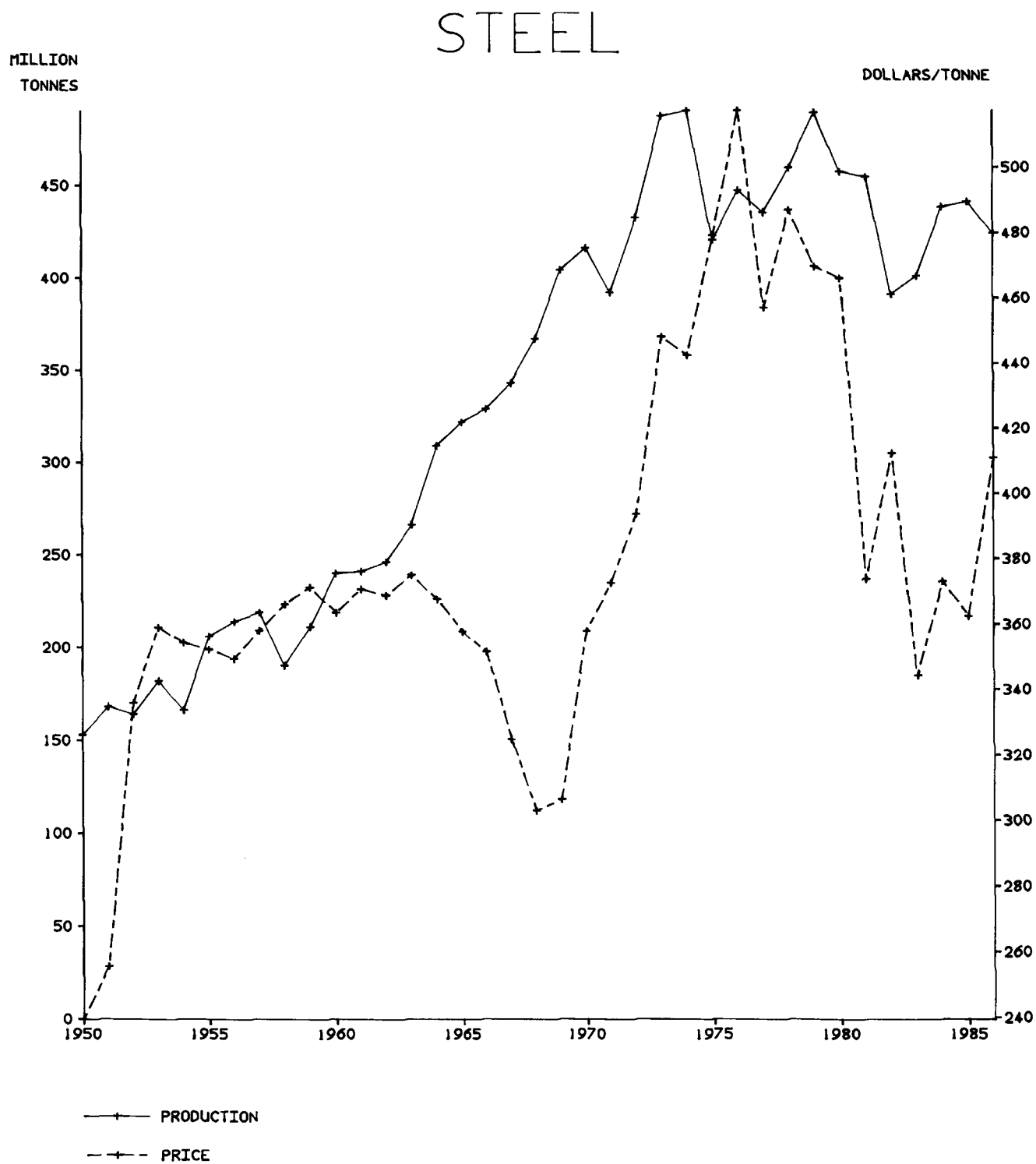


Figure 9 Production of steel ingots and castings in the non-communist world from 1950 to 1986 compared with the yearly average price of Bessemer bars delivered Oberhausen expressed in constant 1980 US dollars.

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

Production of Steel Ingots and Castings

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	13 704 000	14 986 000	15 121 000	15 722 000	14 725 000
Belgium	9 995 850	10 157 031	11 303 381	10 687 000	9 767 551
Denmark	560 000	493 000	548 000	528 000	632 000
France	18 402 000	17 582 000	19 000 000	18 808 000	17 900 000
Germany, Federal Republic of	35 880 000	35 729 000	39 389 000	40 497 000	37 134 000
Greece	933 000	868 000	898 000	985 000	1 010 000
Irish Republic	* 60 000	* 140 000	* 168 000	* 200 000	* 208 000
Italy	24 009 490	21 810 787	24 111 318	23 897 592	22 881 951
Luxembourg	3 509 850	3 293 760	3 987 440	3 945 275	3 705 300
Netherlands	4 345 800	4 477 300	5 738 700	5 517 300	5 283 000
Portugal	501 679	628 512	687 000	665 000	717 000
Spain	12 742 560	13 711 656	13 379 000	14 032 000	11 906 000
Austria	4 258 156	4 410 907	4 869 841	4 660 426	4 291 895
Bulgaria	2 584 000	2 831 000	2 878 412	2 944 000	2 897 931
Czechoslovakia	14 992 000	15 024 000	14 831 000	15 036 000	15 112 000
Finland	2 413 943	2 415 931	2 632 000	2 518 000	2 586 200
German Democratic Republic	7 168 500	7 218 800	7 573 300	7 852 800	7 967 200
Hungary	3 702 000	3 616 000	3 750 000	3 646 000	3 715 000
Norway	767 991	895 019	919 685	964 868	836 264
Poland	14 794 700	16 235 900	16 532 600	16 126 000	17 144 000
Romania	13 055 000	12 593 000	14 437 000	13 795 000	14 276 000
Soviet Union	147 165 000	152 514 000	154 238 000	155 000 000	161 000 000
Sweden	3 936 000	4 116 000	4 657 000	4 840 000	4 710 000
Switzerland	950 000	953 000	978 000	987 000	1 075 000
Turkey	1 997 631	2 478 875	2 753 392	3 080 304	3 596 148
Yugoslavia	3 850 000	4 134 919	4 233 973	4 470 703	4 519 000
Algeria	868 000	892 000	755 000	800 000	* 800 000
Egypt	129 915	123 996	124 273	145 123	126 693
Nigeria	90 000	182 000	187 000	321 000	200 000
South Africa	8 036 000	7 248 000	7 509 000	8 444 000	8 895 000
Tunisia	104 900	162 800	166 200	160 300	181 400
Zimbabwe	537 609	646 463	423 443	730 841	674 000
Canada	11 871 374	12 832 477	14 699 204	14 630 738	14 081 405
Cuba	290 200	352 100	325 300	401 400	411 500
Mexico	7 055 720	6 977 796	7 559 975	7 367 532	7 404 300
Trinidad & Tobago	179 200	209 600	198 900	166 900	327 000
USA	67 655 000	76 761 000	83 940 000	80 067 000	74 032 000
Argentina	2 897 400	2 942 807	2 646 546	2 946 000	3 235 000
Brazil	12 995 241	14 671 428	18 385 724	20 455 694	21 233 346
Chile	478 400	593 200	662 800	* 650 000	* 700 000
Colombia	421 753	482 264	507 264	530 442	607 300
Peru	272 593	298 979	336 828	397 148	464 600
Uruguay	28 019	45 674	40 763	38 964	31 000
Venezuela	2 216 000	2 319 000	2 777 415	3 055 028	3 345 200
Bangladesh (b)	108 624	47 401	73 387	101 419	95 514
China	37 160 000	40 020 000	43 470 000	46 790 000	51 900 000
Hong Kong	* 120 000	* 120 000	* 120 000	* 120 000	* 120 000
India	10 834 000	10 364 000	10 084 000	10 613 000	11 332 000
Indonesia	500 000	800 000	1 000 000	* 1 200 000	* 1 500 000
Iran	* 1 200 000	* 1 400 000	* 1 200 000	* 1 200 000	* 1 200 000
Israel	87 000	83 000	92 000	100 000	110 000
Japan	99 548 000	97 179 000	105 586 000	105 279 000	98 275 000
Jordan	156 369	148 196	112 502	136 266	* 136 000
Korea, Dem. P.R. of	* 5 800 000	* 6 100 000	* 6 500 000	* 8 400 000	* 9 190 000
Korea, Republic of	10 863 397	11 227 146	12 734 820	13 591 136	14 501 548
Malaysia	245 683	241 057	350 000	* 550 000	* 750 000
Pakistan	* 350 000	* 550 000	* 610 000	720 092	* 800 000
Philippines	350 000	200 000	250 000	* 250 000	* 250 000
Qatar	483 245	469 000	478 000	533 000	507 000
Saudi Arabia	70 000	275 000	842 000	1 106 000	* 1 100 000
Singapore	359 000	305 000	362 000	365 000	390 000
Syria	99 000	* 80 000	* 70 000	* 70 000	* 70 000
Taiwan	4 152 000	5 031 000	5 010 000	5 088 000	5 545 000
Thailand	312 158	243 900	380 971	380 000	* 400 000
Vietnam	47 100	48 000	53 000	57 500	62 000

Production of Steel Ingots and Castings

tonnes

Country	1982	1983	1984	1985	1986
Australia (a)	6 371 000	5 657 000	6 303 000	6 578 000	6 705 000
New Zealand	251 847	233 413	273 840	227 925	291 063
World total	642 000 000	662 000 000	707 000 000	716 000 000	712 000 000

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

(a) Includes recovery from scrap

(b) Years ended 30 June of that stated

Production of Ferro-alloys

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Ferro-manganese	61 400	82 800	75 200	76 900	99 500
Belgium					
Ferro-manganese	* 90 000	* 90 000	* 95 000	* 90 000	* 87 000
France					
Blast furnace ferro-alloys—					
Spiegeleisen & ferro-manganese	332 223	270 331	329 447	333 998	273 602
Electric furnace & aluminothermic ferro-alloys—					
Ferro-chrome & ferro-silico-chrome	38 121	19 829	18 636	164	* 500
Ferro-silicon (50% Si)	168 858	192 762	206 348	197 062	196 000
Ferro-silico-manganese	29 655	32 710	34 886	22 569	22 000
Ferro-titanium, ferro-tungsten, ferro-molybdenum, ferro-vanadium (a)	4 838	4 223	5 476	5 158	) 77 000
Other ferro-alloys	98 371	102 257	116 201	95 052)
Silicon metal	57 200	64 500	70 500	71 300	71 557
Germany, Federal Republic of					
Blast furnace ferro-alloys—					
Spiegeleisen, ferro-manganese & ferro-silicon	242 000	174 000	309 000	205 000	256 000
Electric furnace ferro-alloys—					
Ferro-chrome	* 42 000	* 38 000	* 70 000	* 72 000	* 68 000
Ferro-manganese & ferro-silico-manganese	* 19 000	* 17 000	* 25 000	* 31 000	* 30 000
Ferro-silicon	* 34 000	* 31 000	* 60 000	* 60 000	* 57 000
Other ferro-alloys	* 36 000	* 33 000	* 65 000	* 61 000	* 57 000
Greece					
Electric furnace ferro-alloys—					
Ferro-chrome	—	18 000	32 394	* 35 000	* 35 000
Ferro-nickel	* 51 000	* 50 000	* 53 000	* 60 000	* 60 000
Italy					
Blast furnace ferro-alloys—					
Spiegeleisen	957	494	935	1 001	1 151
Ferro-manganese	57 366	49 200	34 815	50 111	48 002
Silicon pig-iron(10—12% Si)	1 024	580	342	686	968
Electric furnace ferro-alloys—					
Ferro-chrome	36 541	45 414	49 942	57 654	55 939
Ferro-manganese	15 987	12 647	15 651	17 166	11 653
Ferro-silico-manganese	58 118	37 244	72 779	64 858	66 083
Ferro-molybdenum	235	...	1 422	1 564	—
Ferro-silicon	63 947	51 913	71 157	74 616	62 799
Ferro-titanium & ferro-silico-titanium	1 243	1 876	2 158	2 291	2 508
Ferro-vanadium	68	...	79	8	—
Calcium-silicide	8 982	5 778	9 075	11 999	11 514
Silicon metal	14 012	11 737	22 812	17 812	18 904
Portugal					
Electric furnace ferro-alloys—					
Ferro-manganese	45 000	* 40 000	* 46 500	* 48 000	* 20 000
Ferro-silico-manganese	* 23 500	* 18 500	* 24 000	* 25 000	* 10 000
Ferro-silicon	* 8 500	8 550	* 9 000	* 9 000	* 5 000
Ferro-tungsten	211	176	183	150	17
Silicon metal	* 10 000	9 800	* 10 500	* 11 000	* 7 000
Spain					
Electric furnace ferro-alloys—					
Ferro-chrome	17 066	9 348	* 14 000	* 17 000	* 17 000
Ferro-manganese	81 994	114 456	* 85 000	* 86 000	* 86 000
Ferro-silico-manganese	69 933	73 224	* 70 000	* 70 000	* 70 000
Ferro-silicon	62 847	50 460	* 60 000	* 61 000	* 61 000
Other ferro-alloys	5 283	5 000	* 1 000	* 4 000	* 4 000
Silicon metal	6 700	1 500	12 400	12 100	11 000
Albania					
Electric furnace ferro-alloys—					
Ferro-chrome	* 30 000	* 35 000	* 40 000	* 43 000	* 45 000

Production of Ferro-alloys

tonnes

Country	1982	1983	1984	1985	1986
Austria					
Electric furnace ferro-alloys	14 000	14 000	13 000	14 000	14 000
Bulgaria					
Electric furnace ferro-alloys—					
Ferro-manganese & ferro-silico-manganese	* 34 000	* 30 000	* 22 000	* 30 000	* 32 000
Ferro-silicon	* 20 000	* 17 000	* 15 000	* 14 000	* 15 000
Other ferro-alloys	* 1 000	* 1 000	* 1 000	* 1 000	* 1 000
Czechoslovakia					
Electric furnace ferro-alloys—					
Ferro-chrome	29 751	29 135	23 500	25 178	28 231
Ferro-manganese	53 708	62 549	) * 87 000	62 358	57 593
Ferro-silico-manganese	* 40 000	* 40 000	)	* 31 000	* 34 000
Ferro-silicon	25 876	19 507	* 28 000	20 765	21 090
Other ferro-alloys	* 9 000	* 9 000	* 8 500	* 9 000	* 8 000
Silicon metal	* 4 500	* 4 500	* 4 000	* 4 500	* 5 000
Finland					
Electric furnace ferro-alloys—					
Ferro-chrome	54 533	58 698	58 644	133 350	133 676
Other ferro-alloys	15 476	23 259	52 000	52 500	53 000
German Democratic Republic					
Electric furnace ferro-alloys—					
Ferro-chrome	* 20 000	* 17 250	* 19 500	* 19 500	* 22 000
Ferro-manganese & ferro-silico-manganese	* 62 500	* 63 000	* 64 000	* 63 000	* 68 000
Ferro-silicon	* 24 000	* 24 000	* 24 000	* 23 000	* 26 000
Other ferro-alloys	* 15 400	* 18 250	* 16 250	* 15 400	* 15 400
Silicon metal	* 3 100	* 3 250	* 3 250	* 3 250	* 3 400
Hungary					
Electric furnace ferro-alloys—					
Ferro-silicon	10 493	9 458	10 297	10 578	10 237
Silicon metal	* 2 000	* 2 000	* 2 000	* 2 000	* 2 000
Iceland					
Electric furnace ferro-alloys—					
Ferro-silicon	41 077	49 446	58 443	60 328	66 787
Norway					
Electric furnace ferro-alloys—					
Ferro-chrome & ferro-silico-chrome	* 11 000	* 4 400	—	—	—
Ferro-manganese	203 256	283 492	285 169	267 670	190 000
Ferro-silico-manganese	215 732	194 784	280 953	256 457	260 000
Ferro-silicon	296 071	368 817	437 164	397 776	352 572
Other ferro-alloys	* 4 000	* 4 600	—	—	* 3 000
Silicon metal	64 882	76 856	89 398	105 552	78 529
Poland					
Blast furnace ferro-alloys—					
Spiegeleisen	4 370	4 500	4 000	1 900	1 700
Ferro-manganese	87 372	81 400	87 900	99 400	95 500
Electric furnace ferro-alloys—					
Ferro-chrome	* 35 500	* 48 500	* 48 000	* 49 000	* 49 000
Ferro-manganese & ferro-silico-manganese	* 35 000	* 48 000	* 48 000	* 49 000	* 49 000
Ferro-silicon	* 35 500	* 51 500	* 51 000	* 52 000	* 51 000
Other ferro-alloys	* 12 500	* 17 000	* 17 000	* 16 500	* 16 500
Silicon metal	* 7 500	* 10 000	* 10 000	* 10 500	* 10 500
Romania					
Electric furnace ferro-alloys—					
Ferro-chrome	* 39 000	* 42 000	* 45 000	* 44 000	* 44 000
Ferro-manganese	* 75 000	* 80 000	* 87 000	* 80 000	* 82 000
Ferro-silico-manganese	* 35 000	* 38 000	* 41 000	* 39 000	* 40 000
Ferro-silicon	* 45 000	* 48 000	* 52 000	* 50 000	* 51 000
Silicon metal	* 3 600	* 3 800	* 4 100	* 4 500	* 4 500

Production of Ferro-alloys

tonnes

Country	1982	1983	1984	1985	1986
Soviet Union					
Blast furnace ferro-alloys--					
Spiegeleisen	* 50 000	* 50 000	* 50 000	* 50 000	* 50 000
Ferro-manganese	* 550 000	* 550 000	* 550 000	* 550 000	* 550 000
Electric furnace ferro-alloys--					
Ferro-chrome	* 415 000	* 415 000	* 420 000	* 420 000	* 425 000
Ferro-silico-chrome	* 10 000	* 12 000	* 12 000	* 12 000	* 13 000
Ferro-manganese	* 450 000	* 500 000	* 600 000	* 675 000	* 700 000
Ferro-silico-manganese	* 160 000	* 170 000	* 180 000	* 190 000	* 200 000
Ferro-silicon	* 680 000	* 720 000	* 750 000	* 750 000	* 800 000
Other ferro-alloys	* 225 000	* 230 000	* 230 000	* 230 000	* 240 000
Silicon metal	* 60 000	* 60 000	* 60 000	* 60 000	* 65 000
Sweden					
Electric furnace ferro-alloys--					
Ferro-chrome	116 724	119 491	134 028	135 701	* 130 000
Ferro-silico-chrome	19 954	18 377	30 633	26 243	* 25 000
Ferro-molybdenum	552	641	229	143	...
Ferro-silicon	14 177	19 406	23 278	26 564	* 25 000
Ferro-tungsten	365	121	...	...	...
Silicon metal	14 852	20 340	20 206	19 775	* 20 000
Switzerland					
Electric furnace ferro-alloys--					
Ferro-silicon	* 3 000	* 2 000	* 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	39 862	30 175	48 081	* 48 000	* 50 000
Ferro-silicon	4 300	4 500	6 902	* 7 000	* 7 000
Yugoslavia					
Electric furnace ferro-alloys--					
Ferro-chrome	50 591	63 807	75 441	74 456	66 022
Ferro-silico-chrome	6 129	5 998	8 147	7 199	7 513
Ferro-manganese	38 895	39 677	47 375	35 569	39 230
Ferro-silico-manganese	20 286	26 254	37 214	43 428	41 330
Ferro-nickel	1 500	1 000	1 676	2 800	3 200
Ferro-silicon	70 888	78 014	94 075	70 532	99 625
Other ferro-alloys	2 497	9 691	4 484	2 600	3 515
Silicon metal	29 818	26 256	28 428	33 094	31 312
Egypt					
Electric furnace ferro-alloys--					
Ferro-silicon	* 6 000	* 6 000	* 7 500	* 7 500	* 7 300
South Africa					
Ferro-chrome	458 170	690 507	889 203	852 338	) 918 864
Ferro-silico-chrome	2 544	2 839	4 987	4 651)
Ferro-manganese	366 080	166 591	236 930	331 302	337 213
Ferro-silico-manganese	141 485	107 211	143 981	237 864	* 273 000
Ferro-silicon	59 490	49 622	89 414	75 126	83 256
Other ferro-alloys	* 800	* 800	* 3 000	548	626
Silicon metal	25 109	27 332	34 775	35 830	34 954
Zimbabwe					
Electric furnace ferro-alloys--					
Ferro-chrome	189 737	148 178	170 259	183 928	* 155 000
Ferro-silico-chrome	25 692	27 542	30 878	29 707	* 30 000
Ferro-manganese	2 132	2 085	1 891	1 953	* 2 000

Production of Ferro-alloys

tonnes

Country	1982	1983	1984	1985	1986
Canada					
Electric furnace ferro-alloys—					
Ferro-manganese	* 138 000	* 107 000	* 116 000	* 118 000	* 126 000
Ferro-silicon	* 105 000	* 85 000	* 80 000	* 84 000	* 88 000
Silicon metal	* 27 000	* 25 000	* 25 000	* 25 000	* 26 000
Dominican Republic					
Electric furnace ferro-alloys—					
Ferro-nickel	14 375	52 278	63 966	66 828	57 565
Mexico					
Electric furnace ferro-alloys—					
Ferro-chrome	6 320	2 518	6 862	6 254	2 670
Ferro-silico-magnesium	1 196	1 128	1 736	2 373	1 308
Ferro-manganese	135 374	140 304	160 879	153 733	156 359
Ferro-silico-manganese	31 850	41 935	41 662	39 277	60 532
Ferro-silicon	24 111	24 307	22 504	27 638	17 650
Other ferro-alloys	109	84	286	294	102
USA					
Ferro-chrome	83 375	18 078	) (e) 86 545	(e) 99 394	(e) 95 624
Ferro-silico-chrome	(e) 24 839	(e) 14 942)		
Ferro-manganese	108 136	77 954	) (d) 155 246	(d) 139 298	(d) 106 474
Ferro-silico-manganese	62 475	...)		
Ferro-phosphorus	55 835	68 032	82 660	56 211	52 750
Ferro-silicon	271 200	284 958	444 856	400 679	307 936
Other ferro-alloys (b)	67 788	128 854	89 820	81 165	65 416
Silicon metal	69 493	110 577	127 792	109 738	112 394
Argentina					
Electric furnace ferro-alloys—					
Ferro-manganese	30 586	28 724	28 016	18 786	* 23 000
Ferro-silico-manganese	15 679	13 523	13 336	7 493	* 8 000
Ferro-silicon	8 850	12 296	16 884	15 962	* 16 000
Other ferro-alloys	2 089	4 005	5 217	* 4 500	* 4 500
Brazil					
Electric furnace ferro-alloys—					
Ferro-calcium-silicon	9 657	7 400	17 755	22 179	23 715
Ferro-chrome	96 646	77 326	125 125	127 288	109 392
Ferro-silico-chrome	2 598	5 526	7 628	8 875	9 512
Ferro-manganese	122 898	103 271	106 459	134 835	164 093
Ferro-silico-manganese	162 643	178 266	185 631	180 271	177 568
Ferro-molybdenum	337	126	437	509	511
Ferro-nickel	10 597	25 991	33 659	33 473	34 350
Ferro-niobium	11 506	9 665	16 522	17 676	17 391
Ferro-phosphorus	1 122	1 211	926	1 310	1 496
Ferro-silicon	121 348	156 683	157 873	187 246	220 711
Ferro-silico-magnesium	11 186	10 711	15 429	14 876	13 053
Ferro-titanium	430	166	551	1 372	755
Ferro-vanadium	238	102	456	905	439
Other ferro-alloys	577	313	494	639	1 025
Silicon metal	17 921	20 602	26 783	29 477	37 077
Chile					
Electric furnace ferro-alloys—					
Ferro-manganese	2 982	5 209	4 757	6 516	6 225
Ferro-silico-manganese	—	—	—	754	1 465
Ferro-molybdenum	1 456	1 712	2 211	671	* 2 000
Ferro-silicon	1 413	4 885	6 365	4 501	...
Colombia					
Ferro-nickel	3 500	30 900	37 500	25 500	45 500
Venezuela					
Ferro-manganese	* 2 000	* 2 000	* 2 000	* 2 000	* 2 000
Ferro-silico-manganese	* 9 000	* 9 000	16 600	24 109	...
Ferro-silicon	42 136	46 636	40 900	60 583	* 46 000
China					
Ferro-chrome	* 120 000	* 120 000	* 120 000	* 120 000	* 120 000
Ferro-manganese	* 472 000	* 490 000	* 490 000	* 490 000	* 490 000
Ferro-silicon	* 195 000	* 195 000	* 195 000	* 195 000	* 195 000
Other ferro-alloys	* 75 000	* 75 000	* 75 000	* 75 000	* 75 000
Silicon metal	* 20 000	* 20 000	* 20 000	* 20 000	* 20 000

Production of Ferro-alloys

tonnes

Country	1982	1983	1984	1985	1986
India					
Electric furnace ferro-alloys—					
Ferro-chrome	40 540	34 911	26 280	31 961	43 010
Ferro-silico-chrome	4 468	1 675	4 096	12 215	8 544
Ferro-manganese	151 234	152 951	158 314	166 042	179 132
Ferro-silico-manganese	14 213	10 946	4 673	13 544	24 363
Ferro-silicon	36 060	52 448	52 931	43 513	50 096
Other ferro-alloys	427	271	284	461	608
Silicon metal	656	—	1 082	—	—
Indonesia					
Electric furnace ferro-alloys—					
Ferro-nickel	21 501	20 835	22 727	23 789	22 554
Japan					
Electric furnace ferro-alloys—					
Ferro-calcium-silicon	3 834	2 357	1 724	2 496	2 005
Ferro-chrome	328 480	304 053	323 930	349 496	286 925
Ferro-manganese	538 355	389 381	485 008	441 703	359 044
Ferro-silico-manganese	269 379	222 204	233 061	216 916	148 429
Ferro-molybdenum	3 413	3 104	3 299	3 143	1 894
Ferro-nickel	214 523	180 826	217 053	227 043	200 311
Ferro-niobium	1 039	530	1 031	1 072	862
Ferro-silicon	192 372	157 939	153 386	150 167	107 236
Ferro-tungsten	329	200	144	114	122
Ferro-vanadium	4 465	2 821	3 733	3 353	2 867
Other ferro-alloys	2 309	2 159	2 727	2 575	2 015
Silicon metal	9 760	—	—	—	—
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	60 306	52 896	58 600	61 396	53 500
Ferro-silicon	32 478	32 489	35 300	34 840	30 800
Other ferro-alloys	33 240	43 824	50 215	54 879	76 200
Philippines					
Electric furnace ferro-alloys—					
Ferro-chrome	* 12 000	26 901	48 049	50 818	* 55 000
Ferro-silicon	* 27 500	* 20 000	* 18 500	* 20 000	* 20 000
Taiwan					
Electric furnace ferro-alloys—					
Ferro-manganese	18 665	21 763	19 803	18 508	20 040
Ferro-silico-manganese	21 311	18 509	23 082	22 688	20 932
Ferro-silicon	16 930	18 304	23 714	17 272	14 007
Australia (c)					
Electric furnace ferro-alloys—					
Ferro-manganese	54 717	53 463	75 600	69 000	61 000
Ferro-silico-manganese (60% Mn)	29 548	19 810	31 000	27 000	23 000
Ferro-silicon	19 678	18 669	18 800	18 700	19 000
New Caledonia					
Electric furnace ferro-alloys—					
Ferro-nickel	112 028	86 868	116 632	138 614	130 492

(a) Ti, W, Mo, V content

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

(c) Years ended 30 November of that stated

(d) Includes manganese metal

(e) Includes other chromium alloys and chromium metal

Exports of Iron, Steel and Ferro-alloys

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Pig-iron	7 010	45 841	33 730	43 741	19 940
Sponge & powder	430	348	451	471	750
Ferro-aluminium, ferro-silico- aluminium & ferro-silico- mangano-aluminium	2 490	2 736	1 717	2 066	2 512
Ferro-chrome	678	2 609	642	2 421	525
Ferro-silico-chrome	64	93	45	—	—
Ferro-manganese	23 902	14 039	687	17 556	12 749
Ferro-silico-manganese	54	233	1 027	127	146
Ferro-molybdenum	1 214	1 876	3 561	4 274	5 172
Ferro-nickel	—	—	5	28	11
Ferro-niobium & ferro- niobium-tantalum	51	49	51	38	32
Ferro-silicon	1 173	1 699	1 223	2 016	3 301
Ferro-titanium & ferro- silico-titanium	4 084	4 864	4 965	7 059	7 277
Ferro-tungsten & ferro- silico-tungsten	19	130	192	167	86
Ferro-vanadium	69	164	163	241	158
Other ferro-alloys	2 760	1 893	2 646	2 685	2 919
Ingots, blooms, billets	281 884	573 939	480 382	741 919	1 070 498
Scrap (a)	3 052 322	3 793 721	4 317 011	4 535 868	3 837 289
Belgium-Luxembourg					
Pig-iron	4 176	2 419	3 479	4 254	5 756
Spiegeleisen	106	10	119	1 727	1 426
Sponge & powder	372	526	882	798	1 108
Ferro-aluminium, ferro-silico- aluminium & ferro-silico- mangano-aluminium	64	733	423	628	260
Ferro-chrome	1 960	3 909	2 913	1 338	876
Ferro-manganese	13 230	13 892	23 741	20 556	17 370
Ferro-silicon	4 270	2 627	877	368	900
Ferro-titanium & ferro- silico-titanium	1 774	984	1 289	1 424	945
Ferro-tungsten & ferro- silico-tungsten	—	0	165	184	91
Ferro-silico-manganese, ferro- molybdenum & ferro-vanadium	18 546	15 947	17 740	17 282	16 545
Other ferro-alloys	1 024	1 259	891	1 354	1 426
Ingots, blooms, billets	510 538	575 747	732 514	594 958	626 130
Scrap	497 550	681 748	773 706	736 458	658 309
Denmark					
Ingots, blooms, billets	5 521	2 778	11 624	9 001	5 843
Scrap	117 849	174 934	234 279	269 573	182 690
France					
Pig-iron	178 644	135 620	192 206	232 633	10 879
Spiegeleisen	565	952	233	834	252
Sponge & powder	210	927	350	312	191
Ferro-aluminium, ferro-silico- aluminium & ferro-silico- mangano-aluminium	1 040	1 712	2 241	841	553
Ferro-chrome	605	516	1 452	333	9 343
Ferro-silico-chrome	1 884	898	121	346	2
Ferro-manganese	177 151	282 508	314 111	238 966	29 315
Ferro-silico-manganese	5 657	6 530	21 551	18 352	21 860
Ferro-molybdenum	829	1 022	1 333	1 161	989
Ferro-nickel	45 034	48 464	56 408	55 671	33 279
Ferro-silicon	68 003	86 022	82 294	75 913	67 530
Ferro-silico-magnesium	5 045	6 271	8 263	7 154	7 323
Ferro-silico-zirconium	2 369	3 408	3 368	2 671	1 821
Ferro-titanium & ferro- silico-titanium	858	648	659	541	312
Ferro-tungsten & ferro- silico-tungsten	201	15	230	46	—
Ferro-vanadium	418	415	1 249	1 296	706
Other ferro-alloys	20 533	23 850	29 239	25 249	22 239
Ingots, blooms, billets	305 446	454 720	853 918	1 000 163	741 498
Scrap	3 082 180	3 227 103	4 104 316	3 962 158	3 161 880

Exports of Iron, Steel and Ferro-alloys

tonnes

Country	1982	1983	1984	1985	1986
Germany, Federal Republic of					
Pig-iron	613 938	461 808	531 875	677 864	500 459
Spiegeleisen	1 346	1 280	98	182	1 970
Sponge & powder	204 114	72 531	40 189	35 848	33 962
Ferro-chrome	53 989	55 902	61 218	58 445	39 721
Ferro-silico-chrome	2 920	3 179	4 184	3 021	5 056
Ferro-manganese	32 975	48 197	96 692	66 108	69 208
Ferro-silico-manganese	5 729	5 134	4 380	3 682	4 002
Ferro-molybdenum	1 010	1 025	819	503	345
Ferro-nickel	50	274	1 034	2 023	797
Ferro-niobium	837	351	521	490	515
Ferro-silicon	59 192	59 052	79 569	69 445	65 658
Ferro-titanium & ferro-silico-titanium	507	263	340	463	396
Ferro-tungsten & ferro-silico-tungsten	184	238	222	16	25
Ferro-vanadium	1 973	2 329	1 440	2 245	2 463
Other ferro-alloys	5 759	8 596	11 297	10 832	10 330
Ingots, blooms, billets	1 078 234	1 068 748	1 798 815	1 963 995	1 569 902
Scrap	3 048 638	3 172 613	3 445 580	3 623 925	3 674 154
Greece					
Ferro-chrome	—	11 966	29 410	23 070	43 315
Ferro-nickel	19 852	33 583	77 150	89 542	67 113
Irish Republic					
Scrap	58 753	21 279	42 973	50 045	40 751
Italy					
Pig-iron	3 039	22 109	10 144	21 547	60 506
Sponge & powder	1 874	4 013	2 638	2 403	982
Ferro-chrome & ferro-silico-chrome	9 195	24 005	20 189	24 592	24 442
Ferro-manganese	2 818	1 411	319	303	383
Ferro-silico-manganese	3 027	5 383	11 561	2 677	5 197
Ferro-molybdenum	221	96	762	1 119	38
Ferro-silicon	4 361	6 965	14 004	16 783	12 306
Ferro-silico-magnesium	1 360	1 326	3 137	3 513	3 743
Ferro-titanium & ferro-silico-titanium	969	1 520	1 732	1 656	1 506
Ferro-vanadium	58	4	47	179	18
Other ferro-alloys	2 503	2 309	3 905	2 426	3 815
Ingots, blooms, billets	345 524	318 500	330 034	350 443	261 967
Scrap	17 238	18 476	19 492	10 028	7 363
Netherlands					
Pig-iron	4 648	12 045	7 999	17 945	17 966
Sponge & powder	46	298	484	75	37
Ferro-chrome	13 990	3 308	4 087	1 714	14 881
Ferro-manganese	141	74	562	154	103
Ferro-silico-manganese	2 064	—	115	—	285
Ferro-molybdenum	14	145	83	289	532
Ferro-nickel	—	650	8	92	13
Ferro-silicon	1 234	5 176	13	230	2 730
Ferro-titanium & ferro-silico-titanium	—	0	132	875	2 297
Ferro-vanadium	—	33	—	1	—
Other ferro-alloys	223	200	71	167	384
Ingots, blooms, billets	615 084	856 475	1 315 698	1 285 172	1 335 080
Scrap	1 180 248	1 521 860	1 683 958	1 834 659	1 991 940
Portugal					
Pig-iron	792	1 229	29	5	4
Ferro-manganese	13 890	9 918	46 123	14 087	21 404
Ferro-silico-manganese	22 020	59 820	38 512	50 978	43 957
Ferro-silicon	13 153	18 951	6 177	6 876	5 402
Ferro-tungsten	223	168	193	164	28
Other ferro-alloys	—	1 220	—	—	—
Scrap	9 167	9 710	9 177	16 687	10 821

Exports of Iron, Steel and Ferro-alloys

tonnes

Country	1982	1983	1984	1985	1986
Spain					
Pig-iron	—	5 605	927	30 127	31 459
Ferro-silico-aluminium, ferro-silico-mangano- aluminium & ferro-silico- aluminio-calcium	3 668	811	480	(c)	123
Ferro-chrome	8 179	4 332	14 538	(c)	9 909
Ferro-manganese	22 057	15 842	24 579	26 782	22 085
Ferro-silico-manganese	10 282	5 569	5 257	(c)	7 077
Ferro-molybdenum	269	638	956	(c)	2 389
Ferro-silicon	16 534	3 442	8 233	5 980	3 260
Ferro-titanium & ferro- silico-titanium	—	30	6	) 26 617	249
Other ferro-alloys	9	23	651	)	1 190
Ingots, blooms, billets	576 417	623 465	549 563	1 079 954	565 237
Albania					
Ferro-chrome (f)	* 25 700	* 25 900	* 26 400	* 8 500	* 37 600
Austria					
Pig-iron	100	26	64	1 074	502
Ferro-alloys	12 085	12 771	12 669	12 264	12 857
Ingots & blooms	11 304	15 792	39 499	38 293	10 026
Scrap	8 840	12 642	20 910	32 191	22 305
Bulgaria					
Pig-iron	18 931	38 179	262 521	78 870	52 307
Ferro-alloys	28 000	23 000	15 000	12 000	12 000
Ingots, blooms, billets	218 272	138 234	261 683	288 320	375 345
Scrap	57 000	38 000	48 000	38 000	4 000
Czechoslovakia					
Ferro-chrome (f)	* 6 300	* 5 600	* 3 900	* 2 800	* 700
Ferro-manganese (f)	* 14 300	* 15 700	* 12 500	* 15 400	* 18 900
Other ferro-alloys (f)	* 1 400	* 4 100	* 4 900	* 6 500	* 4 800
Blooms	294 000	270 000	437 000	468 000	533 000
Scrap (f)	* 97 200	* 124 400	* 185 600	* 140 100	* 100 800
Finland					
Pig-iron	114	57	717	1	44
Ferro-chrome & ferro- silico-chrome	22 705	18 483	7 677	56 311	90 199
Blooms & billets	139 922	118 775	(f)* 102 000	(f)* 111 300	(f)* 93 300
Scrap	126	107	9 466	9 646	359
German Democratic Republic					
Pig-iron (f)	* 17 200	* 8 600	* 5 000	...	...
Ferro-silicon (f)	* 7 500	* 10 200	* 7 300	* 5 900	* 7 600
Other ferro-alloys (f)	* 2 700	* 1 800	* 400	* 400	* 1 500
Ingots, blooms, billets (f)	* 413 000	* 396 200	* 336 200	* 535 100	* 588 900
Scrap (f)	* 22 700	* 13 700	* 17 500	* 23 600	* 24 000
Hungary					
Pig-iron	—	4 810	20 922	—	—
Ingots, blooms, billets	1 011	608	24 296	46 180	22 798
Scrap	53 172	49 761	79 152	26 912	6 382
Iceland					
Ferro-silicon	42 174	49 238	57 252	56 845	64 990
Scrap	4 518	10 268	9 784	6 237	2 527
Malta					
Scrap	6 366	7 252	12 744	11 798	5 427
Norway					
Pig-iron	64 524	43 456	27 832	32 120	22 718
Ferro-chrome	9 515	6 632	601	—	—
Ferro-silico-chrome	1 173	732	349	—	—
Ferro-manganese	196 746	198 288	204 540	180 018	162 265
Ferro-silico-manganese	172 105	172 893	217 817	220 087	202 090
Ferro-silicon	287 766	347 911	427 489	376 486	339 711
Ferro-vanadium	288	9	—	0	—
Other ferro-alloys	6 822	12 069	10 842	11 273	11 515
Ingots, blooms, billets	192 602	233 956	199 137	143 727	40 906
Scrap	32 569	35 430	21 326	9 300	7 704
Poland					
Ingots, blooms, billets	27 000	154 000	160 000	82 000	108 000
Scrap	257 912	146 138	176 150	79 993	73 883

Exports of Iron, Steel and Ferro-alloys

Country	1982	1983	1984	1985	1986
Romania					
Pig-iron & ferro-alloys	* 2 900	* 2 900	* 17 000	* 9 000	* 6 000
Ingots, blooms, billets (f)	* 18 600	* 19 500	* 22 900	* 13 700	* 12 700
Soviet Union					
Pig-iron (f)	* 1 944 900	* 1 773 800	* 1 610 700	* 1 626 400	* 1 874 700
Ferro-chrome & ferro-silico-chrome (f)	* 30 800	* 36 000	* 30 400	* 29 800	* 43 400
Ferro-manganese & ferro-silico-manganese (f)	* 35 500	* 42 600	* 34 900	* 40 500	* 57 400
Ferro-silicon (f)	* 32 200	* 54 700	* 55 400	* 53 300	* 74 600
Ferro-titanium & ferro-silico-titanium (f)	* 1 600	* 1 600	* 2 600	* 2 300	* 4 600
Other ferro-alloys (f)	* 22 200	* 13 600	* 13 500	* 13 900	* 19 700
Ingots, blooms, billets (f)	* 1 007 500	* 1 553 000	* 1 531 000	* 1 649 100	* 1 761 300
Scrap	2 859 053	3 369 905	3 407 062	3 315 424	4 087 898
Sweden					
Pig-iron	29 626	26 285	3 048	6 994	8 548
Sponge & powder	96 795	103 986	110 707	100 841	104 867
Ferro-chrome	80 576	105 736	95 793	103 161	85 276
Ferro-silico-chrome	1 037	362	2 279	2 226	2 073
Ferro-manganese	674	668	673	1 227	2 009
Ferro-silico-manganese	16	1	11	65	464
Ferro-molybdenum	413	737	193	102	58
Ferro-niobium	54	42	48	13	13
Ferro-silicon	6 533	18 990	20 564	21 434	11 480
Ferro-titanium	371	305	389	123	34
Ferro-tungsten	120	107	94	20	35
Ferro-vanadium	44	53	15	6	21
Other ferro-alloys	50	26	388	189	163
Ingots, blooms, billets	313 182	237 485	458 304	638 736	554 951
Scrap	18 341	20 317	21 667	21 643	28 585
Switzerland					
Pig-iron	701	501	659	227	406
Sponge & powder	493	444	558	574	590
Ferro-silicon	157	119	140	115	133
Other ferro-alloys	674	676	207	201	158
Ingots, blooms, billets	3 281	9 260	9 038	4 228	26 101
Scrap	105 915	149 484	106 296	100 135	60 949
Turkey					
Pig-iron	254	16 052	60 169	500	137 348
Ferro-chrome	37 457	32 803	53 350	53 396	* 45 000
Ingots, blooms, billets	2 486	65 727	185 725	532 734	734 732
Scrap	...	...	3 348	4 132	4 797
Yugoslavia					
Pig-iron	7 441	3 258	118	14 486	8 461
Ferro-chrome	30 661	53 864	58 029	52 752	46 404
Ferro-manganese	12 165	10 946	12 109	7 650	5 883
Ferro-silico-manganese	11 709	16 620	28 645	35 860	29 168
Ferro-silicon	43 569	46 783	59 095	52 706	58 357
Other ferro-alloys	—	1 290	3 818	7 266	6 537
Ingots, blooms, billets	19 348	11 015	48 541	60 365	63 326
Scrap	63 342	70 384	141 732	173 419	157 542
Algeria					
Pig-iron	174 484	212 615	279 684	48 631	...
Scrap	56 148	55 388	82 881	84 458	...
Ivory Coast					
Scrap	16 025	26 477	24 931	25 286	...
Morocco					
Scrap	51 942	65 512	91 900	80 689	...
Senegal					
Scrap	11 179	12 685	7 478	13 900	11 211

Exports of Iron, Steel and Ferro-alloys

tonnes

Country	1982	1983	1984	1985	1986
South Africa					
Pig-iron (f)	* 89 000	* 75 600	* 122 300	* 407 700	* 629 200
Ferro-chrome	393 224	769 115	855 588	758 617	877 971
Ferro-manganese	394 827	306 538	334 559	458 165	* 500 000
Ferro-silicon	24 132	29 593	42 822	41 016	40 069
Other ferro-alloys	22 587	32 860	39 486	13 524	...
Ingots, blooms, billets (f)	* 159 500	* 198 600	* 144 400	* 367 500	* 478 600
Scrap (f)	* 4 700	* 46 400	* 46 800	* 67 200	* 145 200
Sudan					
Scrap	3 452	50	50	949	3 510
Tunisia					
Scrap	1 200	11	790	2 614	1 457
Zimbabwe					
Pig-iron	5 141	144	250	28	605
Ferro-chrome	163 919	228 395	185 908	162 108	) 211 540
Ferro-silico-chrome	18 704	18 316	23 577	23 376)
Blooms & billets	252 525	214 370	184 134	243 495	158 255
Scrap	8 261	4 799	10 049	49 600	...
Canada					
Pig-iron	485 661	348 278	393 893	574 131	519 606
Sponge	29 065	36 974	45 715	36 395	37 000
Ferro-manganese	11 739	4 160	9 202	43 583	45 132
Ferro-silicon	40 860	45 728	35 299	33 224	45 953
Other ferro-alloys	5 129	5 188	5 202	10 668	11 889
of which: Re-exports	71	1 006	151	1 060	764
Ingots, blooms, billets	255 611	579 096	249 086	77 135	233 428
Scrap	627 773	866 932	763 574	878 202	898 156
Dominican Republic					
Ferro-nickel	14 161	53 825	62 361	67 893	53 903
Mexico					
Ferro-alloys	17 351	73 696	57 496	60 521	...
Scrap	19 741	5 123	15 445	16 699	...
Trinidad & Tobago					
Sponge	27 185	42 253	64 482	61 324	* 50 000
USA					
Pig-iron	50 268	6 441	54 645	33 475	45 795
Sponge & powder	12 818	13 005	13 487	9 822	10 586
Ferro-chrome & ferro-silico-chrome	4 900	6 111	15 217	10 506	6 674
Ferro-manganese	9 177	7 832	6 470	6 871	3 956
Ferro-silico-manganese	3 204	5 864	4 902	2 832	1 787
Ferro-molybdenum	123	78	295	601	172
Ferro-phosphorus	3 663	24 435	35 928	44 801	34 833
Ferro-silicon	13 281	12 565	26 661	11 801	10 345
Ferro-vanadium	308	705	425	423	445
Other ferro-alloys	5 996	5 318	25 080	14 048	9 329
Ingots, blooms, billets	331 774	107 451	72 700	85 010	54 187
Scrap (a)	6 215 378	6 844 187	8 643 090	9 032 434	10 619 159
Argentina					
Ingots, blooms, billets	133 698	2 995	1 743	295 089	...
Brazil					
Pig-iron	692 529	1 801 472	2 474 329	2 479 622	2 369 822
Ferro-chrome	51 770	38 048	53 880	60 285	20 121
Ferro-manganese	31 435	49 511	21 302	33 594	(b)
Ferro-nickel	1 529	15 494	11 175	9 871	4 694
Ferro-niobium	11 036	9 256	13 771	14 324	12 332
Ferro-silicon	64 518	111 846	89 874	127 371	129 905
Ferro-silico-spiegeleisen & silico-manganese	64 501	123 708	100 388	65 327	115 808
Other ferro-alloys	7 878	7 761	13 552	11 695	...
Ingots, blooms, billets	160 243	429 601	1 374 833	2 434 504	2 485 304
Chile					
Ferro-molybdenum (f)	* 700	* 500	* 300	* 500	* 1 200
Ferro-silicon (f)	* 100	* 700	* 3 300	* 1 600	* 2 600
Ingots, blooms, billets	155 982	112 010	49 696	61 935	...
Colombia					
Ferro-nickel	1 303	26 959	33 720	28 303	...

Exports of Iron, Steel and Ferro-alloys

tonnes

Country	1982	1983	1984	1985	1986
Venezuela					
Sponge & powder	239 799	381 088	373 931	267 103	259 921
Ferro-silicon	43 707	67 130	32 264	56 067	58 173
Bahrain					
Scrap	4 439	7 450	20 951	33 100	...
Brunei					
Scrap	4 979	8 640	11 329	...	...
China					
Pig-iron (f)	* 1 119 500	* 68 500	* 3 300	* 2 000	* 5 700
Ferro-silicon (f)	* 38 600	* 17 500	* 3 900	* 1 500	* 33 800
Other ferro-alloys (f)	* 137 200	* 6 300	* 18 300	* 5 100	* 20 300
Ingots, blooms, billets (f)	* 263 800	* 12 200	* 1 500	* 400	* 100
Scrap (f)	* 103 400	* 36 700	* 23 500	* 18 500	* 3 000
Cyprus					
Scrap (Re-exports)	7 341	8 300	13 223	14 288	13 309
Dubai					
Scrap	2 599	9 764	30 986	53 219	56 714
Hong Kong					
Pig-iron (Re-exports)	6 966	4 398	67	1 977	71
Ferro-manganese (Re-exports)	813	102	5 430	500	496
Ferro-silicon (Re-exports)	1 187	610	—	—	3 483
Other ferro-alloys (Re-exports)	200	162	114	563	1 662
Ingots, blooms, billets (Re-exports)	3 896	24 217	41 574	41 920	24 842
Scrap	296 651	329 556	300 067	319 137	275 389
India (d)					
Pig-iron	1 315	695	1 476	...	...
Ferro-chrome	7 539	—	—	...	...
Ferro-manganese	3 536	—	1 950	...	...
Ferro-silicon	2 000	—	—	...	...
Scrap	99 088	57 615	52 449	...	...
Indonesia					
Sponge & powder	117 080	119 941	69 557	86 542	96 392
Israel					
Scrap (f)	...	* 4 100	* 8 600	* 4 900	* 4 600
Japan					
Pig-iron	49 333	332 386	276 749	1 066 307	1 055 582
Sponge & powder	3 208	4 150	6 798	9 318	9 166
Ferro-chrome	3 137	5 429	2 095	5 468	3 433
Ferro-manganese	26 683	22 202	22 822	25 988	6 857
Ferro-silico-manganese	583	107	93	170	16
Ferro-nickel	21 405	13 369	4 365	4 475	7 100
Ferro-silicon	1 042	1 135	1 199	913	1 091
Ferro-vanadium	132	168	122	10	94
Other ferro-alloys	975	1 479	2 276	2 067	3 152
Ingots, blooms, billets	132 527	129 722	136 026	323 693	221 429
Scrap	174 787	115 822	146 473	165 636	461 048
Korea, Dem. P.R. of					
Pig-iron (f)	* 60 500	* 31 500	* 67 700	* 74 100	* 73 200
Korea, Republic of					
Pig-iron	41 324	9 671	10 110	74	1 021
Ferro-manganese	—	701	338	30	5
Ferro-silico-manganese	—	1 241	350	—	—
Ferro-silicon	335	180	71	36	20
Other ferro-alloys	9	3 032	3 035	1 021	3 031
Ingots, blooms, billets	364 193	551 689	440 171	373 788	167 788
Scrap	140 608	284 597	135 288	74 006	71 525
Kuwait					
Scrap	18 394	69 571	123 332	...	...
Malaysia					
Scrap	6 450	12 724	20 180	21 530	...
Pakistan (e)					
Pig-iron	220 336	136 478	391 999	58 258	119 911
Scrap	696	771	46 417	1 628	20 844
Philippines					
Ferro-silicon	28 364	22 827	20 856	22 428	10 079
Other ferro-alloys	4 219	28 656	45 414	50 379	55 971
Scrap	1 582	1 014	844	952	850
Saudi Arabia					
Scrap	28 680	62 228	89 836	129 743	122 511

Exports of Iron, Steel and Ferro-alloys

tonnes

Country	1982	1983	1984	1985	1986
Singapore					
Pig-iron	9 242	6 514	6 580	3 263	1 110
of which: Re-exports	9 229	6 485	6 557	3 227	1 095
Ferro-alloys	2 119	601	607	1 126	549
of which: Re-exports	2 102	587	603	1 072	549
Ingots & blooms	3 519	4 362	4 752	8 621	5 014
of which: Re-exports	2 528	3 549	3 783	3 790	3 326
Scrap	7 876	119 468	108 948	166 636	90 776
Sri Lanka					
Scrap	—	4 200	11 000	3 535	40 988
Taiwan					
Pig-iron	246	2 890	562	1 011	3 371
Ferro-manganese	3 175	785	191	111	60
Ferro-silicon	508	515	2 211	861	458
Other ferro-alloys	3 088	5 022	3 450	1 717	917
Ingots, blooms, billets	294 275	250 617	107 725	104 780	31 406
Scrap	402 215	279 854	202 414	388 225	280 941
Thailand					
Scrap	7 850	1 712	3 548	3 575	5 701
Australia					
Pig-iron	101 399	468 621	70 665	26 185	26 236
Ferro-alloys	36 178	50 747	46 496	39 568	85 412
Ingots, blooms, billets	217 714	383 663	293 622	582 854	481 038
Scrap	749 106	493 257	410 396	485 223	...
Fiji					
Scrap	1 132	857	1 810	717	...
of which: Re-exports	—	429	648	359	...
New Caledonia					
Ferro-nickel	107 100	91 600	123 100	142 000	130 400
New Zealand (e)					
Ingots, blooms, billets	48 455	36 176	42 380	38 781	66 576
Scrap	2 759	2 206	3 113	3 061	2 612

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

- (a) Excluding ships intended for breaking up
- (b) Included with 'ferro-silico-spiegeleisen & silico-manganese'
- (c) Included with 'other ferro-alloys'
- (d) Years ended 31 March following that stated
- (e) Years ended 30 June of that stated
- (f) BGS estimates, based on known imports into certain countries

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Pig-iron	125 066	91 188	86 804	101 216	118 124
Sponge & powder	39 062	13 054	13 975	13 620	13 122
Ferro-chrome	72 198	86 660	68 086	77 082	95 000
Ferro-silico-chrome	102	437	—	1 063	21
Ferro-manganese	58 031	99 436	37 625	44 553	53 396
Ferro-silico-manganese	31 107	28 934	28 062	29 401	30 468
Ferro-molybdenum	608	383	403	374	276
Ferro-nickel	9 564	9 187	16 437	17 270	21 454
Ferro-niobium	719	459	731	864	575
Ferro-silicon	75 484	69 735	81 754	84 669	66 607
Ferro-titanium & ferro-silico-titanium	173	494	992	799	955
Ferro-tungsten & ferro-silico-tungsten	103	23	41	86	83
Ferro-vanadium	593	636	827	655	519
Other ferro-alloys	9 575	11 795	10 663	9 576	10 442
Ingots, blooms, billets	290 627	239 418	273 399	250 382	242 686
Scrap (a)	37 335	11 231	33 809	51 020	47 071
Belgium-Luxembourg					
Pig-iron	90 715	46 835	94 478	113 020	121 731
Spiegeleisen	259	686	579	1 171	1 532
Sponge & powder	2 618	1 545	2 733	1 914	1 631
Ferro-aluminium, ferro-silico-aluminium & ferro-silico-mangano-aluminium	949	1 238	892	464	404
Ferro-chrome	26 231	35 337	44 974	49 686	45 552
Ferro-silico-chrome	1 229	1 909	3 189	3 157	2 253
Ferro-manganese	54 012	53 479	52 460	56 037	47 342
Ferro-silico-manganese	19 609	21 326	35 439	30 594	40 049
Ferro-molybdenum	254	312	298	591	709
Ferro-nickel	3 316	6 407	6 322	7 239	5 243
Ferro-silicon	33 831	33 056	29 170	30 947	28 639
Ferro-titanium & ferro-silico-titanium	257	437	494	608	510
Ferro-vanadium	60	172	226	120	112
Other ferro-alloys	1 134	5 854	2 783	3 303	3 534
Ingots, blooms, billets	333 864	376 975	629 469	548 315	446 328
Scrap	887 439	1 045 214	1 672 749	1 489 540	1 221 785
Denmark					
Pig-iron	62 825	29 275	35 777	58 763	74 989
Sponge & powder	503	592	4 031	1 169	1 375
Ferro-aluminium, ferro-silico-aluminium & ferro-silico-mangano-aluminium	1 618	158	1 035	811	254
Ferro-chrome & ferro-silico-chrome	370	840	249	144	85
Ferro-manganese	3 091	1 968	2 707	2 042	1 618
Ferro-silico-manganese	2 892	2 911	3 540	4 002	6 247
Ferro-molybdenum	13	18	14	17	5
Ferro-silicon	3 500	3 250	3 140	2 774	3 165
Other ferro-alloys	98	104	132	160	194
Ingots, blooms, billets	6 347	3 153	8 781	81 510	6 708
Scrap	87 494	67 523	131 692	47 735	121 240

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1982	1983	1984	1985	1986
France					
Pig-iron	370 359	364 216	413 009	479 925	370 163
Spiegeleisen	1 080	1 094	340	366	1 973
Sponge & powder	16 913	71 650	11 298	11 527	11 199
Ferro-aluminium, ferro-silico- aluminium & ferro-silico- mangano-aluminium	123	177	14	270	343
Ferro-chrome	119 203	113 135	154 506	160 070	168 321
Ferro-silico-chrome	1 635	1 030	849	493	500
Ferro-manganese	29 374	22 722	40 990	35 479	64 308
Ferro-silico-manganese	30 942	27 144	41 018	39 064	58 887
Ferro-molybdenum	1 269	1 445	1 367	1 513	1 565
Ferro-nickel	73 555	76 983	93 980	106 699	79 875
Ferro-silicon	29 075	26 420	35 238	38 524	34 760
Ferro-silico-magnesium	164	206	665	858	1 731
Ferro-titanium & ferro- silico-titanium	817	894	1 458	1 578	2 064
Ferro-tungsten & ferro- silico-tungsten	166	208	335	454	325
Ferro-vanadium	636	408	625	760	1 036
Other ferro-alloys	1 340	1 152	2 670	3 097	1 870
Ingots, blooms, billets	830 860	677 192	805 794	652 133	673 179
Scrap	273 681	307 305	407 253	461 411	354 201
Germany, Federal Republic of					
Pig-iron	223 125	180 874	213 032	218 013	271 986
Spiegeleisen	—	—	—	89	1 109
Sponge & powder	19 107	19 374	21 239	19 280	21 124
Ferro-aluminium, ferro-silico- aluminium & ferro-silico- mangano-aluminium	268	148	502	190	153
Ferro-chrome	221 879	297 662	244 644	287 300	273 340
Ferro-silico-chrome	7 570	5 753	12 520	17 793	16 545
Ferro-manganese	96 809	98 242	87 111	129 855	106 140
Ferro-silico-manganese	110 704	115 360	122 635	123 253	111 817
Ferro-molybdenum	4 317	4 583	5 401	5 795	5 962
Ferro-nickel	33 358	73 107	99 327	101 491	88 157
Ferro-niobium	2 836	2 405	3 363	2 947	3 055
Ferro-silicon	198 505	195 001	241 656	220 079	213 950
Ferro-titanium & ferro- silico-titanium	3 359	3 085	3 533	3 717	4 510
Ferro-tungsten & ferro- silico-tungsten	228	147	532	819	691
Ferro-vanadium	1 577	1 682	2 644	2 754	2 032
Other ferro-alloys	4 299	5 756	5 755	8 531	7 346
Ingots, blooms, billets	792 844	839 718	1 068 611	1 327 219	1 315 906
Scrap	1 296 896	1 300 364	1 766 682	1 619 550	1 383 917
Greece					
Pig-iron	13 953	16 531	6 561	8 074	19 809
Ferro-manganese	4 551	1 686	2 751	6 114	5 296
Ferro-silico-manganese	8 172	4 271	5 924	6 642	6 525
Ferro-silicon	2 424	1 738	2 812	2 807	3 601
Other ferro-alloys	324	436	322	473	453
Ingots, blooms, billets	119 678	708 785	538 751	437 262	416 773
Scrap	432 021	520 377	327 572	313 312	455 304
Irish Republic					
Pig-iron	768	263	600	574	1 046
Ferro-alloys	827	2 186	2 188	2 662	2 984
Ingots, blooms, billets	861	369	557	780	467
Scrap	2 424	70 309	87 580	135 912	121 979

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1982	1983	1984	1985	1986
Italy					
Pig-iron	346 595	270 644	310 388	265 842	398 372
Spiegeleisen	880	615	2 777	485	222
Sponge & powder	53 991	34 544	75 591	46 786	27 318
Ferro-aluminium, ferro-silico- aluminium & ferro-silico- mangano-aluminium	1 847	1 799	1 844	1 129	1 193
Ferro-chrome	85 215	66 973	106 703	97 833	99 030
Ferro-silico-chrome	2 497	1 273	518	1 114	1 826
Ferro-silico-magnesium	933	1 107	1 242	1 357	2 201
Ferro-manganese	114 113	64 719	115 780	81 824	90 052
Ferro-silico-manganese	34 701	24 914	27 968	27 008	23 545
Ferro-molybdenum	1 355	1 307	1 248	1 500	2 403
Ferro-nickel	15 331	13 375	16 134	22 085	21 719
Ferro-niobium	2 483	1 622	2 348	1 912	1 290
Ferro-silicon	54 864	46 135	65 506	48 133	55 361
Ferro-titanium & ferro- silico-titanium	630	408	1 064	780	737
Ferro-tungsten & ferro- silico-tungsten	48	71	97	95	147
Ferro-vanadium	691	753	816	916	1 121
Other ferro-alloys	1 961	690	1 593	1 280	1 300
Ingots, blooms, billets	611 994	515 606	533 576	1 090 573	1 265 534
Scrap	5 571 390	4 446 092	5 487 097	5 777 199	4 746 357
Netherlands					
Pig-iron	34 620	29 601	44 078	41 628	49 702
Sponge & powder	3 270	2 832	3 562	2 322	1 792
Ferro-aluminium, ferro-silico- aluminium & ferro-silico- mangano-aluminium	92	87	82	144	213
Ferro-chrome	16 206	3 406	5 523	2 798	16 083
Ferro-silico-chrome	43	66	57	61	95
Ferro-manganese	18 916	12 065	26 629	22 664	17 046
Ferro-silico-manganese	7 463	3 758	6 656	5 737	6 486
Ferro-molybdenum	47	147	122	502	563
Ferro-nickel	103	1 148	890	86	254
Ferro-silicon	6 609	8 683	5 203	5 063	7 972
Ferro-titanium & ferro- silico-titanium	74	72	241	977	2 369
Ferro-tungsten & ferro- silico-tungsten	1	17	1	72	117
Ferro-vanadium	84	80	75	72	81
Other ferro-alloys	878	602	541	770	884
Ingots, blooms, billets	286 994	185 512	220 102	156 445	118 474
Scrap	221 641	363 764	479 712	586 431	849 807
Portugal					
Pig-iron	13 865	8 858	7 421	6 919	7 630
Ferro-manganese	160	105	94	187	180
Ferro-silico-manganese	41	10	8	1 397	30
Ferro-silicon	657	205	643	364	990
Other ferro-alloys	660	255	487	652	676
Ingots, blooms, billets	204 929	46 968	11 099	2 219	4 350
Scrap	124 826	106 203	120 120	104 781	102 940

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1982	1983	1984	1985	1986
Spain					
Pig-iron	103 748	110 513	54 530	86 819	140 231
Sponge & powder	97 515	116 341	81 010	88 047	62 979
Ferro-aluminium & ferro-silico-aluminium	27	37	315	)	1
Ferro-chrome	29 634	35 606	52 294	) (d)	71 373
Ferro-silico-chrome	2 394	1 679	2 368	)	1 620
Ferro-manganese	1 444	1 893	1 045	1 260	6 636
Ferro-silico-manganese	405	2 000	1 601	)	11 393
Ferro-molybdenum	133	110	67	) (d)	109
Ferro-nickel	4 296	6 028	8 690	)	24 851
Ferro-silicon	2 650	2 684	2 750	5 300	11 998
Ferro-titanium & ferro-silico-titanium	191	172	159	)	201
Ferro-tungsten & ferro-silico-tungsten	10	21	17	) 61 377	47
Ferro-vanadium	189	112	79	)	418
Other ferro-alloys	2 695	3 095	2 699	)	10 174
Ingots, blooms, billets	115 322	51 946	130 402	162 164	408 040
Scrap	4 536 095	4 538 232	5 020 310	6 146 301	4 340 351
Albania					
Ferro-alloys (g)	* 2 000	* 1 300	* 1 600	* 2 300	* 2 900
Austria					
Pig-iron	69 481	32 630	43 839	47 179	35 479
Sponge & powder	6 607	3 903	5 403	5 204	5 372
Ferro-chrome	23 625	18 524	25 904	20 677	19 373
Ferro-manganese	24 467	22 710	25 430	22 779	18 945
Ferro-molybdenum	59	67	63	109	175
Ferro-nickel	(d)	3 337	4 580	3 305	2 602
Ferro-niobium & ferro-niobio-tantalum	346	271	292	299	318
Ferro-silicon	14 413	13 670	14 726	16 215	16 966
Ferro-titanium	502	491	479	766	704
Ferro-tungsten	8	6	253	106	176
Ferro-vanadium	157	174	33	129	105
Other ferro-alloys	8 075	4 477	8 409	10 142	8 874
Ingots & blooms	81 100	59 246	72 248	75 936	163 273
Scrap	380 562	218 822	363 084	239 048	115 029
Bulgaria					
Pig-iron	399 488	407 482	664 573	404 296	425 398
Ingots, blooms, billets	* 675 000	* 570 000	* 451 000	* 392 000	* 257 000
Czechoslovakia					
Pig-iron	901 000	780 000	745 000	869 000	808 000
Ferro-chrome & ferro-silico-chrome (g)	* 1 100	* 1 200	* 1 200	* 3 200	* 1 000
Ferro-titanium & ferro-silico-titanium (g)	* 1 600	* 1 300	* 800	* 1 200	* 700
Ingots, blooms, billets	16 000	22 000	154 000	318 000	165 000
Scrap (g)	* 74 000	* 156 400	* 84 300	* 43 900	* 43 200
Finland					
Pig-iron	17 823	9 589	6 729	15 317	14 382
Sponge & powder	1 336	1 090	880	953	499
Ferro-chrome & ferro-silico-chrome	1 233	1 387	6 339	1 443	1 446
Ferro-manganese	5 465	3 779	5 825	4 293	4 496
Ferro-silico-manganese	17 999	15 776	17 291	21 690	13 988
Ferro-molybdenum	186	163	345	692	490
Ferro-silicon	8 838	7 442	10 198	7 138	7 660
Ferro-titanium	178	173	248	399	275
Ferro-vanadium	76	55	84	105	217
Other ferro-alloys	8 999	12 255	21 342	18 152	15 512
Ingots, blooms, billets	4 970	7 174	6 891	10 689	5 650
Scrap	50 594	37 293	32 516	113 350	63 336
German Democratic Republic					
Pig-iron	821 400	834 800	863 900	1 090 500	1 145 800
Ferro-manganese	57 000	58 000	62 000	75 000	74 000
Other ferro-alloys	21 000	10 000	16 000	13 000	6 000
Ingots, blooms, billets	...	282 000	172 000	111 000	107 000
Scrap	455 000	672 000	1 035 000	886 000	986 000

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1982	1983	1984	1985	1986
Hungary					
Pig-iron	234 024	293 562	279 461	272 413	254 297
Ferro-chrome	7 540	9 098	8 801	10 390	11 183
Ferro-manganese	45 008	39 980	37 794	44 951	42 250
Ferro-molybdenum	227	407	255	261	315
Ferro-silicon	7 783	6 654	6 373	6 742	7 424
Other ferro-alloys	12 120	13 186	12 564	14 799	14 697
Ingots, blooms, billets	702	—	5 602	—	—
Scrap	14 188	28 347	20 084	14 000	8 330
Malta					
Ingots, blooms, billets	5 852	6 755	7 804	6 044	6 342
Norway					
Pig-iron	7 611	5 641	5 859	5 458	4 693
Spiegeleisen	53	777	170	842	88
Sponge & powder	279	906	243	305	748
Ferro-chrome	24	167	477	840	830
Ferro-silicon	2 961	5 261	553	1 512	995
Other ferro-alloys	213	261	255	473	565
Ingots, blooms, billets	9 800	5 593	826	5 708	5 320
Scrap	4 950	15 140	12 888	10 831	6 145
Poland					
Pig-iron & ferro-alloys	1 377 391	1 232 283	1 271 515	1 411 338	1 447 696
Ingots, blooms, billets	185 000	166 000	19 000	13 000	16 000
Scrap	4 494	3 668	5 543	3 786	3 444
Romania					
Pig-iron	285 400	212 800	165 000	117 400	100 000
Ferro-alloys	163 700	148 700	152 000	151 800	162 000
Ingots, blooms, billets	141 000	391 000	218 000	281 000	309 000
Soviet Union					
Pig-iron (g)	* 95 600	...	* 64 200	...	...
Sponge & powder (g)	* 4 500	* 5 600	* 4 000	* 3 400	* 1 900
Ferro-silicon (g)	* 2 800	* 3 100	* 2 500	* 3 400	* 3 000
Other ferro-alloys (g)	* 850	* 400	* 1 700	* 800	* 1 000
Sweden					
Pig-iron	58 159	38 042	38 593	46 791	56 449
Sponge & powder	1 250	842	375	900	1 178
Ferro-chrome	39 819	36 007	47 653	52 098	42 967
Ferro-silico-chrome	2 396	1 344	1 450	1 645	100
Ferro-manganese	29 139	28 744	31 588	28 402	26 464
Ferro-silico-manganese	12 109	12 085	12 241	15 696	17 559
Ferro-molybdenum	1 243	1 091	1 624	1 377	1 388
Ferro-nickel	9 619	12 875	22 056	7 485	13 403
Ferro-niobium	255	253	280	212	213
Ferro-silicon	21 802	23 757	27 834	21 341	17 220
Ferro-titanium	1 740	1 226	1 308	1 059	1 422
Ferro-tungsten	112	44	301	639	326
Ferro-vanadium	876	733	955	1 057	1 110
Other ferro-alloys	687	727	982	745	1 532
Ingots, blooms, billets	115 663	100 276	79 643	35 008	48 909
Scrap	529 095	450 132	840 314	884 807	698 233
Switzerland					
Pig-iron	73 690	72 248	71 123	63 011	42 237
Sponge & powder	4 617	4 295	5 113	3 785	4 858
Ferro-aluminium	206	338	286	301	377
Ferro-silicon	4 726	5 954	8 049	7 219	7 963
Other ferro-alloys	11 744	12 854	17 269	15 003	15 156
Ingots, blooms, billets	32 512	63 226	93 993	80 443	51 123
Scrap	106 433	146 802	272 801	239 933	323 815
Turkey					
Pig-iron	50 889	66 937	42 831	139 226	116 371
Ferro-manganese	29 640	20 905	25 619	25 647	21 007
Ferro-silicon	57 765	12 636	11 379	12 099	14 487
Other ferro-alloys	3 509	9 004	15 300	20 477	22 172
Ingots, blooms, billets	209 459	705 911	1 210 309	1 659 318	921 683
Scrap	748 280	1 073 575	1 038 108	1 147 623	1 798 755

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1982	1983	1984	1985	1986
Yugoslavia					
Pig-iron	82 286	61 323	64 129	53 314	63 325
Sponge & powder	15 989	2 188	2 124	1 982	1 985
Ferro-chrome	113	917	763	1 840	1 172
Ferro-manganese	425	2 482	1 754	1 563	1 714
Ferro-molybdenum	719	600	1 022	697	989
Ferro-phosphorus	291	120	567	704	482
Ferro-silicon	1 194	2 084	1 657	1 074	838
Ferro-tungsten	80	162	64	96	114
Ferro-vanadium	313	354	250	267	406
Other ferro-alloys	2 135	2 090	1 785	1 851	2 682
Ingots, blooms, billets	318 341	472 994	488 202	438 612	573 493
Scrap	507 770	738 095	781 453	728 581	650 918
Algeria					
Pig-iron	9 798	12 209	25 833	17 525	...
Ferro-chrome	644	551	516	691	...
Ferro-manganese	8 681	919	8 572	1 024	...
Ferro-silico-manganese	437	870	122	218	...
Ferro-phosphorus	475	347	85	29	...
Ferro-silicon	6 038	3 902	7 118	8 711	...
Ferro-vanadium	179	150	50	50	...
Other ferro-alloys	343	264	457	1 975	...
Ingots, blooms, billets	197 550	27 352	2 721	14 398	...
Cameroon					
Ingots & blooms	40 471	...	...	...	...
Egypt					
Pig-iron & spiegeleisen	33 677	43 004	129	48 451	20 783
Ferro-alloys	6 810	3 364	5 700	11 138	5 464
Ingots & billets	16 108	821	16 397	66 306	93 930
Scrap	12 259	2 140	1 133	2 197	1 539
Ethiopia					
Ingots, blooms, billets	13 173	4 739	1 789	5 049	...
Scrap	572	462	640	...	...
Ivory Coast					
Ingots, blooms, billets	...	1 005	269	530	...
Kenya					
Pig-iron & ferro-alloys	3 541	348	1 024	524	401
Ingots & blooms	14 145	9 587	24 714	19 578	39 158
Liberia					
Pig-iron	...	12 996	4 843	8 190	1 951
Mauritius					
Pig-iron & ingots	5 440	10 869	...	...	...
Morocco					
Pig-iron	2 291	2 147	2 764	1 146	...
Ferro-chrome	21	99	68	55	...
Ferro-manganese	189	206	133	125	...
Ferro-silico-manganese	26	30	20	5	...
Ferro-silicon	116	176	126	210	...
Ingots, blooms, billets	17 596	26 108	177 746	299 517	...
Scrap	2 683	2 298	896	2 167	...
Nigeria					
Pig-iron & spiegeleisen	6 833	...	367	92	167
Ferro-manganese	11 107	...	841	2 986	4 501
Other ferro-alloys	3 439	...	1 912	7 403	685
Ingots & blooms	249 893	...	51 988	191 567	92 176
South Africa					
Pig-iron	7 231	323	240	83	50
Sponge & powder	2 016	2 182	1 926	1 275	2 314
Ferro-chrome	7 626	8 088	5 630	5 080	3 585
Ferro-silicon	1 955	932	511	32	—
Other ferro-alloys	931	1 251	2 556	2 819	2 998
Ingots & blooms	39 064	50 299	45 513	23 094	995
Scrap	27 462	7 274	55 548	7 302	...
Sudan					
Ingots, blooms, billets	3 263	7 967	794	10 223	12 738
Tanzania					
Pig-iron & ferro-alloys	769	1 325	1 667	1 722	...
Ingots & blooms	...	2 861	1 647	1 144	...

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1982	1983	1984	1985	1986
Tunisia					
Pig-iron	1 274	...	1 753	1 552	553
Ferro-alloys	1 116	1 141	1 524	726	1 734
Ingots, blooms, billets	70 020	14 916	15 292	37 696	38 415
Scrap	5 303	...	—	2 695	538
Zaire					
Ferro-alloys	452	471	251	...	...
Zimbabwe					
Ferro-chrome	582	1 838	1 933	1 957	...
Ferro-manganese	2 600	1 892	893	1 168	...
Other ferro-alloys	216	1 597	323	235	...
Canada					
Pig-iron	2 262	4 856	5 269	10 080	12 085
Sponge & powder	6 257	6 614	8 152	7 317	6 637
Ferro-chrome	21 785	32 565	33 078	28 266	39 038
Ferro-manganese & spiegeleisen	25 088	18 263	29 797	27 481	20 283
Ferro-silico-manganese & silico-spiegeleisen	2 877	416	6 823	6 601	6 773
Ferro-silicon	9 860	13 090	24 763	12 048	13 552
Ferro-vanadium	241	172	245	192	165
Other ferro-alloys	4 806	7 057	11 801	50 121	14 134
Ingots, blooms, billets	16 322	37 161	184 186	144 672	254 633
Scrap	454 403	665 853	1 131 023	881 570	747 197
Costa Rica					
Ingots, blooms, billets	21 134	25 593	45 933	44 332	43 928
Cuba					
Pig-iron	164 296	182 213	222 611	238 254	...
Scrap (j)	56 492	97 445	96 515	99 185	88 755
Dominican Republic					
Ingots, blooms, billets	57 864	51 377	44 199	...	...
Scrap	565	1 232	50 372	...	...
El Salvador					
Ingots, blooms, billets	747	2 000	15 655	14 623	...
Scrap	233	186	4 662	...	...
Guatemala					
Ingots, blooms, billets	19 075	12 461	22 144	25 416	...
Haiti (i)					
Ingots, blooms, billets	5 915	...	...	...	...
Honduras					
Ingots & blooms	324	4 773	5 515	6 022	...
Jamaica					
Ingots & blooms	5 689	7 553	3 596	1 332	853
Mexico					
Pig-iron	41 225	2 234	7 190	16 746	...
Sponge & powder	1 883	1 678	1 944	2 810	...
Ferro-alloys	4 800	1 531	7 603	4 877	...
Ingots, blooms, billets	89 299	71 060	258 356	163 076	...
Scrap	420 903	616 692	631 182	645 025	456 000
Nicaragua					
Ingots, blooms, billets	13 269	25 517	4 022	24 541	...
Panama					
Ingots, blooms, billets	14 657	13 330	10 288	16 091	12 495
Trinidad & Tobago					
Ingots, blooms, billets	11	37	16 434	872	...

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1982	1983	1984	1985	1986
USA					
Pig-iron	296 198	220 549	639 706	317 421	269 189
Spiegeleisen	39	142	199	245	193
Sponge & powder	45 792	122 761	159 113	93 928	88 527
Ferro-chrome	129 741	243 717	386 287	299 340	351 522
Ferro-silico-chrome	2 690	1 305	7 205	3 574	5 896
Ferro-manganese	428 753	308 391	371 320	328 232	352 072
Ferro-silico-manganese	56 821	126 343	125 640	150 335	177 419
Ferro-molybdenum	778	473	946	689	789
Ferro-nickel	19 369	38 753	39 052	33 138	36 713
Ferro-niobium	2 183	1 772	3 031	3 279	2 395
Ferro-silicon	70 873	144 353	130 318	139 028	204 288
Ferro-titanium & ferro-silico-titanium	121	798	525	438	618
Ferro-tungsten & ferro-silico-tungsten	86	60	357	118	244
Ferro-vanadium	776	767	1 315	1 144	678
Ferro-zirconium	981	570	689	703	456
Ingots, blooms, billets	650 078	746 144	1 375 079	1 206 120	1 047 976
Scrap	429 207	578 672	518 919	547 648	643 627
Argentina					
Pig-iron	121 792	205 482	176 771	31 871	...
Ferro-chrome	2 390	2 813	3 567	(d)	...
Ferro-manganese	269	805	543	2 272	...
Ferro-molybdenum	6	114	7	(d)	...
Ferro-silicon	—	—	112	79	...
Ferro-titanium	21	60	33)	...
Other ferro-alloys	1 153	891	698	) 2 342	...
Blooms & billets	55 900	85 658	265 950	81 658	...
Scrap	1 807	7 220	1 530	644	...
Brazil					
Sponge & powder	57 931	4 736	4 226	29 339	...
Ferro-chrome	881	292	197	196)
Ferro-silico-chrome	255	181	—	—	) 812
Ferro-silicon	8	6	61	148	152
Other ferro-alloys	83	41	67	2 964	...
Ingots, blooms, billets	190 184	48	—	11	...
Scrap	7 185	0	30 506	103 997	...
Chile					
Scrap (g)	* 10 200	* 25 600	* 23 300	* 20 800	* 11 200
Colombia					
Ferro-chrome	189	184	261	298	...
Ferro-manganese	2 500	2 332	8 009	4 848	...
Ferro-silico-manganese	1 462	405	1 331	1 469	...
Ferro-silicon	1 506	2 181	1 732	1 943	...
Other ferro-alloys	434	332	379	532	...
Ingots, blooms, billets	26 507	11 872	18 748	5 370	...
Scrap	26 982	46 199	43 587	58 093	...
Ecuador					
Ingots, blooms, billets	137 216	119 336	109 655	156 568	140 386
Peru					
Ferro-chrome	146	127	402	470	480
Ferro-manganese	2 087	3 241	1 596	1 361	1 962
Ferro-silico-manganese	1 031	—	1 460	462	812
Ferro-silicon	354	1 194	705	753	880
Ingots, blooms, billets	6 662	9 209	10	8	8
Scrap	16 236	166	26 675	58 873	64 396
Suriname					
Ferro-alloys	8 483	6 796	9 020	6 051	3 024
Ingots, blooms, billets	6 874	2 716	2 907	1 956	2 212
Scrap	6 705	6 246	9 105	4 623	3 360
Uruguay					
Ferro-alloys	249	472	843	634	817
Ingots, blooms, billets	16 593	948	6 800	450	12 520
Venezuela					
Ferro-manganese	19 059	20 430	38 818	37 953	35 416
Ferro-silico-manganese	2 420	3	3	2 667	3
Other ferro-alloys	569	931	998	1 366	2 046
Ingots, blooms, billets	112 915	3 417	3 059	1 597	4 342
Scrap	20 491	18 581	362 944	495 936	539 226

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1982	1983	1984	1985	1986
Bahrain					
Blooms & billets	44 090	57 892	60 411	52 011	...
China					
Pig-iron (g)	...	* 728 700	* 1 145 100	* 2 560 700	* 1 832 100
Ferro-alloys (g)	...	* 20 900	* 18 500	* 7 600	* 700
Ingots, blooms, billets	210 000	260 469	658 159	1 979 454	1 612 340
Scrap (g)	* 2 200	* 1 300	* 273 300	* 497 400	* 649 500
Cyprus					
Pig-iron	500	1 334	356	1 740	1 519
Hong Kong					
Pig-iron	12 425	12 028	5 635	4 471	3 768
Ferro-manganese	1 976	563	6 326	1 848	1 998
Ferro-silicon	1 750	1 259	1 067	1 690	4 677
Other ferro-alloys	1 864	1 240	1 547	1 670	3 220
Ingots, blooms, billets	91 326	72 371	147 722	128 827	173 778
Scrap	64 112	26 883	27 748	20 093	33 669
India (e)					
Pig-iron	503 762	204 000	200 000	200 000	* 200 000
Ferro-chrome & ferro-silico-chrome	11 344	...	...	...	...
Ferro-manganese & ferro-silico-manganese	483	...	...	...	...
Ferro-molybdenum	99	...	...	...	...
Ferro-nickel	5 923	...	...	...	...
Ferro-phosphorus	206	...	...	...	...
Ferro-silicon	1 939	...	...	...	...
Other ferro-alloys	653	...	...	...	...
Ingots, blooms, billets	41 940	...	...	...	...
Scrap	518 659	804 000	800 000	1 000 000	* 1 000 000
Indonesia					
Pig-iron	83 249	86 587	94 910	79 795	72 239
Ferro-manganese	5 680	7 437	20 727	13 465	15 696
Ferro-silicon	7 335	8 444	7 769	9 650	3 847
Other ferro-alloys	501	1 471	2 170	1 651	5 621
Ingots, blooms, billets	220 468	157 487	118 883	42 286	92 912
Scrap	226 894	257 890	243 121	190 903	475 559
Iran (f)					
Pig-iron	5 152	30 597	173	...	...
Ferro-alloys	797	8 592	3 836	...	...
Ingots, blooms, billets	9 124	458 718	252 352	...	...
Israel (b)					
Pig-iron (g)	...	* 1 500	* 1 000	* 800	* 400
Ferro-manganese (g)	* 400	* 150	* 700	* 900	* 100
Other ferro-alloys (g)	...	* 500	* 700	* 700	* 800
Ingots, blooms, billets	67 631	76 675	126 081	50 101	68 920
Scrap (g)	12 188	* 13 900	* 2 100	* 2 100	* 4 800
Japan					
Pig-iron	1 337 082	951 571	777 318	604 462	920 870
Sponge & powder	43 955	48 448	44 869	142 151	46 091
Ferro-chrome	214 313	297 533	395 381	317 595	372 513
Ferro-silico-chrome	6 662	5 379	8 665	10 026	10 356
Ferro-manganese	11 965	15 832	14 102	5 878	7 125
Ferro-silico-manganese	75 627	115 533	114 082	121 600	176 821
Ferro-molybdenum	374	460	591	988	1 065
Ferro-nickel	29 758	36 750	44 754	46 155	38 700
Ferro-niobium	2 326	1 778	2 050	2 869	1 925
Ferro-silicon	237 541	273 907	338 646	306 830	350 069
Ferro-tungsten	72	192	268	100	160
Ferro-vanadium	698	741	566	457	366
Other ferro-alloys	4 685	5 287	8 870	7 413	9 485
Ingots, blooms, billets	96 483	105 001	232 911	353 195	335 399
Scrap	2 025 440	3 905 649	4 017 591	3 253 534	3 223 714
Jordan					
Pig-iron	65 131	12 961	241	16 005	21 399
Ingots, blooms, billets	111 816	181 996	145 510	94 281	173 742
Scrap	2 468	4 978	2 551	2 073	1 810
Korea, Dem. P.R. of					
Ferro-manganese (g)	* 13 900	* 13 300	* 13 300	* 7 500	* 800
Other ferro-alloys (g)	* 2 900	* 1 700	* 500	* 700	* 1 900

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1982	1983	1984	1985	1986
Korea, Republic of					
Pig-iron	72 399	104 976	203 169	99 452	386 108
Sponge & powder	2 056	2 338	3 090	19 282	4 083
Ferro-chrome	3 821	4 390	6 222	7 529	10 431
Ferro-manganese	5 812	9 004	4 084	1 818	1 124
Ferro-molybdenum	132	168	202	313	582
Ferro-nickel	121	120	820	780	725
Ferro-silicon	3 868	4 745	5 899	9 094	15 834
Ferro-vanadium	62	105	81	228	262
Other ferro-alloys	922	2 089	4 126	2 987	3 857
Ingots & blooms	126 024	88 724	99 779	75 812	393 137
Scrap	1 808 880	1 895 975	2 080 765	2 395 299	3 115 164
Malaysia					
Pig-iron	11 573	13 021	5 701	3 128	...
Ferro-manganese	3 371	3 965	8 764	6 578	...
Ferro-silicon	1 681	2 257	3 389	2 408	...
Other ferro-alloys	1 345	929	1 133	1 312	...
Ingots, blooms, billets	241 166	560 949	550 324	350 369	...
Scrap	25 465	49 791	48 361	33 507	...
Pakistan (h)					
Ferro-manganese	50 707	4 526	4 927	4 616	6 896
Ferro-silicon	(d)	13 566	7 716	5 053	4 084
Other ferro-alloys	50 317	863	21 003	13 211	1 265
Scrap	219 419	115 702	136 908	92 524	168 286
Philippines					
Pig-iron	3 014	3	90	—	21 989
Ferro-manganese	2 167	3 315	894	591	1 431
Ferro-silicon	718	499	3	14	108
Other ferro-alloys	586	736	449	53	184
Ingots, blooms, billets	488 516	558 790	280 712	219 868	281 008
Scrap	25 031	142	1 568	751	85 243
Qatar					
Scrap	614 677	11 900	6 954	...	...
Saudi Arabia					
Pig-iron	39 041	256 990	103 153	98 862	17 998
Sponge & powder	48 931	90 703	342	231	369
Ferro-alloys	356	140	192	30 967	—
Ingots, blooms, billets	132 218	99 422	20 463	51 895	28 732
Scrap	1 278	—	552	637	1 052
Singapore					
Pig-iron	101 222	55 536	7 559	41 503	53 909
Sponge & powder	288	647	547	3 981	4 781
Ferro-manganese	3 611	287	1 101	6 186	3 183
Ferro-silicon	1 662	986	1 319	1 940	2 718
Other ferro-alloys	5 612	3 440	8 334	1 542	4 898
Ingots & blooms	200 469	210 160	113 806	161 503	240 236
Scrap	93 028	94 511	78 646	65 402	209 091
Sri Lanka					
Ingots, blooms, billets	9 293	6 342	6 397	8 049	20 291
Syria					
Pig-iron	7 791	4 513	5 797	3 826	...
Ingots, blooms, billets	27 903	43 687	72 604	39 340	...
Scrap	24 856	6 451	1 778	35 658	...
Taiwan					
Pig-iron	142 036	218 323	211 151	170 484	303 244
Sponge & powder	3 753	2 441	2 932	3 613	10 636
Ferro-chrome	335	5 613	9 261	10 186	29 886
Ferro-manganese	2 615	856	975	3 593	8 936
Ferro-silicon	2 142	3 498	3 096	1 768	11 894
Other ferro-alloys	374	674	2 435	612	824
Ingots, blooms, billets	136 155	127 290	238 682	233 934	454 773
Scrap	650 988	735 515	577 658	694 665	1 225 472

Imports of Iron, Steel and Ferro-alloys

tonnes

Country	1982	1983	1984	1985	1986
Thailand					
Pig-iron	14 103	14 510	13 641	11 707	6 971
Sponge & powder	3	1 973	1 658	6 153	9 046
Ferro-manganese	2 973	4 017	3 386	4 015	2 980
Ferro-silico-manganese	397	731	1 186	1 644	2 265
Ferro-silicon	3 003	3 538	3 606	3 967	3 525
Other ferro-alloys	228	2 377	1 682	1 516	712
Ingots, blooms, billets	23 045	36 118	14 581	43 760	55
Scrap	389 928	641 288	494 354	657 950	555 114
Australia					
Ferro-chrome	2 521	5 438	15 000	12 930	16 387
Ferro-manganese (c)	1 834	1 318	2 989	6 060	6 734
Ferro-silico-manganese	193	336	774	940	(d)
Ferro-molybdenum	175	115	168	132	108
Ferro-nickel	106	807	864	1 129	945
Ferro-silicon	10 761	7 174	9 461	13 890	11 469
Other ferro-alloys (c)	1 698	1 300	1 282	1 600	1 872
Ingots & billets	1 451	802	5 934	25 821	24 729
Scrap (h)	736	348	226	618	...
Fiji					
Ingots, blooms, billets	9 109	9 335	12 909	9 227	...
New Zealand (h)					
Pig-iron	268	356	259	308	577
Ferro-manganese	957	1 185	665	248	434
Other ferro-alloys	2 754	2 526	2 475	3 877	3 617
Ingots, blooms, billets	5 897	4 402	4 312	3 743	558
Scrap	6 599	3 538	2 391	3 147	5 120

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

(a) Excluding ships intended for breaking up

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

(c) Including powder

(d) Included with 'other ferro-alloys'

(e) Years ended 31 March following that stated

(f) Years ended 20 March following that stated

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

(h) Years ended 30 June of that stated

(i) Years ended 30 September of that stated

(j) Exports from the Soviet Union

Production of Kaolin

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom (a)	2 421 000	2 485 535	2 809 882	2 870 034	2 912 607
Belgium	52 600	60 000	70 000	* 70 000	...
Denmark	4 996	* 10 000	* 14 000	* 15 000	10 404
France	324 900	289 200	306 600	313 300	356 000
Germany, Federal Republic of (g)	378 000	361 000	370 000	342 000	477 000
Greece	50 179	60 749	92 407	89 833	141 210
Italy	53 495	50 450	52 604	59 856	35 132
Portugal	94 437	101 594	104 388	80 097	54 841
Spain (c)	238 892	255 112	319 273	413 719	...
Austria	77 286	83 560	91 669	93 889	97 136
Bulgaria	237 000	242 000	256 000	257 000	...
Czechoslovakia (h)	527 000	539 000	540 000	548 000	546 000
German Democratic Republic	* 210 000	* 200 000	* 175 000	* 175 000	* 175 000
Hungary (c)	52 000	45 000	47 172	35 523	35 869
Poland	52 128	54 200	52 900	55 200	55 500
Romania	* 410 000	* 410 000	* 410 000	* 410 000	* 410 000
Soviet Union	* 2 500 000	* 2 600 000	* 2 800 000	* 2 900 000	* 3 000 000
Sweden (h)(i)	305	300	196	106	...
Turkey	37 841	35 496	60 882	69 870	78 430
Yugoslavia	218 018	208 254	201 782	243 826	214 561
Algeria	* 15 000	* 17 000	8 000	* 8 000	* 14 200
Burundi	* 2 000	4 053	1 990	4 360	5 113
Egypt (d)	49 787	100 176	141 000	108 000	127 800
Ethiopia	* 9 000	* 9 000	...	...	...
Kenya	1 077	650	295	1 851	2 000
Madagascar	2 511	4	5	* 2 500	...
Nigeria	560	604	114	—	169
South Africa	129 368	130 806	136 160	128 899	126 129
Tanzania	2 800	1 600	1 700	1 636	2 270
Zimbabwe	2 441	4 470	1 350	1 104	901
Mexico	172 390	162 000	130 296	282 337	...
USA (e)	5 771 694	6 534 184	7 214 541	7 069 984	7 755 500
Argentina	72 421	145 098	90 545	106 006	110 230
Brazil (b)	600 632	501 706	596 688	655 205	* 650 000
Chile	21 086	40 812	48 608	48 537	42 170
Colombia (h)	30 210	27 944	30 635	34 216	...
Ecuador	5 872	3 449	2 484	2 981	...
Paraguay	55 000	45 000	50 000	60 000	...
Peru	* 6 000	* 6 000	* 6 000	* 6 000	* 6 000
Venezuela	27 000	11 250	12 540	18 660	11 467
Bangladesh (d)	5 862	2 269	2 613	4 178	2 695
China	* 500 000	* 500 000	* 500 000	* 500 000	* 500 000
Hong Kong	286	834	70	9 602	850
India (c)	554 656	595 011	609 780	757 622	710 383
Indonesia	77 207	59 628	83 414	106 869	124 937
Iran	* 110 000	* 100 000	* 100 000	* 100 000	* 100 000
Israel	12 000	26 844	* 27 000	* 27 000	* 27 000
Japan	144 234	173 480	153 551	145 870	203 653
Jordan	14 565	10 517	26 453	15 848	15 697
Korea, Republic of	582 000	637 000	671 000	612 000	790 000
Malaysia	44 363	57 432	72 472	82 576	85 052
Pakistan	32 483	23 412	10 383	6 644	37 056
Philippines	6 632	10 990	8 618	10 843	16 784
Sri Lanka	8 206	7 976	7 390	6 346	...
Taiwan	87 532	102 895	79 411	76 605	63 228
Thailand	17 846	36 350	58 616	106 704	116 037

Production of Kaolin

Country	1982	1983	1984	1985	1986
Australia (c)(f)	152 133	115 526	218 885	165 827	185 617
New Zealand	23 957	23 917	25 098	24 471	28 464
World total	17 300 000	18 300 000	19 900 000	20 400 000	21 600 000

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

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

Exports of Kaolin

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	2 105 753	2 131 469	2 559 668	2 574 959	2 523 713
Belgium-Luxembourg	16 324	25 079	31 728	38 642	37 002
Denmark	644	639	686	602	683
France	139 029	143 859	147 872	136 223	172 111
Germany, Federal Republic of	91 488	96 395	91 955	104 303	117 216
Greece	11 812	13 922	18 576	15 341	27 585
Italy	23 858	19 986	33 918	50 304	23 117
Netherlands	94 327	108 861	106 473	119 020	132 208
Portugal	1	508	517	906	1 140
Spain	51 156	54 363	108 994	...	127 842
Austria	27 863	35 664	49 853	45 193	52 029
Bulgaria	20 250	24 016	29 648	44 782	60 975
Czechoslovakia	369 000	390 000	389 000	386 000	383 000
German Democratic Republic	146 062	111 417	147 848	148 704	137 876
Hungary	5 995	6 115	6 603	8 098	7 443
Soviet Union (a)	* 55 500	* 40 600	* 43 800	* 46 600	* 31 200
Sweden	403	160	5 505	4 466	1 558
Turkey	...	...	16 901	17 796	...
South Africa	1 387	979	638	1 297	1 566
Mexico	29	235	2 117	2 527	...
USA	1 178 866	1 214 153	1 286 750	1 251 539	1 436 563
Brazil	143 358	181 555	195 830	196 402	204 105
China (a)	* 31 400	* 25 700	* 58 800	* 50 800	* 78 600
Hong Kong	9 936	2 997	10 275	10 655	73 866
of which: Re-exports	9 346	2 122	9 670	9 453	72 366
India (b)	7 108	5 663	5 306	...	...
Indonesia	2 063	3 796	10 920	34 908	44 807
Japan	2 785	4 439	4 476	2 824	9 318
Jordan	7 756	—	7 126	—	—
Korea, Republic of	51 423	51 092	67 702	60 331	55 819
Malaysia	14 156	29 636	38 132	36 756	46 913
Singapore	2 797	—	—	—	—
of which: Re-exports	2 722	—	—	—	—
Thailand	136	111	36	1 103	3 601

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

(b) Years ended 31 March following that stated

Imports of Kaolin

Country	1982	1983	1984	1985	1986
United Kingdom	3 462	4 287	4 187	4 202	4 678
Belgium-Luxembourg	267 577	247 264	275 863	297 481	310 426
Denmark	37 452	37 703	38 169	36 182	29 749
France	303 345	325 242	360 501	310 456	314 697
Germany, Federal Republic of	851 426	863 565	910 816	871 793	893 504
Greece	43 750	37 919	43 762	41 181	52 866
Italy	599 598	597 990	603 297	635 996	617 612
Netherlands	415 497	460 289	453 660	454 237	460 099
Portugal	11 455	7 765	8 249	8 976	15 719
Spain	176 301	164 424	187 548	...	177 730
Austria	94 299	95 035	102 598	95 401	86 699
Bulgaria (c)	* 2 300	* 2 000	* 1 300	* 9 400	* 4 000
Czechoslovakia (c)	* 6 600	* 7 100	* 7 300	* 8 100	* 7 700
Finland	370 054	429 672	518 724	571 391	627 611
German Democratic Republic	6 700	4 600	3 100	1 400	5 000
Hungary	37 772	40 232	60 843	59 451	63 278
Norway	71 914	67 224	75 477	79 528	75 743
Poland	137 028	137 918	123 782	145 961	160 181
Romania (c)	* 27 300	* 20 700	* 25 500	* 25 600	* 33 000
Sweden	297 454	336 310	403 377	419 400	386 493
Turkey	...	...	5 922	7 401	...
Yugoslavia	80 845	81 076	83 307	83 136	93 096
Algeria (d)	4 842	8 015	13 445	15 961	...
Ivory Coast	121	108	114	139	...
Morocco	8 133	7 228	9 908	7 853	...
Tunisia	6 641	...	7 975	8 974	14 007
Zimbabwe	2 114	...	...	2 896	...
Canada	205 955	249 834	253 076	271 468	333 272
Mexico	67 233	64 146	84 162	91 219	...
USA	8 554	6 757	9 669	8 515	9 374
Argentina	12 815	24 769	24 731	...	...
Brazil	2 045	1 976	1 369	1 281	773
Colombia	4 260	6 197	9 197	9 339	...
Peru	3 511	2 154	3 374	2 184	2 135
Uruguay	394	1 086	2 848	2 539	2 792
Venezuela	24 757	6 612	21 938	21 017	16 770
Bangladesh (b)	3 554	5 003	7 629	5 158	350 641
Hong Kong	25 336	13 234	42 503	38 827	82 336
Indonesia	13 218	20 347	29 956	22 207	19 460
Iran (a)	8 272	15 622	14 666	...	...
Israel (c)	* 10 000	* 13 500	* 30 900	* 14 200	* 12 700
Japan	560 071	549 763	684 405	706 745	678 359
Korea, Republic of	129 624	36 258	36 032	41 979	53 079
Malaysia	2 182	2 024	4 168	2 666	...
Pakistan (b)	5 262	5 385	5 136	4 569	5 712
Philippines	7 530	9 098	6 115	7 401	8 687
Saudi Arabia	3 582	3 937	4 570	3 094	2 122
Singapore	8 635	—	—	—	—
Taiwan	52 357	58 509	82 337	80 129	120 134
Thailand	4 016	2 661	2 668	4 320	19 429
Australia	12 715	9 401	7 310	2 437	...
New Zealand (b)	669	974	210	5 659	6 675

(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

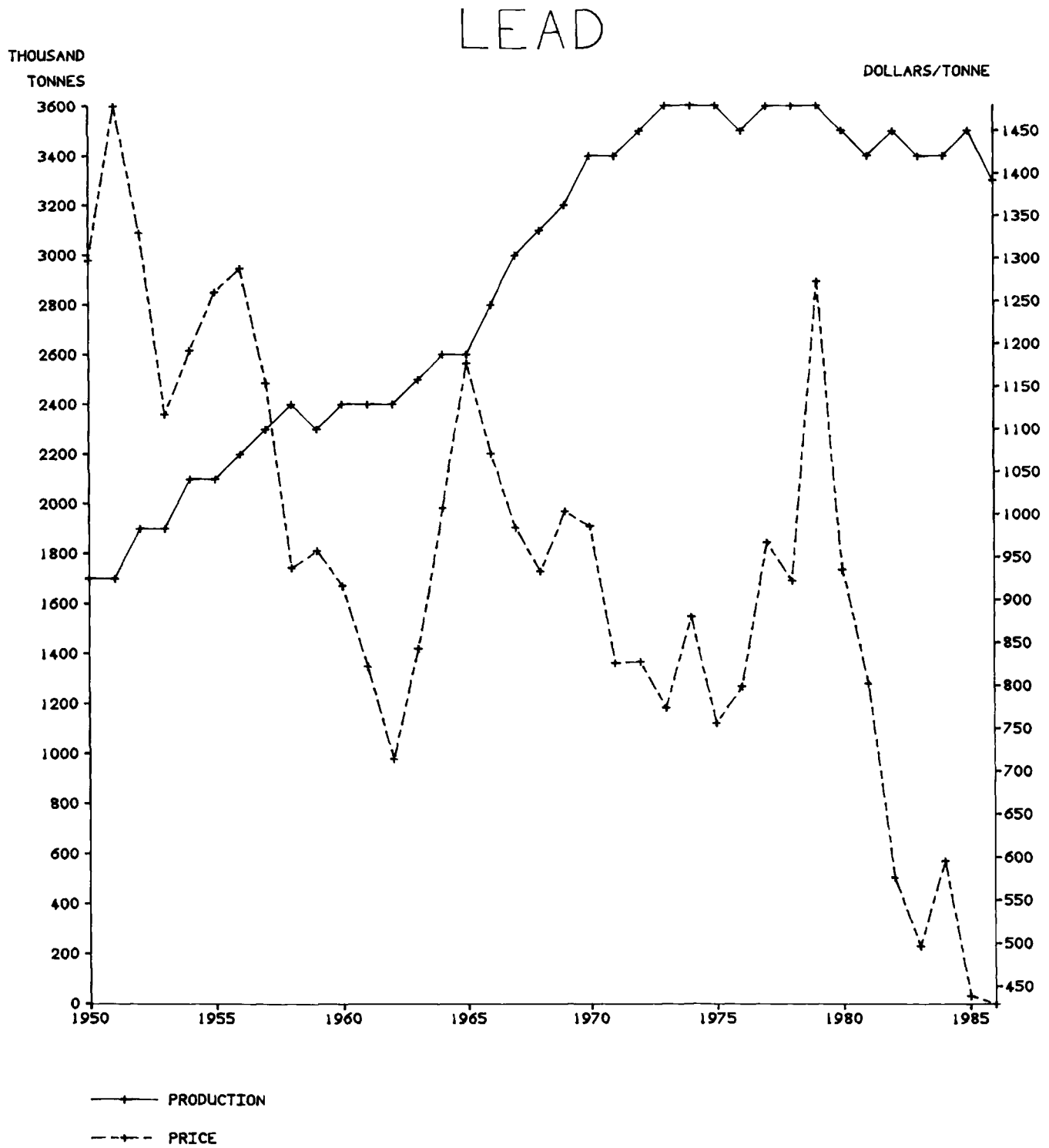


Figure 10 World mine production of lead from 1950 to 1986 compared with the yearly average domestic producer price of pig on the New York Market expressed in constant 1980 US dollars.

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

Mine Production of Lead

tonnes (metal content)

Country	1982	1983	1984	1985	1986
United Kingdom	3 993	3 797	2 431	3 994	648
France	6 867	2 377	2 647	2 486	2 500
Germany, Federal Republic of (a)	23 500	23 500	21 000	20 500	16 700
Greece	19 470	20 090	22 154	19 752	20 873
Irish Republic	39 000	34 000	37 200	34 600	36 400
Italy	16 300	23 500	21 500	15 622	11 119
Spain	73 271	82 032	96 726	85 636	79 600
Austria	5 574	5 750	5 574	7 500	5 699
Bulgaria	95 000	95 000	95 000	97 000	97 000
Czechoslovakia	2 649	2 652	3 100	2 718	2 944
Finland	2 384	2 651	2 956	2 927	1 980
Greenland	26 500	21 600	17 800	17 800	17 000
Hungary	583	671	587	575	174
Norway	4 002	4 309	3 967	3 597	3 197
Poland	45 300	47 000	52 800	51 300	42 500
Romania	* 27 000	* 28 500	* 30 000	* 35 000	* 34 000
Soviet Union	* 575 000	* 560 000	* 570 000	* 580 000	* 550 000
Sweden	86 767	85 762	87 297	82 421	88 900
Turkey	10 675	9 087	15 786	9 790	10 400
Yugoslavia	113 100	114 385	113 600	115 100	116 900
Algeria	3 000	3 000	3 600	3 800	3 500
Congo	4 000	4 000	2 500	2 500	1 000
Morocco	103 571	97 157	100 558	107 072	76 200
Namibia	34 900	33 800	42 600	48 600	37 100
Nigeria	* 300	* 300	* 300	300	—
South Africa	90 288	87 533	94 764	98 424	97 778
Tunisia	5 300	4 900	4 100	2 500	1 900
Zambia	23 198	25 695	20 310	15 062	15 375
Canada	341 212	251 383	311 391	284 595	296 000
Honduras	12 417	19 291	20 544	21 250	11 400
Mexico	145 844	167 405	183 314	206 732	185 194
USA (a)	512 516	449 295	322 677	413 955	339 793
Argentina	32 777	31 684	28 542	28 582	28 495
Bolivia	12 433	11 838	7 448	6 242	2 751
Brazil	19 360	18 821	18 775	16 997	13 614
Chile	1 552	1 679	4 284	2 473	1 501
Colombia	196	154	51	82	101
Peru (a)	175 771	205 100	198 400	200 600	194 400
Burma	9 100	8 900	8 300	7 623	6 600
China	* 160 000	* 160 000	* 165 000	* 175 000	* 185 000
India	14 000	19 900	18 600	26 000	25 000
Iran (b)	25 000	18 500	19 900	21 600	20 000
Japan	45 225	46 994	48 110	49 716	40 349
Korea, Dem. P.R. of	* 90 000	* 95 000	* 90 000	* 80 000	* 85 000
Korea, Republic of	12 166	12 225	10 837	9 698	11 863
Thailand	18 580	21 019	16 662	19 654	26 301
Australia	455 338	480 626	440 620	497 954	447 673
World total	3 500 000	3 400 000	3 400 000	3 500 000	3 300 000

(a) Recoverable

(b) Years ended 20 March following that stated

Production of Refined Lead

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	306 194	322 196	338 374	327 197	328 630
Belgium (a)	99 720	134 152	127 711	114 293	98 313
Denmark (b)	15 927	10 052	13 128	4 503	* 500
France	208 559	198 388	205 701	223 637	230 400
Germany, Federal Republic of	350 500	352 500	357 200	356 400	366 600
Greece	3 200	—	11 600	13 700	19 300
Irish Republic	* 10 000	* 8 000	9 000	10 000	10 000
Italy	133 660	126 829	140 458	134 955	126 374
Netherlands	32 500	25 600	33 600	37 300	35 700
Portugal	4 000	6 000	6 000	7 000	6 000
Spain	131 600	144 700	147 600	156 100	124 900
Austria	18 706	18 241	20 066	19 696	18 836
Bulgaria	* 118 000	* 116 000	* 114 000	* 116 000	* 119 000
Czechoslovakia	21 071	21 030	21 134	21 437	23 602
Finland	5 124	3 430	2 074	4 600	1 200
German Democratic Republic	* 40 700	* 38 700	* 44 700	* 44 500	* 46 000
Poland	78 800	81 000	83 400	87 300	88 300
Romania	45 675	49 298	45 900	48 636	51 513
Soviet Union	* 800 000	* 790 000	* 800 000	* 810 000	* 790 000
Sweden	63 690	62 805	65 636	56 653	* 70 000
Switzerland	3 000	2 000	2 000	2 000	2 500
Turkey	6 500	7 500	9 000	10 000	9 600
Yugoslavia	81 248	97 531	82 354	102 044	113 154
Algeria	5 500	5 000	5 000	4 000	4 000
Morocco	58 600	57 600	48 300	63 500	55 300
Namibia	40 590	35 416	28 930	38 511	40 047
Nigeria	2 000	400	600	800	600
South Africa	30 400	23 600	24 000	34 100	29 700
Tunisia	15 511	10 513	8 399	2 043	2 344
Zambia	14 645	14 572	8 825	8 873	6 648
Canada	238 882	241 957	254 380	240 011	264 922
Jamaica	* 1 000	* 1 000	* 1 000	* 1 000	* 1 000
Mexico	171 200	191 500	193 200	223 500	* 220 000
Trinidad & Tobago	* 2 000	* 2 000	* 2 000	* 2 000	* 2 000
USA	1 032 230	(c) 964 006	(c) 971 309	(c) 1 025 315	...
Argentina	30 600	31 300	31 300	35 000	34 300
Brazil	48 265	49 520	63 683	81 575	85 400
Colombia	* 3 000	* 3 000	* 3 400	* 3 700	* 4 000
Peru	82 000	65 100	71 200	83 300	67 400
Venezuela	15 000	15 000	17 000	20 000	19 000
Burma	7 829	7 636	6 995	9 400	5 300
China	* 175 000	* 195 000	* 200 000	* 215 000	* 220 000
India	23 193	21 556	22 421	22 185	26 831
Iran	—	5 000	7 500	7 500	8 000
Japan	302 200	321 642	362 948	367 000	361 452
Korea, Dem. P.R. of	* 65 000	* 65 000	* 65 000	* 65 000	* 65 000
Korea, Republic of	16 093	17 753	20 304	22 394	22 890
Malaysia	3 000	4 000	9 000	10 000	12 000
Philippines	6 000	6 000	4 000	7 000	7 000
Taiwan	35 000	38 000	44 300	48 700	53 500
Thailand	929	3 174	6 198	7 536	15 900
Australia	247 112	223 335	220 347	215 747	171 039
New Zealand	6 000	6 000	6 000	6 000	4 000
World total	5 300 000	5 200 000	5 400 000	5 600 000	5 500 000

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

(a) Including alloys

(b) Sales

(c) Excludes Pb content of primary antimonial lead

Exports of Lead

Country	1982	1983	1984	1985	1986
United Kingdom					
Ores & concentrates	2 496	10 096	2 644	3 728	3 189
Unwrought	94 800	88 231	116 686	93 478	89 494
Unwrought alloys	33 235	24 816	26 395	29 695	30 204
Scrap	22 607	22 314	34 383	30 800	14 783
Belgium-Luxembourg					
Unwrought	63 230	63 887	69 709	52 726	47 823
Unwrought alloys	11 418	12 501	14 993	17 847	10 236
Scrap	13 811	6 063	7 427	8 555	7 445
Denmark					
Ore	—	220	200	—	—
Unwrought	2 655	356	600	330	2 444
Unwrought alloys	7 289	7 561	10 231	3 713	839
Scrap	5 977	8 040	14 206	14 520	14 362
France					
Ore	44	3 096	122	14	7
Unwrought	41 083	33 888	35 781	39 557	34 821
Unwrought alloys	14 734	15 761	18 055	20 207	23 016
Scrap	8 928	10 674	17 973	12 630	7 105
Germany, Federal Republic of					
Ore	55	741	3	9 991	9 822
Unwrought	62 711	76 969	66 093	70 802	65 938
Unwrought alloys	37 911	43 361	40 467	36 190	33 062
Scrap	13 588	17 194	15 756	14 558	11 496
Greece					
Ore	28 700	36 800	33 706	23 000	38 800
Unwrought (a)	—	—	2 000	2 168	3 434
Irish Republic					
Ores & concentrates	49 383	59 606	61 114	62 622	60 400
Unwrought (a)	1 715	177	294	132	14
Scrap	3 858	2 995	5 107	4 085	2 062
Italy					
Ore	21 549	21 023	30 906	24 907	14 498
Unwrought	3 634	3 129	4 397	5 036	2 754
Unwrought alloys	839	2 765	4 409	6 749	7 694
Scrap	496	1 168	320	1 255	96
Netherlands					
Unwrought	2 448	1 141	2 547	7 062	8 660
Unwrought alloys	11 697	12 056	12 826	12 989	11 710
Scrap	26 835	25 946	30 024	20 213	17 203
Portugal					
Ore	1 193	1 049	1 048	1 090	1 029
Spain					
Ore	20 364	153	42 322	40 769	42 215
Unwrought (a)	33 342	39 544	61 486	66 015	57 834
Scrap	131	48	5 026	15	7 106
Austria					
Unwrought	837	767	467	988	1 126
Scrap	111	2	93	49	4 565
Bulgaria					
Unwrought (a)(f)	* 5 800	* 2 100	* 1 600	* 1 400	* 3 500
Czechoslovakia					
Ores & concentrates (f)	* 5 700	* 5 700	* 5 800	* 5 900	* 6 100
Finland					
Ore	17	42 708	7 494	6 105	3 927
Unwrought (a)	1 088	1 345	25	83	228
Greenland					
Ores & concentrates	34 424	34 216	29 376	26 313	9 001
Hungary					
Scrap	6 220	2 594	2 614	3 017	1 860
Norway					
Ore	7 449	6 898	6 732	6 686	7 180
Scrap	6 507	6 706	8 159	6 475	7 171
Soviet Union					
Unwrought (a)(f)	* 24 200	* 17 200	* 23 000	* 25 200	* 30 500

Exports of Lead

tonnes

Country	1982	1983	1984	1985	1986
Sweden					
Ore	49 246	51 326	47 895	42 962	58 048
Unwrought	51 149	52 204	55 450	50 590	50 649
Unwrought alloys	3 264	3 207	7 956	14 215	15 140
Scrap	69	513	458	165	573
Switzerland					
Unwrought	5 101	7 694	6 815	4 983	2 088
Scrap	6 725	5 980	10 077	10 391	16 008
Turkey					
Ore (e)	2 022	2 725	76	—	...
Yugoslavia					
Concentrates	9 116	4 274	5 925	5 764	734
Unwrought	17 769	17 623	14 698	15 071	11 886
Unwrought alloys	1 152	483	1 599	2 031	466
Algeria					
Ore	6 485	2 655	6 777	4 746	...
Ivory Coast					
Scrap	82	1 567	1 006	702	...
Morocco					
Ore	61 930	72 119	85 272	60 366	35 243
Unwrought	51 908	55 697	46 107	55 893	55 679
South Africa					
Concentrates (b)	99 931	85 984	81 377	102 790	102 637
Unwrought (f)	* 17 100	* 17 700	* 10 600	* 7 000	* 16 600
Scrap (f)	* 200	* 700	* 1 400	* 600	* 1 800
Tunisia					
Ore	—	10 028	4 500	3 300	3 000
Unwrought	10 102	3 515	5 949	1	—
Scrap	4 275	200	621	99	2 923
Zambia					
Unwrought	7 288	12 700	9 201	5 546	4 600
Canada					
Ore (b)	106 744	85 548	114 721	62 606	112 918
Unwrought	146 168	147 281	124 528	114 006	111 852
Scrap	15 895	8 535	5 960	11 392	25 565
Honduras					
Ores & concentrates (b)	8 634	11 581	13 772	18 913	8 230
Mexico					
Ores & concentrates	0	370	10 980	9 874	5 618
Unwrought	61 883	90 603	93 496	106 038	104 003
USA					
Ores & concentrates (b)	29 105	20 123	11 858	9 987	4 380
Unwrought	47 374	13 245	3 745	23 467	8 874
Unwrought alloys	3 846	4 443	1 232	1 931	2 342
Scrap	52 269	50 920	45 097	59 949	65 031
Argentina					
Ores & concentrates	18 112	20 948	15 540	19 854	...
Bolivia					
Ore (b)	11 557	9 342	2 361	1 369	12 886
Colombia					
Ore	331	—	620	198	...
Peru					
Ores & concentrates	231 748	298 870	274 137	221 090	201 657
Unwrought (a)	66 393	52 539	55 075	61 217	48 848

Exports of Lead

Country	1982	1983	1984	1985	1986
Burma (d)					
Unwrought	8 984	6 668	...	...	...
Hong Kong					
Scrap	2 291	2 596	3 097	1 883	2 502
Iran (c)					
Ore	60	9 263	14 823	...	...
Japan					
Ores & concentrates	4 807	3 001	14 172	5 343	—
Unwrought (a)	7 530	15 501	17 454	25 131	25 379
Scrap	—	129	548	3 974	2 893
Korea, Dem.P.R. of					
Unwrought (a)(f)	* 23 500	* 9 900	* 16 300	* 13 100	* 15 300
Korea, Republic of					
Ore	800	—	3 000	1 700	—
Singapore					
Unwrought (a)	1 550	2 265	1 472	673	5 584
of which: Re-exports	1 441	1 668	1 154	527	5 443
Scrap	2 812	1 862	3 597	7 057	5 103
of which: Re-exports	76	122	—	2 530	961
Taiwan					
Unwrought	14 790	16 033	15 925	20 602	23 473
Thailand					
Ore	37 636	42 737	42 004	46 788	54 110
Australia					
Ores & concentrates	91 312	91 227	150 687	180 986	217 787
Unwrought—					
Base bullion (b)	165 433	159 390	199 119	175 263	184 920
Refined (a)	201 335	185 664	150 441	156 733	111 929
Scrap	1 986	4 549	9 112	19 101	26 070

Note: In this table the term 'unwrought' lead corresponds to item 685.1 of the Standard International Trade Classification (Revision 2) and comprises base bullion, pigs, unwrought bars, etc

(a) Including alloys

(b) Pb content

(c) Years ended 20 March following that stated

(d) Years ended 31 March following that stated

(e) Complex lead-zinc ore

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

Imports of Lead

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Ores & concentrates	39 216	34 571	* 50 000	* 40 000	* 52 000
Unwrought	169 653	138 146	173 092	182 476	181 203
Unwrought alloys	3 997	1 786	2 581	2 799	1 830
Scrap	953	1 246	1 482	2 047	3 819
Belgium-Luxembourg					
Ore	106 078	85 480	67 774	114 697	76 144
Unwrought	37 319	55 356	50 579	39 195	49 740
Unwrought alloys	6 572	7 945	7 372	10 195	11 639
Scrap	11 238	13 485	15 053	11 626	6 218
Denmark					
Unwrought	4 225	10 269	9 337	246	8 507
Unwrought alloys	3 246	2 912	6 732	20 222	11 024
Scrap	7 706	6 782	5 872	994	339
France					
Ore	167 556	144 346	158 366	190 535	182 377
Unwrought	35 113	33 303	41 588	28 097	27 830
Unwrought alloys	8 308	15 829	13 661	13 007	9 245
Scrap	19 836	13 246	4 870	9 278	14 643
Germany, Federal Republic of					
Ore	192 371	217 753	206 723	236 490	194 054
Unwrought	140 184	103 830	130 402	118 711	121 939
Unwrought alloys	13 793	14 840	14 281	16 428	25 727
Scrap	35 606	30 886	69 865	45 905	50 542
Greece					
Ore	39	...	8 531	9 783	9 009
Unwrought (a)	18 418	23 921	13 879	9 752	1 937
Irish Republic					
Unwrought (a)	1 478	973	2 204	257	1 251
Scrap	7 689	3 918	4 700	4 787	7 359
Italy					
Ore	5 420	5 589	11 329	12 019	30 945
Unwrought	108 127	110 901	105 455	97 924	122 387
Unwrought alloys	20 236	22 548	19 289	17 071	18 419
Scrap	24 626	21 640	14 188	12 763	18 122
Netherlands					
Unwrought	40 392	30 587	23 060	26 500	28 733
Unwrought alloys	6 668	6 152	9 140	9 009	8 177
Scrap	11 614	15 220	22 045	24 593	19 257
Portugal					
Unwrought (a)	20 143	24 321	21 175	20 112	346 092
Scrap	222	5	3	14 770	6 234
Spain					
Ore	66 115	64 599	88 050	66 863	50 320
Unwrought (a)	6 495	5 268	4 936	3 664	8 901
Scrap	370	1 486	226	785	41
Austria					
Ore	6 993	4 611	7 730	3 987	4 124
Unwrought	32 549	31 362	39 271	37 501	38 516
Scrap	2 367	2 925	4 332	6 745	6 333
Bulgaria					
Ore (f)	* 11 200	* 5 000	* 2 100	* 2 000	* 4 400
Czechoslovakia					
Unwrought (a)	30 000	28 000	27 000	25 000	25 000
Finland					
Unwrought	19 461	11 929	12 137	15 953	10 742
Unwrought alloys	821	390	2 803	3 625	5 030
German Democratic Republic					
Unwrought (a)(f)	* 3 900	* 3 000	* 4 100	* 6 900	* 11 500
Scrap (f)	* 3 200	* 5 300	* 4 900	* 7 600	* 1 700
Hungary					
Unwrought & semi-manufactures	13 647	11 930	9 343	7 454	6 729
Norway					
Unwrought	6 189	6 100	8 156	6 965	7 658
Unwrought alloys	6 107	6 076	5 994	6 825	6 573
Poland					
Unwrought	6 358	1 621	6 133	6 195	3 041
Soviet Union					
Ore (f)	* 14 800	* 49 800	* 30 000	* 28 600	* 19 700
Unwrought (a)(f)	* 67 900	* 57 200	* 58 200	* 62 100	* 5 600

Imports of Lead

Country	1982	1983	1984	1985	1986
Sweden					
Ore	—	12 551	21 524	8 264	—
Unwrought	1 717	1 852	457	2 021	1 479
Unwrought alloys	2 444	2 048	2 877	2 790	2 346
Scrap	5 040	2 984	10 393	20 651	16 469
Switzerland					
Unwrought	12 867	10 429	8 167	10 681	10 186
Turkey					
Unwrought (a)	3 828	8 735	10 179	16 480	12 862
Yugoslavia					
Concentrates	—	6 537	573	416	2 887
Unwrought (a)	15 623	10 731	11 614	9 518	13 439
Scrap	—	—	—	960	1 859
Algeria					
Unwrought	6 996	4 276	3 959	7 993	...
Unwrought alloys	600	562	2 103	2 390	...
Egypt					
Unwrought & scrap	11 520	16 881	12 358	16 934	8 085
Kenya					
Unwrought (a)	178	188	229	246	56
Libya					
Unwrought	2 380	...	...	...	...
Madagascar					
Unwrought (a)	184	126	233	259	115
Mozambique					
Unwrought	268	300	133	281	1
Nigeria					
Unwrought (a)	360	...	35	1 542	317
South Africa					
Ore	15	—	7 277	15 567	14 867
Unwrought	3 976	5 438	9 912	3 877	1 000
Scrap	12 734	216	791	126	...
Sudan					
Unwrought	103	40	134	...	...
Tunisia					
Ore	18 733	11 928	6 319	—	—
Unwrought	48	...	—	1 501	2 709
Canada					
Unwrought	5 661	2 551	6 312	5 676	4 244
Mexico					
Unwrought & scrap	1 014	255	1 250	375	...
USA					
Ores & concentrates (b)	35 807	47 514	68 800	42 665	86 747
Unwrought—					
Base bullion	19	53	45	799	161
Other	80 743	113 602	148 411	121 049	123 919
Alloys	12 001	19 149	14 871	13 752	17 575
Scrap	4 107	2 630	2 873	1 850	2 269
Argentina					
Unwrought	1 450	1 138	—	—	...
Brazil					
Ore	—	6 591	10 724	27 447	30 120
Unwrought (a)	611	649	652	2 141	2 810
Scrap	—	2 849	6 543	12 888	14 945
Colombia					
Unwrought (a)	1 504	1 328	618	790	...
Uruguay					
Unwrought	966	476	1 169	1 068	1 312
Venezuela					
Unwrought (a)	6 079	5 233	7 394	7 889	8 790
Scrap	—	—	1 243	3 740	3 164
China					
Unwrought (a)(f)	* 13 800	* 9 200	* 6 400	* 1 700	* 4 200

Imports of Lead

tonnes

Country	1982	1983	1984	1985	1986
Hong Kong					
Unwrought (a)	2 026	2 591	1 893	2 321	5 072
Scrap	205	157	287	458	681
India (c)					
Unwrought	57 046	...	...	...	...
Unwrought alloys	5 093	...	...	...	...
Scrap	3 177	...	...	...	...
Indonesia					
Unwrought	6 567	7 870	8 958	7 670	7 853
Unwrought alloys	356	4 847	5 452	5 500	7 291
Iran (d)					
Unwrought	19 717	768	6 603	...	...
Israel (g)					
Unwrought	1 752	1 909	1 753	2 990	2 108
Japan					
Ore	225 654	237 807	249 226	261 795	273 829
Unwrought	52 442	52 752	97 982	74 561	46 966
Unwrought alloys	9 336	8 457	10 466	13 279	23 380
Scrap	2 762	1 012	450	185	83
Jordan					
Unwrought & scrap	1 078	745	332	314	130
Korea, Republic of					
Unwrought	217 007	23 261	22 900	37 109	38 917
Unwrought alloys	10 129	15 133	8 566	26 694	16 115
Scrap	5 704	6 661	6 534	20 162	39 382
Malaysia					
Unwrought (a)	7 288	9 177	13 505	12 291	...
Scrap	23	280	792	4 666	...
Pakistan (e)					
Unwrought (a)	2 337	2 096	2 284	2 276	1 942
Philippines					
Unwrought (a)	6 323	9 600	2 756	2 984	4 532
Scrap	—	341	—	3 600	4 307
Singapore					
Unwrought (a)	3 163	5 873	6 349	5 457	9 674
Syria					
Unwrought & scrap	1 638	2 680	1 204	2 439	...
Taiwan					
Unwrought (a)	8 805	17 540	12 170	12 272	16 154
Scrap	35 142	48 215	56 773	54 839	89 536
Thailand					
Unwrought	10 260	16 718	11 655	8 917	8 276
Unwrought alloys	981	1 135	777	386	1 376
Scrap	15	1 415	1 589	0	1 095
Australia (e)					
Ores & concentrates	18 839	11 092	—	10 900	...
New Zealand (e)					
Unwrought (a)	5 375	5 873	5 220	5 408	4 346

Note: In this table the term 'unwrought' lead corresponds to item 685.1 of the Standard International Trade Classification (Revision 2) and comprises base bullion, pigs, unwrought bars, etc

(a) Including alloys

(b) Pb content

(c) Years ended 31 March following that stated

(d) Years ended 20 March following that stated

(e) Years ended 30 June of that stated

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

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

Production of Lithium Minerals

Country	1982	1983	1984	1985	1986
Portugal					
Lepidolite	905	545	985	130	—
Soviet Union	* 55 000	* 55 000	* 55 000	* 55 000	* 55 000
Namibia	1 040	780	880	1 960	* 2 000
Zimbabwe	9 786	19 193	22 548	27 910	32 760
Canada	—	—	* 700	* 4 500	* 7 500
USA (a)(b)	* 3 500	* 4 500	* 5 000	* 4 500	* 4 000
Argentina	113	152	22	* 20	184
Brazil					
Amblygonite	66	113	49	75	* 150
Lepidolite	74	1	—	—	—
Petalite	2 293	1 892	477	* 500	* 850
Spodumene	341	116	288	* 300	* 500
Chile (c)	—	—	2 110	4 508	4 458
China	* 14 000	* 15 000	* 15 000	* 15 000	* 15 000
Australia					
Spodumene	* 80	2 492	6 668	12 009	8 530
World total (a)	* 5 200	* 6 400	* 7 400	* 7 600	* 7 200

(a) Li content

(b) Mostly spodumene

(c) Carbonate

Lithium

Exports of Lithium

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Metal	17	97	163	...	...
Oxides	98	117	222	...	...
Carbonate	73	72	38	100	286
Belgium-Luxembourg					
Oxides	67	2	—	54	50
France					
Oxides	105	62	79	48	21
Germany, Federal Republic of					
Metal	40	60	59	71	54
Oxides	510	610	692	761	694
Carbonate	929	914	1 294	1 093	1 462
Netherlands					
Oxides	188	145	14	27	18
Carbonate	299	432	31	9	62
Spain					
Lithium minerals	—	942	1 567	...	...
South Africa					
Lithium minerals (a)	...	...	* 300	* 3 000	* 1 500
Zimbabwe					
Lithium minerals	9 739	16 172	23 805	28 117	22 837
USA					
Oxides	2 381	2 594	3 721	3 562	2 897
Carbonate	4 721	8 065	8 213	6 312	5 253
Brazil					
Lithium minerals	2 805	17	8	33	...
China					
Oxides (a)	* 700	* 600	* 500	* 400	* 500
Carbonate (a)	* 400	* 300	* 400	* 700	* 1 100

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

Imports of Lithium

Country	1982	1983	1984	1985	1986
United Kingdom					
Metal	...	7	12	21	36
Oxides	1 046	1 533	1 188	459	510
Carbonate	375	430	431	659	1 160
Belgium-Luxembourg					
Metal	16	2	1	2	1
Oxides	209	160	156	175	187
Carbonate	199	239	257	214	237
France					
Metal	8	8	10	18	41
Oxides	520	602	479	473	329
Carbonate	358	440	548	410	596
Germany, Federal Republic of					
Metal	14	13	21	22	24
Oxides	1 684	641	674	687	1 668
Carbonate	3 858	4 014	5 026	5 328	5 068
Italy					
Metal	0	2	5	6	3
Oxides	120	215	416	298	267
Carbonate	340	297	361	335	527
Netherlands					
Metal	3	2	21	11	1
Oxides	278	143	68	102	83
Carbonate	497	697	244	246	466
Spain					
Lithium minerals	233	53	441	...	...
Metal	11	0	0	...	—
Oxides	101	170	100	...	95
Carbonate	122	163	210	...	290
South Africa					
Lithium minerals	1 163	1 228	1 146	443	...
USA					
Lithium minerals	13	7	136	4 170	12 010
Brazil					
Oxides	220	346	271	426	272
Carbonate	309	449	79	267	...
Japan					
Metal	35	30	32	42	50
Oxides	670	766	858	797	885
Carbonate	3 189	3 626	3 773	4 430	2 431
Korea, Republic of					
Carbonate	22	32	159	152	166
Australia					
Oxides (a)	147	87	151	139	...

(a) Years ended 30 June of that stated

Production of Magnesite

tonnes

Country	1982	1983	1984	1985	1986
Greece	901 988	858 840	1 057 006	927 834	943 759
Spain	533 595	597 137	691 542	692 196	* 700 000
Austria	1 031 404	1 005 768	1 183 409	1 255 043	1 084 360
Czechoslovakia	672 000	662 000	660 000	654 000	666 000
Poland	17 047	16 100	20 600	19 200	20 900
Soviet Union	* 2 150 000	* 2 200 000	* 2 200 000	* 2 200 000	* 2 200 000
Turkey	910 249	724 541	723 268	1 136 714	1 339 405
Yugoslavia	328 436	303 965	373 547	419 044	422 548
Egypt	2 715	3 588	2 918	477	6 095
South Africa	31 927	22 560	33 059	28 898	61 186
Zimbabwe	60 660	24 072	21 642	19 385	27 649
Canada (b)	35 250	80 000	112 000	136 000	144 000
Brazil (c)	226 772	231 297	326 235	265 177	* 300 000
Colombia	...	...	13 500	14 230	14 936
China	* 2 000 000	* 2 000 000	* 2 000 000	* 2 000 000	* 2 000 000
India	417 900	436 210	417 979	421 379	449 982
Iran (a)	* 5 000	* 5 000	* 5 000	* 5 000	* 5 000
Korea, Dem. P.R. of	* 1 900 000	* 1 900 000	* 1 900 000	* 1 900 000	* 1 900 000
Nepal	* 20 000	15 016	14 603	19 851	* 20 000
Pakistan	1 206	1 844	3 876	2 113	1 758
Philippines	—	620	625	1 090	2 111
Australia	29 671	20 539	67 041	57 535	41 441
World total	11 300 000	11 100 000	11 800 000	12 200 000	12 400 000

Note: 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) Includes beneficiated and directly shipped material

Exports of Magnesite

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Crude	491	42	50	155	105
Calcined	30 532	7 394	28 374	28 472	3 255
Belgium-Luxembourg					
Crude	1 293	365	404	282	154
Calcined	1 536	1 210	2 553	4 140	4 790
France					
Crude	1 610	66	222	980	515
Calcined	662	2 208	1 549	2 933	1 829
Germany, Federal Republic of					
Crude	21	168	133	24	22
Calcined	17 093	18 890	17 285	22 661	31 571
Greece					
Crude	24 983	25 068	24 931	10 447	8 054
Calcined	326 247	350 194	402 572	332 779	326 861
Irish Republic	70 861	33 127	(a)* 74 600	(a)* 72 800	(a)* 52 700
Italy					
Crude	35 604	1 115	946	2 373	719
Calcined	1 772	28 647	60 433	59 301	111 705
Netherlands					
Crude	1 302	1 875	1 554	1 049	1 618
Calcined	28 001	25 678	25 122	33 020	31 500
Spain					
Crude & calcined	105 443	111 996	123 050	122 479	108 742
Austria					
Crude	) 160 567	1 461	697	573	755
Calcined	)	129 583	167 799	154 233	137 550
Czechoslovakia	303 000	291 000	428 000	446 000	305 000
Finland	954	278	65	1 860	503
Norway	12 865	9 575	9 870	10 271	8 689
Soviet Union (a)	* 16 900	* 15 500	* 9 200	* 9 700	* 6 800
Sweden	266	240	502	1 889	575
Turkey					
Crude	19 521	10 003	46 812	58 597	) 134 042
Calcined	116 212	82 067	117 802	100 812)
Yugoslavia	24 524	5 049	6 857	8 271	7 953
South Africa (c)	£477 000	£670 000	£1 599 000	£17 000	...
Zimbabwe	54 801	22 678	18 051	16 852	...
Brazil					
Calcined	78 849	73 802	97 267	84 169	76 595
China (a)	* 311 200	* 312 400	* 413 600	* 495 700	* 500 600
Hong Kong					
Crude & calcined (Re-exports)	10 977	15 416	18 399	15 457	29 478
India (b)					
Calcined	1 817	1 448	3 030	...	...
Israel (a)	...	* 24 800	* 24 400	* 21 900	* 8 600
Japan	2 974	3 728	4 109	4 144	4 745
Korea, Dem. P.R. of (a)	* 210 100	* 231 800	* 212 300	* 237 700	* 194 200
Singapore	187	151	602	245	172
of which: Re-exports	42	151	602	245	28
Australia	2 831	2 808	3 984	5 443	2 652

Notes:

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

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

(b) Years ended 31 March following that stated

(c) Values shown are for the common customs area

Imports of Magnesite

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Crude	13 769	15 282	12 420	14 860	9 241
Calcined	69 766	107 420	119 216	118 218	110 356
Belgium-Luxembourg					
Crude	711	1 500	524	315	803
Calcined	11 953	13 901	18 295	17 616	18 822
Denmark					
Crude	660	6	24	—	6
Calcined	9 274	10 583	10 027	8 710	10 980
France					
Crude	172	5 691	80	53	100
Calcined	121 048	157 645	158 681	158 896	168 309
Germany, Federal Republic of					
Crude	797	4 395	5 779	6 242	4 918
Calcined	319 561	356 929	390 625	369 230	361 565
Greece	259	7 020	9 898	26 883	24 541
Irish Republic	37 114	40 029	43 948	36 202	42 251
Italy					
Crude	31 320	16 096	23 141	20 266	12 720
Calcined	30 167	73 908	84 030	72 517	72 407
Netherlands					
Crude	1 792	3 187	4 408	3 933	1 939
Calcined	59 874	54 923	60 868	74 263	77 687
Portugal	1 542	1 678	741	698	881
Spain					
Crude & calcined	56 516	47 918	63 967	67 008	59 251
Austria					
Crude	5	111	221	153	584
Calcined	99 694	95 445	116 497	150 117	121 481
Bulgaria (b)	* 7 100	* 8 100	* 24 100	* 25 100	* 20 100
Finland	19 973	21 336	14 359	17 631	9 620
German Democratic Republic (b)	* 50 100	* 33 000	* 63 200	* 58 200	* 37 000
Hungary					
Calcined	101 161	98 312	91 467	94 990	100 032
Norway	5 620	5 142	6 110	7 947	6 911
Poland					
Calcined	223 455	243 021	222 513	263 398	211 464
Romania (b)	* 25 800	* 29 700	* 78 300	* 66 700	* 50 200
Soviet Union					
Calcined	705 112	618 370	569 887	582 650	696 638
Sweden	22 214	20 752	30 005	28 126	23 453
Switzerland					
Calcined	4 212	4 221	4 524	5 178	5 185
Yugoslavia					
Crude	10 771	26 883	31 543	27 533	5 244
Calcined	29 138	19 663	19 712	15 805	16 388
Algeria	527	237	545	802	...
Egypt	5 470	1	2 434	9 210	2 289
Morocco	163	42	162	49	...
South Africa					
Crude & calcined	105 916	59 213	79 915	75 601	81 187
Tanzania	421	...	150	2 501	...
Tunisia	—	102	514	375	480
Zaire	1 234	447	627	...	...
Canada					
Calcined	37 657	42 054	49 943	46 468	46 600
Mexico					
Crude & calcined	13 081	...	...	...	...
USA					
Crude & calcined	75 758	101 994	191 255	223 410	264 820

Imports of Magnesite

tonnes

Country	1982	1983	1984	1985	1986
Argentina					
Calcined	8 884	17 633	17 686	19 926	...
Brazil					
Crude & calcined	1 446	697	1 268	536	...
Chile (b)	* 2 100	* 4 700	* 2 800	* 3 600	* 8 600
Peru					
Crude & calcined	2 016	1 689	4 722	5 238	...
Venezuela					
Crude & calcined	580	11 941	20 913	89 051	60 201
Hong Kong	17 826	20 378	22 593	21 331	31 501
India (c)	6 516	...	...	...	...
Indonesia	3 613	3 955	3 690	6 456	8 641
Iran (d)	975	394	385	...	...
Israel	295	(b)* 200	(b)* 1 200	(b)* 1 000	(b)* 1 100
Japan					
Crude	57 432	44 778	50 420	38 538	33 613
Calcined	192 516	238 958	268 207	296 228	220 347
Korea, Republic of	7 575	7 232	335 380	12 347	5 078
Malaysia	2 429	2 866	5 921	9 645	...
Pakistan (a)	2 370	20 003	1 513	1 318	722
Philippines					
Crude & calcined	5 404	6 051	6 039	5 651	8 375
Singapore	603	371	567	791	472
Taiwan	11 918	17 736	20 264	20 242	8 698
Thailand					
Crude	1 243	4 376	7 426	7 704	13 234
Calcined	1 637	2 095	3 771	2 493	1 204
Australia					
Calcined	11 235	11 706	9 619	16 107	...
New Zealand (a)	1 841	1 944	5 691	7 650	6 795

Notes:

- 1 So far as possible sea water magnesia has been excluded from this table if specifically identified in trade accounts
 - 2 The term 'calcined', as used here, includes dead-burned, sintered and caustic-burned (caustic calcined) material
- (a) Years ended 30 June of that stated
(b) BGS estimates, based on known exports from certain countries
(c) Years ended 31 March following that stated
(d) Years ended 20 March following that stated

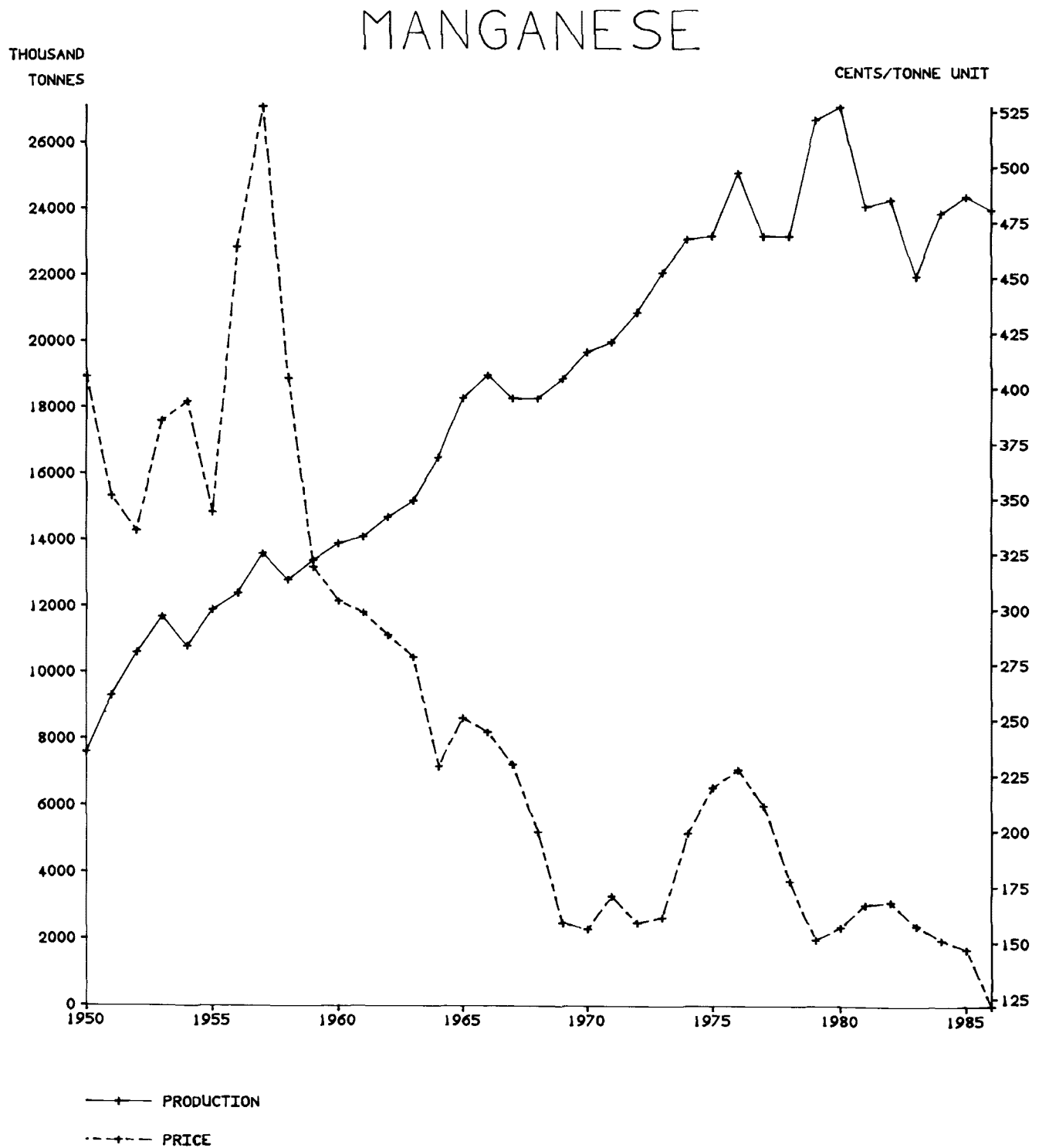


Figure 11 World production of manganese ore from 1950 to 1986 compared with the yearly average price of Indian 46–48% Mn ore c.i.f. US ports expressed in constant 1980 US dollars per metric ton unit.

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

Production of Manganese Ore

tonnes

Country		1982	1983	1984	1985	1986
Greece	(50%)	5 600	4 636	5 447	5 058	4 560
Italy	(30%)	8 727	7 205	9 528	8 621	6 396
Austria (e)		61 549	65 284	67 037	60 074	58 945
Bulgaria	(30%)	45 000	45 000	45 000	38 000	* 40 000
Czechoslovakia (d)	(17%)	* 900	* 900	* 900	* 950	* 1 000
Hungary	(30%)	82 855	58 606	67 000	62 294	62 172
Romania	(22%)	55 000	78 000	66 000	68 000	67 000
Soviet Union	(35%)	9 821 000	9 876 000	10 089 000	9 900 000	9 300 000
Turkey	(40%)	7 310	3 200	42 796	10 750	8 312
Yugoslavia	(34%)	27 494	31 643	21 079	31 800	41 000
Gabon	(50%)	1 511 000	1 856 586	2 102 868	2 339 301	2 513 424
Ghana	(40%)	159 900	173 100	286 700	357 270	338 979
Morocco	(50%)	96 529	73 515	59 127	43 690	36 734
South Africa						
Metallurgical	(40%)	4 878 697	2 627 672	2 857 619	3 442 544	3 563 647
Chemical	(55%)	337 820	259 291	191 750	157 924	155 647
Mexico	(38%)	508 700	350 000	476 200	396 400	460 000
USA	(10%)	28 584	30 412	80 216	(a) 18 037	(a) 12 991
Argentina	(30%)	3 900	6 926	8 291	* 8 000	7 043
Brazil (b)	(40%)	2 340 974	2 091 631	2 693 131	2 523 194	* 2 700 000
Chile	(33%)	16 111	26 050	26 172	35 635	31 631
China	(30%)	* 1 600 000	* 1 600 000	* 1 600 000	* 1 600 000	* 1 600 000
India (c)	(35%)	1 480 952	1 277 236	1 130 109	1 258 903	1 274 817
Indonesia	(50%)	17 894	8 318	12 267	23 295	40 601
Japan	(26%)	78 160	75 543	61 864	20 618	18 093
Philippines	(48%)	1 556	2 242	615	387	457
Thailand	(45%)	7 758	6 710	8 695	4 412	4 888
Australia	(48%)	1 127 085	1 370 233	1 848 889	2 002 960	1 648 921
World total		24 300 000	22 000 000	23 900 000	24 400 000	24 000 000

Notes:

- 1 Estimated average manganese content is given in parentheses for each country, relating where possible to the later years
- 2 In addition to the countries listed, Colombia, Cuba and Vietnam are also believed to produce manganese ore

(a) Shipments of manganiferous iron ore only

(b) Includes beneficiated and direct shipping ore

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

(d) Manganiferous iron ore

(e) Mn content of domestic iron ore

Exports of Manganese

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Ore (a)	6 659	1 413	1 934	3 853	235
Metal	878	1 232	1 001	...	...
Belgium-Luxembourg					
Ore	8 546	2 882	2 757	492	877
Metal	265	1 185	1 489	1 327	1 960
France					
Ore (a)	11 136	20 907	76 454	73 774	95 249
Metal	4 188	4 949	6 434	5 788	4 014
Germany, Federal Republic of					
Ore (a)	1 497	4 020	757	1 144	1 000
Metal	99	143	131	118	193
Greece					
Ore	300	1 429	361	—	501
Italy					
Ore (a)	1 345	1 009	1 919	1 272	1 747
Netherlands					
Ore	42 077	43 208	46 597	47 849	41 166
Metal	3 845	2 257	1 338	1 830	1 241
Portugal					
Ore	450	4 625	—	—	—
Bulgaria					
Ore (c)	* 10 000	* 39 000	* 36 000	* 10 000	...
Hungary					
Ore	15 865	9 608	11 657	11 417	9 081
Norway					
Ore	5	1 522	5	—	505
Soviet Union					
Ore	1 144 000	1 079 000	1 081 000	1 126 000	1 101 000
Sweden					
Ore	182	509	—	24	—
Metal	68	111	68	86	113
Turkey					
Ore	—	—	—	6 914	602
Yugoslavia					
Ore	3 030	5 175	7 156	13 281	6 995
Gabon					
Ore	1 419 000	1 986 810	...	...	2 550 898
Ghana					
Ore	133 711	13 550	237 000	(c)* 217 000	(c)* 180 000
Morocco					
Ore	81 594	57 860	69 665	47 012	50 738
South Africa					
Ore	2 870 875	1 995 649	3 038 301	2 890 306	2 415 694
Metal	15 580	24 634	36 603	29 126	...
Zaire					
Ore	* 16 300	(c)* 27 600	(c)* 19 700	(c)* 25 500	(c)* 56 700
Mexico					
Ore	169 891	143 069	246 470	129 885	...
USA					
Ore	34 475	21 299	223 197	69 753	41 554
Metal	3 266	5 937	3 718	4 805	4 840
Brazil					
Ore	845 991	747 436	878 976	901 201	766 454
China					
Ore (c)	* 23 200	* 22 800	* 13 100	* 4 400	* 4 300
Metal (c)	* 400	* 850	* 200	* 600	* 1 200
India (d)					
Ore (b)	422 192	358 442	621 432	...	...
Indonesia					
Ore (a)	8 400	27 670	26 260	30 665	4 959
Japan					
Ore (b)	1 557	1 973	2 476	1 605	1 293

Exports of Manganese

tonnes

Country	1982	1983	1984	1985	1986
Philippines					
Ore (a)	—	1 315	—	—	216
Singapore					
Ore	19 104	27 449	25 492	21 954	23 565
of which: Re-exports	3 668	8 065	12 230	7 392	23 565
Thailand					
Ore	2 000	1	4 100	—	—
Australia					
Ore	906 416	1 003 513	1 460 139	1 402 897	1 144 579

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

(a) Includes manganiferous iron ore

(b) Includes ferruginous manganese ore

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

(d) Years ended 31 March following that stated

Imports of Manganese

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Ore (b)	178 946	367 206	269 865	386 299	159 500
Metal	2 741	3 424	3 113	4 215	4 831
Belgium-Luxembourg					
Ore	227 057	162 653	221 559	230 711	199 138
Metal	1 467	1 757	2 333	2 096	2 994
Denmark					
Ore	510	322	416	1 085	575
France					
Ore (b)	921 816	745 625	1 007 721	1 039 791	760 907
Metal	1 173	1 461	1 184	823	1 182
Germany, Federal Republic of					
Ore (b)	393 546	434 261	535 843	377 795	473 126
Metal	5 989	5 468	6 102	6 225	6 344
Greece					
Ore	25 157	...	...	10 852	589
Irish Republic					
Ore (b)	10 815	21 152	28 072	24 178	34 758
Italy					
Ore (b)	333 064	385 550	273 192	392 646	329 736
Metal	1 713	1 974	2 653	3 522	1 836
Netherlands					
Ore	67 628	44 389	50 386	72 493	130 177
Metal	4 102	2 170	1 560	2 113	2 004
Portugal					
Ore (c)	122 071	68 587	227 526	127 342	126 703
Spain					
Ore	260 600	213 765	417 653	299 033	244 300
Metal	454	676	524	...	676
Austria					
Ore	439	362	441	666	437
Bulgaria					
Ore	81 900	96 800	94 400	93 000	83 000
Czechoslovakia					
Ore	502 000	506 000	482 000	457 000	332 000
Finland					
Ore	1 733	10 154	7 005	10 045	2 265
German Democratic Republic					
Ore (a)	39 800	27 400	21 800	19 500	30 200
Hungary					
Ore	404	343	340	480	440
Norway					
Ore	764 085	623 305	737 061	701 993	817 544
Metal	320	1 579	1 121	1 678	1 315
Poland					
Ore	689 370	574 194	648 163	617 977	670 843
Romania					
Ore	174 000	220 000	165 000	225 000	196 000
Sweden					
Ore	25 835	24 527	486	336	12 121
Metal	1 331	1 442	977	1 072	1 726
Turkey					
Ore	1 952	1 910	1 348	1 300	840
Yugoslavia					
Ore	109 043	130 169	148 033	140 249	132 548
Ivory Coast					
Ore	1 800	1 250	1 301	2 067	...
Kenya					
Ore (b)	1 407	1 739	1 998	1 592	3 550
South Africa					
Ore	4 351	5 542	7 970	5 250	3 050
Zimbabwe					
Ore	6 795	4 174	5 131	6 539	...
Canada					
Ore (a)	71 658	42 260	77 543	102 199	94 914
Metal	781	2 652	3 078	3 757	2 655
Mexico					
Ore	59 320	155 418	141 803	24 332	...

Imports of Manganese

tonnes

Country	1982	1983	1984	1985	1986
USA					
Ore	208 390	334 151	306 714	344 087	415 884
Metal	5 049	5 606	12 033	8 609	8 844
Argentina					
Ore	126 250	95 426	28 969	64 000	...
Brazil					
Ore	11 324	19 206	1 006	3 753	...
Metal	1 020	1 174	1 217	1 336	...
Colombia					
Ore	4 284	1 477	3 397	2 241	...
Peru					
Ore	1 442	625	1 056	1 320	1 099
Venezuela					
Ore	54 436	5 150	28 956	48 377	48 006
Hong Kong					
Ore	5	204	135	243	341
India (e)					
Ore	3 165	...	...	...	...
Metal	444	...	...	...	...
Indonesia					
Ore (b)	4 890	2 889	1 545	1 153	1 170
Iran					
Ore (d)	* 2 700	* 3 000	* 3 700	* 1 500	* 3 500
Japan					
Ore (c)	2 146 444	1 623 244	2 212 243	2 183 066	1 806 871
Korea, Dem. P.R. of					
Ore (d)	* 28 200	* 20 200	* 41 600	* 21 300	* 30 000
Korea, Republic of					
Ore	236 585	196 457	255 364	275 920	222 831
Malaysia					
Ore	1 332	1 499	1 462	1 128	...
Pakistan (f)					
Ore	15	—	25 030	163	33 187
Philippines					
Ore (b)	3 021	3 981	3 438	2 669	3 040
Saudi Arabia					
Ore	2 605	7 424	22 649	20 144	27 929
Singapore					
Ore	68 209	44 840	35 095	35 923	28 846
Sri Lanka					
Ore	1 120	867	1 342	290	104
Taiwan					
Ore	135 556	106 195	97 160	128 970	119 241
Thailand					
Ore	2 932	—	73	2	—
Australia					
Ore	451	1 004	1 298	1 576	1 703
Metal	567	1 144	1 561	1 012	649

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

(a) Mn content

(b) Includes manganiferous iron ore

(c) Includes ferruginous manganese ore

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

(e) Years ended 31 March following that stated

(f) Years ended 30 June of that stated

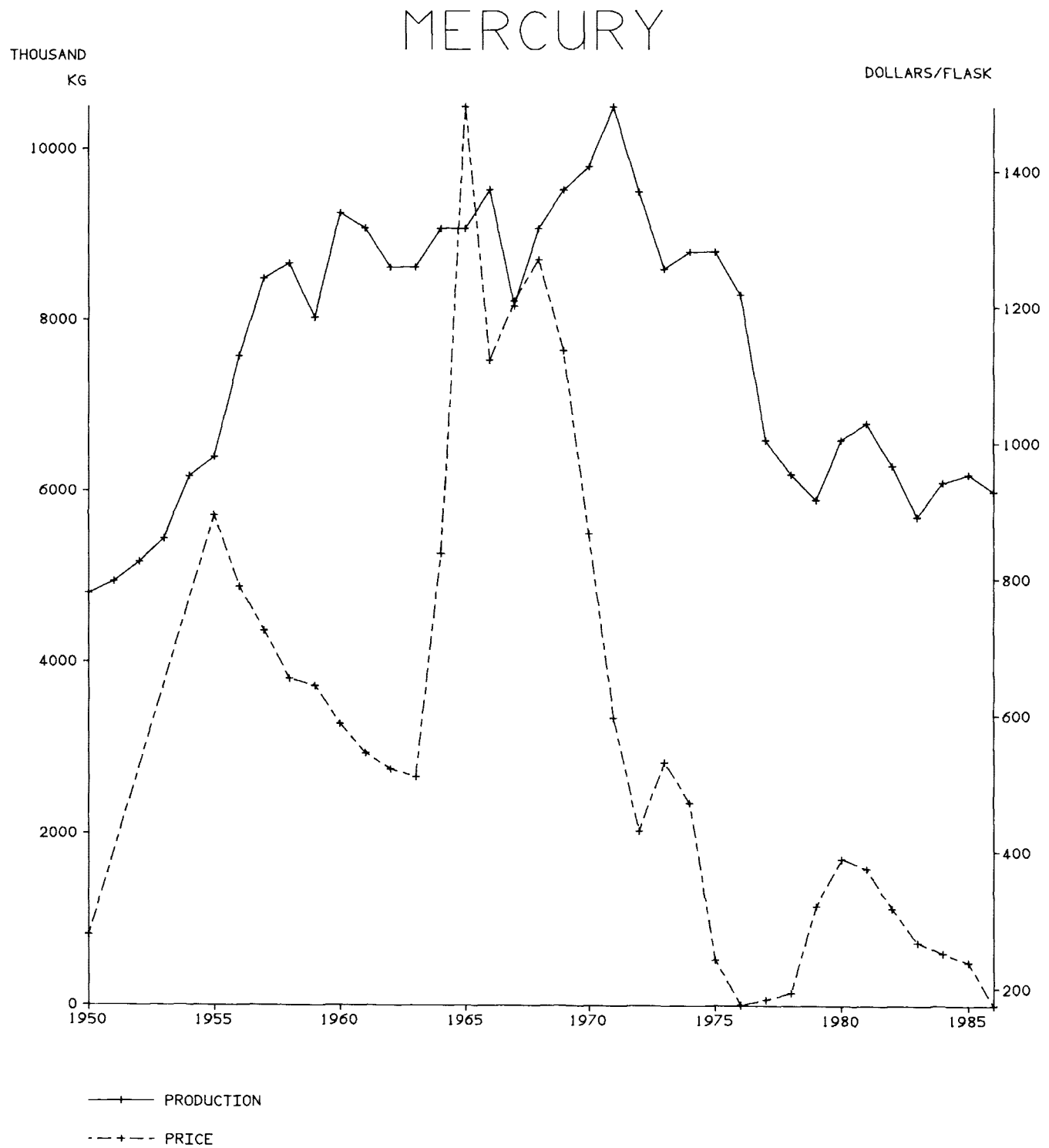


Figure 12 World production of mercury from 1950 to 1986 compared with the annual average price (USA) expressed in constant 1980 US dollars.

Constant commodity prices have been derived from Metals Week, as quoted in Metallstatistik (published by Metallgesellschaft, 1987), using the CPI for the USA published in International Financial Statistics Yearbook (1987).

Production of Mercury

Country	1982	1983	1984	1985	1986
Germany, Federal Republic of	53 000	—	—	—	—
Italy	159 350	—	—	—	—
Spain	1 656 000	1 416 156	1 519 898	1 552 707	1 470 000
Czechoslovakia	151 000	144 000	152 000	158 000	168 000
Finland	71 000	64 000	79 000	125 138	146 138
Soviet Union	* 1 700 000	* 1 700 000	* 1 600 000	* 1 600 000	* 1 500 000
Turkey	246 262	161 667	182 125	226 328	291 228
Yugoslavia	—	51 750	72 000	86 000	75 000
Algeria	* 379 500	* 345 000	* 793 500	* 793 500	* 793 500
Mexico	295 000	221 000	384 000	394 000	410 000
USA	888 025	864 239	656 642	569 839	* 410 000
China	* 700 000	* 700 000	* 700 000	* 700 000	* 700 000
World total	6 300 000	5 700 000	6 100 000	6 200 000	6 000 000

Exports of Mercury

kilograms

Country	1982	1983	1984	1985	1986
United Kingdom	212 975	131 004	43 392	69 778	20 479
Belgium-Luxembourg	34 200	77 200	26 800	9 900	11 400
Denmark	4 300	5 100	7 600	6 300	1 100
France	8 000	107 000	79 000	55 300	86 500
Germany, Federal Republic of	278 500	573 200	199 300	149 600	111 700
Italy	98 700	380 037	82 005	19 400	1 572 200
Netherlands	113 000	418 000	420 000	25 000	23 000
Spain	615 000	903 000	1 590 000	944 000	537 000
Austria	3 500	3 600	6 200	2 900	2 800
Finland	62 000	66 000	177 000	108 000	81 000
Norway	133 000	63 000	57 000	57 000	30 000
Sweden	10 000	114 000	97 000	5 000	11 000
Switzerland	3 216	951	7 993	29 450	5 206
Turkey	317 229	241 708	270 649	298 114	181 000
Yugoslavia	...	2 000	22 000	41 000	34 000
Algeria	252 195	501 544	1 144 770	2 032 127	...
Dominican Republic	1 620	3 895	3 800	...	...
Mexico	188 508	215 807	229 735	92 295	...
USA (a)	* 121 000	* 257 000	* 168 000	* 130 000	* 120 000
China (a)	* 429 000	* 248 000	* 154 000	* 320 000	* 460 000
Hong Kong (Re-exports)	26 769	76 176	5 813	42 637	93 730
Japan	251 503	25 453	74 785	330 946	272 485
Singapore	50 287	15 357	6 703	10 678	5 680
of which: Re-exports	50 277	15 309	6 703	10 653	5 680

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

Imports of Mercury

Country	1982	1983	1984	1985	1986
United Kingdom	260 929	185 052	287 637	393 346	417 712
Belgium-Luxembourg	285 200	262 200	329 400	259 800	211 700
Denmark	7 900	8 100	12 000	15 600	7 100
France	105 000	171 000	148 000	156 200	186 900
Germany, Federal Republic of	242 700	560 300	426 100	402 800	412 400
Greece	2 000	1 000	2 000	2 000	4 000
Irish Republic	15 400	11 800	1 100	19 900	18 500
Italy	37 100	27 868	137 731	170 000	179 200
Netherlands	131 000	344 000	170 000	26 000	33 000
Portugal	70 200	8 200	15 300	19 100	15 000
Austria	10 000	12 700	11 400	6 500	5 500
Czechoslovakia (a)	* 104 500	* 42 500	* 26 300	* 8 600	* 10 000
Finland	38 000	...	1 000	1 000	...
German Democratic Republic (a)	* 230 000	* 321 000	* 333 000	* 375 000	* 300 000
Hungary	132 000	77 000	97 000	61 000	57 000
Norway	16 000	4 000	9 000	13 000	3 000
Poland	* 5 000	* 5 000	(a)* 18 000	...	...
Romania (a)	* 2 000	* 143 000	* 254 000	* 214 000	* 203 000
Sweden	12 000	32 000	20 000	16 000	47 000
Switzerland	30 317	40 076	61 656	58 778	37 384
Yugoslavia	50 000	67 000	29 000	8 000	10 000
Algeria	928	1 196	...	52	...
Egypt	46 000	...	29 000	21 000	19 000
Morocco	9 854	6 699	7 477	11 279	...
South Africa	63 400	41 900	29 000	22 300	...
Tunisia	343	1 000	7 965	10 772	11 027
Canada	53 000	74 000	75 000	40 000	77 000
USA	529 512	505 215	918 488	618 901	695 914
Argentina	59 649	61 465	74 600	46 000	...
Brazil	125 800	91 956	177 005	186 441	...
Colombia	28 201	55 079	31 819	35 533	...
Peru	16 946	11 454	18 988	15 200	27 318
Uruguay	900	400	200	300	4 500
Venezuela	5 173	...	121 931	6 096	47 558
Burma (d)	160 000	...	...	...	...
Hong Kong	70 077	99 546	15 390	97 683	123 626
India (d)	384 269	...	...	...	...
Indonesia	18 052	22 119	11 118	40 422	179 190
Iran (b)	6 948	6 863	5 215	...	...
Israel (a)	* 3 700	* 3 700	* 4 000	* 2 100	...
Japan	81 309	123 525	52 470	17 694	29 647
Korea, Dem. P.R. of (a)	* 70 300	* 79 900	* 10 000	* 10 000	* 5 000
Korea, Republic of	19 107	19 218	13 983	14 179	19 579
Malaysia	20 980	4 500	14 850	8 360	...
Pakistan (c)	43 134	93 867	77 718	21 646	49 418
Philippines	3 484	1 784	16 842	30 549	55 013
Saudi Arabia	11 721	21 750	—	—	565 533
Singapore	74 938	27 910	14 181	25 345	31 552
Sri Lanka	183	406	1 333	1 089	1 359
Taiwan	15 570	8 743	11 185	9 989	9 723
Thailand	10 850	8 472	5 219	8 636	13 874
Australia	35 033	40 045	34 439	30 861	66 310

(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

Production of Mica

tonnes

Country	1982	1983	1984	1985	1986
France (e)	7 950	9 286	10 854	10 084	10 834
Portugal (a)	145	206	823	440	484
Spain (e)	3 428	1 300	990	727	* 500
Norway (b)	* 3 600	* 4 000	* 4 000	* 4 000	* 3 000
Soviet Union	* 48 000	* 49 000	* 49 000	* 50 000	* 50 000
Yugoslavia	1 403	946	235	768	724
Madagascar	1 300	1 096	719	589	1 775
Morocco	512	* 500	1 200	1 440	* 1 500
Mozambique	147	309	126	* 150	* 100
South Africa	1 762	2 672	4 478	2 153	2 510
Sudan	165	10	100	—	—
Zimbabwe	844	547	960	581	1 390
Canada	* 9 500	* 11 000	* 11 000	* 12 000	* 13 000
Mexico	510	1 560	1 676	1 446	* 1 400
USA (d)(e)	96 000	127 000	146 000	125 000	134 000
Argentina	242	313	290	595	533
Brazil (a)	1 077	3 408	3 265	931	1 700
China (c)	* 11 800	* 13 100	* 16 000	* 16 800	* 19 700
India	13 315	11 660	9 608	7 482	7 152
Sri Lanka	863	973	626	529	* 500
Taiwan	44	311	304	114	774
Australia	2 773	266	2 194	1 574	24
World total	205 000	239 000	264 000	237 000	252 000

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

(a) Exports

(b) Crude only

(c) Conservative BGS estimates, based on reconstructed exports

(d) Sold or used by producers

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

Exports of Mica

Country	1982	1983	1984	1985	1986
United Kingdom					
Unmanufactured	508	105	89	112	95
Ground	1 243	1 169	754	1 310	1 101
Waste	1 697	2 403	2 563	1 668	1 940
Belgium-Luxembourg	18	32	26	225	82
France					
Unmanufactured	1 473	1 832	5 050	2 887	2 591
Ground	3 608	3 969	4 548	4 842	4 309
Germany, Federal Republic of					
Unmanufactured	20	13	52	36	0
Ground	859	906	1 203	1 411	1 364
Italy					
Unmanufactured	580	227	194	116	43
Ground	677	271	364	113	79
Netherlands					
Unmanufactured	589	383	315	983	779
Ground	2 521	2 451	458	475	222
Portugal	145	206	823	440	484
Spain	2 021	465	49	59	23
Austria	602	829	829	316	1 659
Finland	132	814	548	566	274
Norway	1 820	2 009	2 009	1 934	1 422
Sweden	1	58	28	20	46
Switzerland	115	75	75	130	77
Madagascar	1 408	900	874	779	1 874
Morocco	1 570	—	1 434	1 330	...
Mozambique	62	...	286	...	...
South Africa (a)	* 1 150	* 950	* 850	* 1 110	* 1 000
Zimbabwe					
Ground	518	111	259	396	...
USA					
Unmanufactured	2 584	2 185	1 909	1 361	1 503
Ground	7 619	7 453	5 236	6 559	5 313
Brazil	1 077	3 408	3 265	931	1 700
China (a)	* 11 800	* 13 100	* 16 000	* 16 800	* 19 700
India (b)					
Block	956	808	678)	
Splittings	2 087	2 219	2 476)	
Condenser films	9	4	48	)	22 150
Waste	7 769	9 344	13 151)	...
Japan	149	158	455	290	366
Malaysia	110	325	246	862	...
Singapore	200	363	396	222	51
of which: Re-exports	161	194	350	215	51
Sri Lanka	1 007	1 043	631	534	889
Taiwan	50	413	295	248	198

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

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

(b) Years ended 31 March following that stated

Imports of Mica

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Block	72	) 144	169	82	570
Splittings	262)			
Ground	2 117	3 323	6 334	3 185	1 925
Waste	11 622	12 941	12 391	12 587	17 519
Belgium-Luxembourg					
Unmanufactured	750	890	1 138	3 600	6 568
Ground	1 054	882	2 866	962	779
Denmark	167	223	254	272	258
France					
Unmanufactured	4 340	1 156	3 022	3 676	4 214
Ground	1 124	1 097	1 025	632	631
Germany, Federal Republic of					
Unmanufactured	6 684	5 133	4 620	4 912	4 124
Ground	4 661	5 381	6 222	7 034	7 343
Greece	211	140	263	474	514
Irish Republic	375	168	241	135	222
Italy					
Unmanufactured	283	269	313	400	109
Ground	698	628	985	1 111	986
Netherlands					
Unmanufactured	203	348	330	876	987
Ground	3 782	3 704	1 589	1 724	893
Portugal	375	320	283	382	168
Spain	1 136	1 300	1 244	4 002	2 559
Austria	222	203	205	321	183
Finland	187	239	198	248	276
German Democratic Republic	1 616	1 350	1 042	1 124	1 212
Norway					
Unmanufactured	214	190	178	165	179
Waste	1 932	1 763	2 113	3 878	1 115
Poland	1 066	779	1 750	1 241	1 357
Soviet Union (c)	* 2 300	* 1 400	* 1 300	...	...
Sweden	422	438	422	447	399
Switzerland	682	480	753	611	585
Turkey	23	39	25	20	326
Yugoslavia	243	977	133	253	297
Egypt	205	27	80	258	28
South Africa	545	486	1 073	586	...
Tunisia	166	167	106	12	13
Canada	2 860	2 791	2 396	2 311	2 174
Jamaica	77	134	59	119	103
Mexico	129	47	161	132	...
Trinidad & Tobago	184	197	176	117	...
USA					
Block	58	8	76	296	105
Splittings	809	164	559	483	899
Ground	4 910	4 673	5 812	5 487	5 451
Waste	450	518	) 4 730	—	10
Other unmanufactured	2 392	1 889	)	3 426	2 140
Brazil	76	109	—	1	...
Colombia	980	105	150	113	...
Venezuela	1 969	656	1 061	1 033	704
Abu Dhabi	46	281	39	61	17
Brunei	13	24	—	...	...
Dubai	150	251	230	248	26
Hong Kong	42	19	48	32	48
Indonesia	587	547	704	909	599
Iran (a)	0	51	15	...	...

Imports of Mica

Country	1982	1983	1984	1985	1986
Japan					
Block	886	783	2 963	2 163	1 965
Splittings	598	1 301	2 611	1 903	1 457
Waste	4 008	4 395	3 554	3 088	5 603
Other unmanufactured	9 017	3 226	3 873	3 711	6 118
Korea, Republic of	185	434	569	1 023	987
Malaysia	83	114	67	118	...
Philippines	173	84	67	26	109
Saudi Arabia	1 584	1 032	670	608	—
Singapore	1 392	1 553	2 027	1 220	496
Taiwan					
Unmanufactured	33	50	51	33	54
Ground	224	174	243	160	391
Thailand	91	172	319	153	177
Australia	474	335	204	395	670
New Zealand (b)	£92 000	£91 000	£122 000	£120 000	£105 000

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

(a) Years ended 20 March following that stated

(b) Years ended 30 June of that stated

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

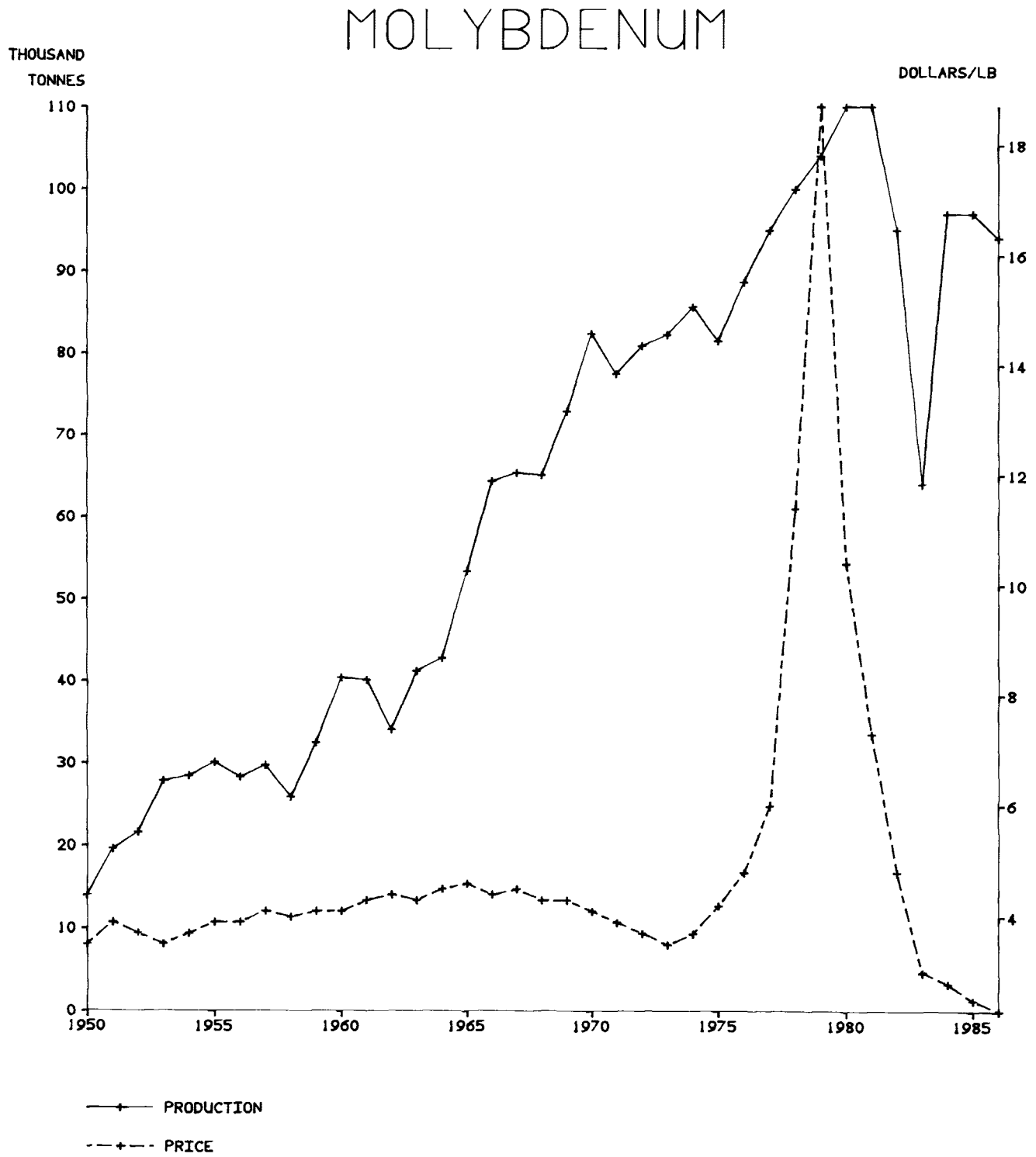


Figure 13 World mine production of molybdenum from 1950 to 1986 compared with the annual price of molybdenum in oxide expressed in constant 1980 US dollars.
Constant commodity prices derived from INTERMET Molybdenum data-base (1987) using the CPI for the USA taken from International Financial Statistics Yearbook (1987).

Mine Production of Molybdenum

tonnes (metal content)

Country	1982	1983	1984	1985	1986
Bulgaria	* 170	* 190	* 190	* 190	* 180
Soviet Union	* 11 000	* 11 100	* 11 200	* 11 300	* 11 400
Turkey	* 100	* 100	* 100	* 100	* 100
Niger	42	* 40	* 30	* 20	* 20
Canada	13 961	10 194	11 557	6 950	12 194
Mexico	5 190	5 866	4 054	3 761	* 3 500
USA	38 275	15 238	47 021	49 173	42 627
Chile	20 048	15 264	16 861	18 391	16 581
Peru	2 899	2 633	3 085	3 833	3 491
China	* 2 000	* 2 000	* 2 000	* 2 000	* 2 000
Japan	103	102	157	* 100	* 100
Korea, Republic of	363	143	159	335	317
Mongolia	* 800	* 950	* 1 000	* 1 000	* 1 000
Philippines	80	40	—	—	—
World total	95 000	64 000	97 000	97 000	94 000

Note: 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	1982	1983	1984	1985	1986
United Kingdom					
Ores & concentrates	5 769	6 120	4 906	4 402	2 894
Metal	365	460	414	408	629
Oxides	1 854	1 035	1 614	1 594	1 109
Belgium-Luxembourg					
Ores & concentrates	9 300	8 649	10 847	11 412	11 346
Metal	67	90	90	114	141
Oxides	53	35	39	42	36
France					
Ores & concentrates	502	364	227	193	4 961
Metal	165	284	288	276	288
Germany, Federal Republic of					
Ores & concentrates	7 442	6 898	5 291	3 526	4 045
Metal	431	622	680	649	636
Italy					
Ores & concentrates	348	298	—	43	22
Metal	20	150	49	4	64
Netherlands					
Ores & concentrates	(b) 14 047	8 905	15 801	18 224	13 699
Metal	247	184	122	274	220
Oxides	1 683	1 504	1 631	1 509	945
Austria					
Metal	1 047	1 201	1 284	1 439	1 267
Finland					
Ores & concentrates	425	310	488	—	—
Sweden					
Ores & concentrates	1 970	1 458	745	1 375	1 687
Metal	7	5	71	118	7
Canada					
Ores & concentrates (a)	17 429	11 349	8 896	5 635	11 366
Mexico					
Ores & concentrates (a)	2 504	7 482	4 674	4 533	...
USA					
Ores & concentrates (a)	22 581	21 350	28 764	28 966	22 295
Metal	998	826	907	863	1 289
Chile					
Ores & concentrates (a)	11 184	3 793	4 677	5 523	6 115
Oxides	...	16 250	11 538	11 516	...
Peru					
Ores & concentrates	4 686	3 700	2 720	4 137	4 544
Japan					
Metal	54	51	41	55	63
Korea, Republic of					
Ores & concentrates	360	—	—	230	308
Philippines					
Ores & concentrates	155	122	—	—	—

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

(a) Mo content

(b) May include other ores

Imports of Molybdenum

Country	1982	1983	1984	1985	1986
United Kingdom					
Ores & concentrates	17 738	14 419	18 042	19 057	19 248
Metal	178	308	489	358	278
Oxides	195	191	102	304	237
Belgium-Luxembourg					
Ores & concentrates	20 469	22 976	21 952	22 150	21 874
Metal	162	278	173	223	211
Oxides	192	298	282	39	147
France					
Ores & concentrates	7 713	5 650	6 246	5 676	7 542
Metal	166	225	243	260	247
Oxides	29	35	77	144	124
Germany, Federal Republic of					
Ores & concentrates	21 524	19 061	18 597	17 600	17 817
Metal	766	749	964	1 146	1 033
Oxides	265	274	192	174	120
Italy					
Ores & concentrates	2 768	2 360	4 438	4 810	2 742
Metal	110	175	189	142	266
Oxides	232	47	86	65	65
Netherlands					
Ores & concentrates	(a) 19 677	13 816	20 741	24 061	22 961
Metal	172	235	178	186	116
Oxides	19	29	9	24	30
Spain					
Ores & concentrates	2 283	2 787	3 446	...	5 236
Metal	36	24	38	25	32
Austria					
Metal	38	143	109	97	117
Oxides	1 896	1 748	2 063	2 241	2 066
Czechoslovakia					
Ores & concentrates (b)	* 400	* 800	* 600	* 600	* 900
Finland					
Ores & concentrates	488	558	671	1 121	326
Metal	6	3	6	6	1
Soviet Union					
Ores & concentrates (b)	...	* 1 000	* 300	* 100	...
Sweden					
Ores & concentrates	6 397	5 254	6 357	6 479	7 246
Metal	59	33	71	138	169
Oxides	483	232	138	125	96
Switzerland					
Metal	29	9	21	22	20
Yugoslavia					
Metal	15	23	29	14	24
South Africa					
Metal	11	26	23	23	14
Oxides	138	10	188	414	361
Canada					
Oxides	193	141	238	187	202
Mexico					
Ores & concentrates	240	0	72	52	...
Metal	52	1	4	18	...
USA					
Ores & concentrates	2 488	924	21	83	789
Metal	183	271	323	338	373
Oxides	2 087	3 548	3 992	1 893	810
Argentina					
Oxides	509	473	519	...	...
Brazil					
Ores & concentrates	1 303	1 465	2 590	2 893	2 443
Metal	42	28	51	56	72

Imports of Molybdenum

tonnes

Country	1982	1983	1984	1985	1986
Japan					
Ores & concentrates	17 245	18 737	18 246	21 138	18 024
Metal	296	203	423	428	290
Oxides	635	549	578	384	414
Korea, Republic of					
Metal	11	67	15	21	28
Philippines					
Metal	13	30	20	20	2
Singapore					
Metal	9	19	11	4	1
Taiwan					
Metal	45	70	90	60	85
Australia					
Ores & concentrates	116	63	138	...	...

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

(a) May include other ores

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

NICKEL

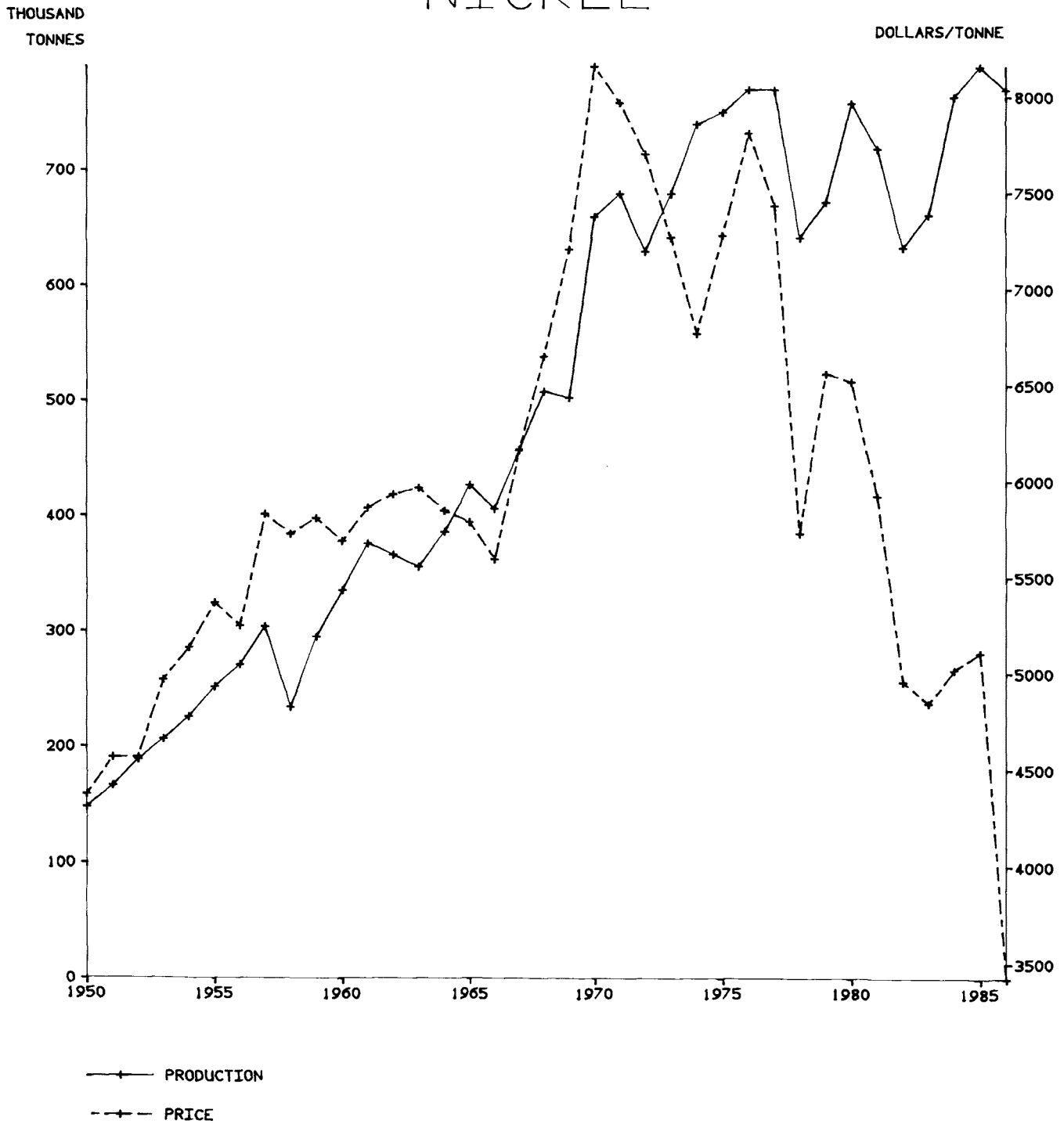


Figure 14 World mine production of nickel from 1950 to 1986 compared with the yearly average f.o.b. contract price of Canadian electrolytic cathodes expressed in constant 1980 US dollars (from 1980, LME cathodes).

Trend-line analysis of the production data from 1950 to 1976 indicates a growth rate of approximately 6% per annum.

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

Mine Production of Nickel

tonnes (metal content)

Country	1982	1983	1984	1985	1986
Greece (d)	5 000	12 900	15 800	15 900	10 300
Albania	9 000	9 000	9 700	10 000	10 000
Finland	4 746	5 214	6 928	9 136	11 800
German Democratic Republic	2 500	2 200	2 000	2 000	2 000
Norway	405	359	326	425	* 400
Poland	* 700	* 300	—	—	—
Soviet Union	* 170 000	* 172 000	* 172 000	* 172 000	* 170 000
Yugoslavia	* 3 500	* 1 600	* 2 200	* 2 800	* 3 200
Botswana	17 763	18 214	18 562	19 568	18 955
Morocco	500	—	—	—	—
South Africa (a)	20 500	20 500	22 500	29 000	29 000
Zimbabwe	13 309	10 147	10 251	9 897	9 732
Canada (b)	88 581	125 022	173 725	169 971	163 639
Cuba (c)	37 603	39 257	33 227	33 577	35 100
Dominican Republic (d)	5 958	19 017	24 805	25 400	24 100
USA	2 906	—	13 190	5 558	1 066
Brazil	14 451	15 561	23 532	16 473	* 17 000
Colombia	6 764	17 307	20 799	14 608	20 980
Burma (e)	* 20	* 20	* 20	* 20	* 20
China	* 13 500	* 15 000	* 17 500	* 19 000	* 22 000
Indonesia	48 500	41 200	47 800	48 200	67 300
Philippines	19 634	13 900	13 601	28 158	12 745
Australia	87 552	76 625	76 923	85 757	76 739
New Caledonia (c)	60 101	46 162	58 326	72 361	64 107
World total	633 000	662 000	764 000	790 000	770 000

(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

Smelter/Refinery Production of Nickel

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	6 902	23 200	22 300	17 800	30 900
France	7 360	4 878	5 217	7 019	8 241
Greece	4 778	12 858	15 829	15 900	10 300
Albania	* 4 500	4 500	4 000	4 000	4 000
Czechoslovakia	* 1 500	* 3 000	* 4 500	* 4 000	* 4 000
Finland	12 304	14 514	15 282	15 656	17 791
German Democratic Republic	* 3 000	* 3 000	* 3 000	* 3 000	* 3 200
Norway	25 833	28 619	35 548	37 513	38 204
Poland	* 700	* 300	—	—	—
Soviet Union	* 190 000	* 192 000	* 193 000	* 190 000	* 188 000
Yugoslavia	1 500	1 000	1 800	2 800	3 200
South Africa	17 300	19 200	20 500	24 000	27 800
Zimbabwe	14 600	13 000	10 400	11 500	16 400
Canada	72 826	93 047	111 591	108 041	111 279
Cuba	21 001	21 135	17 554	16 074	17 000
Dominican Republic (a)	5 484	21 202	24 219	25 802	21 989
USA	40 783	(b) 30 300	40 763	33 005	1 498
Brazil	4 813	10 740	12 716	13 166	13 465
Colombia	1 319	13 055	16 575	11 373	18 018
China	* 12 500	* 16 500	* 17 000	* 20 000	* 20 000
Indonesia	5 000	4 900	4 800	4 800	4 500
Japan	87 300	82 300	89 361	92 594	92 750
Philippines	11 223	6 097	3 528	16 993	1 153
Australia	45 931	41 800	38 660	40 807	41 948
New Caledonia	28 007	21 717	29 158	36 103	33 001
World total	626 000	683 000	737 000	752 000	729 000

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

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

(b) Excludes production from domestic ores

Exports of Nickel

Country	1982	1983	1984	1985	1986
United Kingdom					
Mattes, sinters etc.	2 010	572	184	323	682
Unwrought	10 166	12 696	10 527	8 477	15 610
Unwrought alloys	1 259	1 039	1 849	2 108	1 840
Scrap	5 136	5 637	5 842	5 408	4 629
Oxides	294	150	88	130	79
Belgium-Luxembourg					
Unwrought	562	229	173	146	50
Unwrought alloys	127	213	80	72	263
Scrap	984	708	843	1 139	739
Denmark					
Scrap	47	43	58	15	20
France					
Unwrought	3 600	4 504	4 316	5 267	6 050
Unwrought alloys	759	912	1 266	953	889
Scrap	2 064	2 070	3 602	3 635	3 108
Oxides	390	62	80	30	8
Germany, Federal Republic of					
Mattes, sinters etc.	136	5 553	1 786	1 491	1 727
Unwrought	6 175	11 497	6 651	2 726	2 985
Unwrought alloys	3 286	2 861	3 695	3 905	3 405
Scrap	7 700	7 637	9 404	10 032	5 668
Oxides	135	2 437	76	58	98
Greece					
Scrap	42	590	21	18	—
Irish Republic					
Unwrought (a)	19	108	59	36	35
Scrap	47	51	149	151	161
Italy					
Unwrought (a)	209	713	141	124	87
Scrap	290	165	169	119	163
Netherlands					
Mattes, sinters etc.	3 115	2 782	(b)* 4 800	(b)* 3 400	(b)* 3 700
Unwrought (a)	2 495	2 013	426	443	500
Scrap	1 808	2 206	3 015	3 068	4 684
Oxides	375	781	(b)* 500	(b)* 400	(b)* 500
Spain					
Scrap	24	36	328	165	97
Austria					
Scrap	255	457	774	295	214
Finland					
Mattes, sinters etc.	2 051	955	—	—	—
Unwrought (a)	9 757	11 322	13 247	13 852	15 086
Scrap	392	4 628	2 269	1 777	59
Norway					
Ore	10 824	9 952	8 231	10 843	11 871
Unwrought	29 270	30 014	37 812	35 669	37 917
Scrap	197	107	49	143	108
Soviet Union					
Mattes, sinters etc. (b)	* 500	* 800	* 250	* 200	* 100
Unwrought (b)	* 35 000	* 35 500	* 37 500	* 28 000	* 37 800
Sweden					
Mattes, sinters etc.	106	117	—	—	—
Unwrought (a)	717	482	622	96	52
Scrap	573	1 620	613	533	655
Switzerland					
Unwrought, mattes, sinters etc.	23	27	12	105	44
Scrap	241	318	422	256	295
Yugoslavia					
Unwrought	25	46	466	347	—
Scrap	170	93	154	398	70
Botswana					
Mattes, sinters etc.	41 587	52 117	86 587	53 155	* 50 000
South Africa					
Slurry, mattes, sinters etc. (b)	* 48 600	* 36 200	* 46 000	* 42 800	* 29 200
Unwrought (a)(b)	* 16 800	* 15 500	* 16 400	* 16 100	* 17 800
Scrap (b)	* 200	* 100	* 400	* 400	* 200

Exports of Nickel

tonnes

Country	1982	1983	1984	1985	1986
Canada					
Ores, concentrates, mattes etc. (c)	40 164	51 273	79 492	77 920	71 712
Unwrought	62 463	67 386	80 508	81 771	86 057
Scrap	3 283	2 988	9 693	4 949	6 253
Cuba					
Oxide, sinter & sulphide (e)	38 005	37 807	36 658	33 376	...
USA					
Unwrought (a)	31 283	20 309	23 815	16 415	1 961
Scrap	10 100	12 056	11 934	14 093	9 538
Hong Kong					
Unwrought (Re-exports)	2 793	4 277	3 020	3 242	4 865
Scrap	487	378	293	118	387
Oxides (Re-exports)	109	146	189	244	162
Indonesia					
Ore	721 518	514 972	579 284	626 745	963 198
Mattes, sinters etc.	37 951	46 010	49 848	54 004	54 315
Japan					
Unwrought (a)	298	285	348	313	181
Malaysia					
Unwrought alloys	116	213	473	106	...
Philippines					
Ores & concentrates	408 712	346 973	527 205	616 455	420 809
Unwrought (a)	5 869	10 362	2 344	11 284	2 566
Singapore					
Unwrought	2 774	9 440	4 717	2 069	2 399
of which: Re-exports	2 774	9 409	4 685	2 017	2 399
Scrap	533	413	160	1 072	280
of which: Re-exports	68	32	16	947	16
Taiwan					
Unwrought	38	111	3	392	356
Scrap	1 198	1 423	1 825	1 889	1 506
Australia (d)	* 54 500	* 62 000	* 60 900	* 61 500	* 71 000
New Caledonia					
Ores	1 498 837	1 065 479	1 332 945	1 443 908	1 074 502
Mattes, sinters etc.	10 200	4 700	8 900	11 800	12 900

Notes:

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

Imports of Nickel

Country	1982	1983	1984	1985	1986
United Kingdom					
Mattes, sinters etc.	15 015	25 937	39 891	42 753	38 008
Unwrought	14 778	10 423	13 280	13 948	14 022
Unwrought alloys	474	467	2 079	2 216	2 060
Scrap	3 359	2 298	2 810	4 137	3 195
Oxides	216	511	553	1 062	598
Belgium-Luxembourg					
Mattes, sinters etc.	338	423	2 402	1 669	1 943
Unwrought	3 149	2 993	2 079	2 322	3 141
Unwrought alloys	969	1 347	971	274	646
Scrap	499	327	601	527	304
Oxides	88	349	384	142	746
Denmark					
Unwrought	159	222	204	106	178
Unwrought alloys	2	22	156	38	38
France					
Mattes, sinters etc.	10 756	7 092	8 649	13 599	13 534
Unwrought	16 377	17 893	18 094	15 414	14 797
Unwrought alloys	3 121	2 659	4 604	4 357	3 754
Scrap	466	529	917	942	668
Oxides	243	545	283	204	146
Germany, Federal Republic of					
Mattes, sinters etc.	13 847	11 999	12 239	12 583	11 186
Unwrought (a)	40 576	44 830	48 284	42 368	46 071
Scrap	6 419	4 902	8 389	7 561	6 062
Oxides	193	186	383	234	558
Greece					
Unwrought	152	100	73	133	120
Irish Republic					
Unwrought (a)	187	142	220	305	585
Italy					
Mattes, sinters etc.	1 870	2 676	4 261	4 426	4 927
Unwrought	16 847	13 593	19 811	17 336	17 254
Unwrought alloys	1 063	664	473	583	1 133
Scrap	320	140	81	271	86
Oxides	2 430	2 300	2 106	975	1 836
Netherlands					
Mattes, sinters etc. (e)	* 8 800	* 14 600	* 7 600	* 10 400	* 8 600
Unwrought	3 312	3 054	1 604	1 737	2 973
Unwrought alloys	78	62	30	34	142
Scrap	1 527	1 320	3 737	2 943	2 776
Oxides	1 245	267	152	314	141
Portugal					
Unwrought (a)	297	275	223	286	347
Spain					
Mattes, sinters etc.	2 353	2 625	2 376	1 850	1 591
Unwrought (a)	5 036	4 982	4 776	3 782	4 865
Austria					
Mattes, sinters etc.	833	622	1 122	1 207	907
Unwrought (a)	2 129	2 888	3 105	2 664	3 030
Scrap	357	222	608	572	155
Czechoslovakia					
Unwrought (a)	6 741	8 060	6 483	6 558	5 473
Finland					
Ore	11 579	12 188	7 325	13 661	10 971
Mattes, sinters etc.	7 853	9 901	8 786	9 759	9 267
Unwrought (a)	2 869	4 973	4 661	5 084	2 735
Scrap	1 959	1 987	2 489	2 681	3 839
Norway					
Mattes, sinters etc.	62 419	63 140	93 459	102 443	101 073
Unwrought (a)	85	281	146	202	153
Scrap	31	8	73	3	12
Sweden					
Mattes, sinters etc.	2 603	4 059	2 934	2 700	3 513
Unwrought	10 553	9 224	12 566	11 874	10 037
Unwrought alloys	308	372	293	309	306
Scrap	2 930	3 365	4 575	5 510	6 689

Imports of Nickel

tonnes

Country	1982	1983	1984	1985	1986
Switzerland					
Unwrought, mattes, sinters etc.	1 034	895	901	1 261	1 382
Scrap	242	94	70	86	29
Yugoslavia					
Unwrought	1 074	1 394	2 659	2 837	2 395
South Africa					
Mattes, sinters etc.	560	455	577	904	628
Unwrought	103	40	57	41	...
Canada					
Ores, concentrates & scrap (b)	22 355	29 401	24 736	31 592	38 331
Unwrought (a)	3 403	3 355	4 100	3 338	3 454
Mexico					
Mattes, sinters etc.	4 312	1 227	2 088	3 539	...
Oxides	268	...	...	...	...
USA					
Ore	1 813	—	0	0	20
Slurry, mattes, sinters etc.	50 165	54 552	* 70 900	55 462	4 518
Unwrought (a)	74 328	84 709	93 456	88 704	91 717
Scrap	3 901	5 507	5 623	5 036	6 164
Oxides	2 852	3 818	5 013	4 618	712
Argentina					
Unwrought	443	762	735	329	...
Brazil					
Unwrought (a)	1 747	174	341	1 135	...
Colombia					
Unwrought	121	231	309	144	...
Venezuela					
Unwrought	185	109	171	201	493
Hong Kong					
Unwrought	3 312	5 008	4 494	3 811	7 052
India (c)					
Mattes, sinters etc.	1 466	...	...	...	...
Unwrought	4 744	...	...	...	...
Unwrought alloys	1 969	...	...	...	...
Scrap	1 702	...	...	...	...
Japan					
Ore	2 996 755	2 297 076	2 834 813	2 976 005	2 885 823
Mattes, sinters etc.	41 812	38 323	50 510	52 656	58 312
Unwrought	19 689	26 822	31 377	24 690	24 024
Unwrought alloys	218	237	172	208	325
Scrap	2 938	3 668	3 242	2 622	2 219
Korea, Dem. P.R. of					
Unwrought (a)(e)	* 600	* 200	* 500	* 700	* 600
Korea, Republic of					
Unwrought	2 451	2 002	2 306	3 472	5 839
Scrap	318	167	224	327	284
Malaysia					
Unwrought (a)	499	296	398	104	...
Singapore					
Unwrought	1 414	11 385	917	2 638	3 726
Scrap	193	145	182	170	182
Taiwan					
Mattes, sinters etc.	486	429	1 949	2 938	11 514
Unwrought (a)	2 822	4 060	4 497	3 863	6 535
Scrap	155	133	136	396	1 223

Imports of Nickel

Country	1982	1983	1984	1985	1986
Thailand					
Unwrought	440	622	433	387	517
Australia					
Mattes, sinters etc.	31	51	0	121	1 869
Unwrought	1 307	306	1 133	737	1 082
Unwrought alloys	682	77	132	80	41
Scrap	22	14	44	129	211
New Zealand (d)					
Unwrought (a)	142	10	105	131	65

Notes:

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

PETROLEUM

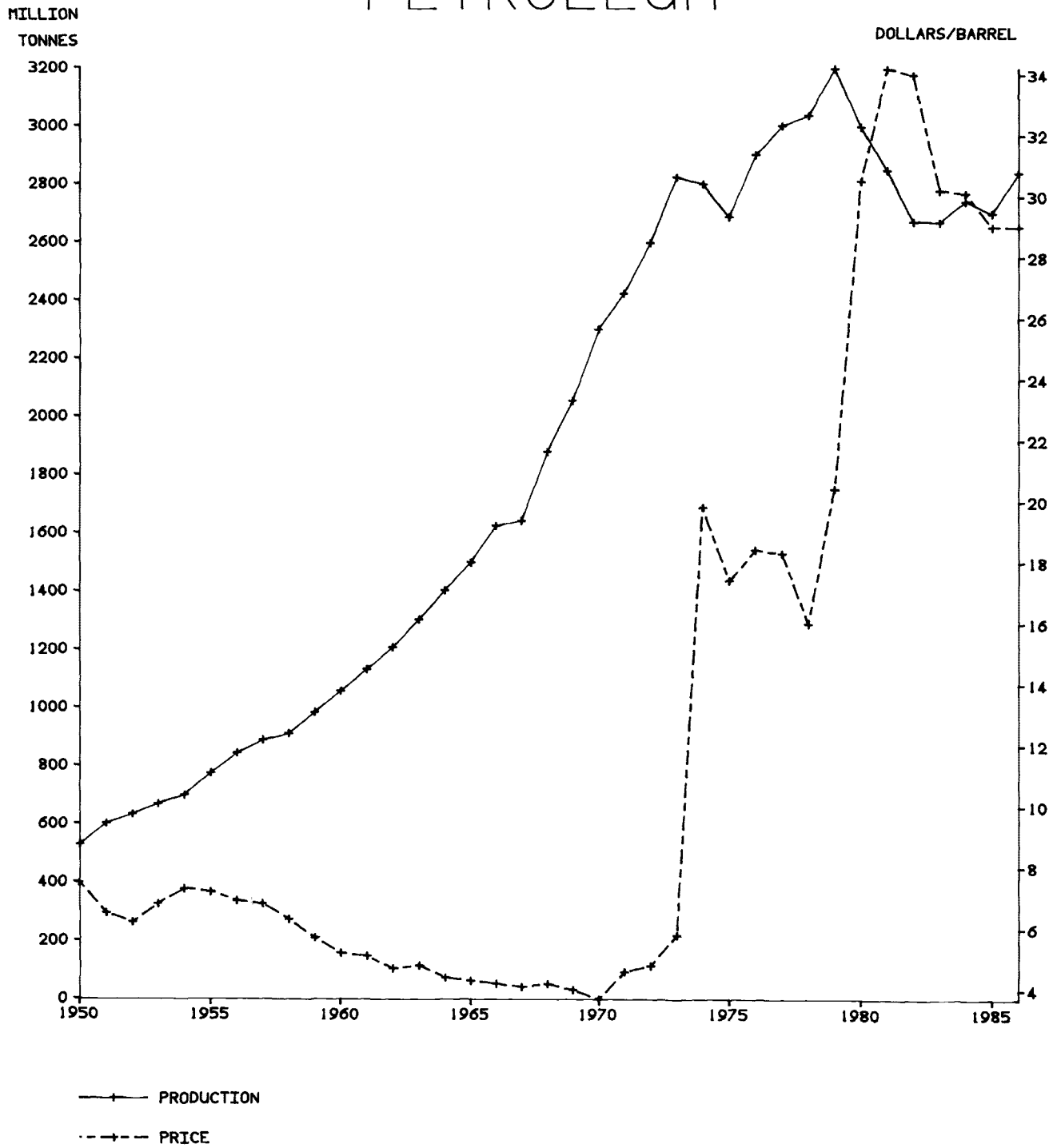


Figure 15 World production of crude petroleum from 1950 to 1986 compared with the weighted yearly average price f.o.b. OPEC countries of light crude expressed in constant 1980 US dollars (prior to 1974, f.o.b. Ras Tanura).

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

Production of Crude Petroleum

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	100 311 000	110 967 000	121 306 000	122 492 000	121 167 000
Denmark (e)	1 662 918	2 148 712	2 219 205	2 853 368	3 238 459
France	1 646 000	1 660 000	2 064 000	2 642 000	2 965 000
Germany, Federal Republic of	4 255 000	4 116 000	4 055 000	4 105 000	4 017 000
Greece	1 012 216	1 219 899	1 300 821	1 320 000	1 300 000
Italy	1 728 165	2 197 582	2 236 203	2 342 545	2 528 854
Netherlands	1 637 000	2 589 000	3 102 000	3 728 000	4 628 000
Spain	1 530 576	2 976 845	2 245 179	2 088 248	* 2 000 000
Albania	* 2 310 000	* 4 000 000	* 3 000 000	* 3 100 000	* 3 000 000
Austria	1 290 363	1 268 573	1 205 430	1 146 958	1 115 924
Bulgaria	* 300 000	* 300 000	* 280 000	* 280 000	* 280 000
Czechoslovakia	89 000	93 000	91 000	123 000	142 000
German Democratic Republic	* 60 000	* 60 000	* 60 000	* 60 000	* 60 000
Hungary	2 027 000	2 004 000	2 007 000	2 012 000	2 005 000
Norway	24 515 371	30 482 453	34 681 721	38 342 000	42 451 000
Poland	241 000	210 000	189 000	194 000	167 000
Romania	11 742 000	11 593 000	11 453 000	10 718 000	10 125 000
Soviet Union	612 600 000	616 300 000	612 700 000	595 000 000	615 000 000
Turkey	2 333 118	2 204 481	2 086 715	2 110 000	2 400 000
Yugoslavia	4 340 000	4 124 751	4 044 010	4 149 259	4 140 000
Algeria	43 700 000	42 300 000	46 100 000	41 600 000	42 500 000
Angola	6 493 861	8 894 952	10 190 996	11 514 325	13 000 000
Benin	—	* 250 000	* 400 000	* 350 000	* 350 000
Cameroon	5 410 000	5 650 000	7 890 000	9 200 000	10 000 000
Congo	4 382 351	5 365 144	6 210 000	5 600 000	5 850 000
Egypt	32 892 000	35 957 000	41 217 000	44 312 000	40 237 000
Gabon	7 720 000	7 920 000	7 600 000	7 700 000	8 100 000
Ivory Coast	747 730	1 025 000	1 120 000	1 300 000	1 350 000
Libya	50 510 000	54 400 000	53 500 000	52 700 000	51 000 000
Nigeria	67 350 706	61 000 000	68 600 000	72 900 000	71 900 000
Tunisia	5 146 000	5 532 000	5 480 000	5 408 000	5 249 000
Zaire	1 167 300	1 285 500	1 628 600	1 300 000	1 250 000
Canada	67 318 700	71 838 600	76 334 900	77 795 600	77 733 800
Cuba	541 000	742 200	770 400	867 600	936 000
Guatemala	317 900	353 600	237 900	170 000	250 000
Mexico	142 079 921	138 983 294	145 090 791	139 758 862	129 268 989
Trinidad & Tobago	9 121 794	8 235 968	8 758 037	9 070 986	* 8 700 000
USA	423 459 000	425 368 000	434 720 000	439 224 000	424 389 000
Argentina	25 951 600	25 977 400	25 318 400	24 342 500	22 918 900
Bolivia	1 293 400	1 174 800	1 104 800	912 000	816 000
Brazil	13 756 000	17 461 000	24 482 865	28 889 605	30 287 000
Chile	2 266 159	2 083 322	2 040 390	1 892 273	1 770 015
Colombia	7 308 000	7 657 000	8 633 000	9 084 000	15 629 000
Ecuador	10 833 696	12 043 653	13 239 624	14 295 932	14 727 997
Peru	9 612 000	8 432 000	9 096 000	9 287 000	8 749 000
Venezuela	100 391 367	95 525 697	89 937 100	82 961 800	87 444 000
Abu Dhabi	43 972 994	41 634 759	38 900 000	41 600 000	50 600 000
Bahrain	2 195 082	2 086 475	2 088 661	2 090 301	2 000 000
Brunei	8 950 000	8 650 000	8 320 000	8 060 000	8 000 000
Burma (d)	1 381 846	1 435 347	1 660 220	1 500 000	1 300 000
China (a)	102 120 000	106 070 000	114 640 000	124 900 000	130 600 000
Dubai	17 295 454	17 100 267	18 300 000	18 800 000	18 800 000
India	19 712 000	25 148 000	28 046 000	29 860 000	31 152 000
Indonesia	64 592 358	64 895 924	68 402 999	64 007 442	67 081 238
Iran	97 320 000	122 400 000	109 300 000	110 000 000	93 700 000
Iraq	41 745 200	53 864 799	55 211 419	70 600 000	84 700 000
Israel	13 680	12 130	17 420	9 396	13 136
Japan	426 310	448 665	433 950	570 135	676 223
Kuwait	41 407 867	53 015 873	58 578 330	53 466 253	71 580 400
Malaysia	14 478 786	18 303 756	21 402 997	21 300 000	24 800 000
Neutral Zone (c)	15 550 000	16 900 000	21 100 000	17 000 000	17 200 000
Oman	16 720 854	19 357 733	20 785 638	24 802 837	28 000 000
Pakistan	614 905	650 027	891 332	1 669 605	2 008 667
Philippines	411 805	638 847	513 384	564 000	* 434 000

Production of Crude Petroleum

tonnes

Country	1982	1983	1984	1985	1986
Qatar	15 610 068	13 993 349	20 100 000	15 900 000	16 500 000
Ras al Khaimah	—	—	300 000	350 000	450 000
Saudi Arabia	325 379 747	227 969 318	215 413 043	159 446 753	251 100 000
Sharjah	334 224	380 615	2 700 000	3 090 000	3 000 000
Syria	8 219 143	8 537 509	8 590 418	8 425 305	10 000 000
Taiwan	126 786	122 825	123 970	107 782	96 000
Thailand	28 115	355 283	797 129	1 123 113	1 600 000
Australia	18 839 167	21 209 115	26 376 971	30 447 317	27 151 450
New Zealand (b)	672 670	656 450	832 870	970 761	1 184 714
World total	2 674 000 000	2 672 000 000	2 744 000 000	2 702 000 000	2 841 000 000

Note: The figures shown in this table exclude natural gasoline

- (a) Including oil from shale and coal
- (b) Petroleum condensate
- (c) Neutral zone of Kuwait and Saudi Arabia
- (d) Years ended 31 March following that stated
- (e) Sales

Production of Natural Gas

Million m³

Country	1982	1983	1984	1985	1986
United Kingdom	42 159	(e) 38 700	(e) 38 529	(e) 42 971	(e) 45 307
Belgium	36	23	47	60	42
France	6 583	6 662	6 344	5 419	4 342
Germany, Federal Republic of	16 110	17 623	15 950	14 459	13 865
Irish Republic	2 037	2 194	2 327	2 413	1 679
Italy	14 520	12 991	13 902	14 158	15 963
Netherlands	72 035	76 536	77 251	80 721	74 037
Spain	3	5	176	273	370
Albania	* 410	* 400	* 500	* 380	* 450
Austria	1 324	1 213	1 272	1 164	1 112
Bulgaria	81	57	47	21	20
Czechoslovakia	656	613	758	705	751
German Democratic Republic	* 8 200	* 7 600	12 370	11 430	11 720
Hungary	6 641	6 510	6 911	7 456	7 098
Norway	25 534	25 831	27 375	26 999	27 025
Poland	5 555	5 491	6 087	6 390	5 824
Romania	37 417	38 106	39 100	38 904	39 371
Soviet Union	500 700	535 700	587 400	643 000	686 000
Yugoslavia	2 267	2 090	1 997	2 400	2 448
Algeria	29 700	35 590	35 040	36 470	40 000
Angola	* 70	350	340	343	400
Egypt	* 2 200	3 210	4 060	4 930	5 680
Gabon	65	150	290	70	60
Libya	3 256	4 050	4 600	5 200	6 300
Morocco	79	83	83	87	90
Nigeria	2 254	2 000	2 750	2 800	3 300
Tunisia	423	412	426	408	423
Canada	87 102	83 311	89 993	96 354	91 011
Mexico	31 458	31 271	28 984	26 703	25 848
Trinidad & Tobago	3 532	4 013	4 133	4 077	4 670
USA (f)	502 843	453 990	492 480	463 876	452 100
Argentina	11 304	13 137	13 760	14 665	16 029
Bolivia	2 297	2 227	2 210	2 216	* 2 200
Brazil	1 041	1 529	1 870	2 348	2 439
Chile	3 530	1 494	1 513	1 431	1 199
Colombia	3 414	3 756	3 840	3 848	* 3 800
Peru	* 595	* 625	* 625	* 625	* 700
Venezuela	17 608	17 165	17 260	17 330	19 000
Abu Dhabi	8 495	6 500	7 660	9 670	10 290
Afghanistan (c)	2 400	2 500	2 700	* 2 800	* 2 900
Bahrain	3 696	3 945	4 110	4 640	5 260
Bangladesh (d)	1 834	2 042	2 353	2 679	3 022
Brunei	8 678	8 900	8 496	8 204	8 130
Burma (b)	493	515	702	830	960
China	11 930	12 210	12 430	12 930	13 700
Dubai	* 1 980	* 3 400	* 1 200	* 1 200	* 1 500
India	2 412	3 432	3 236	4 905	5 455
Indonesia	31 486	33 546	43 083	44 741	46 100
Iran	7 200	8 900	13 500	14 600	15 200
Iraq	680	650	590	850	1 320
Israel	73	66	53	53	40
Japan	2 047	2 085	2 133	2 225	2 105
Kuwait (a)	4 129	4 837	5 199	5 067	* 5 000
Malaysia	1 338	3 700	9 200	12 380	14 950
Oman	555	753	971	* 1 200	* 2 000

Production of Natural GasMillion m³

Country	1982	1983	1984	1985	1986
Pakistan	9 771	9 728	9 991	10 370	11 114
Qatar	5 040	5 341	5 930	5 460	5 480
Ras al Khaimah	—	—	—	130	240
Saudi Arabia (a)	* 14 700	* 12 900	* 11 900	* 18 800	* 25 200
Sharjah	—	—	900	1 110	2 150
Syria	255	250	150	150	460
Taiwan	1 232	1 237	1 266	1 125	1 023
Thailand	1 332	1 607	2 421	3 770	3 617
Australia	11 595	11 581	12 600	13 464	14 708
New Zealand	2 388	2 552	3 233	3 980	5 291
World total	1 600 000	1 600 000	1 700 000	1 800 000	1 800 000

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

- (a) Includes one-half of the output of the Neutral Zone
- (b) Years ended 31 March following that stated
- (c) Years ended 20 March following that stated
- (d) Years ended 30 June of that stated
- (e) Excluding heavier natural gases and condensates
- (f) Dry gas

Exports of Crude Petroleum

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	60 320 953	68 278 840	75 858 236	79 580 673	82 097 402
Belgium-Luxembourg	181 564	80 139	78 082	11 468	—
Denmark	6	1 117 767	803 941	1 042 763	841 022
France	584 076	436 279	68 181	681	102
Germany, Federal Republic of	1 141 828	1 114 665	1 097 809	1 206 185	1 155 040
Greece	—	—	346 181	373 695	739 868
Italy	34 947	240 922	188 093	278 818	187 764
Netherlands	101 802	254 572	535 170	1 328 149	1 362 432
Spain	170 228	191 202	166 423	...	...
Czechoslovakia	481 000	428 000	—	...	...
Hungary	1 796 000	* 1 275 000	* 1 332 000	* 318 000	...
Norway	20 665 923	25 623 382	30 064 286	32 602 346	35 375 520
Soviet Union (a)	* 107 470 000	* 116 660 000	* 125 546 000	* 112 482 000	* 119 910 000
Sweden	79 000	—	—	94 000	133 000
Algeria	24 457 899	25 172 102	23 420 053	11 027 997	...
Angola	5 356 071	7 482 947	8 753 070	9 934 516	...
Cameroon	1 871 770	1 996 129	1 213 061	1 120 632	...
Congo	4 572 827	2 080 456	5 480 152	5 124 850	5 512 859
Egypt	7 863 837	7 800 450	7 446 667	10 509 000	7 248 746
Gabon	6 553 000	6 728 000	8 118 000	8 350 000	* 8 200 000
Ivory Coast	234 969	181 320	425 670	169 512	...
Libya	48 170 000	45 184 000	44 931 000	* 43 120 000	...
Nigeria	51 285 599	54 026 000	55 212 062	63 454 315	56 790 657
Tunisia	3 978 542	4 089 300	4 005 641	3 892 961	4 049 073
Zaire	1 109 801	1 283 157	1 658 472	...	...
Bahamas (Re-exports)	12 628 042	9 105 083	...	...	9 052 524
Canada	11 096 318	15 305 074	19 041 544	25 128 607	30 680 699
Guatemala	157 639	257 386	135 278	64 945	...
Mexico	77 140 785	79 462 516	78 821 400	74 152 900	66 672 000
Netherlands Antilles	590 463	653 000	478 000	* 200 000	...
Trinidad & Tobago	4 448 184	4 660 839	4 319 975	4 860 133	* 4 500 000
USA	1 754 960	909 559	775 855	1 009 163	810 248
Brazil	1 087 486	48 771	—	—	...
Ecuador	5 951 535	7 699 616	8 475 503	8 613 658	8 817 027
Peru	1 525 083	1 108 000	589 376	* 1 000 000	...
Venezuela	55 456 000	51 132 000	52 720 000	43 239 000	46 191 700
Brunei	8 287 805	8 504 468	8 249 257	* 8 176 000	...
China	14 680 000	14 830 000	22 010 000	30 030 000	28 500 000
India (b)	4 551 593	5 522 334	6 478 383	2 044 000	...
Indonesia	56 069 961	54 894 367	50 055 502	39 126 096	44 454 043
Iran (a)	* 67 965 000	* 108 502 000	* 75 157 000	* 62 543 000	* 56 725 000
Iraq	39 787 000	35 525 000	42 036 000	53 349 179	...
Kuwait	18 619 556	27 561 932	33 236 853	23 975 638	...
Malaysia	11 973 851	14 223 964	16 497 360	16 722 986	18 970 000
Oman	16 149 000	17 440 000	18 358 000	22 376 000	...
Qatar	15 565 840	13 480 912	17 364 267	13 884 600	...
Saudi Arabia	281 943 763	196 229 411	159 340 130	108 390 692	164 060 513
Singapore	276 145	465 106	331 656	198 777	184 347
of which: Re-exports	276 143	465 106	330 811	85 202	89 900
Syria	5 317 062	5 864 738	5 126 778	4 445 449	...
United Arab Emirates	57 008 000	52 643 000	* 48 857 000	* 51 344 000	...
Australia	88 831	137 991	3 095 421	6 229 500	4 015 612
New Zealand (c)	—	—	—	115 666	357 491

(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

Imports of Crude Petroleum

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	28 256 208	22 802 643	25 002 401	26 869 737	32 601 833
Belgium-Luxembourg	23 484 441	19 984 899	17 869 509	15 464 760	21 493 630
Denmark	4 492 081	5 312 434	5 296 283	4 806 490	4 302 879
France	76 456 847	69 207 937	72 112 223	68 476 100	66 470 429
Germany, Federal Republic of	72 541 789	65 212 699	66 933 641	64 193 086	66 569 034
Greece	11 539 098	11 091 382	9 988 737	12 966 465	10 445 080
Irish Republic	495 803	1 064 969	1 171 185	1 322 211	1 400 472
Italy	77 357 540	72 813 911	63 408 561	64 880 757	72 403 264
Netherlands	38 160 400	40 274 160	44 976 426	40 342 992	46 940 080
Portugal	7 553 258	7 247 627	7 546 090	7 063 418	8 162 308
Spain	37 789 437	36 809 954	36 808 184	43 758 000	40 655 820
Austria	6 158 356	5 358 960	5 906 643	6 205 712	6 187 679
Bulgaria	* 12 500 000	* 12 500 000	* 12 500 000	* 12 500 000	...
Czechoslovakia	17 300 000	17 100 000	17 200 000	* 17 100 000	...
Finland	9 699 907	10 303 753	9 343 190	9 827 751	9 934 967
German Democratic Republic	21 745 000	22 648 000	23 236 000	22 802 000	22 250 000
Hungary	8 775 705	8 863 853	8 815 537	7 253 254	7 560 547
Norway	3 014 340	1 758 493	2 025 324	1 507 190	2 111 984
Poland	13 223 000	14 074 000	13 612 000	13 712 000	14 139 000
Romania	10 924 000	12 395 000	13 534 000	14 626 000	...
Soviet Union	* 8 000 000	* 13 000 000	* 15 000 000	* 10 000 000	* 10 000 000
Sweden	13 273 939	14 857 526	13 791 116	14 366 621	16 372 054
Switzerland	3 636 660	4 046 305	3 973 667	3 810 036	3 917 551
Turkey	14 162 083	14 259 426	15 466 759	15 505 105	16 742 000
Yugoslavia	8 490 444	9 397 515	9 690 063	8 600 466	10 841 501
Canary Islands	4 516 127	5 498 185	4 973 235	...	...
Ethiopia	749 828	733 050	730 674	757 743	749 630
Ghana	1 142 196	* 1 050 000	* 1 040 000	* 1 050 000	...
Ivory Coast	1 433 774	1 062 192	846 518	1 489 727	...
Kenya	2 232 533	1 849 725	1 874 257	1 951 997	2 006 049
Liberia	351 192	* 350 000	* 360 000	* 355 000	...
Madagascar	355 222	500 153	197 104	297 457	38 599
Morocco	4 408 065	4 157 646	4 581 284	5 024 916	4 507 338
Mozambique	635 700	88 216	* 550 000	* 540 000	...
Senegal	723 814	930 016	1 045 618	621 126	840 339
Sierra Leone	* 215 000	224 425	* 235 000	* 240 000	...
Somalia	* 420 000	* 395 000	* 350 000	* 375 000	...
South Africa	* 17 500 000	* 18 000 000	* 17 500 000	* 17 500 000	...
Sudan	736 512	718 486	579 949	* 650 000	...
Tanzania	480 417	298 197	508 908	535 380	...
Togo	* 350 000	* 320 000	...	...	...
Tunisia	370 390	400	—	22 793	412 867
Zaire	125 282	179 062	870 171	...	...
Zambia	* 700 000	* 710 000	582 750	* 660 000	...
Bahamas	19 478 860	15 962 682	13 212 183	7 505 512	9 030 903
Barbados	153 453	125 461	122 055	113 981	...
Canada	17 944 468	13 321 612	13 554 747	14 464 163	18 396 616
Costa Rica	402 395	377 634	366 407	428 291	638 118
Cuba	6 247 000	6 861 100	7 235 300	8 046 400	...
Dominican Republic	1 360 624	1 569 881	1 784 390	1 390 285	...
El Salvador	798 568	731 480	1 549 452	...	...
Guatemala	625 875	430 434	1 639 201	1 557 643	...
Honduras	47 353	387 307	440 523	319 255	210 897
Jamaica	908 707	1 119 837	653 408	974 052	2 390 222
Martinique	155 742	315 372	335 466	245 529	410 064
Netherlands Antilles	22 277 000	21 945 000	19 257 000	* 10 000 000	...
Nicaragua	576 462	500 440	439 000	491 000	...
Panama	1 640 769	1 643 018	1 442 745	1 241 975	967 541
Trinidad & Tobago	3 668 903	99 045	50	197 141	...
USA	190 482 619	173 550 459	177 025 821	169 110 946	219 298 518
Argentina	666 558	0	—	1	...
Brazil	39 766 369	36 451 896	32 243 757	26 798 497	...
Chile	1 345 000	1 867 745	1 969 000	2 057 000	...
Colombia	849 546	2 034 343	1 489 240	992 137	...
Paraguay	222 849	173 413	162 877	156 832	205 264
Uruguay	1 731 545	1 235 504	1 282 000	1 073 624	1 360 237

Imports of Crude Petroleum

tonnes

Country	1982	1983	1984	1985	1986
Bahrain	7 518 000	* 6 583 000	* 8 081 000	* 7 218 000	...
Bangladesh	1 178 000	1 030 000	1 003 938	992 492	1 008 001
Cyprus	543 772	511 928	640 411	502 240	602 545
India (b)	16 948 625	15 552 000	14 620 000	14 811 000	...
Indonesia	4 331 889	3 371 276	5 607 778	3 675 798	3 826 943
Israel	8 266 000	7 326 000	7 053 000	6 292 000	...
Japan	190 019 797	186 845 724	192 528 887	176 369 002	167 840 928
Jordan	2 572 769	2 545 246	2 442 436	2 264 435	2 285 058
Korea, Republic of	24 808 174	25 307 519	26 758 353	27 072 058	28 837 773
Lebanon	* 487 000	* 500 000	* 760 000	* 625 000	...
Malaysia	2 539 982	3 071 072	2 553 703	2 252 298	...
Pakistan	4 478 376	4 018 741	4 108 039	4 364 701	3 727 075
Philippines	7 467 381	8 241 174	7 686 117	6 592 038	7 027 203
Singapore	30 311 873	30 875 283	32 381 136	29 753 982	32 385 635
Sri Lanka	1 940 543	19 453 439	1 918 070	1 658 094	1 638 547
Syria	5 224 110	6 076 426	6 223 190	5 067 089	...
Taiwan	15 900 414	18 711 695	17 696 377	16 255 485	17 163 675
Thailand	7 841 296	7 978 734	7 258 687	6 999 820	7 703 742
Yemen, People's Dem. Rep. of	547 045	343 172	37 300	104 800	...
Australia	12 640 695	7 994 736	7 690 965	6 033 453	6 747 725
New Zealand (a)	2 257 447	1 307 138	1 734 032	1 683 713	713 958

(a) Years ended 30 June of that stated

(b) Years ended 31 March following that stated

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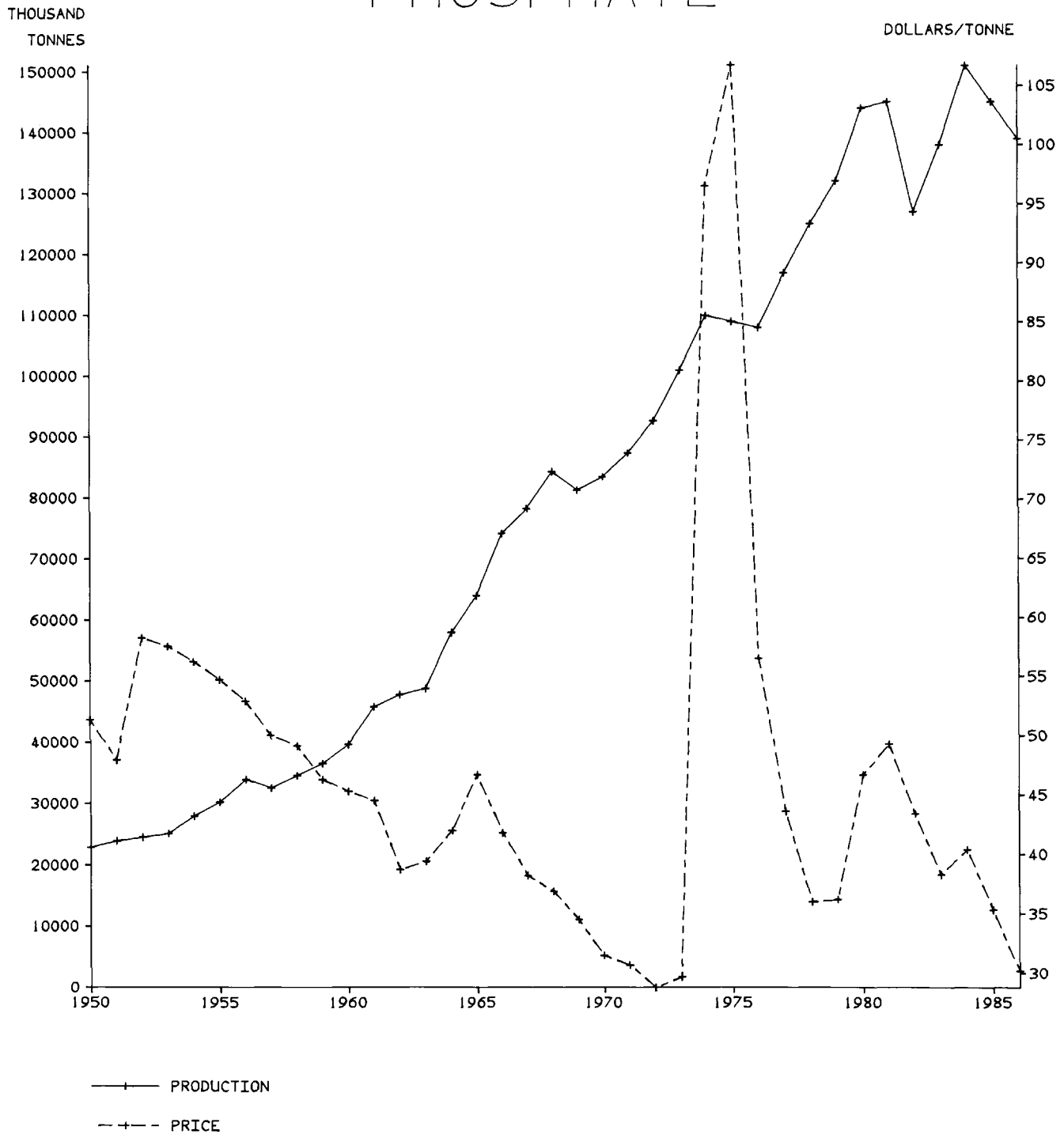


Figure 16 World production of phosphate rock from 1950 to 1986 compared with the yearly average price of Moroccan phosphate f.a.s. Casablanca expressed in constant 1980 US dollars.

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

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

Production of Phosphate Rock

tonnes

Country	1982	1983	1984	1985	1986
France	24 400	—	—	—	—
Finland	233 053	381 216	477 300	511 500	527 495
Soviet Union	* 31 300 000	* 31 600 000	* 31 900 000	* 32 200 000	* 32 500 000
Sweden	128 017	106 636	132 700	193 445	188 000
Turkey	26 345	50 350	99 608	38 525	2 700
Algeria	947 000	892 800	1 000 200	1 207 700	1 203 300
Egypt	509 578	584 446	710 342	748 126	769 160
Morocco	17 834 900	19 842 300	21 351 000	20 779 000	21 178 000
Senegal					
Phosphate rock	901 400	1 255 209	1 932 000	1 813 280	1 875 628
Aluminium phosphate (a)	279 181	251 274	279 000	355 266	131 300
South Africa	3 161 141	2 887 034	2 496 038	2 433 375	2 922 500
Tanzania	—	20 100	14 500	21 039	10 028
Togo	2 035 400	2 080 674	2 695 600	2 451 700	2 313 900
Tunisia	4 729 391	5 924 000	5 385 000	4 505 000	5 800 000
Zimbabwe	121 608	132 911	134 447	135 061	135 592
Mexico	653 050	785 038	652 651	786 500	* 800 000
Netherlands Antilles (b)	8 848	3 525	20 219	27 992	...
USA	37 414 000	42 573 000	49 197 000	50 835 000	38 710 000
Brazil	* 2 800 000	3 240 603	3 827 223	4 170 680	4 509 000
Colombia	20 393	16 944	11 480	24 249	28 624
Peru	29 101	2 510	12 700	12 200	5 200
Venezuela	6 000	8 216	3 265	8 567	194 221
China	11 728 000	11 630 000	14 210 000	6 974 000	* 9 500 000
Christmas Island (b)(c)	1 345 462	1 036 081	1 257 576	1 187 225	880 115
India	631 082	790 804	883 258	925 061	654 337
Indonesia	* 5 000	* 6 000	* 2 000	* 3 000	* 600
Iraq	363 000	* 1 199 000	* 1 000 000	* 1 000 000	* 1 000 000
Israel	2 147 800	1 965 700	2 064 500	2 195 300	2 518 000
Jordan	4 390 343	4 745 931	6 119 591	6 067 139	6 249 223
Kampuchea, Democratic	* 5 000	* 5 000	* 5 000	* 5 000	...
Korea, Dem. P.R. of	* 500 000	* 500 000	* 500 000	* 500 000	* 500 000
Pakistan	2 235	610	142	8 783	50 000
Philippines					
Phosphate rock	5 944	4 135	7 488	8 848	1 656
Guano	15 259	610	552	1 318	3 466
Sri Lanka	13 993	15 726	13 685	17 295	15 000
Syria	1 461 000	1 231 000	1 515 000	1 224 000	1 606 000
Thailand	4 265	5 158	3 075	4 072	4 940
Vietnam	* 110 000	* 200 000	* 200 000	* 250 000	* 250 000
Australia	211 463	4 868	15 345	33 116	33 659
Nauru (b)	1 333 300	1 684 000	1 358 520	1 508 200	1 493 600
World total	127 000 000	138 000 000	151 000 000	145 000 000	139 000 000

(a) Including lime phosphates

(b) Exports

(c) Including phosphate dust

Exports of Phosphate Rock

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	966	10 393	20 253	607	3 407
Belgium-Luxembourg	10 379	28 715	19 287	26 761	17 604
France	3 804	4 953	1 931	4 239	3 202
Germany, Federal Republic of	1 602	1 925	2 446	9 824	2 482
Netherlands	23 926	39 478	32 944	57 174	21 876
Soviet Union (c)	* 4 003 000	* 4 016 000	* 3 777 000	* 3 175 000	* 2 472 000
Sweden	81 414	77 198	91 286	98 426	132 725
Algeria	641 031	559 586	547 230	715 182	817 900
Egypt	174 320	200 802	77 600	141 705	71 770
Morocco	13 976 076	13 976 192	14 951 346	14 789 875	13 696 200
Senegal					
Calcium phosphate	1 102 411	1 268 529	1 449 668	1 260 886	1 319 474
Aluminium phosphate	52 166	69 072	64 347	70 153	60 489
South Africa	124 180	251 214	471 723	694 824	...
Togo	2 059 000	2 007 744	2 761 000	2 444 800	2 266 300
Tunisia	1 082 926	1 208 681	1 140 360	1 114 864	1 205 752
Mexico	34 428	21 846	—	353	...
Netherlands Antilles	8 848	3 525	20 219	27 992	...
USA	9 735 025	12 197 310	11 319 562	10 284 000	9 176 000
Christmas Island (a)	1 345 462	1 036 081	1 257 576	1 187 225	880 115
Israel (b)	1 664 339	1 916 879	2 071 012	2 219 084	2 351 399
Jordan	3 569 701	3 701 053	4 695 015	4 609 710	5 197 665
Singapore	23 791	14 395	5 095	3 499	2 605
of which: Re-exports	20 374	12 298	4 723	3 021	2 605
Syria	705 279	1 002 104	951 055	794 246	1 302 000
Australia	33 974	4 618	26 312	10 000	22 800
Nauru	1 333 300	1 684 000	1 358 520	1 508 200	1 493 600

(a) Including phosphate dust

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

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

Imports of Phosphate Rock

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	1 312 124	1 489 067	1 340 133	1 159 512	936 153
Belgium-Luxembourg	2 088 573	2 316 777	2 472 435	2 482 188	2 286 726
Denmark	260 205	286 185	315 972	328 663	198 473
France	4 455 205	4 516 315	4 652 290	4 254 323	3 566 714
Germany, Federal Republic of	1 930 572	2 031 054	1 933 425	1 943 064	1 579 045
Greece	359 341	126 193	379 040	202 829	356 999
Irish Republic	9 669	3 405	7 369	7 239	5 105
Italy	1 161 597	1 553 599	1 448 556	1 295 729	1 388 856
Netherlands	1 949 370	2 158 927	2 366 108	2 388 066	2 053 253
Portugal	396 953	301 863	364 752	342 282	307 603
Spain	2 391 303	2 484 904	2 887 721	2 775 079	2 168 626
Austria	351 615	442 367	470 133	424 530	421 837
Bulgaria	757 544	836 501	755 549	722 898	629 255
Czechoslovakia (a)	280 000	281 000	276 000	282 000	273 000
Finland	495 418	443 613	387 694	383 000	190 800
German Democratic Republic (a)	420 100	418 800	425 200	424 000	437 300
Hungary	567 966	648 880	645 820	575 883	585 147
Norway	461 447	414 847	507 213	452 112	445 807
Poland	3 280 000	3 176 000	2 965 000	3 261 000	2 970 000
Romania (a)	820 800	989 000	* 910 000	947 100	* 945 000
Sweden	678 932	724 394	774 193	749 688	588 417
Switzerland	7 344	5 873	6 423	6 247	5 063
Turkey	625 537	922 641	727 758	682 049	702 400
Yugoslavia	1 265 072	1 801 832	1 438 167	1 312 471	1 439 150
Ivory Coast	8 785	7 575	4 882	7 793	7 400
Mozambique	2 000	3 000	3 000	...	...
Nigeria	21 000	14 000	17 000	11 000	7 400
Tanzania	32 053	15 557	23 000	15 000	...
Zimbabwe	14 396	27 758	7 971	—	...
Canada	2 477 187	2 625 389	3 142 653	2 621 667	2 387 756
Mexico	1 035 723	1 115 000	1 250 758	1 038 488	1 191 000
USA	31 336	8 811	23 223	35 049	527 776
Brazil	234 643	5	9 449	31 678	40 000
Colombia	67 286	51 444	37 425	40 608	...
Uruguay	29 860	18 856	35 967	42 000	35 422
Venezuela	74 898	34 463	54 909	72 545	59 639
Bangladesh	100 000	145 000	93 000	123 000	157 100
China	427 000	579 000	619 000	286 000	338 400
India	1 552 000	1 396 000	1 680 000	1 867 000	1 846 000
Indonesia	294 731	361 759	636 509	817 432	717 571
Japan	2 216 490	2 437 819	2 322 869	2 413 608	2 076 190
Korea, Dem. P.R. of	109 000	167 000	41 000	50 000	144 400
Korea, Republic of	1 505 459	1 591 814	1 651 629	1 770 968	1 606 721
Malaysia	208 008	274 539	284 629	374 644	276 700
Pakistan (b)	183 321	237 076	280 621	246 979	191 855
Philippines	12	10 588	13 574	306 130	1 286 548
Singapore	27 129	16 149	9 528	5 219	4 920
Sri Lanka	17 767	9 406	20 110	24 025	13 434
Taiwan	288 081	228 636	367 089	308 858	330 763
Australia	1 975 348	2 198 005	1 606 414	1 810 000	1 697 900
New Zealand (b)	1 025 368	915 071	898 605	924 638	484 595

(a) P₂O₅ content

(b) Years ended 30 June of that stated

Mine Production of Platinum Group Metals

kilograms (metal content)

Country	1982	1983	1984	1985	1986
Finland (a)	274	139	67	127	216
Soviet Union	* 109 000	* 112 000	* 115 000	* 117 000	* 120 000
Yugoslavia					
Platinum (a)	13	6	13	3	* 6
Palladium (a)	90	91	108	87	* 90
Ethiopia (c)	1	* 4	* 4	* 4	* 4
South Africa	* 91 803	* 83 606	* 106 557	* 115 000	* 112 000
Zimbabwe					
Platinum	53	53	24	19	26
Palladium	86	74	38	30	35
Canada (b)	7 105	6 965	10 369	10 534	12 190
USA	250	195	455	* 465	* 500
Colombia	370	320	314	362	447
Japan					
Platinum (a)	479	667	607	691	663
Palladium (a)	867	1 155	1 051	1 359	1 453
Australia					
Platinum	74	52	66	95	115
Palladium	416	449	523	476	428
World total	211 000	206 000	235 000	246 000	248 000

Notes:

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

Exports of Platinum Group Metals

Country	1982	1983	1984	1985	1986
United Kingdom					
Platinum	27 232	29 933	31 137	30 605	33 277
Palladium	11 515	11 828	16 530	16 374	20 252
Other platinum metals	3 645	5 199	5 589	7 005	11 311
Waste & scrap	1 781	80	7 003	2 188	290
Belgium-Luxembourg					
Platinum	1 674	30 952	2 239	1 931	3 770
Platinum metals	4 828	6 200	6 757	7 206	7 696
Waste & scrap	£2 913 000	£6 681 000	£3 774 000	£2 719 000	£4 400 000
Denmark					
Platinum	368	128	76	75	92
Waste & scrap	1 768	1 319	918	944	285
France					
Platinum	12 560	20 639	33 513	6 248	3 450
Platinum metals	1 911	2 241	2 742	3 219	4 912
Waste & scrap	3 070	6 507	3 146	28 900	28 000
Germany, Federal Republic of					
Platinum	7 378	7 004	9 287	8 654	9 393
Palladium	4 461	3 584	5 057	5 823	4 878
Other platinum metals	2 822	3 179	4 477	5 028	4 824
Waste & scrap	211	212	43	44 573	999
Irish Republic					
Platinum & platinum metals	1 388	930	415	414	614
Italy					
Platinum	1 552	3 853	95 527	1 537	2 478
Platinum metals	233	1 066	766	904	1 967
Netherlands					
Platinum	1 010	1 234	1 719	1 672	1 263
Platinum metals	562	721	717	556	571
Waste & scrap	4 000	7 000	14 000	4 000	6 000
Portugal					
Platinum & platinum metals	64	34	192	406	850
Spain					
Platinum & platinum metals	7 285	15 457	325	...	150
Austria					
Platinum & platinum metals	335	357	13 295	413	467
Finland					
Platinum & platinum metals	26	80	36	15	547
Norway					
Platinum & platinum metals	1 033	1 270	1 385	1 549	1 601
Soviet Union					
Platinum & platinum metals (a)	* 53 200	* 53 500	* 58 000	* 46 800	* 58 300
Sweden					
Platinum & platinum metals	£1 321 600	£2 708 500	£1 382 700	£954 300	£1 334 000
Switzerland					
Platinum	24 816	24 053	38 988	31 057	28 470
South Africa					
Platinum & platinum metals (a)	* 79 800	* 73 900	* 91 100	* 95 400	* 99 700
Waste & scrap (a)	* 1 000	* 2 200	* 500	* 1 000	* 800
Canada					
Ores & concentrates (b)	7 172	5 757	8 465	7 174	9 062
Platinum metals	954	3 151	4 260	6 016	3 662
of which: Re-exports	8	276	353	243	68
Waste & scrap	1 583	1 219	5 109	8 527	7 519
USA					
Ores & concentrates (b)	303	1 096	1 331	195	1 157
Platinum	7 612	7 597	5 651	6 376	3 773
of which: Re-exports	3 706	3 276	133	700	877
Palladium	5 828	5 748	6 350	7 173	6 608
of which: Re-exports	622	908	667	466	1 146
Other platinum metals	2 902	2 447	5 774	2 987	3 679
of which: Re-exports	264	230	623	258	990
Waste & scrap	12 529	24 139	17 535	12 219	11 730

Exports of Platinum Group Metals

kilograms

Country	1982	1983	1984	1985	1986
Colombia					
Platinum	—	75	908	1 434	...
China					
Platinum & platinum metals (a)	* 200	* 500	* 150	* 250	* 400
Hong Kong					
Platinum & platinum metals (Re-exports)	193	272	431	829	619
Japan					
Platinum	1 632	1 017	1 192	1 481	659
Platinum metals	3 405	3 918	2 449	2 484	1 632
Australia					
Platinum & platinum metals	895	296	18 695	290	1 053
of which: Re-exports	634	55	18 133	...	...

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

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

(b) Platinum metals content

Imports of Platinum Group Metals

kilograms

Country	1982	1983	1984	1985	1986
United Kingdom					
Ores & concentrates (a)	* £90 722 000	* £185 481 000	* £202 429 000	* £162 998 000	* £147 701 105
Platinum	11 209	5 658	6 084	13 009	10 322
Palladium	6 636	3 609	3 995	6 361	13 058
Other platinum metals	1 145	998	2 127	2 981	3 608
Waste & scrap	56 188	67 137	15 709	17 034	18 858
Belgium-Luxembourg					
Platinum	1 989	1 558	1 564	1 420	1 456
Platinum metals	858	497	525	445	556
Waste & scrap	£3 611 000	£4 204 000	£5 370 000	£7 626 000	£9 254 000
Denmark					
Platinum & platinum metals	609	664	840	639	684
France					
Platinum	6 401	3 582	10 863	6 241	5 355
Platinum metals	18 330	22 378	5 150	5 547	6 182
Waste & scrap	1 536	1 467	1 830	18 000	2 500
Germany, Federal Republic of					
Platinum	24 180	15 300	17 144	19 553	17 750
Palladium	26 553	11 123	17 656	19 333	18 109
Other platinum metals	3 013	5 305	8 410	4 609	5 425
Waste & scrap	38 547	49 951	41 868	74 551	87 922
Greece					
Platinum & platinum metals	£262 000	£593 000	£1 008 000	£1 103 000	£1 040 000
Irish Republic					
Platinum & platinum metals	367	866	1 249	350	653
Italy					
Platinum	2 130	2 489	2 502	3 003	3 500
Platinum metals	3 368	2 775	3 372	3 291	3 880
Waste & scrap	2 646	305	514	600	1 300
Netherlands					
Platinum	1 318	1 643	1 653	1 384	777
Platinum metals	798	1 098	1 213	1 454	1 907
Portugal					
Platinum & platinum metals	133	157	249	366	243
Spain					
Platinum & platinum metals	1 362	15 186	617	...	1 303
Austria					
Platinum & platinum metals	893	513	453	1 262	1 314
Bulgaria					
Platinum & platinum metals (e)	* 200	* 700	* 500	* 800	* 1 100
Czechoslovakia					
Platinum & platinum metals (e)	* 50	* 50	* 20	* 250	* 250
Finland					
Platinum & platinum metals	88	73	106	96	123
German Democratic Republic					
Platinum & platinum metals (e)	* 1 000	* 500	* 700	* 1 900	* 2 200
Hungary					
Platinum & platinum metals (e)	* 600	* 300	* 300	* 300	* 400
Norway					
Platinum & platinum metals	339	456	786	679	669
Poland					
Platinum & platinum metals (e)	* 500	* 200	* 400	* 300	* 900
Romania					
Platinum & platinum metals (e)	* 100	* 50	* 150	* 50	* 160
Sweden					
Platinum & platinum metals	3 000	3 000	2 000	3 000	3 000
Switzerland					
Platinum	30 474	37 949	55 501	37 247	36 028
Turkey					
Platinum & platinum metals	63	6 441	244	350	...
Yugoslavia					
Platinum	1 000	1 000	1 000	43 000	...

Imports of Platinum Group Metals

kilograms

Country	1982	1983	1984	1985	1986
Algeria					
Platinum & platinum metals	305	194	132	136	...
Nigeria					
Platinum & platinum metals	93	...	107	—	3
South Africa					
Platinum & platinum metals	1 901	1 451	2 940	2 310	...
Canada					
Platinum & platinum metals (c)	1 742	2 191	2 235	2 034	4 212
Costa Rica					
Platinum & platinum metals	350	278	332	198	31
Mexico					
Platinum	3	3	5	6	...
Palladium	90	33	69	39	...
Other platinum metals	121	13	2	80	...
Trinidad & Tobago					
Platinum & platinum metals	52	65	34	37	...
USA					
Ores & concentrates (d)	48	194	10	254	74
Platinum	25 100	34 933	50 292	48 669	56 582
Platinum metals —					
Palladium	34 214	41 437	60 776	46 075	46 710
Iridium, osmium & osmiridium	855	811	695	928	1 264
Rhodium	2 176	4 081	4 842	6 257	5 570
Ruthenium	4 162	5 089	6 167	5 066	5 492
Unspecified	499	591	275	1 812	655
Waste & scrap	10 547	12 984	16 384	16 506	31 522
Argentina					
Platinum	22	27	27	...	...
Palladium	26	60	100	...	...
Other platinum metals	46	81	406	...	...
Brazil					
Platinum	35	61	124	115	215
Palladium	561	478	357	642	...
China					
Platinum & platinum metals (e)	* 200	* 100	* 150	* 500	* 800
Hong Kong					
Platinum & platinum metals	2 264	335	1 226	1 367	587
India (g)					
Platinum	239	...	...	...	...
Indonesia					
Platinum & platinum metals	15	325	4	34	2
Iran (f)					
Platinum & platinum metals	£655 000	£65 000	£37 000	...	...
Israel					
Platinum metals	£403 000	£683 000	£915 000	£821 000	£1 415 000
Japan					
Platinum	34 673	29 869	37 452	40 494	30 935
Platinum metals	35 380	37 509	43 748	39 072	47 824
Waste & scrap	343	579	1 710	2 664	3 179
Jordan					
Platinum	—	3 050	4 593	38	30
Korea, Republic of					
Platinum & platinum metals	829	635	3 385	399	590
Malaysia					
Platinum & platinum metals	1 853	1 734	1 969	553	...
Singapore					
Platinum	990	283	56	1 065	474

Imports of Platinum Group Metals

kilograms

Country	1982	1983	1984	1985	1986
Taiwan					
Platinum & platinum metals	2 998	1 763	2 482	2 133	599
Thailand					
Platinum & platinum metals	40	47	865	6	59
Australia					
Platinum metals	3 831	1 904	576	1 216	968
New Zealand (b)					
Platinum & platinum metals	71	37	116	144	86

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

- (a) Values shown refer to imports of 'ores and concentrates of silver, platinum and platinum metals'; it is assumed that the imports of silver ores and concentrates are negligible
- (b) Years ended 30 June of that stated
- (c) Derived from Canadian ores and concentrates exported for treatment
- (d) Platinum metals content
- (e) BGS estimates, based on known exports from certain countries
- (f) Years ended 20 March following that stated
- (g) Years ended 31 March following that stated

POTASH

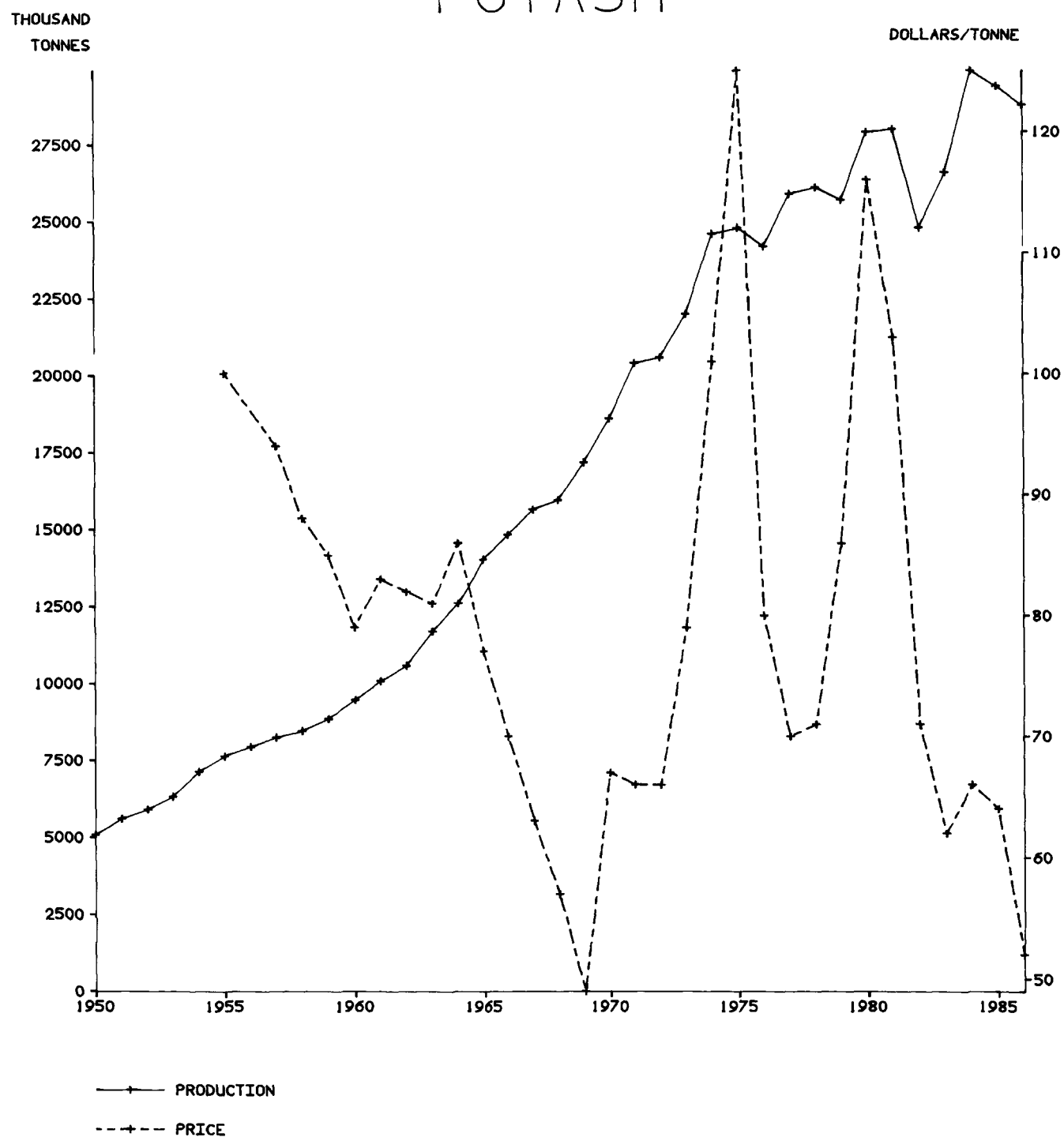


Figure 17 World production of potash (K_2O) from 1950 to 1986 compared from 1955 with the annual price (Vancouver) expressed in constant 1980 US dollars.

Trend-line analysis of the production data indicates a growth rate of approximately 5.5% per annum over 37 years.

Constant commodity prices derived from those quoted in International Financial Statistics Yearbook (1987), using the CPI for the USA from the same source.

Production of Potash

tonnes (K₂O content)

Country	1982	1983	1984	1985	1986
United Kingdom					
Chloride	252 936	318 213	335 440	354 496	416 965
France					
Potassic salts	1 824 000	1 651 000	1 873 000	1 882 000	1 620 200
Germany, Federal Republic of					
Potassic salts	2 057 000	2 419 000	2 645 000	2 583 000	2 161 000
Italy					
Potassic salts	144 900	178 310	162 958	204 177	157 958
Spain					
Potassic salts	822 695	773 174	791 082	761 057	870 000
German Democratic Republic					
Potassic salts	3 434 000	3 431 000	3 465 000	3 465 000	3 485 000
Soviet Union	8 079 000	9 294 000	9 776 000	10 367 000	10 200 000
Canada					
Chloride	5 351 786	5 931 483	7 794 171	6 694 507	6 752 000
USA					
Potassic salts	1 784 000	1 429 000	1 564 000	1 296 000	1 202 000
Chile					
Nitrate	* 21 800	* 21 300	* 18 500	* 21 000	* 20 600
China	* 26 000	* 29 000	* 40 000	* 40 000	* 40 000
Israel					
Chloride	1 004 000	* 1 000 000	* 1 100 000	1 130 000	1 255 000
Jordan	9 000	172 000	295 000	561 000	* 660 000
World total	24 800 000	26 600 000	29 900 000	29 400 000	28 800 000

Exports of Potash

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Chloride	76 552	145 704	96 633	78 547	94 928
Other potassic fertilisers	1 093	288	2 305	1 132	900
Potassic chemicals	1 258	1 398	6 116	4 874	4 023
Belgium-Luxembourg					
Fertiliser salts (a)	112	137	293	120	653
Sulphate (b)	* 178 500	* 223 500	* 238 600	* 315 100	* 277 000
Chloride (a)	15 367	13 781	12 446	8 362	16 819
Other potassic fertilisers (a)	714	609	1 507	1 343	1 795
Potassic chemicals	3 279	2 051	3 131	2 845	2 181
France					
Fertiliser salts	11 892	11 088	3 378	7 888	6 710
Chloride	447 959	433 980	425 826	411 129	288 716
Other potassic fertilisers	17 604	22 527	32 049	22 594	20 563
Potassic chemicals	22 152	2 497	1 749	3 165	7 306
Germany, Federal Republic of					
Fertiliser salts	38 562	38 254	42 459	47 006	43 401
Potassic fertilisers	1 996 789	2 193 135	2 595 451	2 322 673	2 177 290
Potassic chemicals	37 656	37 212	42 548	43 278	40 649
Greece					
Potassic fertilisers	4 500	—	22 739	33 110	58 175
Italy					
Sulphate	39 789	86 143	126 802	111 027	66 291
Other potassic fertilisers	109	1 682	3 085	390	285
Potassic chemicals	25 941	5 183	5 364	2 025	1 951
Netherlands					
Sulphate (a)	3	520	97	1 331	276
Chloride (a)	2 330	2 209	1 421	2 372	5 999
Potassic chemicals	1 505	1 750	2 708	3 414	3 090
Portugal					
Potassic fertilisers	392	0	2	752	109
Spain					
Sulphate	66 766	66 529	68 502	61 075	93 337
Chloride	668 424	662 595	518 391	501 184	395 563
Potassic chemicals	8 266	11 872	10 190	...	14 404
Czechoslovakia					
Potassic chemicals (b)	* 28 600	* 25 000	* 17 100	* 9 600	* 3 600
German Democratic Republic					
Fertiliser salts (a)	2 834 000	2 905 000	2 776 000	2 791 000	2 814 000
Poland					
Potassic chemicals	2 365	...	3 026	4 476	4 310
Soviet Union					
Fertiliser salts	4 956 288	4 512 795	5 435 118	5 455 746	5 127 007
Sweden					
Potassic chemicals	4 821	5 260	5 650	4 632	...
Switzerland					
Potassic chemicals	148	308	1 376	1 684	1 061
Yugoslavia					
Potassic chemicals	3 892	2 728	2 135	632	873
Canada					
Chloride	7 221 497	9 411 941	11 493 880	9 802 543	9 894 211
USA					
Sulphate	99 758	98 027	78 363	91 000	155 608
Chloride	717 970	395 523	623 184	699 770	708 357
Other potassic fertilisers	288 074	235 989	246 067	* 250 000	...
Potassic chemicals	8 901	10 120	10 513	13 389	19 114
Chile					
Fertiliser salts	102 758	140 352	100 509	113 508	108 215
China					
Potassic chemicals (b)	* 2 500	* 1 500	* 1 200	* 1 000	* 2 100
Hong Kong					
Potassic chemicals (Re-exports)	891	426	555	234	811
India (c)					
Potassic chemicals	363	115	135	...	...

Exports of Potash

Country	1982	1983	1984	1985	1986
Israel					
Chloride (b)	* 1 013 300	* 1 052 900	* 1 191 700	* 1 182 800	* 1 159 200
Other potassic fertilisers (b)	* 150 400	* 174 400	* 224 300	* 225 600	* 157 900
Potassic chemicals (b)	* 157 900	* 86 800	* 101 700	* 106 500	* 102 100
Japan					
Sulphate	1 020	2	0	—	110
Chloride	55	56	576	82	195
Potassic chemicals	6 421	8 001	4 751	7 780	8 985
Jordan					
Fertiliser salts	—	2 555	458 232	844 773	1 205 056
Korea, Republic of					
Sulphate	—	8 419	24 156	22 544	27 419
Other potassic fertilisers	2 000	1 970	4 310	4 917	9 258
Potassic chemicals	2 664	4 300	6 573	4 871	7 399
Singapore					
Sulphate	2 005	4 519	4 553	5 022	5 143
of which: Re-exports	1 979	4 519	4 553	5 022	5 143
Chloride	5 354	8 102	6 485	16 755	13 625
of which: Re-exports	5 054	8 002	6 405	16 754	13 625
Other potassic fertilisers	182 649	192 808	157 790	152 238	122 600
of which: Re-exports	182 539	192 759	157 675	151 635	122 454
Taiwan					
Potassic fertilisers	13 037	10 250	6 600	12 600	25 855
Potassic chemicals	516	1 256	693	997	1 016

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

(a) K₂O content

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

(c) Years ended 31 March following that stated

Imports of Potash

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Fertiliser salts	22 492	25 720	36 038	30 424	32 144
Chloride	481 542	472 538	509 166	574 494	470 885
Other potassic fertilisers	14 126	11 892	12 951	7 728	7 764
Potassic chemicals	22 505	23 303	25 530	26 975	27 321
Belgium-Luxembourg					
Fertiliser salts (a)	5 925	5 548	5 837	6 741	6 744
Sulphate (a)	13 862	7 963	13 983	16 075	16 710
Chloride (a)	518 526	587 359	630 109	639 574	624 814
Other potassic fertilisers (a)	4 962	7 134	5 547	8 316	85 543
Potassic chemicals	10 027	11 345	11 263	13 725	13 696
Denmark					
Fertiliser salts	1 775	1 275	2 750	3 376	480
Sulphate	35 752	30 467	42 405	53 793	19 862
Chloride	198 684	231 526	245 684	234 532	124 978
Potassic chemicals	4 971	4 629	5 970	6 989	7 508
France					
Sulphate	143 318	146 296	160 925	170 005	151 572
Chloride	212 627	705 431	702 795	767 871	664 553
Potassic chemicals	23 971	22 492	21 957	21 856	24 367
Germany, Federal Republic of					
Chloride	171 274	82 992	79 962	75 965	64 364
Potassic chemicals	21 783	15 159	26 055	27 712	18 209
Greece					
Sulphate	2 317	3 597	39 823	37 544	51 818
Potassic chemicals	4 685	4 786	6 159	9 287	5 902
Irish Republic					
Sulphate	9 250	7 354	9 917	8 524	4 436
Chloride	248 368	295 984	322 772	318 289	235 034
Other potassic fertilisers	402	10	126	1 657	310
Italy					
Fertiliser salts	11 341	11 687	10 757	9 090	7 112
Sulphate	27 502	32 664	44 735	44 454	70 665
Chloride	461 404	563 626	612 727	587 945	606 425
Other potassic fertilisers	21 998	18 852	13 756	15 296	19 660
Potassic chemicals	26 242	28 853	31 995	38 883	27 212
Netherlands					
Fertiliser salts (a)	462	322	209	297	377
Sulphate (a)	28 541	37 736	45 294	47 149	44 979
Chloride (a)	184 046	164 677	175 810	183 428	200 780
Potassic chemicals	26 196	30 297	33 470	40 090	39 776
Portugal					
Sulphate	5 895	3 636	1 000	1 001	1 315
Chloride	61 490	71 050	58 710	56 746	62 490
Potassic chemicals	3 294	2 668	3 820	2 759	2 718
Spain					
Potassic chemicals	11 542	9 044	9 367	...	15 879
Austria					
Fertiliser salts	10 963	16 598	11 628	12 868	12 079
Sulphate	33 283	19 866	24 001	28 152	22 757
Chloride	224 644	221 256	225 143	226 825	185 489
Other potassic fertilisers	3 948	4 502	6 536	17 500	7 340
Potassic chemicals	5 795	6 325	6 437	6 799	6 896
Bulgaria					
Fertiliser salts (c)	* 245 100	* 132 500	* 144 100	* 163 000	* 188 900
Czechoslovakia					
Fertiliser salts (a)	639 000	580 000	556 000	556 000	572 000
Finland					
Sulphate	187	171	311	384	363
Chloride	302 511	374 727	405 553	(c)* 228 000	(c)* 213 000
Other potassic fertilisers	6 305	0	0	—	1
Potassic chemicals	3 294	3 521	2 985	4 296	4 314
Hungary					
Fertiliser salts	3 131	2 906	4 135	3 349	2 338
Potassic fertilisers	1 189 723	1 416 228	1 272 665	1 286 440	1 114 655
Potassic chemicals	1 634	757	942	1 103	1 220
Iceland					
Sulphate	3 450	2 851	4 528	1 803	5 781
Chloride	5 579	8 182	5 831	8 194	4 090

Imports of Potash

Country	1982	1983	1984	1985	1986
Norway					
Sulphate	67 872	78 776	82 057	87 473	97 947
Chloride	215 797	233 462	292 775	255 038	218 791
Other potassic fertilisers	687	1 480	820	1 182	926
Potassic chemicals	3 256	2 087	2 158	2 753	3 457
Poland					
Fertiliser salts	2 377 000	1 685 000	2 444 000	2 357 000	2 373 000
Chloride	17 796	...	16 736	18 228	17 993
Potassic chemicals	6 838	...	6 131	5 875	6 027
Romania					
Fertiliser salts (a)	314 000	337 600	371 000	346 000	459 900
Sweden					
Fertiliser salts	1 323	1 701	1 863	2 175	2 099
Potassic fertilisers	893	660	1 098	823	1 301
Potassic chemicals	2 090	3 094	3 798	3 494	3 874
Switzerland					
Fertiliser salts	86 356	96 524	111 788	81 381	71 002
Potassic chemicals	8 652	9 907	12 042	12 603	13 482
Turkey					
Sulphate	39 941	6 990	9 994	11 946	50 958
Other potassic fertilisers	16 990	31 392	50 533	11 259	39 697
Potassic chemicals	...	...	5 750	4 372	...
Yugoslavia					
Sulphate	14 508	13 440	18 841	22 294	18 899
Chloride	436 709	533 936	506 950	599 574	559 280
Potassic chemicals	188 244	206 261	153 386	160 887	178 226
Algeria					
Sulphate	30 611	39 612	93 228	89 582	...
Potassic chemicals	338	352	521	386	...
Cameroon					
Potassic fertilisers	47 472	20 160	...	...	...
Canary Islands					
Potassic chemicals	1 179	2 769	1 698	...	...
Egypt					
Potassic fertilisers	5 003	25 047	73 218	29 086	35 402
Gabon					
Fertiliser salts	444	1 863	128	399	459
Potassic fertilisers	1 693	1 053	1 207	1 339	1 516
Ivory Coast					
Sulphate	5 000	8 000	5 547	8 282	...
Chloride	39 070	33 059	43 407	44 866	...
Kenya					
Potassic fertilisers	20 951	15 260	2 989	2 733	1 540
Liberia					
Potassic fertilisers	55	5	890	235	70
Madagascar					
Potassic fertilisers	8 278	8 123	6 441	5 133	1 073
Malawi					
Potassic fertilisers	7 524	9 694	4 918	...	...
Mauritius					
Potassic fertilisers	22 764	21 432	21 632	26 367	21 229
Morocco					
Sulphate	47 226	41 533	43 180	43 748	...
Chloride	24 620	34 803	41 129	54 467	...
Potassic chemicals	1 610	1 809	946	990	...
Mozambique					
Potassic fertilisers	2 999	2 400	...	2 530	...
Potassic chemicals	3 694	3 460	...	...	...
Niger					
Potassic fertilisers	52	459	1 161	1 335	2 864
Nigeria					
Potassic fertilisers	63 677	...	37 451	2 334	6 690
Senegal					
Potassic fertilisers	4 002	9 141	14 925	24 941	1 160

Imports of Potash

tonnes

Country	1982	1983	1984	1985	1986
South Africa					
Potassic fertilisers	209 679	230 354	294 470	292 296	208 068
Potassic chemicals	5 529	4 704	5 102	5 762	5 483
Tunisia					
Potassic fertilisers	5 522	7 318	4 665	10 865	15 021
Zimbabwe					
Sulphate	16 817	10 931	12 751	22 423	...
Chloride	31 311	18 760	32 858	44 802	...
Belize					
Potassic fertilisers	335	671	660	71	1 030
Canada					
Sulphate	20 045	15 411	15 644	30 837	26 006
Chloride	1 881	2 277	1 772	707	390
Other potassic fertilisers	57 651	47 367	68 185	33 687	23 991
Potassic chemicals	6 964	8 834	8 079	8 294	9 786
Costa Rica					
Potassic fertilisers	42 537	36 250	29 663	43 293	54 030
Cuba					
Sulphate	22 419	24 706	19 673	24 281	...
Chloride	311 345	315 502	333 733	390 593	...
Dominican Republic					
Sulphate	1 818	) 20 194	18 517	* 13 800	...
Other potassic fertilisers	9 405)			...
El Salvador					
Potassic fertilisers	17 195	240	11	...	...
Guadeloupe					
Potassic fertilisers	2 346	2 873	* 2 700	* 2 900	...
Guatemala					
Potassic fertilisers	6 976	6 889	27 454	12 186	...
Honduras					
Potassic fertilisers	4 108	5 845	9 728	6 034	...
Jamaica					
Potassic fertilisers	8 477	6 726	15 048	183	3 096
Martinique					
Potassic fertilisers	10 966	18 514	21 322	19 854	20 033
Mexico					
Sulphate	20 028	33 975	41 164	37 173	...
Chloride	95 895	124 482	171 177	170 095	...
Potassic chemicals	1 983	...	...	...	...
Nicaragua					
Potassic fertilisers	3 297	34 955	...	...	...
Panama					
Potassic fertilisers	7 501	6 314	8 600	6 444	9 098
St. Kitts-Nevis-Anguilla					
Potassic fertilisers	481	1 383	2 591	...	...
Trinidad & Tobago					
Potassic fertilisers	1 540	973	8 230	669	...
USA					
Fertiliser salts	23 068	33 605	35 106	41 948	46 196
Sulphate	12 147	61 409	55 104	48 788	47 689
Chloride	6 489 641	7 144 557	7 775 921	7 468 432	6 836 183
Other potassic fertilisers	33	167	150	99	149
Potassic chemicals	11 750	16 370	...	27 973	38 611
Argentina					
Sulphate	8 168	4 252	4 562	1 390	...
Chloride	5 632	6 867	12 685	6 714	...
Potassic chemicals	5 091	3 827	5 415	...	...

Imports of Potash

Potash

tonnes

Country	1982	1983	1984	1985	1986
Brazil					
Sulphate	68 334	28 490	48 824	22 292	...
Chloride	1 425 443	1 188 262	1 745 156	1 777 567	1 936 543
Potassic chemicals	12 389	4 977	11 296	7 886	...
Chile					
Sulphate (c)	* 3 300	* 10 000	* 12 300	* 20 900	* 28 300
Chloride (c)	* 21 100	* 40 000	* 44 000	* 36 300	* 59 100
Colombia					
Sulphate	13 003	9 233	11 657	16 267	...
Chloride	148 770	123 366	153 306	157 470	...
Potassic chemicals	2 437	1 769	1 730	2 883	...
Ecuador					
Chloride	18 862	8 650	23 301	19 263	4 667
Other potassic fertilisers	5 218	8 195	4 961	100	2 512
Guyana					
Potassic fertilisers	2 251	1 846	...	...	...
Peru					
Sulphate	3 167	—	211	4 059	8 611
Chloride	6 304	5 253	8 042	12 355	24 500
Potassic chemicals	850	929	852	859	1 367
Uruguay					
Sulphate	—	310	—	110	30
Chloride	3 134	4 539	5 030	6 229	6 506
Potassic chemicals	22	67	108	115	368
Venezuela					
Potassic fertilisers	6 949	...	146 134	256 054	144 569
Potassic chemicals	2 337	...	794	1 293	1 811
China					
Potassic fertilisers (c)	* 230 400	* 712 000	* 817 000	* 350 000	* 406 000
Cyprus					
Potassic fertilisers	2 144	271	1 164	1 001	1 061
Hong Kong					
Potassic fertilisers	—	—	4 525	15 000	—
Potassic chemicals	1 336	859	979	764	1 689
India (b)					
Sulphate	10 342	...	...	...	...
Chloride	532 559	...	...	...	...
Other potassic fertilisers	164 252	...	...	...	...
Potassic chemicals	303	...	...	...	...
Indonesia					
Sulphate	19 022	6 601	2 300	1 000	1 700
Chloride	77 867	182 775	163 640	277 594	88 759
Other potassic fertilisers	126 879	66 125	110 490	33 080	1 694
Potassic chemicals	1 304	3 189	1 982	1 972	1 870
Japan					
Sulphate	201 623	223 754	238 242	197 876	171 347
Chloride	1 049 094	1 059 323	1 032 574	1 138 094	970 042
Other potassic fertilisers	49 341	55 572	74 929	39 460	58 065
Potassic chemicals	15 340	21 191	5 080	3 902	8 410
Jordan					
Potassic fertilisers	1 117	348	18	753	—
Korea, Dem. P.R. of					
Potassic fertilisers (c)	* 53 200	* 99 000	* 67 500	* 110 100	* 23 000
Korea, Republic of					
Sulphate	24 801	1 999	—	6 955	—
Chloride	365 366	308 604	358 851	482 105	429 960
Other potassic fertilisers	—	22 920	1	—	—
Potassic chemicals	2 937	2 738	2 281	1 594	5 174
Malaysia					
Fertiliser salts	313	367	244	287	...
Sulphate	5 486	7 018	11 183	16 890	...
Chloride	146 634	86 645	196 322	178 762	...
Other potassic fertilisers	178 337	258 643	281 964	314 658	...
Pakistan (d)					
Potassic chemicals	1 852	1 313	1 329	2 083	1 678

Imports of Potash

tonnes

Country	1982	1983	1984	1985	1986
Philippines					
Sulphate	10 300	6 988	6 058	32 471	19 521
Chloride	88 391	40 993	42 963	24 174	66 109
Other potassic fertilisers	1 490	16 235	2 393	1 624	960
Potassic chemicals	1 734	1 433	1 600	2 458	2 546
Saudi Arabia					
Sulphate	1 577	3 998	36 773	23 843	2 497
Other potassic fertilisers	6 359	23 749	44 134	34 548	32 772
Singapore					
Sulphate	2 000	11 510	3 501	22 312	6 613
Chloride	39 411	64 955	10 783	216	8 256
Other potassic fertilisers	220 091	192 670	158 402	166 838	140 667
Sri Lanka					
Chloride	51 038	32 563	26 716	48 287	35 914
Other potassic fertilisers	19 720	36 801	38 615	43 426	24 393
Syria					
Potassic fertilisers	12 917	11 673	19 765	44	...
Taiwan					
Chloride	138 206	152 833	186 908	130 064	212 492
Potassic chemicals	4 807	7 911	8 749	8 645	11 526
Thailand					
Sulphate	11 600	13 015	750	4 050	11 158
Chloride	8 985	424	1 039	3 878	6 477
Other potassic fertilisers	30 379	59 280	39 882	34 089	45 334
Potassic chemicals	10 356	3 599	10 519	3 876	10 674
Australia					
Sulphate	7 613	8 647	11 873	10 471	* 7 000
Chloride	227 844	197 244	247 616	193 283	* 205 000
Other potassic fertilisers	1 014	7	139	879	* 1 200
Potassic chemicals (d)	6 135	10 942	13 545	12 443	...
Fiji					
Potassic fertilisers	3 592	2 289	5 835	1 792	...
New Zealand (d)					
Sulphate	817	1 717	973	1 611	1 140
Chloride	168 381	123 142	150 811	209 957	107 319
Other potassic fertilisers	1 821	13 654	28 251	31 899	308
Potassic chemicals	1 163	941	2 041	1 726	1 302

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

(a) K₂O content

(b) Years ended 31 March following that stated

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

(d) Years ended 30 June of that stated

Production of Rare Earth Minerals

tonnes

Country	1982	1983	1984	1985	1986
Madagascar					
Bastnaesite	* 23	* 25	* 25	* 25	...
Zaire					
Monazite	32	15	2	—	—
USA					
Bastnaesite (a)	17 501	17 083	25 311	13 428	11 094
Monazite (a)(e)	* 400	* 400	* 450	* 450	* 450
Brazil					
Monazite	1 814	5 256	3 622	3 953	* 4 000
China (a)	* 6 000	* 6 000	* 8 000	* 10 000	11 860
India					
Monazite (d)	* 4 000	* 4 000	* 4 000	* 4 000	* 4 000
Malaysia					
Monazite	(b) 582	(b) 1 034	(b) 1 095	5 808	5 959
Xenotime	(b) 76	(b) 10	(b) 68	1 124	145
Sri Lanka					
Monazite	368	292	147	* 200	* 200
Thailand					
Monazite	162	257	298	663	1 609
Xenotime	46	38	28	158	28
Australia					
Monazite	9 562	15 141	16 260	18 735	14 822
Xenotime	46	24	66	46	41
World total (c)	56 500	65 200	81 900	74 500	69 800
World total (REO content)	* 33 800	* 39 100	* 49 000	* 44 200	* 41 800

Notes:

- 1 With the exception of the data for USA, figures in this table refer to gross tonnage of rare earth concentrates
- 2 Rare earth minerals are also believed to be produced in the Soviet Union and possibly, on a small scale, in Indonesia, Democratic P.R. of Korea and South Africa

(a) REO content

(b) Exports

(c) Expressed as weight of concentrates produced; USA production has been grossed up to concentrate equivalent on the assumption that both its bastnaesite and monazite concentrates contain 60% REO. The same percentage has been applied to the production in China

(d) Years ended 31 March following that stated

(e) Nominal capacity

Exports of Rare Earths

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Ferro-cerium & other pyrophoric alloys	25	19	12	13	10
Metals	65	41	26	57	40
Belgium-Luxembourg					
Ferro-cerium & other pyrophoric alloys	24	—	1	0	5
Denmark					
Ferro-cerium & other pyrophoric alloys	241	131	107	0	0
France					
Ferro-cerium & other pyrophoric alloys	56	127	108	109	101
Metals	18	59	* 110	81	59
Germany, Federal Republic of					
Cerium compounds	880	218	157	183	150
Other rare earth compounds	53	13	29	9	13
Ferro-cerium & other pyrophoric alloys	54	50	63	61	78
Metals	253	170	22	34	18
Italy					
Ferro-cerium & other pyrophoric alloys	15	7	0	—	5
Metals	7	43	34	39	14
Spain					
Ferro-cerium & other pyrophoric alloys	23	0	0	10	—
Austria					
Metals	378	385	675	712	391
Soviet Union					
Rare earth compounds (b)	* 400	* 600	* 500	* 900	* 1 000
Metals (b)	* 10	* 30	* 50	* 100	* 40
South Africa (a)					
Rare earth compounds	—	£540	£10 400	£1 400	...
USA					
Ores & concentrates	4 836	5 102	8 033	7 711	6 140
Ferro-cerium & other pyrophoric alloys	27	66	33	26	35
Brazil					
Cerium compounds	310	875	79	0	...
Ferro-cerium & other pyrophoric alloys	174	290	284	182	279
Metals	68	124	102	233	89
China					
Rare earth compounds (b)	* 800	* 1 000	* 2 500	* 5 200	* 4 200
Ferro-cerium & other pyrophoric alloys (b)	* 100	* 200	* 100	* 150	* 400
Hong Kong					
Ferro-cerium & other pyrophoric alloys (Re-exports)	108	109	85	103	131
Japan					
Ferro-cerium & other pyrophoric alloys	59	79	54	30	20

Exports of Rare Earths

tonnes

Country	1982	1983	1984	1985	1986
Malaysia					
Ores & concentrates	658	1 044	1 163	2 365	738
Thailand					
Ores & concentrates	120	82	1 992	1 350	1 306
Australia					
Ores & concentrates	15 251	17 670	18 124	18 024	14 100

Notes:

- 1 Trade in rare earth compounds has been omitted from this table in those cases where it is not separately distinguished from the trade in compounds of thorium and uranium, as under the Standard International Trade Classification (Revision 2), item 524.92
 - 2 Rare earths are here taken to include yttrium and scandium; the term 'metals' includes intermixtures and interalloys thereof
- (a) Values shown are for the common customs area
(b) BGS estimates, based on known imports into certain countries

Imports of Rare Earths

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Ferro-cerium & other pyrophoric alloys	15	6	5	29	3
Metals	11	24	28	88	61
Belgium-Luxembourg					
Cerium compounds	81	104	77	75	127
Other rare earth compounds	61	11	18	15	17
Ferro-cerium & other pyrophoric alloys	23	5	26	26	6
Metals	10	15	18	64	54
Denmark					
Rare earth compounds	2	3	6	1	2
Ferro-cerium & other pyrophoric alloys	2	1	1	1	12
France					
Cerium compounds	264	524	590	946	962
Other rare earth compounds	787	845	897	2 103	1 366
Ferro-cerium & other pyrophoric alloys	73	124	90	76	117
Metals	76	75	162	235	203
Germany, Federal Republic of					
Cerium compounds	587	546	599	1 036	1 034
Other rare earth compounds	193	220	455	816	710
Ferro-cerium & other pyrophoric alloys	11	13	16	13	10
Metals	74	129	135	107	113
Italy					
Ferro-cerium & other pyrophoric alloys	50	4	14	10	5
Metals	136	68	54	16	64
Netherlands					
Cerium compounds	2 160	2 984	3 758	2 108	1 215
Other rare earth compounds	2 526	2 671	2 904	1 588	1 639
Ferro-cerium & other pyrophoric alloys	148	112	6	21	16
Metals	1	81	1	11	28
Portugal					
Ferro-cerium & other pyrophoric alloys	4	4	4	6	4
Spain					
Rare earth compounds	165	216	248	...	248
Ferro-cerium & other pyrophoric alloys	23	644	36	544	43
Metals	12	24	24	...	27
Austria					
Metals	149	91	59	147	88
Switzerland					
Ferro-cerium & other pyrophoric alloys	0	3	3	3	1
Metals	2	4	5	5	1
South Africa					
Rare earth compounds (a)	£58 000	£100 000	£67 000	£156 000	...
USA					
Ores & concentrates	6 799	4 027	5 661	5 694	2 960
Cerium compounds	33	30	710	7	300
Other rare earth compounds	177	609	935	202	294
Ferro-cerium & other pyrophoric alloys	86	104	138	113	94
Metals	96	56	149	237	68
Argentina					
Cerium compounds	8	23	16	...	...
Other rare earth compounds	6	7	5	...	...
Metals	7	21	31	...	...

Imports of Rare Earths

Country	1982	1983	1984	1985	1986
Brazil					
Cerium compounds	91	100	104	182	...
Other rare earth compounds	16	15	15	20	...
Metals	53	0	0	1	...
Venezuela					
Ferro-cerium & other pyrophoric alloys	5	...	...	2	2
Hong Kong					
Ferro-cerium & other pyrophoric alloys	145	149	122	143	183
Indonesia					
Ferro-cerium & other pyrophoric alloys	52	62	39	42	76
Metals	395	12	35	4	0
Japan					
Cerium compounds	58	53	57	149	411
Other rare earth compounds	3 969	3 975	6 996	9 829	8 178
Ferro-cerium & other pyrophoric alloys	16	23	21	31	29
Metals	9	26	131	59	132
Korea, Republic of					
Cerium compounds	85	100	77	67	74
Malaysia					
Ores & concentrates	1 590	523	2 046	2 476	...
Singapore					
Ferro-cerium & other pyrophoric alloys	—	28	24	36	87
Thailand					
Ferro-cerium & other pyrophoric alloys	86	70	59	84	92

Notes:

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

(a) Values shown are for the common customs area

Salt

Production of Salt

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Rock salt	2 209 000	1 316 000	1 569 000	2 030 000	2 040 000
Brine salt	1 554 000	1 394 000	1 423 000	1 552 000	1 510 000
Salt in brine (a)	3 874 000	3 601 000	4 134 000	3 563 000	3 305 000
Denmark	399 280	451 855	522 892	573 939	573 557
France					
Rock salt	925 000	694 000	1 030 000	1 178 000	972 000
Salt in brine	3 711 000	4 239 000	4 417 000	4 167 000	3 963 000
Sea salt	1 539 000	1 354 000	1 381 000	1 423 000	1 610 000
Germany, Federal Republic of					
Rock salt	7 044 000	6 119 000	7 010 000	7 512 000	7 462 000
Brine salt	842 000	743 000	815 000	885 000	892 000
Salt in brine	4 296 827	4 404 455	4 945 991	5 055 285	5 193 884
Greece	105 436	147 665	126 478	* 160 000	...
Italy					
Rock salt & brine salt	3 603 580	3 453 817	3 255 421	3 175 734	3 432 696
Sea salt	* 1 000 000	* 1 100 000	* 1 000 000	* 1 000 000	* 1 000 000
Netherlands	3 191 000	3 124 000	3 674 000	4 154 000	3 763 000
Portugal					
Rock salt	407 034	429 934	455 950	464 362	458 908
Sea salt	247 815	208 652	163 023	213 826	...
Spain					
Rock salt	2 211 592	2 008 109	2 155 765	2 160 356)
Sea salt	1 076 598	1 121 582	1 197 715	1 027 383	) 5 200 000
Other salt	25 988	27 780	34 867	52 010)
Albania	* 66 500	* 70 000	* 70 000	* 70 000	* 70 000
Austria					
Rock salt	1 085	1 288	1 124	1 363	1 569
Salt in brine	214 000	141 000	239 000	* 230 000	...
Evaporated salt	433 557	359 118	418 707	437 584	485 513
Bulgaria	* 88 000	* 86 000	* 89 000	* 90 000	...
Czechoslovakia	436 489	343 356	343 760	349 174	...
German Democratic Republic	3 115 400	3 126 300	3 133 400	3 137 700	3 139 000
Poland					
Rock salt	1 338 000	1 131 000	1 185 000	1 198 000	1 221 000
Other salt	2 991 000	3 195 000	3 526 000	3 667 000	4 198 000
Romania	4 756 000	4 596 000	* 4 500 000	5 019 000	5 355 000
Soviet Union	* 15 800 000	* 16 200 000	* 16 500 000	* 16 100 000	* 16 100 000
Switzerland					
Evaporated salt	34 557	21 312	32 692	31 792)
Other salt	282 307	240 890	296 204	300 254	) 347 973
Turkey	1 313 719	1 261 383	1 290 202	1 189 421	...
Yugoslavia					
Rock salt	198 500	191 886	146 552	149 457	234 685
Sea salt	37 883	38 474	44 151	53 195	69 872
Other salt	191 746	194 709	188 839	272 864	199 760
Algeria					
Brine salt & sea salt	140 000	* 150 000	175 000	168 000	190 500
Angola	21 900	7 900	—	6 000	...
Egypt	791 052	830 957	845 000	922 707	863 794
Ethiopia (d)	* 125 000	* 125 000	* 135 000	* 135 000	...
Ghana	* 50 000	* 50 000	* 50 000	* 50 000	* 50 000
Kenya	24 411	83 427	100 825	34 348	71 912
Libya	* 10 000	* 12 000	* 12 000	* 12 000	* 12 000
Madagascar	29 629	* 30 000	10 440	40 199	54 721
Mali	* 4 500	* 4 500	* 4 500	* 4 500	* 4 500
Mauritania	7 250	* 5 400	* 5 400	* 5 400	...
Mauritius (c)	4 500	6 196	7 000	6 000	7 000
Morocco	56 556	69 853	70 100	105 023	96 514
Mozambique	33 700	35 000	18 600	* 28 000	* 28 000
Namibia	191 800	137 796	88 560	153 637	135 981
Senegal	159 700	170 000	170 000	143 000	145 000
Somalia	* 30 000	* 30 000	* 30 000	* 30 000	* 30 000
South Africa	632 812	744 295	615 531	722 482	752 440
Sudan	27 927	150 000	16 000	65 000	190 000

Production of Salt

Salt

tonnes

Country	1982	1983	1984	1985	1986
Tanzania	32 100	29 700	29 900	21 108	21 868
Tunisia (c)	421 000	375 000	415 000	405 000	450 000
Bahamas	816 000	862 000	870 000	850 000	...
Canada					
Rock salt	5 223 073	5 846 994	7 030 664	6 608 739	7 009 434
Other salt (e)	2 717 258	2 755 389	3 204 735	3 475 958	3 271 782
Costa Rica	110 000	* 110 000	* 110 000	* 110 000	...
Cuba	198 000	180 200	184 500	220 900	266 000
Dominican Republic	47 692	50 425	47 646	* 48 000	...
El Salvador (c)	39 780	44 543	46 901	32 024	31 751
Guatemala (c)	27 600	34 500	34 500	...	...
Honduras	* 30 000	* 30 000	* 30 000	* 30 000	* 30 000
Mexico	5 561 187	5 703 030	6 166 705	6 467 140	* 6 500 000
Netherlands Antilles (k)	221 338	202 137	357 019	* 350 000	...
Nicaragua (c)	* 18 000	* 18 000	* 15 000	* 15 000	...
Panama (c)	11 051	38 778	18 585	16 101	8 872
USA (f)					
Rock salt	12 250 000	9 018 000	12 109 000	12 600 000	) * 33 600 000
Salt in brine	16 407 000	17 193 000	17 843 000	18 000 000	
Evaporated salt	5 720 000	5 153 000	5 633 000	5 400 000	
Argentina	594 928	677 934	937 267	1 336 271	1 134 886
Brazil					
Rock salt	835 750	929 269	948 743	994 873	600 000
Sea salt	2 887 803	3 259 291	3 578 090	1 734 390	1 600 000
Chile	674 002	714 598	625 760	753 427	1 032 373
Colombia					
Rock salt	300 534	265 919	270 892	235 881	227 601
Sea salt	293 782	423 441	528 962	494 393	500 938
Peru	485 000	* 490 000	* 500 000	* 500 000	...
Venezuela (c)	329 677	360 589	280 700	338 889	511 421
Afghanistan (g)	* 35 000	* 35 000	* 35 000	* 35 000	* 30 000
Bangladesh (j)	560 000	243 022	671 870	489 000	746 000
Burma (b)(c)(h)	269 000	280 000	301 000	321 000	...
China	16 380 000	16 130 000	16 420 000	14 790 000	17 299 000
Cyprus	9 857	—	7 399	10 013	6 051
India					
Rock salt	4 123	4 565	4 254	3 941	1 663
Other salt	7 308 000	7 008 000	7 723 000	* 9 875 000	...
Indonesia	1 258 000	618 000	370 000	* 600 000	...
Iran (g)	* 700 000	* 750 000	* 750 000	* 750 000	* 750 000
Iraq	* 80 000	* 80 000	* 80 000	* 70 000	* 70 000
Israel	148 200	145 000	145 000	* 150 000	...
Japan (i)	966 000	921 000	1 200 000	* 1 200 000	1 370 000
Jordan (b)	8 763	34 000	21 680	32 192	11 746
Kampuchea, Democratic	38 000	* 40 000	* 40 000	* 40 000	* 40 000
Korea, Dem. P.R. of	* 570 000	* 570 000	* 570 000	* 570 000	* 570 000
Korea, Republic of	864 000	481 000	518 000	* 650 000	...
Kuwait	19 342	19 673	22 239	21 000	* 21 000
Laos	8 949	* 10 000	* 10 000	* 10 000	* 30 000
Lebanon	* 10 000	* 5 000	* 5 000	* 5 000	* 5 000
Mongolia	* 15 000	* 16 000	* 16 000	* 16 000	* 16 000
Pakistan					
Rock salt	539 697	570 072	598 810	584 306	576 000
Sea salt	187 182	176 740	198 700	268 914	* 351 790
Philippines	364 420	381 912	401 008	421 058	442 111
Sri Lanka	176 437	128 471	123 157	75 919	...
Syria	102 000	88 000	38 000	106 000	...
Taiwan	262 103	79 188	218 491	173 898	136 078
Thailand					
Rock salt	11 100	5 679	9 850	12 786	2 000
Other salt	* 165 000	* 165 000	* 165 000	* 165 000	* 165 000

Salt

Production of Salt

tonnes

Country	1982	1983	1984	1985	1986
Vietnam	* 650 000	* 890 000	* 800 000	* 800 000	* 800 000
Yemen Arab Republic	* 57 000	* 141 000	* 148 000	* 150 000	...
Yemen, People's D.R. of	58 000	66 000	75 700	66 900	...
Australia	4 811 185	5 169 900	5 695 263	5 635 000	6 130 300
New Zealand	70 000	81 000	57 000	51 500	—
World total	164 900 000	159 900 000	172 900 000	174 500 000	178 000 000

Notes:

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

Exports of Salt

Country	1982	1983	1984	1985	1986
United Kingdom	484 659	378 865	484 511	402 946	368 717
Belgium-Luxembourg	124 875	170 973	227 720	205 256	164 861
Denmark	114 188	191 695	232 814	237 286	272 420
France	493 741	448 765	606 316	740 229	746 996
Germany, Federal Republic of	1 941 571	1 793 005	2 116 175	2 359 839	2 290 731
Irish Republic	800	685	1 042	973	1 556
Italy	474 594	262 651	314 778	428 591	619 178
Netherlands	2 011 004	2 193 162	2 593 710	2 863 178	2 684 831
Portugal	724	5 511	9 029	11 038	5 551
Spain	580 694	474 244	537 170	893 972	510 791
Austria	1 443	1 014	925	1 506	1 621
German Democratic Republic	1 387 000	1 390 000	1 501 000	1 604 000	1 721 000
Norway	5 173	3 523	4 091	2 413	2 487
Poland	337 396	376 675	370 418	380 110	276 996
Romania (a)	* 788 600	* 720 100	* 730 200	* 850 800	* 872 300
Soviet Union	460 815	338 931	375 181	398 970	418 057
Sweden	3 798	6 668	5 342	2 063	1 835
Switzerland	698	548	102	49	44
Turkey	28 634	6 258	29 343	16 343	20 854
Algeria	3 589	—	3 744	265	...
Cape Verde Islands	...	...	9 670	...	...
Egypt	4 864	12 670	9 539	9 551	13 013
Ethiopia	11 000	5 010	15 153	...	...
Ivory Coast	18	1 669	2 846	1 936	...
Kenya	58	569	25	32	16 042
Madagascar	837	2 181	7 827	11 150	3 710
Senegal	155 807	152 157	186 731	137 676	116 478
South Africa	67 397	103 262	89 731	94 526	91 073
Sudan	19 391	78	16	500	...
Tanzania	5 225	3 273	3 552	2 480	...
Tunisia	329 356	285 020	261 337	314 566	359 568
Bahamas	911 981	856 334	975 205	1 224 632	1 057 542
Canada	1 734 059	1 915 597	2 546 688	2 289 273	2 552 532
El Salvador	16 555	12 823	12 857	...	...
Honduras	1 531	1 937	...	...	...
Jamaica	3 969	2 558	3 260	1 925	1 669
Mexico	4 688 281	3 942 108	4 629 809	4 561 576	...
Netherlands Antilles	221 338	202 137	357 019	238 478	...
Nicaragua	2 180	304	...	...	...
USA	908 421	469 139	744 275	834 036	1 065 696
Argentina	19 856	20 423	14 172	7 718	...
Brazil	186 180	243 225	348 114	144 580	...
Chile	529 054	363 231	(a)* 461 000	(a)* 317 000	(a)* 391 400
Colombia	7 500	25 250	—	300	...
China	910 000	960 000	1 040 000	1 070 000	1 170 000
Hong Kong (Re-exports)	2 955	6 496	1 519	1 039	947
India (b)	224 655	457 229	172 531	...	...
Iran (c)	836	2 319	233	...	...
Israel (a)	* 10 800	* 9 700	* 7 900	* 19 600	* 9 600
Japan	1 609	1 292	1 250	1 414	1 182
Jordan	1 674	306	—	222	187
Korea, Republic of	172	3 193	1 647	6 412	11 689
Kuwait	2 364	967	1 738	...	...
Malaysia	1 387	343	599	604	...
Pakistan (d)	8 484	8 052	13 150	8 519	17 270
Saudi Arabia	3 818	5 608	5 609	6 433	12 298

Salt

Exports of Salt

tonnes

Country	1982	1983	1984	1985	1986
Singapore	9 272	17 458	20 523	13 817	9 216
of which: Re-exports	8 937	17 228	20 016	12 995	7 565
Sri Lanka	24 363	86 150	37 153	1 000	2 000
Taiwan	1 000	672	1 239	1 472	1 950
Thailand	65 109	47 483	52 971	61 548	54 489
Yemen, People's D.R. of	25 504	50 451	39 400	30 000	...
Australia	4 143 824	4 535 174	4 782 933	5 165 671	5 260 215
New Zealand (d)	1 998	2 021	4 862	2 490	2 760

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

(b) Years ended 31 March following that stated

(c) Years ended 20 March following that stated

(d) Years ended 30 June of that stated

Imports of Salt

Country	1982	1983	1984	1985	1986
United Kingdom	183 607	93 957	115 152	333 373	358 514
Belgium-Luxembourg	1 073 256	1 101 805	1 133 678	1 346 543	1 341 250
Denmark	289 805	143 085	189 271	274 092	299 302
France	169 353	162 837	154 850	151 571	154 330
Germany, Federal Republic of	801 054	749 322	765 110	826 942	782 790
Greece	23 959	16 636	35 679	48 873	68 320
Irish Republic	88 964	79 218	90 400	102 967	107 907
Italy	313 431	378 105	706 712	943 874	934 151
Netherlands	86 813	134 917	222 924	412 093	336 495
Portugal	43 018	20 817	205	8 025	31 235
Spain	869	875	669	620	4 704
Austria	164	232	153	134	212
Bulgaria	206 313	238 275	218 171	239 462	237 618
Czechoslovakia (a)	* 177 300	* 120 300	* 120 300	* 140 000	* 150 300
Faeroe Islands	23 719	25 655	32 556	30 821	34 590
Finland	639 386	495 618	662 659	598 805	526 692
Greenland	6 233	3 256	3 769	4 678	3 330
Hungary	755 482	572 569	578 011	672 310	735 959
Iceland	69 699	80 733	48 797	71 526	83 525
Malta	£102 100	£134 800	£90 000	£81 600	£188 600
Norway	518 177	505 514	554 410	561 315	555 602
Soviet Union	* 110 000	* 110 000	* 110 000	* 110 000	...
Sweden	947 392	1 103 475	1 227 833	1 261 550	1 269 267
Switzerland	1 775	2 004	2 084	1 932	2 225
Yugoslavia	294 720	241 104	83 976	320 812	290 413
Algeria	27 572	17 623	412	953	...
Botswana	7 819	7 749	7 871	6 092	...
Burkina	20 733	16 600	16 100	...	...
Burundi	18 524	207	9 181	9 930	...
Cameroon	10 584	4 644	...	...	...
Canary Islands	729	514	444	...	...
Central African Republic	...	4 537	5 290	5 100	...
Congo	4 625	3 548	5 990	5 495	4 645
Gabon	9 051	6 779	5 145	5 029	4 571
Ivory Coast	45 039	45 101	42 882	42 950	...
Kenya	2 395	103	10 856	254	321
Liberia	2 919	4 259	...	3 157	3 320
Malawi	13 453	9 850	15 848	...	...
Mauritius	539	1 663	230	391	5 385
Niger	29 343	3 227	35 747	27 187	26 001
Nigeria	1 052 209	...	217 162	3 117 989	226 669
Reunion	2 610	1 754	3 299	2 224	3 495
Rwanda	16 482	...	...	...	...
Seychelles	392	317	409	196	318
Sierra Leone	...	7 966	...	...	...
South Africa	1 998	43 550	50 528	2 565	...
Uganda	16 947	23 687	...	...	...
Zaire	16 069	141 971	15 759	...	...
Zambia	22 467	...	138 213	76 858	944
Zimbabwe	53 315	57 080	88 874	53 133	...
Bahamas	2 111	5 977	2 898	3 480	2 658
Barbados	2 245	1 834	1 374	3 020	...
Belize	575	746	595	566	552
Canada	1 526 873	777 310	1 053 215	1 255 519	1 328 289
Costa Rica	2 278	221	96	249	247
Dominica	529	457	379	429	...
Grenada	472	425	542	391	507
Guadeloupe	2 170	2 482	2 099	2 451	2 294
Guatemala	16 053	14 808	6 366	11 732	...
Honduras	222	316	450	...	...
Jamaica	45 063	18 108	46 496	25 058	20 541
Martinique	2 427	2 658	2 547	2 373	2 532
Mexico	1 106	456	572	583	...
Netherlands Antilles	587	930	643	1 496	...
Nicaragua	14 037	42 055	...	...	...
Panama	8 713	949	1 294	1 037	704
St Kitts-Nevis-Anguilla	317	324	189	...	...

Salt

Imports of Salt

tonnes

Country	1982	1983	1984	1985	1986
St Lucia	605	838	704	830	740
Trinidad & Tobago	18 354	34 781	55 632	15 351	...
USA	4 944 627	5 440 388	6 844 710	5 630 974	6 046 735
Colombia	4 476	1 666	73	184	...
French Guiana	475	368	396	504	376
Guyana	2 018	3 218	5 619	...	...
Paraguay	16 145	26 186	20 824	11 475	3 898
Peru	2 250	537	621	345	363
Suriname	1 969	2 940	1 991	4 343	2 631
Uruguay	13 250	67 144	43 275	52 036	76 801
Abu Dhabi	2 140	1 965	5 116	3 438	6 801
Bahrain	1 589	1 991	1 455	2 330	...
Bangladesh (b)	770 548	338 950	522 122	209 281	399 272
Brunei	1 056	1 133	1 341	...	...
Cyprus	719	742	1 030	847	1 287
Dubai	17 079	20 596	8 277	8 448	14 751
Hong Kong	79 955	101 053	92 620	106 599	130 537
India (c)	8 439	...	...	...	...
Indonesia	668	943	1 050	26 830	60 886
Japan	6 269 116	6 380 780	6 458 125	6 832 551	6 614 250
Jordan	528	1 314	1 306	1 442	620
Korea, Republic of	662 062	757 371	757 954	800 109	872 771
Kuwait	12 005	6 452	7 195	...	...
Malaysia	131 504	155 142	129 872	146 470	...
Oman	8 883	6 133	11 724	10 259	7 907
Philippines	130 587	109 633	65 420	71 131	88 918
Qatar	2 377	2 305	3 368	...	...
Saudi Arabia	18 049	20 665	16 880	16 209	14 038
Singapore	41 704	50 472	43 160	36 102	36 700
Taiwan	382 147	584 903	711 505	805 115	859 515
Thailand	45 169	21 149	10 324	846	937
Australia	6 596	6 235	6 377	5 710	6 895
Fiji	2 598	3 125	3 425	2 769	...
New Caledonia	679	523	745	624	741
New Zealand (b)	98 042	79 124	50 235	98 669	49 898
Solomon Islands	942	796	2 733	1 071	1 490
Vanuatu	297	292	317	...	...
Western Samoa	598	499	...	...	...

(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 Sillimanite Minerals

tonnes

Country	1982	1983	1984	1985	1986
France					
Andalusite	36 600	41 900	50 100	56 600	50 900
Spain					
Andalusite & kyanite	5 105	4 486	3 000	2 800	* 3 000
Soviet Union					
Kyanite (a)	* 80 000	* 100 000	* 100 000	* 100 000	* 100 000
Sweden					
Kyanite	—	—	—	—	* 10 000
South Africa					
Andalusite	153 231	116 576	143 305	194 693	181 466
Sillimanite	10 060	815	1 311	1 337	1 330
Zimbabwe					
Kyanite	2 207	—	874	1 676	1 851
USA					
Kyanite (b)	* 100 000	* 100 000	* 100 000	* 100 000	* 90 000
Brazil					
Kyanite (d)	423	526	1 290	2 350	* 2 000
China	* 2 500	* 2 500	* 2 500	* 2 500	* 2 500
India					
Andalusite	536	2 730	706	500	1 041
Kyanite	37 954	41 958	38 254	30 574	31 443
Sillimanite	12 463	8 496	15 519	17 123	14 427
Korea, Republic of					
Andalusite	33	289	209	42	—
Australia					
Kyanite	80	445	1 255	818	...
Sillimanite (c)	783	121	507	650	901
World total	442 000	421 000	459 000	512 000	492 000

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

(a) May include other sillimanite minerals

(b) Includes related minerals

(c) Excluding sillimanite clay

(d) Includes beneficiated and directly shipped material

Exports of Sillimanite Minerals

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Sillimanite minerals	2 326	2 502	5 334	5 172	4 631
Belgium-Luxembourg					
Sillimanite minerals—					
Crude	113	588	—	—	—
Other	66	39	46	21	38
Denmark					
Sillimanite minerals	1	20	157	13	72
France					
Sillimanite minerals—					
Crude	—	0	17	93	8
Other	78	166	34	86	107
Germany, Federal Republic of					
Sillimanite minerals—					
Crude	1 001	1 305	2 400	716	533
Calcined	7 789	4 250	6 300	7 297	6 938
Italy					
Sillimanite minerals—					
Crude & calcined	6	22	48	—	1 021
Other	58	24	754	—	—
Netherlands					
Sillimanite minerals—					
Crude	152	498	1 775	1 901	2 099
Other	789	489	396	263	432
Austria					
Sillimanite minerals	383	12 713	20 039	15 122	22 374
Czechoslovakia					
Sillimanite minerals (b)	* 17 800	* 14 600	* 14 100	* 16 400	* 18 500
German Democratic Republic					
Sillimanite minerals (b)	* 800	* 600	* 800	* 1 400	* 1 000
South Africa					
Andalusite	75 429	69 264	91 574	142 143	113 894
Sillimanite	6 309	2 560	1 340	1 467	748
USA					
Kyanite & related minerals (a) (b)	* 58 500	* 66 400	* 77 400	* 73 500	* 58 100
Brazil					
Kyanite	3	—	20	381	...
India (d)					
Kyanite	1 134	—	—	...	...
Sillimanite	150	150	—	...	...
Japan					
Sillimanite minerals, chamotte & dinas earth	12 400	8 439	9 238	11 946	12 473
Macao					
Sillimanite minerals	...	15 414	14 832	14 577	20 806
New Zealand (c)					
Sillimanite minerals	6 560	10 129	13 410	14 039	14 259

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

(a) May include some chamotte and dinas earth

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

(c) Years ended 30 June of that stated

(d) Years ended 31 March following that stated

Imports of Sillimanite Minerals

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Sillimanite minerals	35 141	35 618	52 708	49 452	44 609
Belgium-Luxembourg					
Sillimanite minerals—					
Crude	230	1 978	391	1 220	537
Other	3 561	851	1 264	1 274	813
Denmark					
Sillimanite minerals	422	270	415	641	661
France					
Sillimanite minerals—					
Crude	1 707	1 283	2 376	2 263	2 604
Other	1 480	2 458	1 845	1 187	2 113
Germany, Federal Republic of					
Sillimanite minerals—					
Crude	26 417	14 070	13 181	39 360	35 641
Calcined	55 636	58 219	75 721	70 813	44 734
Greece					
Sillimanite minerals	633	171	1 712	201	1 874
Italy					
Sillimanite minerals—					
Crude	18 639	12 261	22 763	31 245	16 242
Other	17 576	11 452	13 594	9 914	6 512
Netherlands					
Sillimanite minerals—					
Crude	3 038	864	4 870	8 659	7 509
Other	986	813	2 903	3 159	2 367
Spain					
Sillimanite minerals	2 643	2 887	3 253	...	3 494
Austria					
Sillimanite minerals	78 793	73 637	75 372	85 497	81 258
Norway					
Sillimanite minerals, chamotte & dinas earth	526	380	915	689	1 763
Mexico					
Mullite	3 407	1 281	1 544	1 583	...
Argentina					
Sillimanite minerals	35	700	1 196	...	...
Japan					
Sillimanite minerals	26 627	17 675	27 515	28 413	28 653
Mullite, chamotte & dinas earth	34 613	23 847	22 289	17 981	20 146
Korea, Republic of					
Sillimanite minerals	1 007	1 307	1 704	3 166	3 141
Mullite	3 936	2 047	2 975	4 206	6 300
Australia					
Sillimanite minerals & dinas earth	342	212	2 402	4 677	3 912

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

SILVER

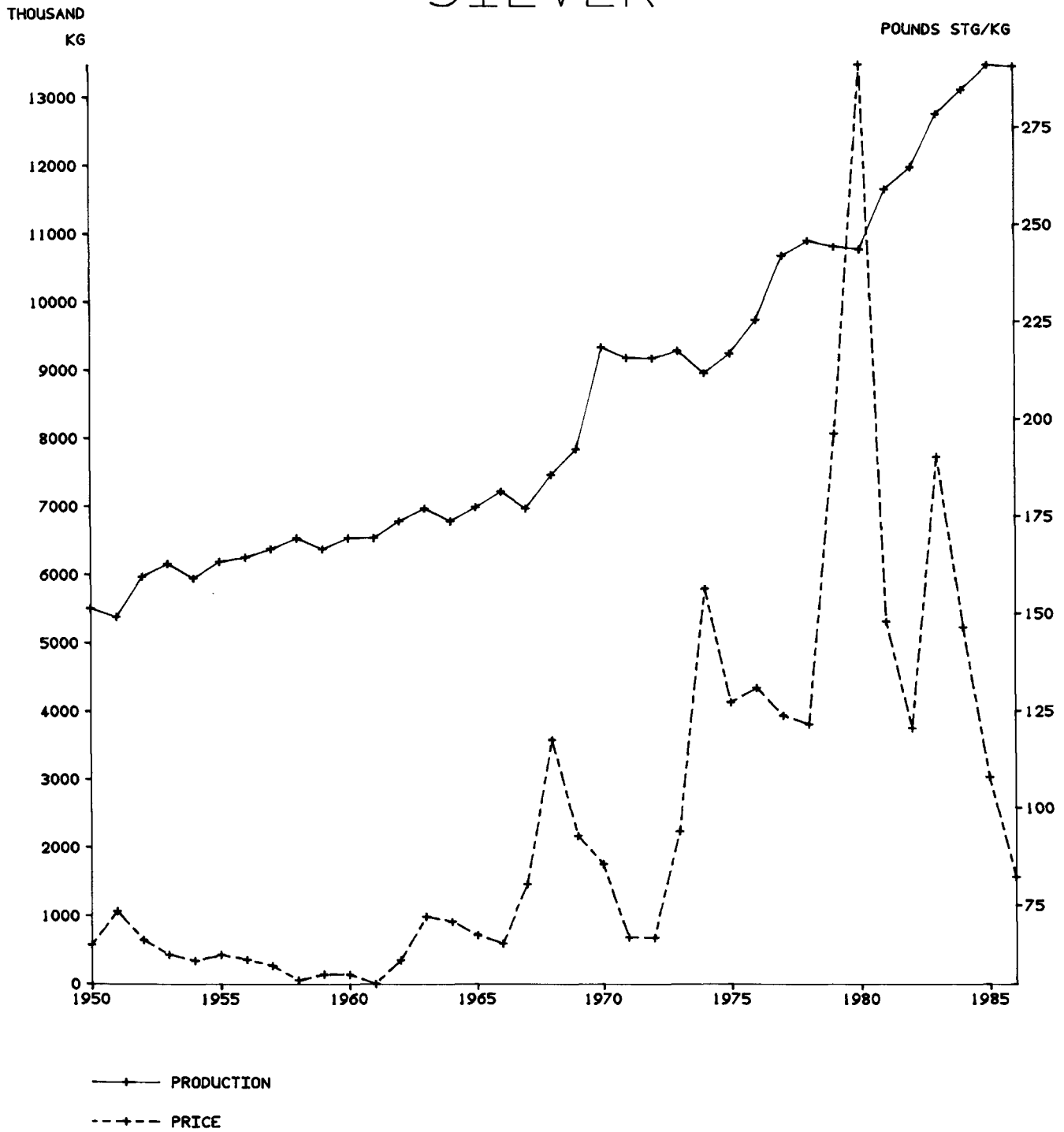


Figure 18 World mine production of silver from 1950 to 1986 compared with the annual average spot price expressed in constant 1980 pounds sterling.

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

Constant commodity prices derived from those quoted by Metal Bulletin (1987), using the RPI for the UK obtained from the Annual Abstract of Statistics (1988) published by HMSO and pre-1967, the CPI for the UK published in International Financial Statistics Yearbook (1987).

Mine Production of Silver

kilograms (metal content)

Country	1982	1983	1984	1985	1986
United Kingdom	3 280	2 635	2 558	1 720	1 773
France	30 768	22 990	24 009	27 172	25 973
Germany, Federal Republic of	39 700	36 300	38 100	34 300	27 500
Greece	49 200	55 900	57 000	50 700	53 700
Irish Republic	3 600	9 900	8 670	8 600	8 150
Italy (a)	55 737	73 450	48 338	71 572	56 338
Portugal	732	631	693	624	524
Spain	116 176	214 940	289 624	366 939	* 350 000
Bulgaria	25 000	25 000	26 000	26 000	26 000
Czechoslovakia	* 33 000	* 30 000	* 32 000	* 32 000	* 33 000
Finland	42 402	45 008	52 610	48 704	37 096
German Democratic Republic	* 45 000	* 43 000	* 40 000	* 41 000	* 41 000
Greenland	15 000	12 300	10 300	10 400	10 000
Hungary	* 500	* 500	* 500	* 500	—
Poland	657 000	678 000	744 000	831 000	829 000
Romania	* 25 000	* 25 000	* 24 000	* 25 000	* 23 000
Soviet Union	* 1 595 000	* 1 600 000	* 1 600 000	* 1 620 000	* 1 600 000
Sweden	184 511	204 046	235 262	250 065	235 000
Turkey	* 8 700	* 6 800	* 7 000	16 800	8 900
Yugoslavia (a)	103 976	123 903	121 564	132 850	177 000
Algeria	* 3 400	* 3 700	* 3 700	* 3 700	* 3 700
Morocco	81 700	103 000	104 000	108 000	89 000
Namibia	87 500	93 000	96 000	83 000	106 000
South Africa	219 197	202 374	218 981	209 367	223 590
Tunisia	3 562	2 803	1 660	804	809
Zaire	59 176	39 501	37 780	47 200	40 000
Zambia	27 599	29 027	24 736	18 873	26 780
Zimbabwe	28 552	29 081	27 837	24 851	26 126
Canada (c)	1 313 630	1 197 031	1 326 720	1 197 072	1 088 000
Dominican Republic	68 357	41 342	37 557	49 184	42 185
El Salvador	2 666	684	677	* 600	* 500
Honduras	52 221	77 600	80 700	83 300	50 000
Mexico	1 550 221	1 910 839	1 986 690	2 152 959	2 332 000
Nicaragua	2 350	1 977	* 1 600	923	* 780
USA	1 251 895	1 350 885	1 386 988	1 226 531	1 064 386
Argentina	83 489	77 767	51 680	67 500	63 490
Bolivia	170 195	187 399	141 840	111 352	87 900
Brazil	23 625	15 112	25 792	38 024	63 616
Chile	382 188	468 276	490 365	517 333	500 077
Colombia	4 232	3 078	4 773	5 249	4 648
Ecuador	313	98	60	* 60	* 60
Peru (b)	1 692 100	1 729 400	1 772 900	1 909 000	1 925 800
Burma	16 400	17 400	17 900	17 700	13 800
China	* 70 000	* 80 000	* 90 000	* 95 000	* 100 000
India	14 405	15 792	24 886	25 587	35 266
Indonesia	32 039	32 430	33 320	35 431	46 467
Iran	—	* 10 000	* 20 000	* 20 000	* 25 000
Japan	294 674	296 557	281 524	268 912	351 270
Korea, Dem. P.R. of	* 280 000	* 300 000	* 285 000	* 270 000	* 295 000
Korea, Republic of	76 623	66 557	76 353	68 926	142 700
Malaysia	16 202	15 092	14 653	16 249	14 066
Oman	—	—	2 800	1 900	1 600
Philippines	61 724	56 696	48 956	52 416	51 532
Taiwan	15 679	10 739	11 330	11 386	12 613
Australia	906 863	1 032 895	972 303	1 085 933	1 022 761
Fiji	576	412	520	442	497
Papua New Guinea	43 363	47 597	45 608	51 967	57 288
World total	11 971 000	12 756 000	13 110 000	13 473 000	13 453 000

(a) Smelter and/or refinery production

(b) Recoverable

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

Exports of Silver

kilograms

Country	1982	1983	1984	1985	1986
United Kingdom					
Metal	2 571 398	3 373 284	1 678 700	563 779	2 006 669
Waste & scrap	97 883	691 011	176 602	574 675	248 999
Belgium-Luxembourg					
Metal	947 881	1 069 356	820 581	1 172 995	1 295 591
Denmark					
Metal	51 252	34 344	46 060	45 567	48 659
of which: Re-exports	27 734	28 996	42 314	42 889	...
France					
Metal	348 136	1 291 718	632 765	453 933	558 914
Waste & scrap	406 029	347 571	360 306	329 100	143 500
Germany, Federal Republic of					
Metal	1 364 636	1 487 183	1 345 629	1 485 977	1 543 337
Waste & scrap	396 058	655 945	629 033	406 956	1 176 662
Greece					
Metal	1 777	424	42 208	40 636	142 259
Italy					
Metal	56 491	129 534	81 651	168 100	141 000
Netherlands					
Metal	178 390	159 244	120 668	133 149	152 419
Portugal					
Metal	3 223	1 757	68	40	9
Spain					
Metal	129 363	191 980	154 073	166 000	172 000
Austria					
Metal	58 478	52 972	50 128	53 566	42 090
Waste & scrap	693	2 224	1 352	333	437
Finland					
Metal	85 000	34 000	34 000	37 000	37 000
German Democratic Republic					
Metal (d)	* 326 300	* 200 200	* 284 100	* 290 900	* 452 400
Norway					
Metal	29 973	31 405	26 897	28 872	37 336
Poland					
Metal	370 000	405 000	478 000	549 000	404 000
Sweden					
Metal	181 000	210 000	242 000	197 000	283 000
Switzerland					
Metal	724 035	367 455	484 390	543 835	687 604
Yugoslavia					
Metal	77 000	90 000	61 000	92 000	220 000
Waste & scrap	1 000	...	* 400	1 000	—
Morocco					
Metal	52 029	80 591	73 723	86 407	...
South Africa					
Metal	238 073	209 581	217 081	217 935	228 010
Tunisia					
Metal	2 700	...	1 375	—	—
Canada					
Ores & concentrates (b)	603 089	439 927	423 967	331 341	373 063
Metal	1 137 295	1 051 415	1 095 929	1 342 551	1 336 479
Dominican Republic					
Metal (c)	82 255	52 322	48 079	59 387	51 064
El Salvador					
Metal	2 672	852	730	...	...
Honduras					
Concentrates (b)	37 667	50 669	62 893	85 661	47 963
Mexico					
Metal	1 190 651	1 386 307	1 473 880	1 854 920	...
Nicaragua					
Metal (a)	...	14 180	...	...	...
USA					
Ores & concentrates (b)	1 459	2 093	20 231	8 394	8 846
Metal	423 046	458 190	360 478	445 202	406 769
Waste & scrap	390 892	566 110	406 216	403 898	459 587

Exports of Silver

Country	1982	1983	1984	1985	1986
Bolivia					
Ores & concentrates (b)	150 856	157 832	79 645	51 634	157 239
Chile					
Metal	295 677	280 276	292 879	312 738	336 669
Peru					
Metal	808 700	1 017 100	(d)* 833 600	(d)* 696 700	606 500
China					
Metal (d)	* 3 700	* 17 000	* 40 400	* 70 700	* 47 400
Hong Kong					
Metal	22 459	11 602	37 663	18 999	39 938
of which: Re-exports	21 183	8 212	32 857	15 260	36 514
Waste & scrap	95 220	419 139	421 507	408 507	140 628
of which: Re-exports	35 288	35 632	18 802	281	2 386
Japan					
Metal	128 995	220 011	132 745	93 413	63 158
Waste & scrap	1 000	...	...	...	1 000
Korea, Republic of					
Ores & concentrates	3 149 000	792 000	86 000	—	—
Metal	49 332	59 451	51 830	42 180	31 233
Malaysia					
Metal	47 150	23 220	9 549	3 732	...
Philippines					
Metal	3 776	18 545	2 972	15 476	22 023
Singapore					
Metal	6 807	11 108	3 768	1 852	3 771
of which: Re-exports	2 873	6 442	3 023	784	3 771
Taiwan					
Metal	151	700	274	950	1 244
Waste & scrap	22 000	8 093	712	—	2 085
Thailand					
Metal	62 436	103 024	5 638	75	1
Australia					
Silver-lead bullion	432 711	420 435	456 063	360 551	435 312
Silver in all ores, concentrates etc.	171 069	221 581	194 139	248 051	330 580
Metal	234 468	222 480	163 620	167 463	191 817
Fiji					
Metal	550	396	513	460	...
New Zealand (e)					
Metal	448	2 160	881	1 046	1 241
Papua New Guinea					
Metal	43 363	47 597	45 608	51 967	57 288

Notes:

- 1 This table excludes silver coin but includes silver shipped for minting
 - 2 In this table the term 'metal' as used here includes both unwrought and partly worked silver and alloys
- (a) Including waste and scrap
(b) Ag content
(c) Officially described as 'dore' (Au/Ag alloy), but contains a higher proportion of silver
(d) BGS estimates, based on known imports into certain countries
(e) Years ended 30 June of that stated

Imports of Silver

kilograms

Country	1982	1983	1984	1985	1986
United Kingdom					
Metal	1 433 971	2 476 676	1 644 617	1 304 497	1 767 475
Waste & scrap	1 360 722	402 741	361 752	643 500	393 173
Belgium-Luxembourg					
Metal	1 321 789	1 599 738	920 915	1 468 886	1 367 762
Denmark					
Metal	82 871	74 372	100 636	113 278	112 851
France					
Metal	630 123	539 071	600 777	517 180	607 591
Waste & scrap	31 651	155 163	27 930	24 800	76 000
Germany, Federal Republic of					
Metal	1 270 477	1 109 742	1 046 696	1 102 366	1 316 429
Waste & scrap	724 065	717 436	1 228 567	1 428 206	1 143 682
Greece					
Metal	7 354	15 637	14 304	25 961	55 261
Italy					
Metal	575 776	318 484	392 542	275 000	580 600
Netherlands					
Metal	144 859	134 548	141 455	117 298	157 854
Portugal					
Metal	29 085	34 465	27 779	56 475	67 369
Spain					
Metal	31 901	46 367	16 344	23 000	228 870
Austria					
Metal	218 962	135 242	165 752	184 899	116 877
Bulgaria					
Metal (f)	* 150	* 1 700	* 1 400	* 2 100	* 2 300
Czechoslovakia					
Metal (f)	* 8 200	* 11 300	* 16 100	* 15 900	* 1 900
Finland					
Metal	67 000	67 000	84 000	86 000	69 000
German Democratic Republic					
Metal (f)	* 542 800	* 345 300	* 439 800	* 483 200	* 579 300
Iceland					
Metal	707	570	412	715	475
Malta					
Metal	321	414	1 596	831	1 606
Norway					
Metal	83 527	42 262	47 401	61 513	73 057
Sweden					
Metal	244 000	168 000	173 000	167 000	173 000
Switzerland					
Metal	1 139 623	1 172 851	1 097 993	903 449	1 748 798
Turkey					
Metal (b)	9 465	1 741	4 566	6 142	6 000
Yugoslavia					
Metal	19 000	17 000	24 000	32 000	19 000
Algeria					
Metal	14 374	21 178	35 900	4 041	...
Egypt					
Metal	1 258	15	...	...	...
Gabon					
Metal	578	156	128	505	37
Ivory Coast					
Metal	2 711	839	980	2 930	...
Libya					
Metal	24 993	...	...	...	...
Madagascar					
Metal	138	136	76	443	...
Morocco					
Metal	1 100	810	732	876	...
Mozambique					
Metal	1 069	646	20	31	25 283
Nigeria					
Metal	114	...	52	1	5
Senegal					
Metal	222	99	145	107	179

Imports of Silver

Country	1982	1983	1984	1985	1986
South Africa					
Metal	27 764	24 148	25 430	10 152	...
Tunisia					
Metal	814	...	2 694	1 354	1 343
Zaire					
Metal	1 013	1 084	237	...	...
Canada					
Metal	484 186	339 439	215 214	575 878	166 782
Costa Rica					
Metal	385	377	414	856	1 629
Jamaica					
Metal	626	* 500	321	952	965
Nicaragua					
Metal (a)	1 000	...	...	...	...
Panama					
Metal (a)	755	1 035	2 961	10 290	1 462
Trinidad & Tobago					
Metal	1 838	1 476	2 465	391	...
USA					
Ores & concentrates (c)	592 450	604 614	755 487	326 129	347 770
Metal	3 187 475	5 139 137	2 910 000	4 661 357	4 337 942
Waste & scrap	137 529	87 078	84 947	117 389	91 881
Argentina					
Metal	22 734	14 040	29 903	...	...
Brazil					
Metal	89 496	99 704	85 191	124 973	137 297
Colombia					
Metal	6 028	2 074	1 324	898	...
Ecuador					
Metal	2 835	1 093	215	340	1 100
Peru					
Metal	1 638	504	225	400	...
Venezuela					
Metal	26 244	...	...	27 571	49 789
Abu Dhabi					
Metal	—	195	2 257	1 072	125
Brunei					
Metal	2 485	210	434	...	...
China					
Metal (f)	* 1 000	* 45 200	* 406 800	* 10 500	* 558 600
Cyprus					
Metal	5 837	4 022	4 389	6 957	8 570
Dubai					
Metal	133 830	294 985	14 466	3 015	89 062
Hong Kong					
Metal	24 009	25 576	53 779	43 118	56 477
Waste & scrap	5 925	2 567	675	440	1 186
India (g)					
Metal	565	...	...	...	...
Indonesia					
Metal	48	308	290	27	108
Iran (d)					
Metal	9 499	(f)* 24 700	28 710	(f)* 12 600	(f)* 2 000
Israel					
Metal (f)	* 12 100	* 8 300	* 12 000	* 14 500	* 25 400
Japan					
Ores & concentrates	—	—	—	68 000	1 907 000
Metal	517 605	422 451	502 919	570 787	481 716
Jordan					
Metal	1 244	57	2 215	271	535
Korea, Republic of					
Metal	5 132	5 659	6 697	14 713	11 537
Malaysia					
Metal	26 321	31 601	69 315	52 878	...

Silver

Imports of Silver

kilograms

Country	1982	1983	1984	1985	1986
Philippines					
Metal	325	833	203	38	15
Saudi Arabia					
Metal	3 256	758	2 746	12 790	—
Singapore					
Metal	33 036	22 617	27 733	39 890	97 201
Taiwan					
Metal	26 446	39 308	177 927	47 135	74 739
Thailand					
Metal	13 001	11 949	46 638	93 871	71 808
Australia					
Metal	149	8 720	1 466	2 807	955
New Zealand (e)					
Metal	41 971	40 708	41 950	39 867	40 598

Notes:

- 1 This table excludes silver coin but includes silver shipped for minting
 - 2 In this table the term 'metal' as used here includes both unwrought and partly worked silver and alloys
- (a) Including waste and scrap
(b) Including gilt
(c) Ag content
(d) Years ended 20 March following that stated
(e) Years ended 30 June of that stated
(f) BGS estimates, based on known exports from certain countries
(g) Years ended 31 March following that stated

Production of Sulphur and Pyrites

tonnes (sulphur content)

Country		1982	1983	1984	1985	1986
United Kingdom						
Recovered (a)(c)		51 000	51 000	58 000	54 000	58 000
Recovered (d)		59 000	55 000	75 000	80 000	105 000
Belgium						
Recovered (c)(d)		* 270 000	* 250 000	* 240 000	* 250 000	* 260 000
Denmark						
Recovered (d)		7 421	7 291	10 859	7 376	12 810
France						
Recovered (d)		1 811 400	1 810 700	1 752 600	1 561 400	1 149 100
Germany, Federal Republic of						
Pyrites (45%)		229 000	—	—	—	—
Recovered (c)		* 400 000	* 400 000	* 350 000	* 320 000	* 300 000
Recovered (d)		* 1 092 000	* 827 000	* 1 041 000	* 1 164 000	* 1 190 000
Recovered (e)		* 100 000	* 95 000	* 90 000	* 85 000	* 85 000
Greece						
Pyrites (45%)		51 592	64 997	74 224	79 329	66 017
Recovered (d)		* 105 000	* 120 000	* 125 000	* 135 000	* 135 000
Irish Republic						
Pyrites (47%)		6 000	—	—	—	—
Italy						
Pyrites (43%)		268 786	262 361	192 121	299 631	309 137
Recovered (d)		* 210 000	* 210 000	* 200 000	* 200 000	* 185 000
Sulphur ore		20 435	9 397	4 747	1 130	—
Netherlands						
Recovered (c)(d)		* 165 000	* 205 000	* 245 000	* 250 000	* 250 000
Portugal						
Pyrites (44%)		115 867	123 742	146 120	156 428	144 305
Spain						
Pyrites (47%)		1 029 386	1 073 336	1 292 310	1 231 302	1 200 600
Recovered (c)(d)		* 143 000	* 131 000	* 137 000	* 124 000	* 115 000
Austria						
Recovered		47 747	41 429	38 455	34 250	38 348
Anhydrite		27 102	26 122	26 449	* 26 000	* 26 000
Bulgaria						
Pyrites (42%)		* 80 000	* 80 000	* 75 000	* 65 000	* 80 000
Recovered		* 59 000	* 56 000	* 62 000	* 53 000	* 62 000
Czechoslovakia						
Pyrites (42%)		* 60 000	* 60 000	* 60 000	62 000	* 60 000
Recovered		* 10 000	* 10 000	* 10 000	41 866	42 193
Sulphur ore		* 5 000	* 5 000	* 5 000	6 000	* 6 000
Finland						
Pyrites (44%)		146 000	85 800	94 160	109 340	...
Recovered (c)		270 000	264 000	261 000	257 000	260 000
Recovered (d)		40 162	45 006	44 735	49 076	* 40 000
German Democratic Republic						
Recovered		* 360 000	* 360 000	* 350 000	* 330 000	* 315 000
Norway						
Pyrites (50%)		212 233	178 901	214 791	199 617	190 035
Recovered (c)(d)		* 91 000	* 103 000	* 66 000	* 72 000	* 70 000
Poland						
Frasch (g)		4 935 000	4 999 000	4 990 000	4 876 000	4 894 000
Recovered (c)		* 160 000	* 170 000	* 170 000	* 170 000	* 170 000
Recovered (d)		* 30 000	* 30 000	* 30 000	* 30 000	* 30 000
Anhydrite		* 20 000	* 20 000	* 20 000	* 20 000	* 20 000
Romania						
Pyrites (42%)		* 200 000	* 200 000	* 200 000	* 200 000	* 150 000
Recovered		* 150 000	* 150 000	* 150 000	* 150 000	* 140 000
Soviet Union						
Frasch		* 800 000	* 800 000	* 800 000	* 850 000	* 875 000
Pyrites (46%)		* 3 500 000	* 3 400 000	* 3 300 000	* 3 350 000	* 3 300 000
Recovered (c)		* 425 000	* 450 000	* 450 000	* 475 000	* 500 000
Recovered (d)		* 3 125 000	* 3 200 000	* 3 250 000	* 3 350 000	* 3 450 000
Sulphur ore		* 1 900 000	* 1 800 000	* 1 800 000	* 1 700 000	* 1 700 000

SULPHUR

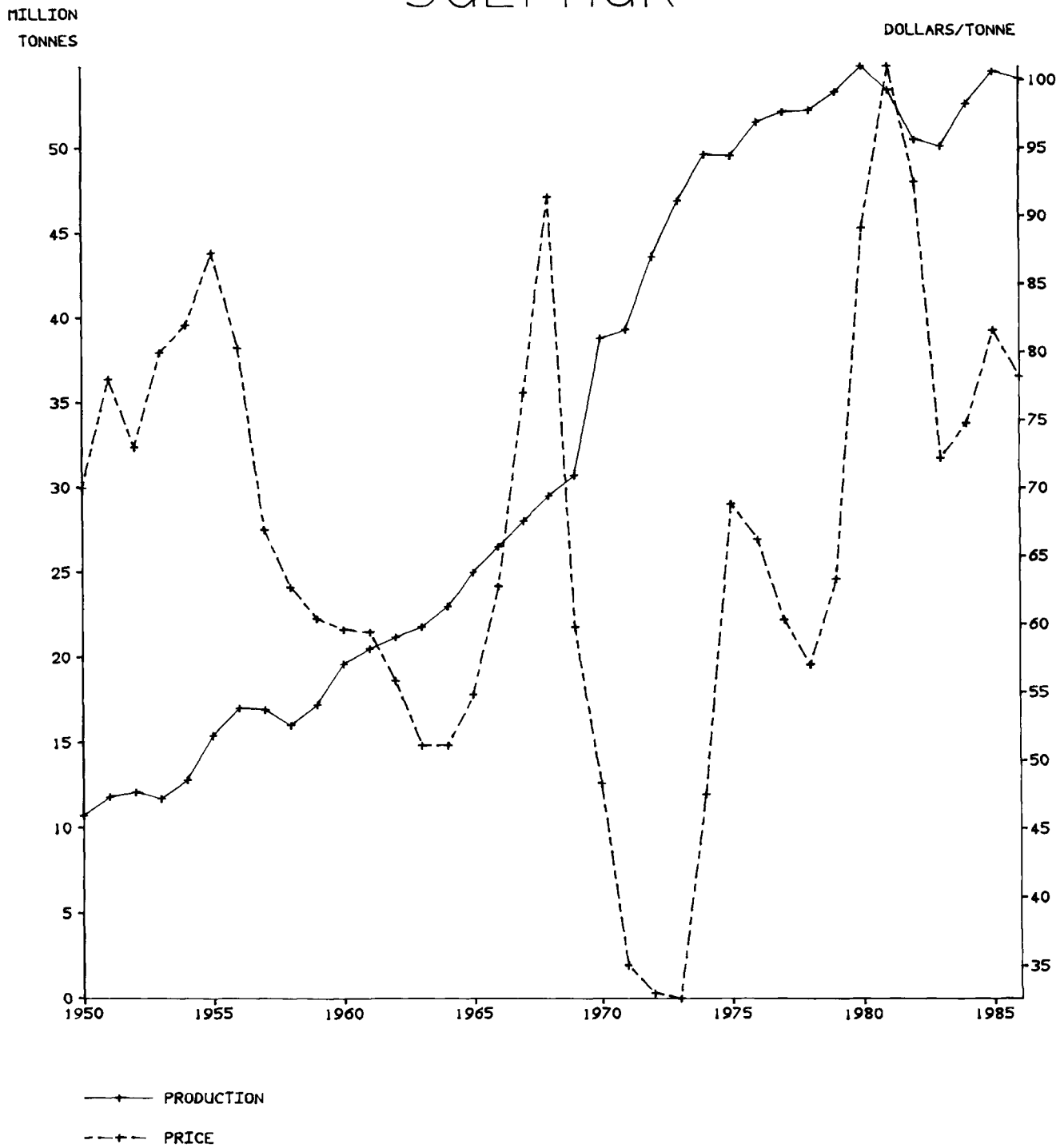


Figure 19 World production of sulphur in all forms from 1950 to 1986 compared with the annual average US price for elemental sulphur f.o.b. mine expressed in constant 1980 US dollars.

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

Constant commodity prices derived from those quoted by USBM in Mineral Facts and Problems (1960 et seq.) and Mineral Commodity Summaries (1984 et seq.), using the CPI for the USA taken from International Financial Statistics Yearbook (1987).

Production of Sulphur and Pyrites

tonnes (sulphur content)

Country		1982	1983	1984	1985	1986
Sweden						
Pyrites	(48%)	204 587	206 589	200 535	195 419	* 216 000
Recovered (c)		* 109 000	* 125 000	* 159 000	* 161 000	* 159 000
Sulphur ore		22 505	20 441	26 324	22 916	* 25 000
Turkey						
Pyrites	(45%)	2 380	1 881	—	—	—
Recovered		126 444	131 660	151 338	159 566	172 928
Sulphur ore		31 335	31 174	41 352	42 671	41 275
Yugoslavia						
Pyrites	(42%)	340 200	291 404	255 780	212 940	318 780
Recovered (c)(d)		* 204 000	* 183 000	* 163 000	* 173 000	* 203 000
Algeria						
Recovered (d)		15 000	15 000	* 20 000	* 20 000	* 20 000
Egypt						
Recovered (d)		5 000	10 000	2 000	10 000	10 000
Libya						
Recovered (d)		* 12 000	* 14 000	* 14 000	* 14 000	* 14 000
Namibia						
Pyrites		58 209	80 719	104 454	* 100 000	* 100 000
South Africa						
Pyrites	(48%)	466 811	473 568	463 378	477 321	498 701
Recovered (d)		* 25 000	* 32 000	* 30 000	(h)* 100 000	(h)* 110 000
Recovered (c)		50 867	48 515	95 102	89 593	107 716
Zaire						
Recovered (c)		* 25 000	* 36 000	* 37 000	* 36 000	* 36 000
Zambia						
Pyrites	(43%)	1 239	25 513	18 172	28 288	19 197
Recovered		83 870	79 525	80 000	* 105 000	* 92 000
Zimbabwe						
Pyrites	(42%)	24 260	12 115	23 934	24 105	26 253
Recovered		* 5 000	* 5 000	* 5 000	* 5 000	* 5 000
Canada						
Pyrites	(45%)	9 135	—	—	—	—
Recovered (c)		627 384	678 286	844 276	822 359	758 000
Recovered (d)		5 689 000	5 895 000	5 787 000	5 872 000	5 700 000
Cuba						
Pyrites	(40%)	20 000	5 000	—	—	—
Recovered (d)		* 8 000	* 8 000	* 8 000	* 8 000	* 8 000
Mexico						
Frasch		1 390 522	1 224 856	1 363 870	1 550 803	1 592 000
Recovered (c)		* 100 000	* 100 000	* 160 000	* 160 000	* 160 000
Recovered (d)		424 925	377 170	461 093	474 928	456 307
Netherlands Antilles (f)						
Recovered (d)		88 643	87 471	69 476	25 000	* 40 000
Trinidad & Tobago						
Recovered (d)		11 620	8 795	* 7 000	* 5 000	* 5 000
USA						
Frasch		4 210 000	3 202 000	4 193 000	5 011 000	4 043 000
Pyrites	(40%)	345 000	302 000	283 000	328 000	309 000
Recovered (c)		828 000	831 000	962 000	957 000	919 000
Recovered (d)		4 404 000	4 955 000	5 214 000	5 313 000	5 816 000
Bolivia (f)						
Sulphur ore		5 914	3 010	1 878	2 741	6 000
Brazil						
Pyrites	)	76 326	79 152	92 579	95 357	97 238
Recovered (c)	)	69 580	43 993	52 403	79 002	100 033
Recovered (d)		69 580	65 462	71 287	54 591	73 572
Chile						
Recovered (c)		31 828	32 364	32 135	30 073	30 000
Sulphur ore (b)		104 987	98 748	53 964	78 747	57 123
Colombia						
Recovered (d)		3 096	5 075	7 770	* 10 000	13 936
Sulphur ore		32 601	32 059	36 245	34 216	36 710
Ecuador						
Recovered (d)		* 10 000	* 10 000	* 10 000	* 10 000	* 10 000
Sulphur ore		2 968	* 5 000	* 5 000	* 4 000	* 4 000
Venezuela						
Recovered (d)		* 84 000	* 85 000	* 86 000	* 88 000	* 90 000

Production of Sulphur and Pyrites

tonnes (sulphur content)

Country		1982	1983	1984	1985	1986
Abu Dhabi						
Recovered (d)		* 5 000	10 000	15 000	292 000	...
Bahrain						
Recovered (d)		34 000	49 000	* 50 000	42 000	* 45 000
China						
Pyrites (45%)		* 1 800 000	* 2 300 000	* 2 100 000	* 2 200 000	* 2 500 000
Recovered		* 300 000	* 350 000	* 350 000	* 400 000	* 300 000
Sulphur ore		* 200 000	* 200 000	* 200 000	* 300 000	* 300 000
Cyprus						
Pyrites (44%)		26 419	21 279	10 411	30 970	24 936
India						
Pyrites (37%)		20 882	19 661	13 862	17 412	21 980
Recovered (c)		* 100 000	* 110 000	* 115 000	* 120 000	* 120 000
Recovered (d)		5 189	3 554	2 197	305	50
Iran						
Recovered (d)		* 10 000	* 16 000	* 130 000	* 150 000	* 150 000
Sulphur ore		* 10 000	* 20 000	* 30 000	* 30 000	* 30 000
Iraq						
Frasch		* 300 000	* 300 000	* 500 000	* 500 000	* 600 000
Recovered (d)		* 40 000	* 40 000	* 70 000	* 70 000	* 70 000
Israel						
Recovered (d)		* 10 000	* 10 000	* 10 000	* 10 000	* 10 000
Japan						
Pyrites (49%)		276 000	272 000	259 000	253 000	158 000
Recovered (c)(g)		1 268 000	1 239 000	1 191 000	1 201 000	1 174 000
Recovered (d)		1 051 000	1 102 000	1 142 000	1 044 000	1 029 000
Korea, Dem. P.R. of						
Pyrites (40%)		* 200 000	* 200 000	* 200 000	* 200 000	* 200 000
Recovered (c)		* 30 000	* 30 000	* 30 000	* 30 000	* 30 000
Korea, Republic of						
Recovered (c)		* 54 000	* 54 000	* 54 000	* 55 000	* 55 000
Recovered (d)		* 36 000	* 36 000	* 36 000	* 35 000	* 35 000
Kuwait						
Recovered (d)		140 644	147 038	147 461	202 377	268 000
Oman						
Pyrites		—	* 11 000	* 31 000	* 31 000	* 31 000
Pakistan						
Recovered		* 19 000	* 26 000	* 26 000	* 26 000	* 26 000
Philippines						
Pyrites (46%)		29 695	28 917	38 091	76 975	108 597
Recovered (c)		—	* 57 000	* 95 000	* 100 000	* 120 000
Qatar						
Recovered (d)		13 000	19 000	33 000	37 000	* 37 000
Saudi Arabia						
Recovered (d)		900 000	782 000	1 055 000	* 1 100 000	* 1 300 000
Singapore						
Recovered (d)		15 188	3 666	5 557	* 5 000	* 5 000
Taiwan						
Recovered		20 080	26 936	28 705	42 949	62 980
Australia						
Recovered (c)		430 191	454 637	386 047	435 313	453 012
Recovered (d)		17 496	12 897	13 058	11 718	* 10 200
Total Frasch		11 600 000	10 500 000	11 850 000	12 800 000	12 000 000
Total Pyrites		9 700 000	9 900 000	9 750 000	10 000 000	10 200 000
Total Recovered		26 850 000	27 500 000	28 800 000	29 500 000	29 700 000
Total Sulphur ore		2 350 000	2 200 000	2 200 000	2 200 000	2 200 000
World total (all forms)		50 500 000	50 100 000	52 600 000	54 500 000	54 100 000

Note: Pyrites: nominal sulphur content is shown in parentheses

(a) 'Spent Oxide'

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

(c) From smelter gases

(d) From petroleum refining and/or natural gas

(e) Other

(f) Exports

(g) Includes S content of 'sulphur ore'

(h) Includes production from synthetic fuels

Exports of Sulphur and Pyrites

Country	1982	1983	1984	1985	1986
United Kingdom					
Sulphur—					
Crude	1 201	1 685	3 025	1 929	1 584
Sublimed & precipitated	295	177	247	127	600
Belgium-Luxembourg					
Pyrites	1 223	1 051	73	46	125
Sulphur—					
Crude	7 136	7 479	8 787	7 511	10 904
Sublimed & precipitated	117	79	79	213	189
Denmark					
Sulphur—					
Crude	80	3 429	3 368	3 361	3 222
Sublimed & precipitated	0	1	327	499	4 642
France					
Sulphur—					
Crude	685 985	677 396	717 405	536 711	366 873
Refined	1 789	1 524	1 813	1 162	821
Sublimed	2 192	2 494	5 908	5 145	2 176
Precipitated	78	109	53	32	47
Germany, Federal Republic of					
Pyrites	2 031	1 041	1 302	1 217	1 290
Sulphur—					
Crude	602 559	461 821	509 636	667 953	686 040
Sublimed & precipitated	280	314	450	502	361
Greece					
Sulphur	442	4 884	10 187	13 571	7 023
Italy					
Pyrites	3 733	3 626	5 005	4 778	4 676
Sulphur—					
Crude	4 967	7 301	4 714	14 455	3 633
Sublimed & precipitated	152	65	82	21	449
Netherlands					
Sulphur—					
Crude	13 650	15 100	26 415	22 288	29 104
Sublimed & precipitated	1	20	3	8	24
Portugal					
Sulphur	60	48	11	22	91
Spain					
Pyrites	347 438	347 656	386 088	312 088	347 216
Sulphur—					
Crude	1 476	1 285	1 105	145	426
Sublimed & precipitated	5 026	2 508	135	35	77
Albania					
Pyrites (c)	* 34 600	* 59 500	* 31 500	* 24 600	* 24 900
Finland					
Pyrites	69 387	157 180	(c)* 110 800	(c)* 88 300	(c)* 144 200
Norway					
Pyrites	171 883	186 867	167 974	169 308	172 650
Sulphur—					
Crude	2 753	7 525	4 307	3 722	2 643
Sublimed & precipitated	0	0	1 904	1 317	2 751
Poland					
Sulphur	3 973 000	4 034 000	4 078 000	3 906 000	3 823 000
Soviet Union					
Pyrites	359 000	362 000	273 000	294 000	315 000
Sulphur (c)	* 25 500	* 37 200	* 34 000	* 34 000	* 30 200
Sweden					
Pyrites	31 177	97	13 452	30	14
Sulphur—					
Crude	1 310	1 641	1 588	1 502	10 246
Sublimed & precipitated	22	12	116	25	9 286
Switzerland					
Sulphur—					
Crude	8 249	6 260	8 151	4 634	6 421
Sublimed & precipitated	5	3	3	27	43
Yugoslavia					
Pyrites	20 954	95 764	359 202	156 132	80 463

Exports of Sulphur and Pyrites

tonnes

Country	1982	1983	1984	1985	1986
South Africa					
Sulphur	34 133	14 203	13 781	8 465	...
Canada					
Pyrites	£111 000	£41 000	£25 000	£68 000	£67 000
Sulphur	6 111 606	5 670 813	7 327 177	7 848 628	6 257 290
Mexico					
Sulphur	889 536	1 933 469	1 520 176	871 149	...
Netherlands Antilles					
Sulphur	88 643	87 471	69 476	...	...
USA					
Sulphur	993 992	994 754	1 348 404	1 401 511	1 919 415
Bolivia					
Sulphur	5 914	3 010	1 878	2 741	4 730
Colombia					
Sulphur	5 858	1 869	3 419	1 354	...
Bahrain					
Sulphur	3 993	17 268	44 286	26 453	...
Cyprus					
Pyrites	1 099	11 031	31 044	65 423	65 938
Iran (a)					
Sulphur	...	...	14 500	(c)* 33 100	(c)* 11 500
Japan					
Sulphur—					
Crude	299 451	239 025	274 095	165 981	77 815
Sublimed & precipitated	200	371	358	382	1 201
Korea, Republic of					
Sulphur	1 978	2 238	2 456	2 953	3 399
Kuwait					
Sulphur	90 335	461 757	666 082	166 000	...
Saudi Arabia					
Sulphur	515 946	1 547 418	1 723 341	988 240	924 676
Singapore					
Sulphur—					
Crude	12 999	28 997	24 269	7 338	10 885
Sublimed & precipitated	8 126	8 570	14 743	7 051	10 600
Taiwan					
Sulphur—					
Crude	1 553	1 728	2 783	1 497	1 192
Sublimed & precipitated	430	105	219	75	153
Australia					
Zinc concentrates (b)	145 700	196 400	211 100	...	...

(a) Years ended 20 March following that stated

(b) Recoverable sulphur

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

Imports of Sulphur and Pyrites

Country	1982	1983	1984	1985	1986
United Kingdom					
Pyrites	15 690	21 961	19 638	15 909	15 540
Sulphur—					
Crude	849 549	842 801	810 963	806 358	684 569
Sublimed & precipitated	842	457	418	524	563
Belgium-Luxembourg					
Pyrites	235 540	276 252	286 067	276 967	260 194
Sulphur—					
Crude	358 718	399 067	535 236	492 262	397 666
Sublimed & precipitated	1 071	1 505	982	1 352	1 451
Denmark					
Pyrites	25	112	74	80	71
Sulphur—					
Crude	63 585	60 906	63 460	72 939	40 896
Sublimed & precipitated	143	103	76	122	174
France					
Pyrites	1 429	1 028	1 553	1 177	1 144
Sulphur—					
Crude	458 442	537 557	552 170	623 421	530 889
Refined	900	430	1 004	929	2 079
Sublimed & precipitated	111	68	178	78	140
Germany, Federal Republic of					
Pyrites	71 472	80 190	149 274	187 042	203 328
Sulphur—					
Crude	287 861	327 349	328 090	252 380	232 639
Sublimed & precipitated	635	891	929	1 154	2 041
Greece					
Pyrites	112 798	67 452	76 044	41 354	19 082
Sulphur—					
Crude	142 252	43 295	82 618	46 749	101 073
Sublimed & precipitated	58	59	48	43	81
Irish Republic					
Sulphur—					
Crude	443	493	271	327	391
Sublimed & precipitated	178	90	47	45	98
Italy					
Pyrites	109 155	262 813	186 607	167 574	158 970
Sulphur—					
Crude	375 588	464 907	376 160	399 494	337 251
Sublimed & precipitated	1 238	961	1 364	1 215	1 325
Netherlands					
Pyrites	163	223	311	204	243
Sulphur—					
Crude	383 418	299 006	373 997	377 044	289 455
Sublimed & precipitated	328	280	396	603	213
Portugal					
Sulphur	113 481	28 694	18 473	19 825	23 088
Spain					
Sulphur—					
Crude	91 331	63 818	46 595	71 255	42 980
Sublimed & precipitated	530	620	462	60	37
Austria					
Pyrites	650	804	775	854	668
Sulphur—					
Crude	84 658	93 489	113 304	98 589	90 590
Sublimed & precipitated	96	248	53	336	255
Bulgaria					
Pyrites (a)	* 257 000	* 262 000	* 249 000	* 238 000	* 210 000
Sulphur (a)	* 73 900	* 60 000	* 68 000	* 50 100	* 60 000
Czechoslovakia					
Sulphur	503 000	525 000	469 000	505 000	466 000
Finland					
Sulphur—					
Crude	68 825	54 460	84 902	78 377	28 183
Sublimed & precipitated	12	19	10	514	13
German Democratic Republic					
Pyrites	* 8 700	...	...	...	...
Sulphur (a)	* 166 000	* 157 600	* 135 000	* 135 000	* 135 000

Imports of Sulphur and Pyrites

tonnes

Country	1982	1983	1984	1985	1986
Hungary					
Pyrites	49 575	80 067	4 174	37 568	73 563
Sulphur	163 701	174 692	168 066	171 503	167 395
Malta					
Sulphur	220	217	127	45	93
Norway					
Sulphur—					
Crude	2 570	3 886	5 599	4 117	6 138
Sublimed & precipitated	12	16	420	61	11
Romania					
Pyrites (a)	...	...	* 48 900	* 70 300	...
Sulphur	(a)* 295 900	(a)* 164 200	(a)* 203 100	392 900	(a)* 163 600
Soviet Union					
Sulphur (a)	* 1 047 100	* 998 100	* 1 065 600	* 1 162 400	* 1 719 100
Sweden					
Pyrites	85	168	14 749	21 970	48 807
Sulphur—					
Crude	8 645	4 919	14 995	6 368	8 465
Sublimed & precipitated	2 012	5 962	9 525	12 004	9 898
Switzerland					
Pyrites	118	156	154	84	131
Sulphur—					
Crude	36 391	39 336	46 043	48 577	47 320
Sublimed & precipitated	127	198	138	206	120
Turkey					
Pyrites	70 427	89 995	166 070	95 324	31 815
Sulphur—					
Crude	114 696	76 868	20 998	111 006	129 108
Sublimed & precipitated	90	140	4 844	95	55
Yugoslavia					
Pyrites	11 750	...	156	61 081	4 584
Sulphur—					
Crude	16 718	73 145	70 486	149 205	164 534
Refined	52 340	48 434	45 419	13 521	7 222
Sublimed & precipitated	740	1 868	404	584	498
Algeria					
Sulphur—					
Crude	40 668	73 796	42 508	118 048	...
Sublimed & precipitated	7 003	2 507	3 505	6 294	...
Benin					
Sulphur	43 245	45 837	...	...	...
Egypt					
Pyrites	36 500	48 694	8	16 100	203
Sulphur	56 276	141 934	195 110	127 132	69 921
Ethiopia					
Sulphur	483	1 820	403	1 237	2 074
Gabon					
Sulphur	7 849	9 157	206	5 250	5 501
Ivory Coast					
Sulphur	4 023	6 554	2 085	58	...
Kenya					
Sulphur—					
Crude	538	6 019	666	931	482
Sublimed & precipitated	350	415	511	5 471	1 047
Morocco					
Sulphur	1 026 751	1 349 554	1 418 685	1 469 308	1 672 196
Niger					
Sulphur	51 800	32 729	33 412	20 679	25 951
Nigeria					
Sulphur	2 905	...	1 662	3 485	772
Senegal					
Sulphur	13 050	14 396	109 686	119 009	118 679
South Africa					
Pyrites	171	108	69	38	...
Sulphur—					
Crude	590 201	383 414	597 145	463 502	319 353
Sublimed & precipitated	137	111	223	53	...
Tanzania					
Sulphur	10 000	10 000	82 556	1 230	...

Imports of Sulphur and Pyrites

tonnes

Country	1982	1983	1984	1985	1986
Tunisia					
Sulphur	963 980	982 412	997 536	556 496	1 096 422
Zaire					
Sulphur	12 444	19 349	2 815	...	...
Zimbabwe					
Sulphur	24 454	28 654	38 950	11 484	...
Canada					
Sulphur	2 159	2 365	3 020	3 168	10 760
Cuba					
Sulphur	169 353	184 618	142 427	157 061	...
El Salvador					
Sulphur	17	2 481	3 181	...	...
Guatemala					
Sulphur	709	42	362	1 437	...
Jamaica					
Sulphur	301	2 962	3 002	2 947	302
Mexico					
Sulphur—					
Crude	542	324	493	23 215	...
Sublimed & precipitated	364	179	361	139	...
Nicaragua					
Sulphur	709	395	...	...	...
Trinidad & Tobago					
Sulphur	52	3 062	56	37	...
USA					
Pyrites	20 539	870	13 040	3 299	40 429
Sulphur	1 905 188	1 694 919	2 557 429	2 288 304	1 427 881
Argentina					
Sulphur	81 020	100 532	129 310	35 473	...
Brazil					
Sulphur—					
Crude	882 540	953 789	1 174 132	1 084 955	...
Sublimed & precipitated	479	538	499	633	...
Chile					
Sulphur	48 256	71 096	117 270	77 339	65 096
Colombia					
Sulphur—					
Crude	31 783	26 377	38 003	20 365	...
Sublimed & precipitated	136	85	187	200	...
Peru					
Sulphur	920	3 802	4 362	4 391	2 784
Suriname					
Sulphur	1 516	1 042	363	768	637
Uruguay					
Sulphur	6 315	5 872	13 561	11 975	20 144
Venezuela					
Sulphur	168	126	247	14 048	311
China					
Sulphur	337 698	357 082	286 811	163 247	13
Cyprus					
Sulphur	1 901	3 140	2 513	2 561	2 823
Hong Kong					
Sulphur—					
Crude	1 189	696	644	530	5 342
Sublimed	13	273	308	58	294
India (d)					
Sulphur—					
Crude	781 488	...	920 000	1 022 000	983 000
Sublimed	2 417	...	...	...	...
Indonesia					
Sulphur—					
Crude	3 413	3 121	1 975	2 624	10 844
Sublimed & precipitated	82 805	102 564	212 487	182 620	221 404
Iran (c)					
Sulphur	210	420	180	...	...

Imports of Sulphur and Pyrites

tonnes

Country	1982	1983	1984	1985	1986
Israel					
Sulphur	137 341	164 358	203 581	245 455	201 387
Japan					
Pyrites	—	—	0	2 281	28 246
Sulphur	—	0	—	87	2 023
Jordan					
Sulphur—					
Crude	31 595	113 148	126 426	169 300	127 528
Sublimed & precipitated	27 409	42 494	102 469	15 682	35 638
Korea, Republic of					
Sulphur—					
Crude	440 660	448 076	567 836	592 867	518 369
Sublimed & precipitated	368	706	1 292	1 025	1 330
Malaysia					
Sulphur—					
Crude	4 888	5 907	6 766	12 290	...
Sublimed & precipitated	6 237	7 512	8 447	10 798	...
Pakistan (b)					
Sulphur—					
Crude	29 458	25 605	11 483	39 194	25 986
Sublimed & precipitated	69	120	1 343	445	1 958
Philippines					
Sulphur—					
Crude	1 564	1 719	917	309	2 015
Sublimed & precipitated	22 615	17 884	16 245	20 382	17 318
Singapore					
Sulphur—					
Crude	57	69	84	34	142
Sublimed & precipitated	262	159	281	127	510
Sri Lanka					
Sulphur—					
Crude	433	405	707	322	363
Sublimed & precipitated	115	163	508	309	280
Syria					
Sulphur—					
Crude	41	46 427	17 477	55 560	...
Sublimed & precipitated	40	220	1 357	9	...
Taiwan					
Sulphur—					
Crude	25 358	48 380	63 374	74 955	60 515
Sublimed & precipitated	156 287	205 885	243 935	158 334	261 370
Thailand					
Sulphur—					
Crude	18 745	27 409	39 941	50 753	57 334
Refined	12 997	3 581	1 439	4 104	2 561
Sublimed & precipitated	201	257	288	136	120
Australia					
Sulphur	459 934	392 581	470 795	392 344	398 101
New Zealand (b)					
Sulphur—					
Crude	179 494	209 962	207 380	209 696	176 775
Sublimed & precipitated	194	291	282	333	738

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

(b) Years ended 30 June of that stated

(c) Years ended 20 March following that stated

(d) Years ended 31 March following that stated

Production of Talc

Country	1982	1983	1984	1985	1986
United Kingdom	19 000	16 000	19 413	20 000	12 357
France	313 000	316 000	320 000	317 000	315 900
Germany, Federal Republic of	14 300	14 300	17 300	15 000	13 000
Greece	2 166	1 666	1 712	1 725	17 310
Italy	163 770	161 000	142 727	129 614	151 206
Portugal	4 940	7 325	6 822	4 998	4 141
Spain	62 686	69 467	72 237	88 776	* 85 000
Austria	117 092	122 128	134 011	131 454	133 319
Finland	325 298	318 430	327 472	318 547	284 179
Hungary	3 328	2 440	3 223	1 756	1 550
Norway	* 85 000	* 87 000	65 124	* 70 000	* 70 000
Romania	* 60 000	* 60 000	* 65 000	* 65 000	* 65 000
Soviet Union	* 510 000	* 510 000	* 520 000	* 520 000	* 520 000
Sweden	17 753	21 056	17 882	14 400	2 000
Yugoslavia	16 482	23 757	28 487	27 534	25 656
Egypt	6 332	5 497	6 406	6 229	5 579
South Africa					
Talc	9 743	7 617	10 561	10 220	8 641
Wonderstone (pyrophyllite)	4 070	3 575	3 851	4 227	4 606
Zambia	271	1 313	367	449	266
Zimbabwe	270	552	285	437	532
Canada	70 523	97 030	122 992	126 860	123 000
Mexico	12 270	11 032	8 900	29 900	* 20 000
USA					
Talc	952 000	889 000	945 000	1 078 000	1 106 000
Pyrophyllite	79 000	79 000	77 000	73 000	75 000
Argentina					
Talc	24 716	23 379	22 274	15 917	21 892
Pyrophyllite	2 687	4 925	5 012	370	1 750
Steatite	1 490	1 387	866	280	461
Brazil					
Talc (b)	308 644	326 145	348 915	343 647	* 340 000
Pyrophyllite (b)	76 624	42 967	64 432	43 401	* 40 000
Chile	283	637	422	1 299	2 257
Colombia	6 240	6 639	6 760	8 611	9 013
Paraguay	150	120	150	120	* 120
Peru	* 8 600	5 232	9 238	500	* 1 000
Uruguay	1 145	685	1 658	* 1 500	* 1 500
Burma (a)	165	128	128	128	* 130
China	* 950 000	* 950 000	* 950 000	* 1 000 000	* 1 000 000
India					
Steatite	327 533	284 020	346 038	344 681	352 503
Pyrophyllite	43 602	63 948	84 570	56 199	53 005
Japan					
Talc	105 759	87 692	84 056	79 044	63 851
Pyrophyllite	977 306	986 294	861 248	861 501	962 302
Korea, Dem. P.R. of	* 170 000	* 170 000	* 170 000	* 170 000	* 170 000
Korea, Republic of					
Talc	124 793	171 214	192 208	194 174	210 631
Pyrophyllite	466 324	460 922	656 442	738 304	587 049
Nepal (c)	3 000	15 263	7 595	6 015	* 7 000
Pakistan	20 498	15 960	15 568	20 183	23 021
Philippines	1 008	878	927	345	—
Taiwan	30 661	27 053	18 680	17 560	21 552
Thailand	21 998	20 148	28 479	43 478	39 051
Australia					
Talc	143 325	167 009	179 709	132 074	179 467
Pyrophyllite	9 467	9 569	7 051	7 317	8 588
World total	6 700 000	6 700 000	7 000 000	7 100 000	7 100 000

(a) Years ended 31 March following that stated

(b) Includes beneficiated and directly shipped material

(c) Years ended mid-July of that stated

Exports of Talc

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	3 572	4 270	3 583	4 842	2 542
Belgium-Luxembourg	24 184	27 510	38 566	41 241	39 929
France	75 785	82 480	94 011	103 457	99 532
Germany, Federal Republic of	4 158	4 663	5 657	8 534	7 587
Greece	105	566	174	109	245
Italy	46 082	49 545	41 864	41 987	43 076
Netherlands	13 926	17 551	10 791	7 762	8 817
Spain	9 165	28 484	33 123	31 195	32 912
Austria	98 656	104 252	114 085	110 150	113 369
Czechoslovakia (a)	* 6 800	* 6 200	* 7 200	* 6 500	* 6 800
Finland	53 099	42 912	47 904	52 634	48 284
Norway	50 032	50 693	48 830	44 435	42 702
Sweden	8 393	13 768	14 619	12 305	8 144
Switzerland	113	137	126	95	86
Turkey	987	677	1 202	1 739	782
Yugoslavia	905	942	3	54	91
Egypt	493	660	552	665	843
USA	210 109	197 689	232 670	214 711	211 931
Brazil	175	1 295	3 141	4 135	...
China	521 166	534 378	513 446	521 423	582 220
Hong Kong (Re-exports)	11 852	14 121	13 881	13 471	29 250
India (b)	11 241	9 635	12 592	...	...
Japan	2 032	4 058	4 838	4 792	3 518
Jordan	5 347	2 889	5 222	7 310	10 993
Korea, Dem. P.R. of (a)	* 40 100	* 28 900	* 34 500	* 20 400	* 23 800
Korea, Republic of	41 836	45 898	40 650	37 987	42 486
Singapore	909	981	536	832	512
of which: Re-exports	902	947	522	816	508
Taiwan	1 114	1 823	1 007	509	695
Thailand	3 511	5 153	8 343	2 889	2 364
Australia	80 512	131 914	163 370	122 306	183 357

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

(b) Years ended 31 March following that stated

Imports of Talc

Country	1982	1983	1984	1985	1986
United Kingdom	58 508	59 847	67 615	(c) 59 135	68 408
Belgium-Luxembourg	58 750	34 390	35 610	58 735	68 617
Denmark	7 427	8 465	9 605	9 964	9 649
France	18 908	23 217	20 976	16 144	17 929
Germany, Federal Republic of	121 699	141 789	143 494	139 082	148 298
Greece	1 612	1 739	2 067	2 036	2 509
Irish Republic	2 538	2 725	2 414	2 143	1 643
Italy	20 479	22 943	26 066	24 963	25 465
Netherlands	39 015	45 455	37 751	42 241	46 910
Portugal	5 139	4 773	5 808	5 068	6 670
Spain	9 124	9 391	9 338	11 683	13 568
Albania (d)	* 1 500	* 900	* 100	...	...
Austria	2 623	1 729	3 609	2 732	6 198
Czechoslovakia (d)	* 200	* 700	* 900	* 1 400	* 1 500
Finland	682	671	5 515	577	424
German Democratic Republic (d)	* 5 200	* 2 200	* 2 200	* 3 100	* 1 500
Hungary	4 828	4 201	6 168	3 751	4 368
Norway	4 549	5 675	8 127	8 046	6 302
Poland	15 226	16 662	25 646	20 944	23 154
Soviet Union (d)	* 11 000	* 2 500	* 3 000	* 1 000	* 1 500
Sweden	26 133	22 315	24 581	26 369	27 263
Switzerland	12 684	11 991	13 368	13 421	14 922
Turkey	227	321	585	420	549
Yugoslavia	3 616	4 037	6 129	4 378	4 856
Algeria	1 302	1 532	1 267	1 631	...
Cameroon	...	...	* 500	...	* 300
Egypt	2 523	1 345	1 247	1 027	975
Ivory Coast	1 161	886	1 591	2 736	...
Kenya	3 292	3 266	2 738	3 101	4 721
Libya	613	...	...	...	...
Morocco	974	1 209	1 552	1 060	...
South Africa	2 503	2 557	3 198	2 545	4 154
Tunisia	1 472	136	1 536	1 371	1 044
Zaire	72	51	233	...	...
Canada	34 521	35 390	38 816	41 132	39 394
Costa Rica	667	969	913	809	1 096
Dominican Republic	1 217	...	1 284	...	...
El Salvador	297	390	426	...	...
Guatemala	402	219	412	266	...
Honduras	106	281	154	...	...
Jamaica	287	505	390	463	1 170
Mexico					
Pyrophyllite	142	1	60	15	...
Other	93 534	75 545	102 595	100 266	...
Nicaragua	127	84	...	...	...
Panama	176	223	241	204	265
Trinidad & Tobago	592	2 413	1 172	621	...
USA	24 044	39 912	40 509	50 776	39 912
Argentina	337	728	341	451	...
Colombia	2 732	2 193	1 618	2 244	...
Ecuador	590	611	805	...	...
Peru	715	427	352	400	621
Venezuela	9 437	5 156	12 594	8 540	8 873
Cyprus	270	412	428	265	380
Dubai	515	437	466	622	465
Hong Kong	12 807	15 526	15 258	15 972	32 707
Indonesia	17 338	20 304	17 292	13 385	27 722
Iran (a)	16	79	548	...	...
Israel (d)	* 700	* 1 300	* 900	* 1 400	* 500
Japan	584 281	615 182	619 260	573 901	614 422
Jordan	640	427	220	329	399
Korea, Republic of	12 486	5 225	20 981	29 742	41 926
Malaysia	5 073	6 551	5 966	5 473	...
Pakistan (b)	1 955	23 135	56 447	988	1 156

Talc

Imports of Talc

tonnes

Country	1982	1983	1984	1985	1986
Philippines	8 666	9 709	5 011	5 620	7 147
Saudi Arabia	927	1 876	5 379	2 769	2 918
Singapore	7 659	8 119	8 382	3 986	6 205
Sri Lanka	1 297	703	1 310	1 789	1 355
Syria	1 119	3 130	442	2 782	...
Taiwan	6 356	6 662	9 915	10 744	12 230
Thailand	13 931	19 160	17 474	18 891	22 118
Australia	253	147	215	352	151
New Zealand (b)	3 523	5 826	2 806	2 495	2 371

(a) Years ended 20 March following that stated

(b) Years ended 30 June of that stated

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

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

Production of Tantalum and Niobium (Columbium) Minerals

tonnes

Country		1982	1983	1984	1985	1986
Portugal						
Columbite-tantalite	(25%, 25%)	6	3	* 3	...	6
Spain						
Tantalite	(— , 25%)	54	47	32	18	12
Mozambique						
Tantalite	(10%, 45%)	22	14	7	4	3
Microlite	(5%, 50%)	30	23	10	6	3
Namibia						
Tantalite	(— , 14%)	5	3	5	3	8
Nigeria						
Columbite	(43%, 6%)	169	80	126	101	13
Rwanda						
Columbite-tantalite	(30%, 23%)	62	50	52	28	—
Zaire						
Columbite-tantalite	(27%, 27%)	53	51	100	185	* 120
Zimbabwe						
Columbite-tantalite	(11%, 28%)	36	35	59	40	33
Canada						
Pyrochlore	(45%, —)	4 748	2 685	4 257	4 506	4 538
Tantalite	(3%, 30%)	164	—	—	106	107
Brazil						
Pyrochlore	(42%, —)	19 593	16 828	30 087	31 311	* 30 000
Columbite-tantalite	(20%, 30%)	201	264	170	323	* 300
Djalmaite	(1%, 50%)	4	7	14	15	* 10
Malaysia						
Columbite	(40%, 14%)	8	67	50	76	* 75
Struverite	(— , 10%)	—	—	99	120	34
Thailand						
Columbite-tantalite	(17%, 25%)	39	549	477	432	121
Struverite	(— , 6%)	10	275	30	309	241
Australia						
Columbite-tantalite	(20%, 33%)	166	117	145	110	140
World total concentrates		25 000	21 000	36 000	38 000	36 000
Nb content		* 10 600	* 8 500	* 14 800	* 15 500	* 14 800
Ta content		* 300	* 400	* 300	* 400	* 300

Notes:

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

Exports of Tantalum and Niobium

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Tantalum	9	29	18	20	12
Niobium	1	2	22	9	6
France					
Tantalum	23	12	10	32	17
Germany, Federal Republic of					
Niobium & tantalum ores	1 424	1 328	1 347	1 895	54
Tantalum	76	87	112	117	93
Niobium	45	97	93	82	90
Italy					
Tantalum	54	13	1	2	11
Netherlands					
Niobium & tantalum ores	243	29	74	154	4
Tantalum	4	9	1	1	27
Austria					
Tantalum	10	12	12	17	21
Nigeria					
Columbite	62	...	70	257	48
Rwanda					
Columbite-tantalite	60	...	...	...	...
Zaire					
Columbite-tantalite	* 80	* 20	* 40	...	...
Canada					
Niobium & tantalum ores (a)	* 4 200	* 2 700	* 4 500	* 4 900	* 4 900
USA					
Tantalum ores & concentrates	110	55	71	52	32
Tantalum	238	155	228	303	272
Niobium	* 45	* 45	* 45	* 55	* 55
Brazil					
Columbite-tantalite	166	115	233	270	268
Japan					
Tantalum	9	9	10	12	11
Malaysia					
Columbite & tantalite	29	99	81	45	25
Tin slags	12 696	3 801	10 183	9 709	8 654
Singapore					
Tantalum ores & concentrates	58	29	20	3	393
of which: Re-exports	28	29	20	3	393
Tin slags	1 244	1 856	781	1 012	571
of which: Re-exports	970	1 422	489	97	488
Taiwan					
Tantalum	11	84	22	22	5
Thailand					
Columbite & tantalite	93	125	274	88	13
Tin slags	2 444	1 577	1 516	330	70
Australia					
Tantalite-columbite	183	229	239	268	198

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

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

Imports of Tantalum and Niobium

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Tantalum	31	51	53	38	41
Niobium	12	18	12	25	19
Belgium-Luxembourg					
Niobium & tantalum ores	1 685	997	1 378	1 949	2 046
Tantalum	—	17	43	20	40
Niobium	3	1	1	13	6
France					
Tantalum	55	31	48	48	36
Niobium	20	26	37	73	23
Germany, Federal Republic of					
Niobium & tantalum ores	185	370	641	506	1 089
Tantalum	102	125	157	174	148
Niobium	24	41	31	34	30
Italy					
Tantalum	2	2	4	4	4
Niobium	1	4	64	3	33
Netherlands					
Niobium & tantalum ores	193	5	59	93	—
Tantalum	1	0	2	5	0
Austria					
Tantalum	29	12	29	41	19
USA					
Tantalum concentrates	588	231	997	349	355
Niobium concentrates	413	657	1 479	1 295	1 295
Tantalum	76	68	104	97	237
Niobium	7	2	9	4	6
Tin slags (a)—					
Ta content	261	...	...	...	...
Nb content	288	...	...	...	...
Japan					
Niobium ores & concentrates	2 050	740	2 042	1 974	1 651
Tantalum ores & concentrates	20	121	275	221	66
Tantalum	32	48	75	79	45
Singapore					
Tantalum ores & concentrates	147	162	112	68	0
Tin slags	10 083	2 762	9 261	8 481	9 585

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

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

TIN

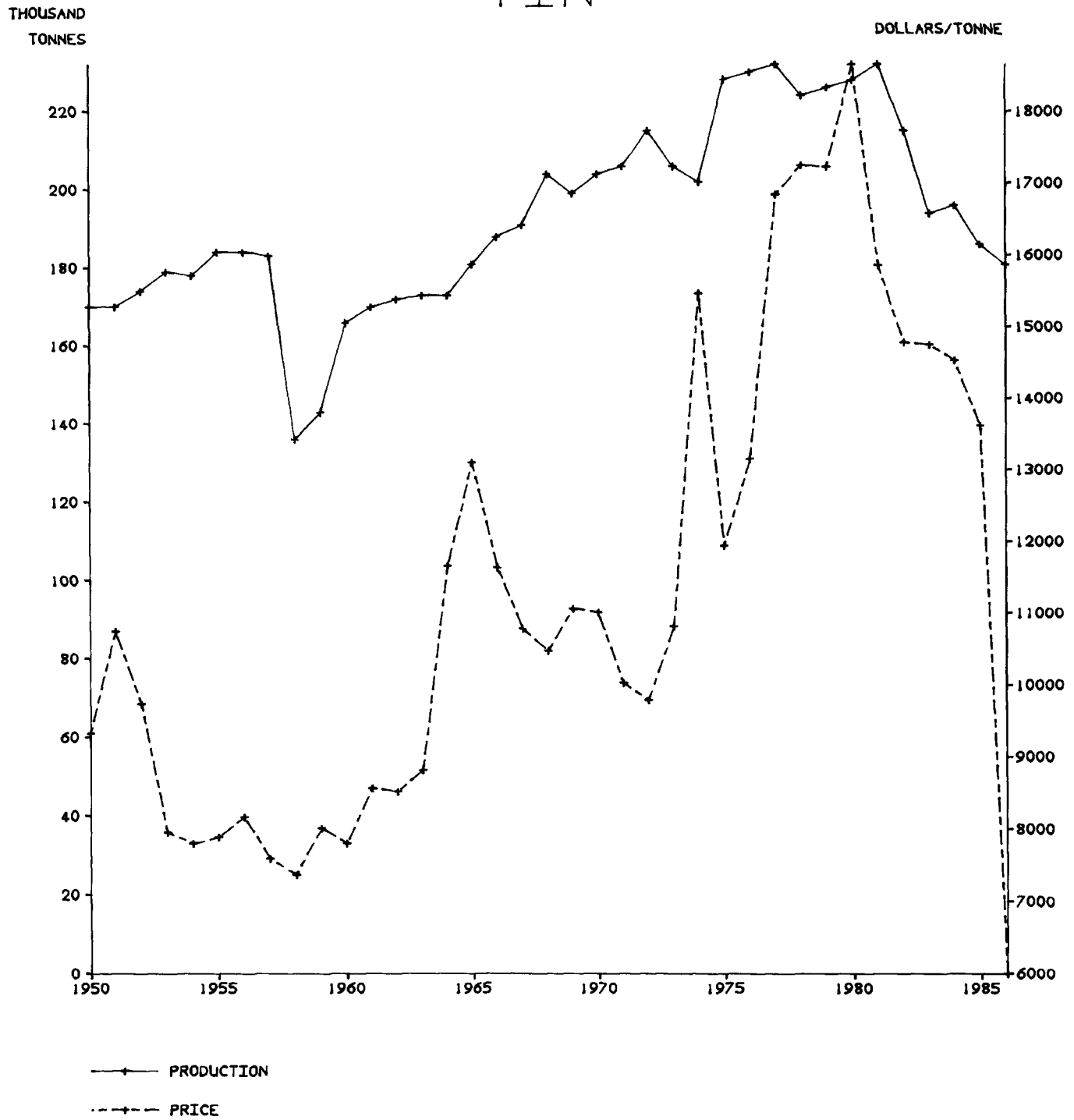


Figure 20 World mine production of tin from 1950 to 1986 compared with the yearly average price on the New York Market of Straits pig ex-dock major US port expressed in constant 1980 US dollars.

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

Mine Production of Tin

tonnes (metal content)

Country	1982	1983	1984	1985	1986
United Kingdom	4 208	4 000	5 216	5 204	4 345
Portugal	411	375	320	263	196
Spain	518	444	438	637	290
Czechoslovakia	200	250	250	* 250	* 250
German Democratic Republic	* 1 800	* 2 000	* 2 500	* 2 800	* 2 800
Soviet Union	* 16 000	* 17 000	* 17 000	* 16 000	* 16 000
Cameroon	* 24	* 24	* 24	* 24	—
Namibia	870	870	940	994	880
Niger	52	74	114	183	124
Nigeria	1 822	1 560	1 338	963	146
Rwanda	1 655	1 526	1 561	1 161	42
South Africa	3 035	2 668	2 301	2 153	2 055
Zaire	2 320	2 163	2 708	2 177	1 889
Zimbabwe	1 196	1 235	1 209	1 207	1 079
Canada (a)	135	140	209	120	2 485
Mexico	235	330	400	370	* 600
USA	* 100	* 100	* 100	* 100	* 100
Argentina	342	291	274	451	379
Bolivia	26 773	25 278	19 911	16 136	11 906
Brazil	8 218	13 275	19 957	26 514	25 449
Peru (b)	1 672	2 368	2 991	3 807	4 817
Burma	1 681	1 642	2 029	1 751	1 495
China	* 16 000	* 17 000	* 17 500	* 18 000	* 22 000
Indonesia	33 806	26 553	23 223	21 759	24 050
Japan	539	546	486	511	500
Laos	302	359	430	* 540	* 550
Malaysia	52 342	41 367	41 307	36 884	29 134
Mongolia	—	1 000	1 000	1 000	1 000
Thailand	26 109	19 942	21 960	16 864	17 066
Vietnam	* 500	* 500	* 500	* 500	* 500
Australia	12 126	(c) 9 275	(c) 7 939	6 374	8 515
World total	215 000	194 000	196 000	186 000	181 000

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

(b) Recoverable

(c) Excludes content of copper-tin concentrate

Tin

Smelter Production of Tin

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	8 164	6 467	7 105	7 548	9 227
Netherlands	2 757	5 398	6 517	6 033	5 104
Portugal	503	443	432	410	194
Spain	2 700	3 500	2 900	3 300	2 600
Czechoslovakia	295	307	425	507	240
German Democratic Republic	* 2 200	* 2 600	* 3 000	* 3 300	* 3 300
Soviet Union	* 17 000	* 18 500	* 18 500	* 18 500	* 18 000
Nigeria	1 808	1 244	1 334	1 079	91
Rwanda	908	1 110	1 040	948	—
South Africa	2 884	2 685	2 371	2 683	3 031
Zaire	353	201	170	85	—
Zimbabwe	1 197	1 235	1 209	1 207	1 079
Mexico	971	1 276	1 595	1 533	* 2 200
USA	3 500	2 500	4 000	3 000	3 213
Argentina	* 200	* 200	* 200	238	230
Bolivia (a)	18 980	14 164	15 842	12 859	7 673
Brazil	9 298	12 741	18 115	24 701	25 104
Burma	500	500	700	500	1 000
China	* 16 500	* 16 500	* 17 000	* 19 000	* 20 000
Indonesia	29 755	28 390	22 493	20 418	22 080
Japan	1 296	1 260	1 354	1 391	1 281
Korea, Republic of	—	400	1 200	1 600	1 500
Malaysia	62 836	53 338	44 416	45 500	43 788
Singapore	4 000	1 800	3 500	4 000	500
Thailand	25 479	18 467	19 729	17 996	19 744
Vietnam	* 475	* 520	* 475	* 570	* 600
Australia	3 105	2 913	2 899	2 683	1 399
World total	218 000	199 000	199 000	202 000	193 000

(a) Refined, including alloys

Exports of Tin

Country	1982	1983	1984	1985	1986
United Kingdom					
Concentrates	1 866	1 601	3 092	2 641	5 085
Unwrought	5 417	993	11 073	7 292	13 640
Unwrought alloys	1 193	907	1 993	1 605	2 972
Scrap	356	373	932	456	688
Belgium-Luxembourg					
Unwrought	306	219	339	240	1 644
Unwrought alloys	106	941	1 309	2 289	1 594
Scrap	86	107	50	68	84
Denmark					
Unwrought	133	678	964	1 101	1 084
Unwrought alloys	540	549	857	224	347
Scrap	21	7	67	180	261
France					
Concentrates	19	27	7	7	2 091
Unwrought	243	317	218	347	174
Unwrought alloys	192	26	51	99	21
Scrap	472	328	287	352	321
Germany, Federal Republic of					
Unwrought	2 179	1 562	1 457	1 158	1 289
Unwrought alloys	1 846	2 794	2 781	2 660	2 215
Scrap	133	230	144	87	123
Irish Republic					
Scrap	192	858	1 374	1 366	1 416
Italy					
Unwrought (a)	345	461	141	197	163
Scrap	51	57	94	60	200
Netherlands					
Concentrates	—	344	324	—	223
Unwrought	593	2 400	3 038	1 116	2 407
Unwrought alloys	863	1 011	1 116	1 012	798
Scrap	440	177	225	224	174
Spain					
Unwrought	9	20	245	) 203	214
Unwrought alloys	74	74	154	)	13
Scrap	53	122	99	57	—
Austria					
Unwrought	20	49	56	17	17
Czechoslovakia					
Concentrates	* 150	* 140	...	...	...
Norway					
Scrap	51	52	30	21	12
Sweden					
Unwrought	42	32	37	60	38
Unwrought alloys	13	24	27	104	84
Switzerland					
Unwrought	218	196	179	198	161
Scrap	110	76	43	90	28
Niger					
Concentrates (b)	36	144	72	126	108
Nigeria					
Unwrought (a)	1 465	* 1 150	1 280	400	215
Rwanda					
Concentrates	* 300	* 1 000	—	870	...
South Africa					
Concentrates (b)	671	697	714	703	203
Unwrought (a)	1 075	1 170	828	449	1 007
Zaire					
Concentrates	2 798	2 853	3 633	* 4 000	* 4 600
Unwrought	350	209	245	* 15	* 45
Canada					
Concentrates (b)	608	381	317	393	3 725
Jamaica					
Scrap	414	479	428	538	406

Tin

Exports of Tin

tonnes

Country	1982	1983	1984	1985	1986
USA					
Unwrought (a)	9 357	3 540	3 184	2 875	3 237
of which: Re-exports	3 588	2 200	1 755	1 397	1 689
Scrap	4 837	5 591	20 958	26 185	47 351
Argentina					
Tin-silver ore	1 260	2 634	...	...	...
Bolivia					
Concentrates (b)	3 238	2 509	4 663	4 434	8 618
Unwrought	18 654	13 532	15 614	11 424	8 207
Brazil					
Unwrought (a)	4 346	8 820	14 602	20 042	19 153
Peru					
Concentrates	620	3 030	3 229	2 567	4 631
Burma					
Concentrates (c)	2 535	2 100	3 300	3 000	1 300
China					
Unwrought (a)	3 068	3 643	2 641	7 249	7 421
Hong Kong					
Concentrates (Re-exports)	10	—	—	4 768	3 709
Unwrought	1 027	627	766	5 570	1 944
of which: Re-exports	787	441	458	5 287	1 768
Indonesia					
Concentrates	1 473	1 342	2 789	3 240	4 694
Unwrought (a)	28 610	24 950	22 568	21 104	23 804
Japan					
Unwrought (a)	94	161	117	96	56
Laos					
Concentrates (b)	564	1 284	—	—	—
Malaysia					
Unwrought	48 584	57 140	39 600	57 400	40 504
Scrap	448	1 167	430	495	...
Singapore					
Concentrates	4 048	10 604	11 253	9 728	4 892
of which: Re-exports	3 596	10 582	10 852	9 215	4 892
Unwrought	17 909	20 754	17 870	20 339	29 914
of which: Re-exports	15 871	17 216	15 324	14 684	27 934
Unwrought alloys	708	—	—	—	—
of which: Re-exports	282	—	—	—	—
Scrap	186	551	465	137	75
of which: Re-exports	116	191	87	98	39
Thailand					
Unwrought	24 889	17 724	18 455	17 963	14 784
Unwrought alloys	654	1 152	1 083	1 674	245
Australia					
Concentrates	14 306	17 729	11 855	10 562	14 551
Unwrought (a)	678	494	469	430	122

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

(a) Including alloys

(b) Sn content

(c) Years ended 31 March following that stated

Imports of Tin

Country	1982	1983	1984	1985	1986
United Kingdom					
Concentrates	20 386	22 407	21 055	20 713	30 166
Unwrought	5 184	4 802	4 492	3 924	4 249
Unwrought alloys	2 446	2 549	2 506	3 424	3 442
Scrap	1 533	2 915	1 664	563	303
Belgium-Luxembourg					
Concentrates	151	2 692	2 944	556	102
Unwrought	2 195	2 034	2 036	1 562	1 991
Unwrought alloys	201	252	275	2 291	1 545
Scrap	62	98	172	404	337
Denmark					
Unwrought	69	8	6	50	123
Unwrought alloys	195	511	745	310	1 876
Scrap	68	364	120	3	504
France					
Unwrought	8 356	7 900	7 976	6 648	7 888
Unwrought alloys	201	144	211	477	398
Scrap	29	75	41	15	15
Germany, Federal Republic of					
Concentrates	1 766	2 166	1 365	2 351	504
Unwrought	15 016	15 171	16 745	17 313	17 612
Unwrought alloys	1 325	1 446	2 029	1 825	1 274
Scrap	448	282	284	224	303
Greece					
Unwrought	298	376	259	365	477
Irish Republic					
Unwrought (a)	9	38	57	54	60
Italy					
Unwrought	4 657	5 432	5 559	5 135	5 734
Unwrought alloys	410	333	403	501	595
Netherlands					
Concentrates	4 738	8 910	* 3 000	10 677	9 986
Unwrought	3 772	2 037	1 702	2 271	1 302
Unwrought alloys	1 250	716	552	899	1 369
Scrap	215	186	368	455	355
Portugal					
Concentrates	37	81	80	218	11
Unwrought (a)	367	408	396	182	655
Spain					
Concentrates	2 884	3 784	4 351	4 262	3 071
Unwrought (a)	325	97	84	254	1 577
Austria					
Unwrought	455	438	509	501	523
Czechoslovakia					
Unwrought (a)	3 088	2 933	2 896	3 058	3 200
Finland					
Unwrought (a)	194	132	224	112	214
Hungary					
Unwrought & semi-manufactures	1 772	2 038	1 654	1 277	1 422
Norway					
Unwrought	381	324	402	342	448
Unwrought alloys	79	72	70	141	113
Poland					
Unwrought	4 601	4 352	3 634	3 029	3 625
Soviet Union					
Concentrates (e)	* 2 200	* 2 200	* 1 300	* 2 200	* 800
Unwrought (e)	* 4 700	* 7 200	* 11 500	* 11 600	* 10 000
Sweden					
Unwrought	264	296	372	502	556
Unwrought alloys	60	51	68	68	95
Switzerland					
Unwrought	866	890	791	977	1 369
Turkey					
Unwrought (a)	651	995	853	1 007	1 097

Imports of Tin

tonnes

Country	1982	1983	1984	1985	1986
Yugoslavia					
Unwrought (a)	1 188	1 121	1 122	1 387	1 565
Algeria					
Unwrought (a)	168	114	618	454	...
Egypt					
Unwrought & scrap	160	358	* 100	* 400	265
Morocco					
Unwrought (a)	176	114	132	156	...
Canada					
Unwrought	3 235	3 769	4 105	3 698	3 925
Mexico					
Concentrates	973	1 974	3 553	5 081	...
Unwrought	454	463	73	29	...
Scrap	405	270	453	156	...
USA					
Concentrates (b)	1 962	969	3 517	1 639	4 031
Unwrought	27 939	34 048	41 241	33 830	35 768
Unwrought alloys	1 421	2 146	2 607	3 377	1 018
Scrap	2 786	1 153	1 157	737	925
Argentina					
Unwrought	997	874	914	469	1 394
Chile					
Unwrought	151	531	517	647	1 063
Colombia					
Unwrought (a)	375	242	299	317	336
Peru					
Unwrought (a)	154	278	117	158	324
Venezuela					
Unwrought (a)	216	257	612	967	782
Hong Kong					
Unwrought	1 452	1 675	1 907	3 983	3 568
India (f)					
Unwrought (a)	1 477	2 100	2 300	2 300	200
Scrap	1 379	...	...	...	...
Iran (d)					
Unwrought	503	717	370	...	...
Japan					
Unwrought	26 185	29 333	30 470	28 297	31 769
Unwrought alloys	48	433	1 425	1 983	542
Korea, Republic of					
Concentrates	17	574	1 749	2 687	1 532
Unwrought (a)	2 093	2 216	2 402	1 603	3 755
Malaysia					
Concentrates	24 208	25 554	16 364	13 634	22 200
Unwrought (a)	1 038	1 068	854	795	...
Philippines					
Unwrought (a)	429	681	690	360	465
Singapore					
Concentrates	3 041	3 674	6 504	8 315	5 501
Unwrought	1 062	1 508	2 347	1 119	12 742
Unwrought alloys	406	—	—	—	—
Scrap	627	2 630	436	337	281

Imports of Tin

Tin
tonnes

Country	1982	1983	1984	1985	1986
Taiwan					
Unwrought	945	1 557	2 265	1 724	4 512
Australia					
Unwrought	63	103	105	136	186
New Zealand (c)					
Unwrought (a)	194	134	167	153	139

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

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

Production of Titanium Minerals

tonnes

Country	1982	1983	1984	1985	1986
Portugal					
Ilmenite	472	247	164	227	232
Finland					
Ilmenite	167 800	163 900	167 000	53 000	—
Norway					
Ilmenite	551 764	555 947	651 834	735 842	803 622
Soviet Union					
Ilmenite	* 430 000	* 435 000	* 440 000	* 445 000	* 450 000
Rutile	* 10 000	* 10 000	* 10 000	* 10 000	* 10 000
Sierra Leone					
Rutile	46 576	71 801	91 289	80 611	97 101
South Africa (e)	211 000	213 000	228 000	255 000	255 000
Canada (a)					
Ilmenite (d)	1 610 000	1 865 000	1 780 000	2 560 000	* 2 500 000
USA					
Ilmenite (b)	238 944	* 235 000	* 250 000	* 290 000	* 290 000
Brazil					
Ilmenite	11 322	30 452	40 945	76 354	75 472
Rutile	234	463	412	713	495
China					
Ilmenite	* 135 000	* 140 000	* 140 000	* 140 000	* 145 000
India					
Ilmenite	177 053	144 804	140 000	143 000	* 140 000
Rutile	7 866	6 715	* 6 000	* 7 000	* 7 300
Malaysia					
Ilmenite	(c) 77 159	(c) 207 297	(c) 224 042	315 736	414 941
Sri Lanka					
Ilmenite	68 282	80 486	102 048	114 954	* 100 000
Rutile	7 212	8 386	6 467	8 605	* 7 300
Thailand					
Ilmenite	18	205	148	1 078	13 489
Leucoxene	—	—	388	488	797
Australia					
Ilmenite	1 149 212	892 570	1 493 171	1 418 867	1 237 700
Rutile	220 697	163 374	170 424	211 615	215 774
Leucoxene	19 739	13 358	32 110	13 809	14 143
World total					
Ilmenite (Wt. of concs)	5 200 000	5 400 000	6 100 000	7 000 000	6 900 000
Rutile (Wt. of concs)	339 000	307 000	335 000	368 000	388 000
All forms (TiO ₂ content)	* 2 956 000	* 2 988 000	* 3 395 000	* 3 888 000	* 3 845 000

Notes:

- 1 The figures in this table refer to gross tonnage of titanium concentrates
 - 2 Some ilmenite is converted to synthetic rutile in Australia, India, Japan, Taiwan and USA
- (a) Canada produces some ilmenite which is sold as such and not processed into slag, but tonnages are small
- (b) Includes a mixed product containing ilmenite, leucoxene and rutile
- (c) Exports
- (d) Processed into slag. In 1986, Canada produced 810 000 tonnes (80% TiO₂)
- (e) Ti content of titanium minerals and slag

Exports of Titanium

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Ilmenite	4	0	27	1 125	—
Metal	...	...	...	2 512	2 094
Oxides	96 549	119 012	117 190	120 134	136 715
Belgium-Luxembourg					
Metal	113	137	185	173	109
Oxides	55 834	64 101	62 784	68 898	70 850
France					
Titanium minerals	105	235	95	247	108
Metal	700	969	1 188	1 715	1 188
Oxides	118 413	141 958	148 788	155 077	161 100
Germany, Federal Republic of					
Ilmenite	2 026	16	788	7 556	920
Other titanium minerals	3 351	6 636	7 551	7 520	4 144
Metal	1 817	2 300	2 325	1 868	1 276
Oxides	208 495	210 506	209 287	220 838	229 431
Italy					
Titanium minerals	1 174	536	990	1 906	1 335
Metal	134	182	200	130	211
Oxides (b)	* 11 100	* 14 500	* 17 900	* 22 600	* 23 200
Netherlands					
Ilmenite	657	617	769	739	525
Other titanium minerals	21 520	40 983	46 890	29 925	35 208
Metal	101	36	115	73	61
Oxides	26 584	29 624	32 863	35 060	35 955
Spain					
Oxides	42 716	39 124	46 813	(c) 10 816	23 959
Czechoslovakia					
Oxides (b)	* 2 600	* 3 700	* 2 800	* 2 600	* 3 300
Finland					
Oxides	(b)* 30 000	61 959	(b)* 46 400	(b)* 46 100	(b)* 46 400
Norway					
Titanium minerals	470 223	519 611	599 214	641 910	693 265
Oxides (c)	1 179	2 996	2 474	3 245	1 253
Soviet Union					
Metal (b)	* 1 300	* 1 200	* 700	* 1 200	* 700
Sweden					
Titanium minerals	9	34	76	5	—
Metal	428	510	628	430	288
Oxides	303	438	671	568	608
Yugoslavia					
Oxides	12 847	13 867	16 173	16 209	17 961
Sierra Leone					
Rutile	38 000	69 100	91 600	91 815	97 550
South Africa					
Titanium minerals & slag (a)	186 000	181 000	218 000	222 000	243 000
Canada					
Titanium slag	* 600 000	* 550 000	* 600 000	* 750 000	* 750 000
Metal (d)	643	702	370	536	605
Oxides (d)	19 878	23 190	23 779	24 184	22 235
USA					
Titanium minerals	19 725	4 369	7 867	25 183	4 842
Metal	7 433	7 198	6 727	9 470	16 151
Oxides	61 910	84 904	98 340	93 639	105 178
China					
Oxides (b)	* 2 500	* 2 000	* 2 400	* 3 900	* 5 400
Hong Kong					
Oxides (Re-exports)	1 814	2 055	1 926	2 743	2 840
India (e)					
Ilmenite	40 167	23 625	7 852	...	...
Japan					
Metal	7 503	6 044	9 700	7 330	6 143
Oxides	58 241	60 351	59 923	61 662	69 346
Korea, Republic of					
Oxides	1 990	2 395	1 796	2 148	1 497
Malaysia					
Ilmenite	77 159	207 297	224 042	249 218	397 696

Titanium

Exports of Titanium

tonnes

Country	1982	1983	1984	1985	1986
Sri Lanka					
Ilmenite	14 144	11 190	96 066	134 550	139 400
Rutile	—	—	—	6 800	11 860
Taiwan					
Oxides	234	7 971	81	29	395
Australia					
Ilmenite	879 317	816 933	1 172 986	1 151 921	1 034 209
Rutile	199 296	217 662	191 507	211 723	229 665
Leucosene	14 016	9 276	30 959	16 779	13 474
Oxides (b)	* 19 800	* 24 800	* 27 700	* 24 900	* 28 400

Notes:

- 1 So far as possible, the term 'oxides', as used in this table, includes oxides and oxide based pigments classified under Standard International Trade Classification (Revision 2) items 522.46 and 533.1
 - 2 Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys
- (a) Ti content
 (b) BGS estimates, based on known imports into certain countries
 (c) Excluding oxide based pigments
 (d) Exports to the USA only
 (e) Years ended 31 March following that stated

Imports of Titanium

Country	1982	1983	1984	1985	1986
United Kingdom					
Ilmenite	258 955	188 708	248 110	277 971	283 274
Other titanium minerals	95 918	92 691	72 792	88 900	90 380
Titanium slag	...	...	...	36 607	38 126
Metal	(b)* 7 100	(b)* 6 900	(b)* 7 900	7 959	8 853
Oxides	36 072	39 309	34 248	34 400	37 864
Belgium-Luxembourg					
Ilmenite	37 020	63 501	43 251	71 237	56 604
Other titanium minerals	34 281	40 626	48 251	51 062	50 210
Metal	1 015	790	463	1 313	859
Oxides	22 530	25 497	29 124	29 808	29 579
Denmark					
Oxides	7 482	8 370	9 926	10 569	11 115
France					
Ilmenite	80 118	116 251	90 513	124 164	171 650
Other titanium minerals	73 741	62 070	77 338	108 891	94 086
Titanium slag	...	...	...	63 686	110 446
Metal	2 896	1 774	2 397	2 699	1 773
Oxides	43 707	44 079	48 828	46 700	46 450
Germany, Federal Republic of					
Ilmenite	379 513	373 776	425 444	467 169	432 551
Other titanium minerals	29 899	29 956	30 242	19 193	18 053
Titanium slag	203 370	195 938	214 318	246 179	229 223
Metal	3 189	2 046	4 223	3 976	2 902
Oxides	67 402	73 730	76 783	81 916	91 228
Greece					
Oxides	8 051	8 483	8 770	9 547	10 215
Irish Republic					
Oxides	3 017	2 289	3 419	3 071	3 300
Italy					
Ilmenite	1 199	2 102	17 386	141 419	36 524
Other titanium minerals	5 206	4 212	4 996	4 760	18 324
Titanium slag	46 022	63 006	42 043	83 365	85 752
Metal	1 850	1 991	2 806	3 010	3 472
Oxides	48 299	53 236	54 769	55 216	60 176
Netherlands					
Ilmenite	200	639	9 850	4 816	3 717
Other titanium minerals	22 048	53 063	42 018	35 014	43 749
Titanium slag	53 746	41 055	45 419	36 594	45 260
Metal	171	244	253	215	234
Oxides	21 116	23 102	27 333	29 312	28 618
Portugal					
Oxides	9 473	8 727	10 371	9 460	10 621
Spain					
Ilmenite	138 016	130 137	185 060	...	104 153
Other titanium minerals	540	1 912	2 729	...	2 767
Metal	1 390	1 354	1 094	...	690
Oxides	12 660	11 608	10 622	...	14 107
Austria					
Oxides	9 001	9 640	10 637	11 915	11 913
Bulgaria					
Titanium minerals (b)	* 4 500	* 4 100	* 3 100	* 2 300	* 2 600
Oxides (b)	* 1 400	* 1 400	* 1 900	* 3 400	* 2 500
Czechoslovakia					
Oxides (b)	* 3 800	* 3 000	* 2 900	* 3 800	* 3 200
Finland					
Titanium minerals	20 961	31 435	(b)* 30 400	...	...
Oxides	1 147	2 125	2 261	2 498	2 083
German Democratic Republic					
Oxides (b)	* 19 000	* 17 200	* 20 700	* 20 100	* 20 900
Norway					
Oxides	4 373	5 086	4 924	6 609	7 601
Poland					
Titanium minerals	57 426	—	34 666	—	—
Romania					
Titanium minerals (b)	* 10 700	* 2 700	* 4 500	* 6 400	* 5 000
Oxides (b)	* 5 000	* 5 500	* 5 800	* 6 300	* 5 600
Soviet Union					
Titanium minerals (b)	* 47 000	* 91 700	* 110 700	* 89 200	* 90 000
Oxides (b)	* 4 600	* 2 800	* 2 500	* 9 800	* 5 300

Imports of Titanium

tonnes

Country	1982	1983	1984	1985	1986
Sweden					
Titanium minerals	3 730	2 233	3 200	4 636	22 656
Metal	1 033	1 145	802	644	705
Oxides	18 213	22 887	22 752	23 899	24 756
Switzerland					
Oxides	2 020	2 134	2 290	2 348	1 693
Turkey					
Titanium minerals	2 773	3 721	...	3 196	...
Oxides	(a) 1 746	(a) 2 250	(a) 2 387	17 165	...
Yugoslavia					
Titanium minerals	48 070	53 470	47 209	27 275	48 147
Oxides	4 199	3 142	3 026	4 294	5 300
Algeria					
Oxides	10 047	6 334	6 946	14 299	...
Egypt					
Oxides	2 239	1 264	1 733	60	424
Kenya					
Oxides	1 530	314	261	678	518
Morocco					
Oxides	3 200	2 097	3 145	3 293	...
South Africa					
Oxides	1 447	3 592	4 176	1 104	411
Canada					
Metal	504	275	356	589	492
Oxides	6 106	18 768	25 557	25 154	27 693
Mexico					
Ilmenite	41 994	76 157	95 518	29 567	...
Rutile sand (f)	2 563	2 297	2 506	2 507	...
USA					
Ilmenite	322 380	237 186	373 374	460 543	423 045
Rutile (c)	162 930	101 221	163 754	162 988	200 118
Titanium slag	224 842	125 834	190 363	264 742	328 285
Metal	3 400	4 368	7 164	5 283	4 812
Oxides	126 039	161 260	174 425	177 671	183 863
Argentina					
Titanium minerals	1 930	2 402	1 568	...	...
Brazil					
Ilmenite	59 510	21 020	35 729	15 000	15 000
Rutile	3 052	1 972	2 496	2 994	2 614
Oxides	14 918	10 362	3 701	5 107	9 944
Chile					
Oxides (b)	* 2 000	* 2 600	* 3 400	* 2 500	* 5 000
Colombia					
Oxides	7 397	6 245	7 833	7 623	...
Uruguay					
Oxides	1 532	2 001	2 986	2 580	5 291
Venezuela					
Oxides	11 723	...	14 131	11 541	13 805
China					
Oxides (b)	* 21 400	* 12 000	* 9 200	* 23 500	* 20 300
Hong Kong					
Oxides	5 103	6 108	6 633	7 492	8 283
India (d)					
Oxides	9 349	...	...	...	...
Indonesia					
Oxides	14 343	14 885	12 589	15 131	14 112
Iran					
Oxides (b)	* 7 800	* 13 100	* 7 400	* 2 100	* 1 900
Israel (g)					
Oxides	2 658	2 213	1 807	1 537	(b)* 1 100
Japan					
Titanium minerals	367 500	411 047	645 972	604 044	670 436
Titanium slag	91 625	63 118	62 697	95 476	89 956
Oxides	30 018	38 087	37 141	39 212	40 034

Imports of Titanium

tonnes

Country	1982	1983	1984	1985	1986
Jordan					
Oxides	1 135	1 593	2 173	1 921	808
Korea, Republic of					
Titanium minerals	29 080	32 447	39 259	34 300	43 969
Rutile sand	4 375	5 252	4 812	5 270	6 125
Metal	391	367	361	111	204
Oxides	15 502	19 333	21 861	22 651	28 143
Malaysia					
Oxides	5 941	7 426	7 302	7 623	...
Pakistan (e)					
Oxides	1 803	1 994	2 140	2 437	2 851
Philippines					
Titanium minerals	1 099	973	713	487	966
Oxides	6 338	9 111	6 239	5 483	8 218
Saudi Arabia					
Oxides	3 184	4 277	6 637	4 701	4 252
Singapore					
Titanium minerals	779	—	—	—	—
Oxides	4 636	6 365	9 236	6 854	8 725
Taiwan					
Oxides	21 406	28 910	34 115	32 536	43 592
Thailand					
Rutile	1 225	1 235	781	1 867	485
Oxides	757	846	1 135	1 828	1 708
Australia					
Oxides	1 094	805	1 565	1 250	1 213
New Zealand (e)					
Oxides	5 958	5 268	6 562	6 626	6 357

Notes:

- 1 Significant quantities of titanium slag are traded, but it is not always possible to identify this material in national trade accounts
 - 2 So far as possible, the term 'oxides', as used in this table, includes oxides and oxide based pigments classified under Standard International Trade Classification (Revision 2) items 522.46 and 533.1
 - 3 Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys
- (a) Excluding oxide based pigments
 (b) BGS estimates, based on known exports from certain countries
 (c) Includes synthetic rutile
 (d) Years ended 31 March following that stated
 (e) Years ended 30 June of that stated
 (f) Micronised for use as an opacifier
 (g) Figures may be incomplete as value only given in Israeli trade return for imports from some countries

TUNGSTEN

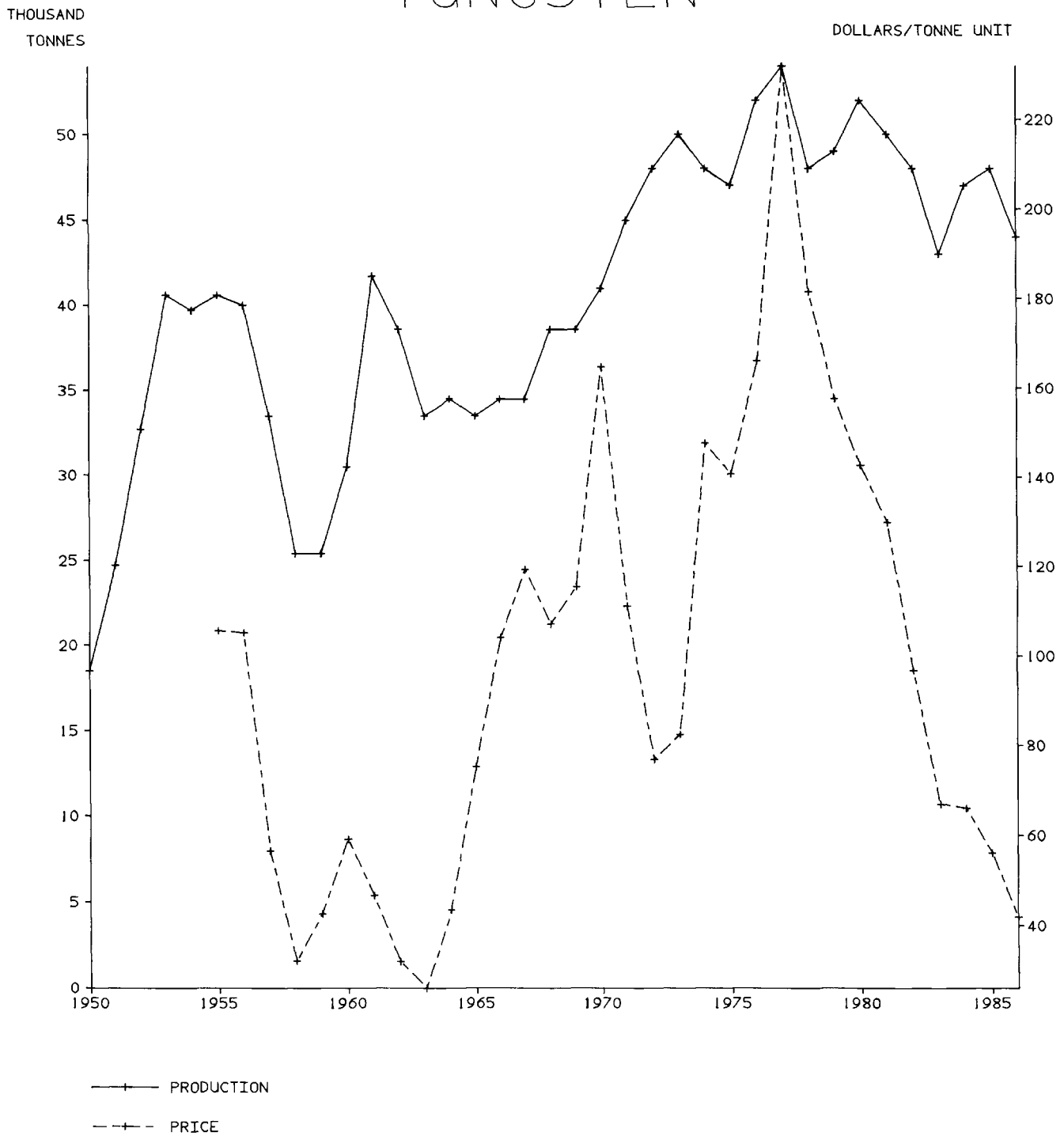


Figure 21 World mine production of tungsten from 1950 to 1986 compared with the annual average UK price from 1955 of 65% WO₃ concentrate c.i.f. European ports; post-1978 weighted average International Tungsten Indicator price, expressed in US dollars per metric ton unit of WO₃.

Constant commodity prices derived from Tungsten Statistics (1971 et seq.) published by the United Nations, using the CPI for the USA taken from International Financial Statistics Yearbook (1987).

Mine Production of Tungsten

tonnes (metal content)

Country	1982	1983	1984	1985	1986
France	724	800	745	735	987
Portugal (c)	1 359	1 186	1 509	1 765	1 637
Spain	545	517	565	458	447
Austria	1 699	1 405	1 911	1 967	1 454
Czechoslovakia	* 50	* 50	* 50	* 50	* 50
Soviet Union	* 9 000	* 9 100	* 9 100	* 9 200	* 9 200
Sweden	423	460	485	582	390
Turkey	404	291	394	448	* 450
Rwanda	286	204	229	310	24
Uganda	7	7	15	17	19
Zaire (b)	38	44	30	18	* 15
Zimbabwe	35	23	55	14	2
Canada (a)	2 403	1 220	3 328	3 197	1 959
Mexico	194	186	274	282	294
USA	1 521	980	1 203	996	780
Argentina	17	41	37	17	30
Bolivia	2 534	2 449	1 893	1 643	1 380
Brazil (a)	1 524	1 026	1 037	1 094	875
Peru	682	762	699	723	742
Burma (b)	865	950	1 114	945	715
China	* 13 000	* 13 000	* 14 000	* 15 000	* 15 000
India	28	16	30	28	23
Japan	854	820	795	463	511
Korea, Dem. P.R. of	* 2 200	* 1 000	* 1 000	* 1 000	* 1 000
Korea, Republic of	2 421	2 480	2 703	2 580	2 455
Malaysia	37	49	23	21	4
Mongolia	* 1 500	* 1 500	* 1 500	* 1 500	* 1 500
Thailand (c)	856	563	742	586	475
Australia (c)	2 618	2 015	1 733	1 970	1 600
New Zealand	7	6	7	7	0
World total	48 000	43 000	47 000	48 000	44 000

(a) Mainly scheelite

(b) Including tin-wolframite concentrates

(c) Wolframite and scheelite

Exports of Tungsten

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Tungsten ore	1 364	219	275	184	156
Metal	411	543	579	833	496
Carbide	708	551	799	900	923
Belgium-Luxembourg					
Metal	128	99	139	253	151
France					
Tungsten ore	930	818	522	483	353
Metal	291	398	372	496	423
Carbide	111	134	201	243	217
Germany, Federal Republic of					
Tungsten ore	—	76	—	2	—
Metal	712	860	1 129	1 322	1 244
Italy					
Metal	65	85	100	186	186
Netherlands					
Tungsten ore	793	629	451	1 166	97
Metal	269	398	460	523	510
Portugal					
Tungsten ore	1 727	1 669	2 506	2 604	1 455
Spain					
Tungsten ore	686	673	870	715	744
Metal	39	4	2	4	1
Austria					
Tungsten ore	0	73	25	0	114
Metal	663	874	1 050	1 485	1 085
Sweden					
Tungsten ore	404	644	498	193	394
Metal	99	44	111	194	52
Carbide	158	87	70	131	89
Switzerland					
Metal	68	45	70	63	38
Turkey					
Tungsten ores & concentrates	—	180	453	521	680
Metal	30	305	0	—	...
Rwanda					
Tungsten ores & concentrates	596	420	490	* 560	...
Zaire					
Tungsten ore	89	113	* 120	* 120	...
Zimbabwe					
Tungsten ore	52	24	72	36	—
Canada (a)	* 2 600	* 300	* 3 400	* 2 800	* 1 000
Mexico					
Tungsten ores & concentrates	607	546	847	1 073	* 500
USA					
Tungsten ores & concentrates	332	28	129	175	34
Metal	1 309	900	1 839	2 844	2 016
Ammonium paratungstate (a)	11	6	8	72	10
Carbide	552	330	448	683	369
Bolivia					
Tungsten ore (a)	3 272	2 584	2 471	1 644	1 504
Brazil					
Tungsten ore	1 860	1 482	970	514	137
Peru					
Tungsten ores & concentrates	1 170	960	1 336	* 1 500	* 1 000
Burma (b)					
Tungsten ores & concentrates	1 983	1 558	* 1 700	* 1 900	...

Exports of Tungsten

Country	1982	1983	1984	1985	1986
China					
Tungsten ores & concentrates	11 188	24 990	18 860	21 267	23 624
Metal	183	65	79	156	365
Hong Kong					
Tungsten ore (Re-exports)	4 740	—	—	1 717	2 013
Israel					
Metal	—	—	669	515	344
Japan					
Metal	286	147	195	235	260
Korea, Dem. P.R. of (a)	* 800	* 800	* 800	* 800	* 800
Korea, Republic of					
Tungsten ore	1 005	1 061	859	747	514
Metal	385	277	301	364	261
Carbide	282	303	428	543	582
Malaysia					
Tungsten ore	80	40	346	30	10
Singapore					
Tungsten ore	630	875	1 695	1 438	732
of which: Re-exports	629	777	1 654	1 420	732
Metal	72	91	105	68	52
of which: Re-exports	1	23	32	39	3
Thailand					
Tungsten ore	1 463	1 207	1 885	1 142	923
Australia					
Wolframite ores & concentrates	1 750	1 532	1 741	1 335	843
Scheelite ores & concentrates	3 189	2 355	1 419	1 965	1 683

Notes:

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

(a) W content

(b) Years ended 31 March following that stated

Tungsten

Imports of Tungsten

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Tungsten ore	1 768	693	896	627	549
Metal	243	213	415	632	559
Carbide	510	442	495	554	404
Belgium-Luxembourg					
Metal	155	188	176	263	258
Carbide	257	259	356	574	534
Denmark					
Carbide	268	317	241	205	75
France					
Tungsten ore	818	277	2 632	351	179
Metal	365	321	183	330	192
Carbide	189	251	231	241	247
Germany, Federal Republic of					
Tungsten ore	2 855	3 841	7 296	3 843	3 184
Metal	841	946	1 242	1 314	1 194
Carbide	317	286	380	437	552
Italy					
Tungsten ore	36	54	157	181	144
Metal	100	85	78	130	146
Carbide	169	158	262	377	346
Netherlands					
Tungsten ore	739	1 317	674	1 145	227
Metal	307	490	342	451	661
Spain					
Metal	24	17	381	481	47
Austria					
Tungsten ore	2 413	3 090	3 920	3 810	3 106
Metal	316	428	640	1 141	941
Finland					
Metal	17	20	20	18	24
Poland					
Tungsten concentrates	2 461	2 000	1 150	1 170	2 450
Soviet Union					
Tungsten concentrates	* 7 000	* 6 900	* 7 000	* 7 200	* 7 400
Metal (d)	* 60	* 40	* 130	* 40	...
Sweden					
Tungsten ore	1 700	682	813	1 150	1 351
Metal	84	163	154	42	212
Carbide	361	395	294	117	284
Switzerland					
Metal	40	43	75	98	64
Yugoslavia					
Metal	14	27	37	17	19
South Africa					
Tungsten ores & concentrates	388	507	363	542	515
Metal	13	34	32	25	...
Carbide	65	42	65	79	55
Mexico					
Metal	50	10	59	108	...
USA					
Tungsten ore	8 798	7 220	* 12 500	10 476	5 693
Metal	1 282	769	1 599	825	792
Ammonium paratungstate (a)	989	654	1 172	1 351	1 156
Carbide	431	231	451	463	416
Hong Kong					
Tungsten ore	2 254	—	47	3 799	3 626
India (e)					
Tungsten ore	566	435	289	* 700	...
Israel					
Metal (c)	708	97	467	804	302
Japan					
Tungsten ore	2 297	3 214	2 905	2 869	1 769
Metal	143	178	294	350	256

Imports of Tungsten

Country	1982	1983	1984	1985	1986
Korea, Republic of					
Metal	33	150	34	34	169
Malaysia					
Metal	56	63	84	42	...
Singapore					
Tungsten ore	971	1 211	2 430	1 699	1 235
Metal	28	94	82	100	101
Taiwan					
Metal	29	36	48	46	56
Australia (b)					
Metal	12	11	13	17	...

Notes:

- 1 Significant, and possibly increasing, amounts of tungsten are traded in the forms of ammonium paratungstate (APT) and carbide. Though statistics are included where available, most countries do not separately distinguish these forms in their trade accounts.
 - 2 Metal traded in ferro-alloy form is included under Iron, Steel and Ferro-alloys
- (a) W content
(b) Years ended 30 June of that stated
(c) Figures may be incomplete as value only given in Israeli trade return for imports from some countries
(d) BGS estimates, based on known exports from certain countries
(e) Years ended 31 March following that stated

VANADIUM

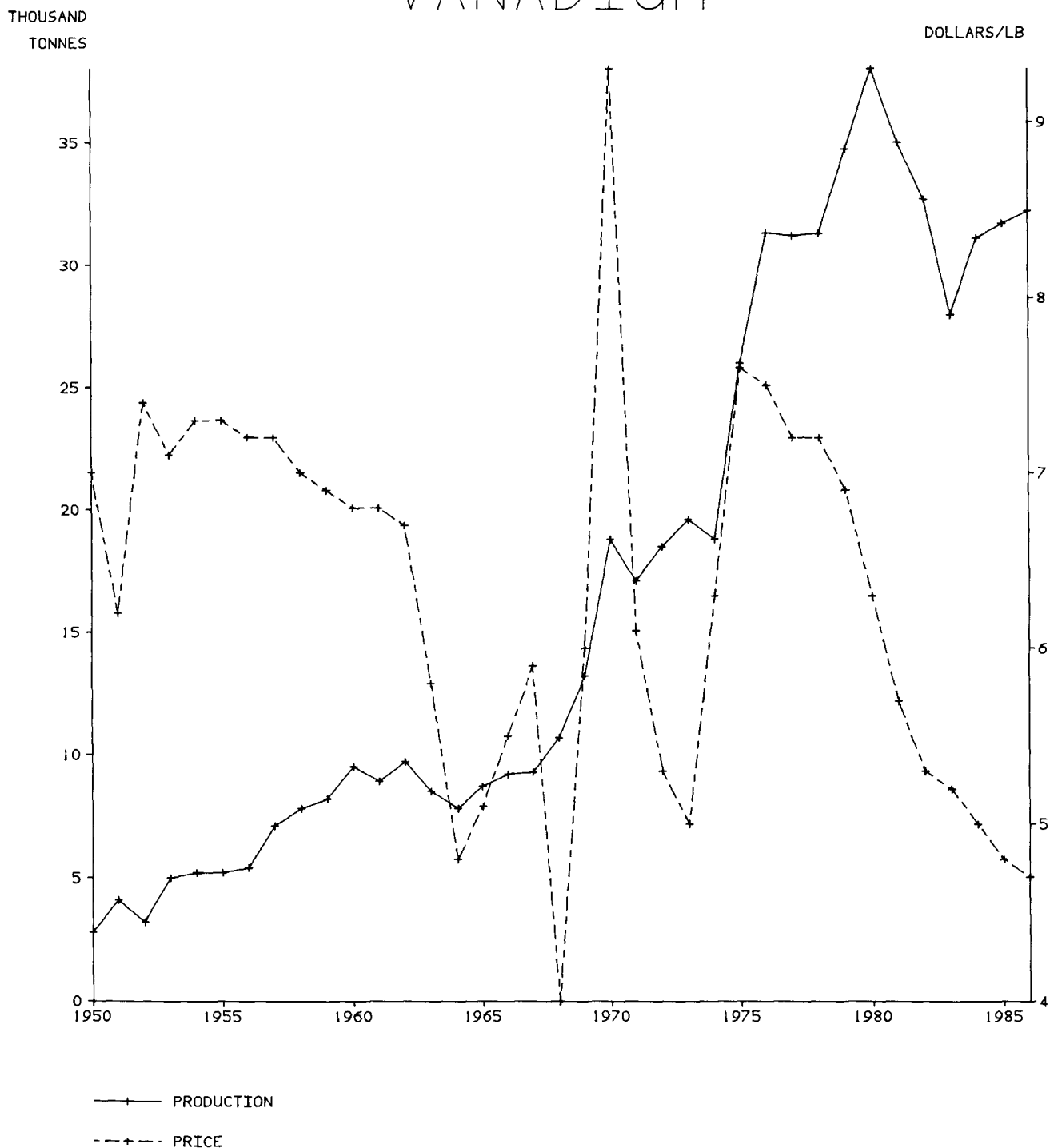


Figure 22 World mine production of vanadium from 1950 to 1986 compared with the annual average US price per pound of vanadium in V_2O_5 expressed in constant 1980 US dollars.

Constant commodity prices derived from those quoted by USBM in Mineral Facts and Problems (1960 et seq.) and Mineral Commodity Summaries (1984 et seq.), using the CPI for the USA taken from International Financial Statistics Yearbook (1987).

Mine Production of Vanadium

tonnes (metal content)

Country	1982	1983	1984	1985	1986
Finland	3 148	3 190	3 066	2 132	—
Norway	* 100	—	—	—	—
Soviet Union	* 9 500	* 9 500	* 9 500	* 9 500	* 9 600
South Africa	11 714	8 834	12 518	14 021	16 629
USA	3 718	1 969	1 467	* 1 500	...
China	* 4 500	* 4 500	* 4 500	* 4 500	* 4 500
World total	32 700	28 000	31 100	31 700	32 200

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

Exports of Vanadium

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Pentoxide	56	182	483	80	37
Metal	17	73	62	12	14
Belgium-Luxembourg					
Vanadiferous residues	1 884	1 163	4 477	4 685	7 631
Pentoxide	35	83	598	451	465
Vanadium-titanium pig-iron	8	27	33	91	—
Metal	186	15	139	337	95
Denmark					
Vanadium-titanium pig-iron	23	122	0	—	0
France					
Vanadiferous residues	56	40	100	181	323
Pentoxide	26	6	12	10	182
Vanadium-titanium pig-iron	26	149	10	20	213
Metal	23	98	237	120	94
Germany, Federal Republic of					
Vanadiferous residues	889	1 486	2 005	4 296	2 735
Vanadium-titanium pig-iron	—	—	—	377	272
Metal	135	192	197	393	209
Italy					
Vanadiferous residues	1 484	1 956	2 534	1 901	1 238
Netherlands					
Vanadiferous residues	51	20	87	52	67
Vanadium-titanium pig-iron	—	60	2	29	36
Finland					
Pentoxide (a)	* 1 500	* 4 000	* 4 300	* 2 900	* 2 000
Soviet Union					
Vanadiferous residues	* 12 500	* 11 800	* 12 000	* 12 000	* 12 000
South Africa					
Pentoxide (c)	17 347	15 925	21 798	22 018	29 726
USA					
Ores & concentrates (b)	92	105	20	4	80
Pentoxide	1 509	2 385	3 156	1 385	1 401
China					
Vanadiferous residues (a)	* 2 600	* 5 100	...	...	...
Pentoxide (a)	* 3 000	* 3 700	* 2 100	* 3 100	* 4 700

Notes:

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

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

(b) V₂O₅ content(c) Includes V₂O₅ content of vanadiferous residues

Imports of Vanadium

Country	1982	1983	1984	1985	1986
United Kingdom					
Pentoxide	745	1 929	660	260	372
Vanadium-titanium pig-iron	75	184	—	—	16
Metal	41	142	358	129	155
Belgium-Luxembourg					
Vanadiferous residues	6 905	3 137	13 579	18 091	9 123
Pentoxide	2 964	4 062	4 797	4 049	4 056
Metal	69	27	208	350	96
Denmark					
Vanadium-titanium pig-iron	306	—	7	0	—
France					
Pentoxide	1 223	1 126	2 501	2 215	1 416
Vanadium-titanium pig-iron	25	20	0	8	8
Metal	85	29	52	141	35
Germany, Federal Republic of					
Vanadiferous residues	29 878	27 826	35 611	31 635	30 018
Pentoxide	2 360	1 455	1 714	1 870	1 806
Vanadium-titanium pig-iron	250	2 274	61	—	—
Metal	1	4	2	267	66
Italy					
Vanadiferous residues	2 646	1 923	1 511	2 508	2 178
Pentoxide	124	106	135	69	15
Vanadium-titanium pig-iron	266	—	—	—	—
Metal	26	23	6	35	91
Netherlands					
Vanadiferous residues	1	—	396	1 028	1 957
Pentoxide	321	25	10	7	30
Vanadium-titanium pig-iron	125	9	—	—	35
Spain					
Pentoxide	316	545	540	...	117
Mexico					
Pentoxide	145	...	...	...	...
USA					
Vanadiferous residues	7 007	212	* 400	1 466	13 083
Pentoxide	228	661	241	111	719
Brazil					
Pentoxide	487	633	685	1 210	925
Japan					
Pentoxide	4 846	2 957	4 602	3 786	3 101

Notes:

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

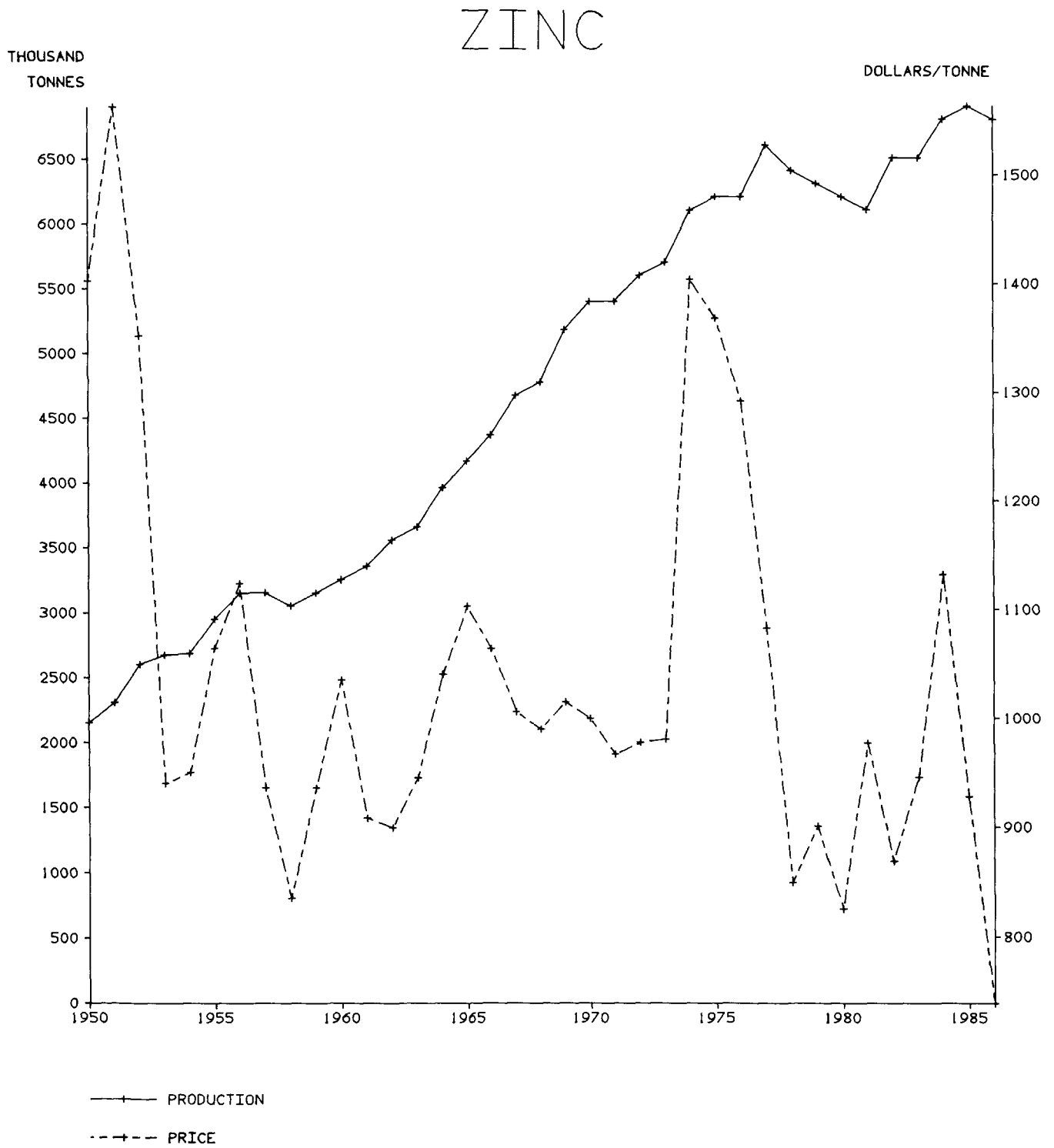


Figure 23 World mine production of zinc from 1950 to 1986 compared with the yearly average domestic producer price on the New York Market of Prime Western Grade delivered New York expressed in constant 1980 US dollars.

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

Mine Production of Zinc

tonnes (metal content)

Country	1982	1983	1984	1985	1986
United Kingdom	10 186	8 879	7 159	5 043	5 605
France	37 427	34 493	36 425	40 571	39 600
Germany, Federal Republic of	105 782	113 481	113 000	117 600	103 700
Greece	20 459	22 063	22 550	21 107	22 257
Irish Republic	167 000	186 000	206 000	191 700	181 700
Italy	38 600	43 400	42 300	45 438	26 303
Spain	167 137	175 757	230 378	234 695	223 100
Austria	21 938	22 688	23 797	24 259	17 844
Bulgaria	66 000	68 000	65 000	68 000	70 000
Czechoslovakia	6 555	6 665	7 200	7 500	6 300
Finland	58 865	60 777	65 285	65 247	60 300
Greenland	79 900	79 200	71 300	70 300	62 000
Hungary	1 538	2 306	1 920	1 606	418
Norway	31 860	32 356	28 513	27 352	27 508
Poland	183 500	189 000	190 700	190 900	183 900
Romania	* 37 000	* 40 000	* 39 000	* 40 000	* 39 000
Soviet Union	* 1 020 000	* 1 025 000	* 980 000	* 1 000 000	* 970 000
Sweden	178 592	214 367	217 254	223 191	219 300
Turkey	33 543	32 417	50 423	39 674	41 100
Yugoslavia	83 813	86 767	85 800	89 300	94 600
Algeria	11 100	12 100	14 600	13 500	14 000
Congo	—	—	—	* 2 000	* 2 000
Morocco	12 120	7 890	10 730	15 250	13 146
Namibia	32 400	29 800	29 900	30 472	34 725
South Africa	91 516	109 981	106 107	96 943	101 859
Tunisia	8 400	7 500	6 700	5 600	4 500
Zaire	82 065	73 970	73 955	67 925	81 300
Zambia	51 117	54 634	38 793	31 900	31 605
Canada	1 189 129	1 069 709	1 207 098	1 172 238	1 199 735
Honduras	24 381	38 000	41 500	44 000	25 400
Mexico	231 910	257 444	290 236	275 412	272 974
USA (a)	303 160	275 294	252 768	226 545	202 983
Argentina	36 635	36 586	34 909	35 713	39 530
Bolivia	45 667	47 132	37 770	38 110	33 296
Brazil	111 882	119 843	113 691	123 811	123 942
Chile	5 656	5 993	19 168	22 288	10 504
Peru (a)	507 100	553 100	568 300	582 600	597 600
Burma	5 382	4 536	5 321	4 900	4 000
China	* 160 000	* 160 000	* 190 000	* 200 000	* 220 000
India	32 000	36 500	43 700	53 000	45 000
Iran	40 000	39 500	47 100	50 000	36 000
Japan	251 356	255 712	252 700	253 021	222 071
Korea, Dem. P.R. of	* 130 000	* 140 000	* 150 000	* 185 000	* 225 000
Korea, Republic of	58 175	55 980	49 232	45 746	37 282
Philippines	3 003	2 275	2 189	1 880	1 569
Thailand	4 000	3 000	39 000	68 300	65 600
Vietnam	10 000	10 000	10 000	10 000	10 000
Australia	664 800	699 032	676 532	759 083	711 958
World total	6 500 000	6 500 000	6 800 000	6 900 000	6 800 000

(a) Recoverable

Production of Slab Zinc

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	79 278	87 651	85 604	74 278	85 902
Belgium (a)	240 851	275 845	285 319	289 562	288 787
France	243 700	249 500	258 514	247 250	257 400
Germany, Federal Republic of	333 600	356 300	356 300	366 900	370 900
Italy	158 248	155 596	166 751	210 075	230 400
Netherlands	186 022	187 519	209 657	201 712	196 900
Portugal	4 200	3 800	6 400	5 900	5 700
Spain	181 800	189 900	207 400	213 300	199 300
Austria	20 599	19 699	21 000	20 496	19 453
Bulgaria	92 000	93 000	93 000	90 000	90 000
Finland	143 882	155 336	158 819	160 560	155 397
German Democratic Republic	* 17 000	* 16 500	* 17 000	* 17 000	* 17 000
Norway	72 016	90 668	94 248	92 762	90 397
Poland	165 352	170 300	176 000	180 000	179 200
Romania	44 000	42 000	47 800	41 000	43 000
Soviet Union	* 1 050 000	* 1 060 000	* 1 050 000	* 1 050 000	* 1 030 000
Turkey	14 900	14 300	19 900	22 200	15 400
Yugoslavia	86 767	88 049	92 649	83 398	89 286
Algeria	28 500	31 200	35 000	35 700	29 700
South Africa	79 700	82 426	90 303	93 704	80 800
Zaire	64 425	62 535	66 087	66 100	61 400
Zambia	39 186	37 882	29 177	22 766	22 493
Canada	511 870	617 033	683 156	692 406	570 596
Mexico	127 359	174 991	167 034	175 354	* 170 000
USA	302 464	305 084	331 245	311 551	316 281
Argentina	28 900	32 000	27 700	30 400	29 200
Brazil	110 434	110 958	114 449	120 737	135 595
Peru	160 733	154 030	148 579	162 757	* 155 000
China	* 175 000	* 185 000	* 190 000	* 215 000	* 220 000
India	52 571	54 147	55 356	70 947	73 828
Japan	662 380	701 291	754 445	739 624	708 032
Korea, Dem. P.R. of	* 110 000	* 110 000	* 130 000	* 180 000	* 210 000
Korea, Republic of	99 211	107 860	108 460	111 653	127 439
Thailand	—	—	4 000	62 108	58 552
Vietnam	10 000	10 000	10 000	10 000	10 000
Australia	295 890	302 951	306 440	293 186	307 615
World total	6 000 000	6 300 000	6 600 000	6 800 000	6 700 000

(a) Including alloys

Exports of Zinc

Country	1982	1983	1984	1985	1986
United Kingdom					
Ores & concentrates	18 576	7 537	955	108	5 225
Unwrought	10 777	20 318	8 094	8 060	11 448
Unwrought alloys	6 730	6 168	6 566	8 556	10 681
Scrap	11 034	14 596	15 246	17 846	17 285
Belgium-Luxembourg					
Ore	18 409	41 821	23 282	17 433	11 086
Unwrought	126 231	156 383	167 720	157 077	137 028
Unwrought alloys	24 962	33 767	29 387	32 433	48 904
Scrap	12 471	13 165	14 585	12 302	10 155
Denmark					
Unwrought	99	216	251	35	72
Unwrought alloys	144	114	35	7	7
Scrap	3 635	3 666	4 322	4 078	3 767
France					
Ore	58 633	98 338	117 188	102 097	85 555
Unwrought	48 994	50 711	93 016	68 651	59 712
Unwrought alloys	2 369	1 930	2 172	2 407	5 411
Scrap	11 407	11 908	11 456	11 502	14 102
Germany, Federal Republic of					
Ore	* 141 500	* 155 400	* 178 100	* 191 300	* 151 900
Unwrought	103 663	122 425	109 313	114 627	97 840
Unwrought alloys	9 797	10 637	16 235	18 498	17 212
Scrap	8 623	14 889	17 523	16 181	18 328
Greece					
Ores & concentrates	35 700	57 500	39 450	43 300	45 250
Scrap	1 262	339	359	373	628
Irish Republic					
Ores & concentrates	343 770	356 219	403 706	370 754	368 974
Italy					
Ore	7 866	4 320	18 938	25 283	14 908
Unwrought	20 712	31 714	42 456	43 762	45 973
Unwrought alloys	4 743	4 080	2 678	2 010	2 843
Scrap	2 927	3 278	3 755	4 512	4 159
Netherlands					
Unwrought	160 187	173 605	176 927	173 861	174 891
Unwrought alloys	8 015	10 473	9 270	7 539	6 815
Scrap	10 603	9 509	11 500	10 544	11 924
Spain					
Ore	27 086	12 019	83 756	119 509	126 443
Unwrought (a)	94 107	96 900	106 004	127 215	94 200
Scrap	1 069	818	2 657	—	1
Austria					
Unwrought	2 835	4 861	4 520	4 371	4 035
Scrap	558	448	832	1 123	1 543
Bulgaria					
Unwrought (a)(b)	* 12 900	* 18 000	* 24 900	* 23 600	* 18 500
Czechoslovakia					
Ore (b)	* 12 700	* 14 900	* 14 500	* 15 700	* 14 200
Finland					
Ore	—	14 913	5 190	—	—
Unwrought	110 967	120 991	122 793	127 056	110 945
Unwrought alloys	7 842	10 568	13 444	13 308	16 812
Scrap	1 498	636	1 528	436	1 209
Greenland					
Ores & concentrates	142 841	152 599	134 696	121 621	49 590
Hungary					
Scrap	3 942	3 743	3 755	3 824	1 881
Norway					
Ore	23 627	25 658	10 989	10 959	8 355
Unwrought	54 040	71 764	74 852	71 757	67 058
Unwrought alloys	9 593	8 217	7 039	6 883	10 177
Scrap	410	327	395	308	539
Poland					
Unwrought	22 519	27 774	26 838	28 050	22 562
Soviet Union					
Unwrought (a)(b)	* 27 500	* 25 200	* 24 900	* 23 400	* 18 900

Exports of Zinc

tonnes

Country	1982	1983	1984	1985	1986
Sweden					
Ore	362 436	368 720	427 582	428 161	437 695
Unwrought (a)	900	1 077	613	1 104	973
Scrap	3 543	3 640	3 067	2 457	2 877
Switzerland					
Unwrought	12	249	118	137	27
Scrap	983	1 618	1 184	1 182	1 222
Turkey					
Ores & concentrates	750	1 200	—	5 554	11 207
Yugoslavia					
Concentrates	1 181	3 404	5 485	—	314
Unwrought (a)	22 809	25 022	24 038	14 882	25 268
Algeria					
Unwrought	8 124	31 011	18 735	9 444	...
Morocco					
Ore	15 862	14 149	24 072	30 816	...
Namibia					
Concentrates	61 100	56 300	56 500	57 495	65 518
South Africa					
Ores & concentrates (c)	34 182	15 065	35 644	12 840	29 510
Unwrought	546	507	1 373	7 658	1 700
Tunisia					
Ore	10 819	23 194	13 026	4 705	10 600
Zaire					
Unwrought	55 700	67 400	45 500	59 000	71 800
Zambia					
Unwrought	24 268	25 000	29 340	19 880	21 000
Canada					
Ore (c)	457 757	626 178	550 216	409 741	433 220
Unwrought	472 731	500 609	529 728	555 618	427 175
Scrap	73 611	17 996	19 552	18 083	23 157
Honduras					
Ores & concentrates (c)	14 692	23 185	31 253	47 386	22 484
Mexico					
Ores & concentrates	157 245	121 624	171 863	214 657	197 774
Unwrought	14 554	79 337	84 431	69 115	72 753
USA					
Ore (c)	77 289	67 474	30 579	23 264	11 005
Unwrought (a)	1 439	1 221	1 448	5 273	3 544
Scrap (c)	17 086	20 942	29 223	38 615	63 269
Argentina					
Ores & concentrates	10 430	20	470	7 761	...
Unwrought	4 489	—	—	8 900	...
Bolivia					
Ore (c)	44 543	41 352	36 868	33 941	35 572
Chile					
Concentrates	6 851	13 370	29 385	36 765	27 582
Peru					
Concentrates	654 498	797 615	799 076	746 680	860 706
Unwrought (a)	132 603	151 310	108 984	113 760	108 514
Burma (e)					
Concentrates	6 402	7 419	...	...	...
China					
Unwrought (a)	10 181	2 051	1 454	2 368	56 768
Hong Kong					
Unwrought (a) (Re-exports)	1 954	2 714	3 436	4 495	31 244
Indonesia					
Scrap	511	400	682	599	2 478
Iran (d)					
Ore	15 700	28 890	31 900	...	...
Japan					
Unwrought	40 767	49 217	45 191	33 427	23 382
Unwrought alloys	2 546	6 042	4 276	1 814	1 580
Scrap	938	618	1 823	1 436	1 880
Korea, Dem. P.R. of					
Ores & concentrates (b)	* 60 200	* 17 100	* 19 200	* 11 800	* 11 000
Unwrought (a)(b)	* 29 400	* 21 600	* 20 200	* 34 600	* 41 700

Exports of Zinc

Country	1982	1983	1984	1985	1986
Korea, Republic of					
Unwrought (a)	6 250	0	40	533	1 720
Malaysia					
Scrap	492	762	661	690	...
Philippines					
Concentrates	3 989	4 590	5 258	4 487	3 404
Scrap	115	171	120	179	304
Saudi Arabia					
Scrap	—	2 811	5 413	9 170	11 132
Singapore					
Unwrought	4 139	3 927	4 685	2 955	3 584
of which: Re-exports	4 085	3 599	4 362	2 535	3 231
Scrap	886	1 050	758	662	650
Australia					
Ores & concentrates	569 054	767 437	840 271	836 324	876 156
Unwrought	231 682	232 651	220 953	214 549	217 422
Scrap	...	1 567	991	881	1 226
New Zealand (f)					
Scrap	796	457	755	521	707

Note: In this table the term 'unwrought' zinc corresponds to item 686.1 of the Standard International Trade Classification (Revision 2) and comprises blocks, pigs, slabs, etc

- (a) Including alloys
- (b) BGS estimates, based on known imports into certain countries
- (c) Zn content
- (d) Years ended 20 March following that stated
- (e) Years ended 31 March following that stated
- (f) Years ended 30 June of that stated

Imports of Zinc

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Ores & concentrates	166 084	167 171	196 100	185 406	201 098
Unwrought	119 945	115 160	116 308	130 705	101 659
Unwrought alloys	8 723	7 931	4 685	4 763	4 123
Scrap	2 065	1 817	2 237	996	2 651
Belgium-Luxembourg					
Ore	422 736	572 584	577 076	568 469	520 277
Unwrought (a)	42 604	53 148	49 352	51 546	49 090
Scrap	7 150	10 978	9 159	10 081	7 310
Denmark					
Unwrought	10 181	9 136	10 640	12 369	11 889
Unwrought alloys	1 970	3 155	2 664	2 338	2 827
Scrap	73	92	248	52	86
France					
Ore	476 239	583 938	558 386	540 116	513 511
Unwrought	58 406	55 306	64 881	61 543	64 107
Unwrought alloys	20 398	24 038	25 008	27 691	34 701
Scrap	5 433	7 154	6 345	5 589	7 529
Germany, Federal Republic of					
Ore	556 903	542 406	594 353	592 709	620 810
Unwrought	145 757	150 003	167 807	156 436	161 687
Unwrought alloys	10 619	11 960	11 648	11 377	12 528
Scrap	16 552	17 565	18 875	19 823	15 514
Greece					
Unwrought (a)	14 250	12 793	13 412	17 344	16 764
Irish Republic					
Unwrought (a)	1 814	1 939	1 442	1 298	1 359
Scrap	251	184	310	152	57
Italy					
Ore	234 872	201 564	291 425	395 978	443 572
Unwrought	70 668	84 207	90 946	63 325	54 548
Unwrought alloys	8 650	11 509	14 360	15 025	14 017
Scrap	6 908	11 001	13 073	10 563	8 237
Netherlands					
Ore	452 439	381 329	422 732	444 706	396 439
Unwrought	18 459	18 028	20 162	21 332	24 960
Unwrought alloys	697	498	515	897	1 517
Scrap	10 401	13 074	13 764	12 290	11 686
Portugal					
Unwrought (a)	10 774	10 682	9 385	10 999	11 143
Scrap	174	397	1 030	2 178	2 199
Spain					
Ore	69 449	81 454	72 157	34 951	29 238
Unwrought (a)	3 810	3 844	230	1 731	7 201
Scrap	296	96	564	250	1 323
Austria					
Ore	9 323	6 649	11 804	10 793	10 133
Unwrought	4 114	6 139	9 626	8 686	11 433
Scrap	291	265	321	198	68
Bulgaria					
Ore (i)	* 48 900	* 27 900	* 31 600	* 38 900	* 35 900
Czechoslovakia					
Unwrought (a)	57 000	56 000	59 000	58 000	61 000
Finland					
Ore	207 835	205 579	167 309	183 143	189 686
Unwrought (a)	462	1 188	105	103	79
German Democratic Republic					
Ore (i)	* 63 300	* 73 500	* 73 600	* 77 300	* 67 400
Unwrought (a)(i)	* 27 700	* 19 500	* 19 000	* 21 900	* 20 500
Hungary					
Unwrought (g)	19 291	26 904	27 995	20 543	28 167
Iceland					
Unwrought (a)	89	73	63	75	71
Malta					
Unwrought (a)	139	105	140	134	145
Norway					
Ore	93 619	87 894	115 477	104 461	110 468
Unwrought (a)	1 123	877	928	819	377
Scrap	4 540	3 966	5 278	5 551	5 900

Imports of Zinc

Country	1982	1983	1984	1985	1986
Poland					
Unwrought	5 417	5 787	4 615	5 254	2 226
Soviet Union					
Ore (i)	* 61 900	* 82 500	* 98 000	* 82 900	* 107 600
Unwrought (a)(i)	* 44 100	* 29 500	* 25 300	* 29 100	* 16 600
Sweden					
Unwrought	33 138	32 650	35 538	32 269	32 818
Unwrought alloys	2 654	3 384	2 780	3 035	3 125
Switzerland					
Unwrought	18 243	20 330	21 441	26 363	30 186
Scrap	41	342	466	24	141
Turkey					
Unwrought	5 974	7 910	18 374	27 573	24 064
Yugoslavia					
Concentrates	58 597	29 383	26 912	58 669	38 590
Unwrought (a)	13 864	27 894	24 682	39 281	18 773
Algeria					
Ores & concentrates	18 491	35 630	0	2 696	...
Egypt					
Unwrought	5 509	6 519	9 812	10 735	11 412
Ivory Coast					
Unwrought (b)	4 843	2 042	2 251	3 753	...
Kenya					
Unwrought (a)	3 460	5 013	6 327	7 699	8 237
Morocco					
Unwrought (a)	2 649	2 628	2 944	3 373	...
Nigeria					
Unwrought (a)	12 473	...	3 204	4 965	1 211
South Africa					
Unwrought	3 851	3 149	2 846	3 685	5 024
Scrap	520	242	417	263	...
Sudan					
Unwrought	408	106	1 529	...	...
Tanzania					
Unwrought (a)	1 927	3 230	2 900	3 528	...
Tunisia					
Unwrought (b)	1 266	1 503	1 562	1 674	2 271
Canada					
Ores & concentrates (b)(c)	29 492	78 325	40 454	17 119	36 483
Unwrought	1 305	9 964	6 755	1 816	7 441
Costa Rica					
Unwrought (a)	1 305	3 910	4 435	4 217	3 647
Dominican Republic					
Unwrought	1 724	1 822	1 047	...	...
Guatemala					
Unwrought (a)	3 221	2 948	2 905	2 352	...
Honduras					
Unwrought (a)	743	1 086	1 085	...	...
Jamaica					
Unwrought	935	918	1 043	548	629
Nicaragua					
Unwrought (a)	470	562	...	...	...
Panama					
Unwrought (a)	398	478	399	384	323
Trinidad & Tobago					
Unwrought	115	1	152	605	...

Imports of Zinc

tonnes

Country	1982	1983	1984	1985	1986
USA					
Ore (c)	49 344	62 210	95 569	91 392	197 735
Unwrought (a)	447 443	613 368	632 179	610 762	666 989
Scrap	2 653	3 900	6 259	3 247	4 521
Argentina					
Unwrought	567	86	3 735	60	...
Brazil					
Ores & concentrates	55 672	58 695	60 098	75 316	70 672
Unwrought (a)	7 462	3 598	5 268	28 584	22 152
Chile					
Unwrought (a)	2 434	4 252	8 800	...	6 900
Colombia					
Unwrought (a)	15 180	13 113	15 698	14 917	...
Uruguay					
Unwrought	959	847	1 167	1 014	1 497
Venezuela					
Unwrought	13 721	) 9 672	23 376	15 117	11 778
Unwrought alloys	1 579	)		3 024	5 400
China					
Unwrought (a)	108 084	228 708	230 178	268 628	116 945
Cyprus					
Unwrought (a)	280	4	206	13	78
Hong Kong					
Unwrought (a)	22 983	33 467	31 803	32 713	70 261
Scrap	39	46	29	178	539
India (d)					
Ores & concentrates	20 511	...	...	...	...
Unwrought	84 482	...	...	...	...
Unwrought alloys	18 426	...	...	...	...
Scrap	1 219	...	...	...	...
Indonesia					
Unwrought (a)	65 626	68 937	45 080	50 612	48 558
Scrap	167	432	120	495	392
Iran (e)					
Unwrought	13 528	13 195	8 627	...	...
Israel (h)					
Unwrought	3 735	5 588	4 643	4 941	6 201
Japan					
Ore	813 408	759 924	954 676	856 648	916 166
Unwrought	45 002	42 087	57 032	64 970	92 753
Unwrought alloys	1 136	3 031	3 765	5 579	8 691
Scrap	253	248	464	345	57
Jordan					
Unwrought	320	421	499	603	1 128
Korea, Republic of					
Ores & concentrates	79 176	114 399	103 172	162 946	179 136
Unwrought	1 568	5 417	18 703	11 399	117 492
Scrap	9 252	8 577	11 867	10 572	13 109
Malaysia					
Unwrought	8 501	11 387	10 755	10 243	...
Unwrought alloys	7 218	8 352	7 068	7 987	...
Pakistan (f)					
Unwrought	8 638	13 162	7 096	15 357	11 868
Philippines					
Unwrought (a)	21 704	24 669	17 933	13 000	18 897
Saudi Arabia					
Unwrought	1 861	—	1 424	6 177	8 762
Singapore					
Unwrought	20 409	15 986	12 290	9 372	11 763
Scrap	292	479	211	415	221
Sri Lanka					
Unwrought (a)	209	740	607	1 031	1 524
Syria					
Unwrought (b)	610	1 015	1 147	198	...

Imports of Zinc

Country	1982	1983	1984	1985	1986
Taiwan					
Unwrought	45 424	47 783	39 827	39 410	56 406
Unwrought alloys	—	17 376	11 758	15 013	22 594
Scrap	29 654	43 701	13 322	19 837	69 369
Thailand					
Unwrought	33 272	35 680	44 279	13 352	2 764
Unwrought alloys	586	578	687	616	1 931
New Zealand (f)					
Unwrought (a)	22 265	18 407	19 852	24 675	19 642

Note: In this table the term 'unwrought' zinc corresponds to item 686.1 of the Standard International Trade Classification (Revision 2) and comprises blocks, pigs, slabs, etc

- (a) Including alloys
- (b) Including scrap
- (c) Zn content
- (d) Years ended 31 March following that stated
- (e) Years ended 20 March following that stated
- (f) Years ended 30 June of that stated
- (g) Including semi-manufactures
- (h) Figures may be incomplete as value only given in Israeli trade return for imports from some countries
- (i) BGS estimates, based on known exports from certain countries

Production of Zirconium Minerals

tonnes

Country	1982	1983	1984	1985	1986
Soviet Union	* 81 600	* 81 600	* 81 600	* 86 000	* 86 000
South Africa (a)	105 464	162 281	153 123	160 533	* 160 000
USA	* 50 000	* 50 000	* 60 000	* 70 000	* 70 000
Brazil (b)	5 365	7 431	7 019	12 748	* 12 000
China	* 15 000	* 15 000	* 15 000	* 15 000	* 15 000
India	10 480	11 395	* 12 000	* 15 000	* 16 000
Malaysia	(c) 2 270	(c) 2 662	(c) 2 344	11 652	12 633
Sri Lanka	5 789	5 923	3 708	4 061	* 4 000
Thailand	196	199	290	1 292	1 705
Australia	462 476	382 005	457 599	501 440	451 824
World total	739 000	718 000	793 000	878 000	829 000

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

(a) Includes baddeleyite (ZrO₂)

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

(c) Exports

Exports of Zirconium

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom					
Concentrates	539	596	434	491	315
Metal	...	...	...	179	123
Belgium-Luxembourg					
Concentrates	83	30	163	102	0
France					
Concentrates	18	188	61	175	415
Germany, Federal Republic of					
Concentrates	16 379	14 461	18 885	15 051	15 621
Metal	64	86	102	88	104
Italy					
Concentrates	5 305	5 094	5 112	5 073	8 137
Netherlands					
Concentrates	23 690	22 699	39 582	40 008	36 548
Spain					
Concentrates	23	50	307	...	110
Zirconium sand (a)	790	1 116	2 072	...	...
Sweden					
Metal	72	81	114	79	126
South Africa					
Concentrates	104 938	132 765	148 451	161 339	...
USA					
Concentrates	10 032	12 007	8 655	15 334	15 868
Metal	811	718	745	1 122	1 111
of which: Re-exports	15	40	11	77	32
Malaysia					
Concentrates	2 270	2 662	2 344	2 499	4 015
Australia					
Concentrates	405 215	379 975	437 770	495 891	445 690

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

(a) Micronised for use as an opacifier

Imports of Zirconium

Country	1982	1983	1984	1985	1986
United Kingdom					
Concentrates	36 792	37 404	43 077	48 827	33 275
Metal	81	141	113	103	178
Belgium-Luxembourg					
Concentrates	6 039	3 818	4 476	5 954	3 112
Metal	169	135	151	174	242
France					
Concentrates	32 115	34 935	36 624	51 304	38 835
Metal	65	109	165	166	154
Germany, Federal Republic of					
Concentrates	67 648	68 622	75 486	78 929	83 002
Metal	399	355	327	489	395
Italy					
Concentrates	66 919	75 035	71 099	84 627	48 175
Netherlands					
Concentrates	23 149	26 076	45 424	40 856	38 464
Portugal					
Concentrates	...	1 554	1 623	1 858	1 891
Spain					
Concentrates	17 380	17 638	34 909	...	25 813
Bulgaria					
Concentrates (a)	* 2 600	* 1 800	* 1 300	* 1 700	* 1 000
Czechoslovakia					
Concentrates (a)	* 2 200	* 2 100	* 1 700	* 2 300	* 2 200
Finland					
Concentrates	86	946	1 046	2 495	3 540
Soviet Union					
Concentrates (a)	* 4 000	* 8 100	...	...	* 3 800
Sweden					
Concentrates	888	3 984	3 272	3 113	4 268
Metal	224	290	176	256	296
Turkey					
Concentrates	216	174	263	387	...
Algeria					
Concentrates	160	100	100	20	...
Canada					
Metal	243	191	227	239	225
Mexico					
Zirconium sand (b)	4 173	6 114	4 749	4 574	...
USA					
Concentrates	62 110	40 358	60 271	39 724	68 764
Metal	392	347	513	408	317
Argentina					
Concentrates	495	878	351	...	...
Brazil					
Concentrates	5 420	6 519	8 301	12 135	9 406
Zirconium sand (b)	1 754	1 004	—	—	...
Japan					
Concentrates	196 453	198 224	217 648	238 321	171 709
Metal	458	526	627	638	498
Korea, Republic of					
Concentrates	2 370	2 514	7 097	5 928	10 844
Malaysia					
Concentrates	147	299	425	518	...
Singapore					
Concentrates	2 931	—	—	—	—
Taiwan					
Zirconium sand (b)	2 079	1 509	1 911	1 053	792

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

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

(b) Micronised for use as an opacifier

Production of Beryl

tonnes

Country	1982	1983	1984	1985	1986
Portugal	12	3	10	2	—
Soviet Union	* 1 850	* 1 900	* 1 900	* 1 900	* 2 000
Madagascar	68	70	46	130	* 50
Mozambique	8	6	7	3	1
Rwanda	69	32	44	27	* 27
South Africa	58	21	1	5	3
Zimbabwe	52	48	19	38	103
USA	4 945	6 046	5 470	5 205	5 927
Argentina	6	24	25	20	12
Brazil (a)	1 063	943	1 021	878	823

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

(a) Exports

Production of Borates

tonnes

Country	1982	1983	1984	1985	1986
Finland	1 548	2 286	6 974	7 119	...
Soviet Union	* 200 000	* 200 000	* 200 000	* 200 000	* 200 000
Turkey	787 407	702 301	894 606	954 359	* 974 000
USA (a)	1 119 000	1 182 000	1 240 000	1 151 000	1 135 000
Argentina	123 492	113 123	142 880	127 277	185 826
Chile	291	1 301	3 985	4 773	6 440
Peru	* 14 000	* 10 000	* 10 000	* 10 000	* 10 000
China	* 27 000	* 27 000	* 27 000	* 27 000	* 27 000

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

(a) Sold or used by producers

Production of Germanium Metal

tonnes

Country	1982	1983	1984	1985	1986
Austria	4	6	5	5	6
Soviet Union	* 11	* 11	* 11	* 11	* 11
USA (a)	* 26	* 20	* 20	* 22	* 23
China	* 6	* 6	* 6	* 6	* 6
Japan	7	7	8	10	9

Note: 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) Includes production of secondary metal

Production of Primary Magnesium Metal

tonnes

Country	1982	1983	1984	1985	1986
France	9 723	11 075	12 972	13 873	13 361
Italy	9 943	9 799	8 184	7 862	7 245
Norway	35 922	29 844	49 301	54 704	56 522
Soviet Union	* 77 000	* 80 000	* 85 000	* 85 000	* 86 000
Yugoslavia	4 216	4 676	5 139	4 918	4 897
Canada	7 630	5 980	7 588	8 446	5 100
USA	92 712	104 717	144 430	135 728	125 639
Brazil	310	519	1 195	2 615	4 356
China	* 7 500	* 8 500	* 8 500	* 9 000	* 9 000
Japan	5 555	6 026	7 144	8 500	8 100

Production of Nepheline Syenite

tonnes

Country	1982	1983	1984	1985	1986
Norway	212 409	219 565	225 731	227 465	227 201
Soviet Union	* 2 500 000	* 2 500 000	* 2 500 000	* 2 500 000	* 2 500 000
Canada	550 480	523 249	520 640	467 186	467 000

Production of Perlite

tonnes

Country	1982	1983	1984	1985	1986
Greece	397 609	358 483	451 931	400 929	541 495
Italy	* 80 000	* 75 000	* 80 000	* 80 000	* 73 000
Czechoslovakia (a)	45 667	44 019	* 44 000	* 44 000	41 443
Hungary	89 975	92 530	94 360	94 460	109 360
Soviet Union	* 600 000	* 600 000	* 600 000	* 600 000	* 600 000
Turkey	19 229	32 909	64 920	60 146	104 509
Mexico	32 425	41 377	31 515	37 261	* 36 000
USA	565 000	552 000	592 000	615 000	667 000
Japan	* 75 000	* 75 000	* 75 000	* 75 000	* 75 000
Philippines	3 582	2 020	15 641	3 883	10 485
Australia	1 148	2 856	3 708	2 740	3 838
New Zealand	2 163	1 008	0	—	—

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

(a) Expanded

Production of Selenium Metal

tonnes

Country	1982	1983	1984	1985	1986
Belgium	* 60	* 60	* 65	* 65	* 70
Finland	10	11	26	19	6
Sweden	27	42	68	46	* 60
Yugoslavia	42	44	45	44	54
Zambia	23	18	21	13	22
Canada (a)	234	352	467	407	322
Mexico	29	24	44	42	40
USA	243	354	254	195	* 140
Chile	23	44	25	50	40
Peru	24	20	21	15	12
Japan	410	433	465	497	427
Australia	36	35	41	...	...

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

(a) Includes production of secondary metal

Production of Strontium Minerals

tonnes

Country	1982	1983	1984	1985	1986
United Kingdom	17 955	12 054	16 079	23 039	14 739
Italy	3 272	414	—	4 611	4 667
Spain	32 108	31 740	24 840	39 100	* 40 000
Turkey	* 15 000	39 000	* 35 000	* 35 000	* 35 000
Algeria	* 5 400	* 5 400	* 5 400	* 5 400	* 5 400
Mexico	31 676	37 506	31 991	32 320	* 32 000
Argentina (a)	776	673	400	1 248	960
Cyprus	—	—	—	1 400	7 365
Iran	30 000	21 000	23 000	20 000	22 000
Pakistan	465	135	564	688	997

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

(a) May contain unbeneficiated material

Production of Tellurium Metal

tonnes

Country	1982	1983	1984	1985	1986
Belgium	...	...	90	70	...
Canada (a)	17	24	14	17	12
USA	* 70	...	* 100	* 80	* 140
Peru	20	16	14	15	10
Japan	63	55	65	63	* 60

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

(a) Includes production of secondary metal

Mine Production of Uranium

tonnes (metal content)

Country	1982	1983	1984	1985	1986
Belgium	44	43	* 47	* 47	* 45
France	2 872	3 132	3 117	3 248	3 237
Germany, Federal Republic of	34	* 48	* 33	* 31	* 22
Portugal	100	93	103	105	109
Spain	155	175	191	201	208
Yugoslavia	—	—	40	* 50	* 50
Gabon	970	1 007	917	939	900
Namibia	3 777	3 713	3 800	3 400	3 500
Niger	4 257	3 429	3 273	3 181	3 113
South Africa	5 792	6 039	5 732	4 877	4 630
Canada	7 643	6 823	10 272	10 441	11 502
USA	10 300	7 900	5 700	4 300	4 900
Argentina	572	114	80	74	148
Brazil	243	194	117	85	26
India	99	103	100	100	100
Australia	4 422	3 211	4 324	3 206	4 154
World total	41 300	36 000	37 800	34 300	36 600
World total (U ₃ O ₈ equivalent)	48 700	42 500	44 600	40 500	43 200

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

Production of Vermiculite

tonnes

Country	1982	1983	1984	1985	1986
Egypt	280	300	325	488	495
Kenya	1 556	876	872	1 515	2 544
South Africa	182 641	153 034	173 759	184 070	193 657
Mexico	522	399	505	430	...
USA (a)	287 000	256 000	286 000	285 000	288 000
Argentina	3 354	3 951	4 451	4 887	5 207
Brazil (b)	14 059	9 877	9 157	9 291	* 13 000
India	2 089	2 476	1 934	1 805	6 861
Japan	* 17 000	* 17 000	* 17 000	* 17 000	* 17 000
Australia	429	56	423	615	657

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

(a) Sold or used by producers

(b) Includes beneficiated and directly shipped material

Production of Wollastonite

tonnes

Country	1982	1983	1984	1985	1986
Finland	14 962	15 402	14 669	16 917	16 795
Mexico	15 599	10 784	9 251	13 512	...
USA	* 86 000	* 83 000	* 96 000	* 96 000	* 100 000
India	20 724	16 857	27 004	26 040	23 770

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

APPENDIX

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

Albania Exports

	tonnes				
Importing Countries	1982	1983	1984	1985	1986
France	5 250	5 425	8 665	3 960	2 028
Germany, Federal Republic of	52 936	77 850	96 831	84 236	23 022
Greece	-	4 837	16 845	14 703	38 764
Italy	88 192	120 233	140 944	92 936	63 840
Spain	15 270	26 000	73 279	38 780	43 419
Czechoslovakia	26 000	25 000	11 000	17 000	* 15 000
Norway	22 790	8 754	-	-	-
Poland	31 021	* 20 000	10 028	5 312	5 143
Sweden	* 30 000	* 100 000	* 140 000	* 82 000	* 82 000
Yugoslavia	109 472	144 631	131 174	136 870	152 114
USA	4 016	6 000	-	* 17 200	-
China	* 120 000	* 100 000	* 100 000		
Japan	38 225	76 563	58 251	94 123	37 659
Total	543 172	715 293	787 017	587 120	462 989

Ferro-chrome

Albania Exports

tonnes

Importing Countries	1982	1983	1984	1985	1986
United Kingdom	-	-	60	-	-
Belgium-Luxembourg	4 196	5 654	3 538	1 521	5 935
France	2 366	1 457	717	24	703
Germany, Federal Republic of	5 261	1 529	676	44	11 213
Italy	-	2 746	2 172	850	2 177
Netherlands	6 346	1 000	4 309	1 589	13 561
Spain	5 023	2 440	3 984	1 312	2 318
Austria	102	19	800	-	250
Finland	-	-	998	-	-
Sweden	2 358	7 569	9 116	3 209	1 416
USA	-	3 521	-	-	-
Total	25 652	25 935	26 370	8 549	37 573

Pyrites (unroasted)

Albania Exports

tonnes

Importing Countries	1982	1983	1984	1985	1986
Italy	6 048	48 294	27 315	17 854	5 852
Hungary	-	-	4 174	6 738	14 500
Turkey	28 333	11 209	-	-	-
Yugoslavia	200	-	-	-	4 500
Total	34 581	59 503	31 489	24 592	24 852

Albania Imports

					tonnes
Exporting Countries	1982	1983	1984	1985	1986
Greece	-	-	-	16	
Italy	120	260	56	-	-
Yugoslavia	2 486	1 705	1 643	1 483	1 526
Total	2 606	1 965	1 699	1 499	1 526

Coal

Albania Imports

					tonnes
Exporting Countries	1982	1983	1984	1985	1986
Germany, Federal Republic of	78 473	141 502	22 842	1 260	-
Netherlands	5 828	-	-	-	-
Poland	-		68 000	63 000	52 000
USA	223 780	46 890	179 718	210 838	86 328
Total	308 081	188 392	270 560	275 098	138 328

Fluorspar

Albania Imports

tonnes

Exporting Countries	1982	1983	1984	1985	1986
France	* 1 000	1 089	-	670	962
Italy	608	-	300	-	-
Total	1 608	1 089	300	670	962

Iron ore

Albania Imports

tonnes

Exporting Countries	1982	1983	1984	1985	1986
Italy	-	-	40	-	-
Algeria	61 908	63 745	29 000	-	-
Morocco	97 012	109 144	42 062	3 000	-
Total	158 920	172 889	71 102	3 000	-

Albania Imports

					tonnes
Exporting Countries	1982	1983	1984	1985	1986
France	-	-	-	14	-
Bulgaria	216	200	-	311	73
Yugoslavia	1 828	1 130	1 557	1 994	2 788
Total	2 044	1 330	1 557	2 319	2 861

Talc

Albania Imports

					tonnes
Exporting Countries	1982	1983	1984	1985	1986
Italy	103	-	86	-	-
Turkey	* 500	-	-	-	-
Yugoslavia	900	940	-	-	-
Total	1 503	940	86	-	-

Unwrought aluminium & alloys

Bulgaria Exports

tonnes

Importing Countries	1982	1983	1984	1985	1986
United Kingdom	-	-	-	-	214
Italy	-	671	686	652	806
Netherlands	-	-	464	-	-
Austria	-	-	201	-	251
Yugoslavia	20	30	13	-	-
Dubai	-	-	-	36	-
Japan	3 574	5 367	3 632	3 271	2 787
Malaysia	-	22	-	-	-
Total	3 594	6 090	4 996	3 959	4 058

Cadmium metal

Bulgaria Exports

tonnes

Importing Countries	1982	1983	1984	1985	1986
Belgium-Luxembourg	-	-	10	5	-
Germany, Federal Republic of	35	-	-	-	-
Czechoslovakia	9	33	54	42	* 50
Total	44	33	64	47	* 50

Unwrought copper & alloys

Bulgaria Exports

	tonnes				
Importing Countries	1982	1983	1984	1985	1986
Belgium-Luxembourg	-	-	505	100	150
Germany, Federal Republic of	71	-	179	-	29
Greece	-	-	-	-	20
Italy	-	-	197	238	-
Sweden	-	-	-	8	-
Yugoslavia	-	-	329	253	294
Total	71	-	1 210	599	493

Unwrought lead & alloys

Bulgaria Exports

	tonnes				
Importing Countries	1982	1983	1984	1985	1986
Greece	4 358	1 141	-	-	
Hungary	-	-	697	-	500
Turkey	1 410	938	870	200	693
Yugoslavia	-	-	-	1 224	2 355
Total	5 768	2 079	1 567	1 424	3 548

Manganese ore

Bulgaria Exports

tonnes

Importing Countries	1982	1983	1984	1985	1986
Czechoslovakia	10 000	39 000	36 000	10 000	

Unwrought zinc & alloys

Bulgaria Exports

tonnes

Importing Countries	1982	1983	1984	1985	1986
United Kingdom	1 998	502	-	-	-
France	1 001	1 906	1 735	2 741	-
Germany, Federal Republic of	1 849	-	-	-	-
Greece	-	413	-	25	570
Italy	326	380	260	50	-
Netherlands	150	-	-	-	-
Czechoslovakia	6 000	10 000	11 000	10 000	* 10 000
Hungary	-	-	3 119	670	4 371
Sweden	-	205	25	-	-
Turkey	1 537	2 980	6 478	598	25
Yugoslavia	-	1 337	1 295	9 500	3 537
Mauritius	-	50			
Israel	29	-	-	-	-
Japan	-	100	-	-	-
Philippines	-	99	-	-	-
Syria	-	-	976	-	-
Thailand	-	20	-	-	-
Total	12 890	17 992	24 888	23 584	18 503

Unwrought aluminium & alloys

Bulgaria Imports

tonnes

Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	102	44	68	-	-
France	21	1	1	1	2
Germany, Federal Republic of	134	40	-	-	-
Netherlands	-	4	-	-	-
Spain	-	-	-	1 000	-
Austria	760	450	346	250	260
Hungary	3 424	9 826	10 315	4 996	4 455
Norway	-	-	696	-	98
Yugoslavia	2 550	4 475	6 507	13 305	9 981
Dubai	-	-	-	1 249	-
Total	6 991	14 840	17 933	20 801	14 796

Antimony metal

Bulgaria Imports

tonnes

Exporting Countries	1982	1983	1984	1985	1986
Netherlands	-	-	-	20	-
Turkey	-	-	125	-	-
Yugoslavia	25	-	-	-	-
Total	25	-	125	20	-

Unwrought copper & alloys

Bulgaria Imports

tonnes

Exporting Countries	1982	1983	1984	1985	1986
Belgium-Luxembourg	1 519	700	1 299	-	-
Italy	-	-	2	-	-
Poland	-	-	-	40	-
Chile	-	-	-	2 000	-
Total	1 519	700	1 301	2 040	-

Diamond

Bulgaria Imports

carats

Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	16 958	5 610	-	57 065	45 327
Belgium-Luxembourg	109 339	81 052	86 162	119 066	93 192
Germany, Federal Republic of	513	-	1 183	3 034	-
Total	126 810	86 662	87 345	179 165	138 519

Fluorspar

Bulgaria Imports

	tonnes				
Exporting Countries	1982	1983	1984	1985	1986
Germany, Federal Republic of	262	196	758	830	207
Italy	-	-	-	20	
Total	262	196	758	850	207

Graphite

Bulgaria Imports

	tonnes				
Exporting Countries	1982	1983	1984	1985	1986
Germany, Federal Republic of	380	359	1 968	1 178	540
Austria	100	-	-	867	873
Total	480	359	1 968	2 045	1 413

Kaolin

Bulgaria Imports

tonnes

Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	2 284	1 994	1 290	3 497	3 954
Germany, Federal Republic of	-	-	-	-	2
Italy	-	-	4	-	-
Hungary	-	-	-	5 907	-
India	-	-	20	-	-
Total	2 284	1 994	1 314	9 404	3 956

Lead ore

Bulgaria Imports

tonnes

Exporting Countries	1982	1983	1984	1985	1986
Greece	2 000	-	206	-	-
Italy	2 000	4 000	-	-	4 000
Turkey	1 000	1 000	-	-	-
Yugoslavia	-	-	1 857	-	384
Algeria	2 985	-	-	-	-
Morocco	3 240	-	-	-	-
Thailand	-	-	-	2 000	-
Total	11 225	5 000	2 063	2 000	4 384

Magnesite

Bulgaria Imports

	tonnes				
Exporting Countries	1982	1983	1984	1985	1986
Czechoslovakia	7 000	8 000	24 000	25 000	* 20 000
Yugoslavia	90	125	126	109	140
Total	7 090	8 125	24 126	25 109	20 140

Platinum & platinum metals

Bulgaria Imports

	kilograms				
Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	0	29	-	1	-
France	140	260	432	640	812
Germany, Federal Republic of	10	38	74	155	280
Italy	13	326	-	-	11
Switzerland	59	23	22	11	7
Total	222	676	528	807	1 110

Potassic salts

Bulgaria Imports

	tonnes				
Exporting Countries	1982	1983	1984	1985	1986
Soviet Union	245 100	132 500	144 100	163 000	188 900

Silver metal

Bulgaria Imports

kilograms

Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	-	-	-	933	-
Belgium-Luxembourg	-	-	-	10	-
France	-	-	-	26	-
Germany, Federal Republic of	-	926	1 219	1 005	1 935
Austria	-	314	-	175	325
Switzerland	133	433	152	-	-
Japan	-	-	-	-	17
Total	133	1 673	1 371	2 149	2 277

Pyrites (unroasted)

Bulgaria Imports

tonnes

Exporting Countries	1982	1983	1984	1985	1986
Soviet Union	257 000	262 000	249 000	238 000	210 000

Sulphur

Bulgaria Imports

		tonnes				
Exporting Countries	1982	1983	1984	1985	1986	
Germany, Federal Republic of	-	-	-	10	-	
Greece	-	-	-	1 100	-	
Poland	63 000	* 60 000	68 000	49 000	60 000	
USA	10 927	-	-	-	-	
Total	73 927	* 60 000	68 000	50 110	60 000	

Titanium minerals

Bulgaria Imports

		tonnes				
Exporting Countries	1982	1983	1984	1985	1986	
Germany, Federal Republic of	820	2 600	2 608	1 789	398	
Netherlands	2 768	1 100	500	530	2 240	
Australia	900	430	-	-	-	
Total	4 488	4 130	3 108	2 319	2 638	

Titanium oxides

Bulgaria Imports

tonnes

Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	-	-	-	-	226
Belgium-Luxembourg	-	20	55	76	251
France	-	-	-	139	758
Germany, Federal Republic of	1 160	1 075	1 287	2 516	606
Netherlands	-	-	9	220	520
Spain	250	220	464	450	122
Yugoslavia	-	10	40	-	-
USA	-	-	-	6	-
Japan	-	35	-	-	-
Total	1 410	1 360	1 855	3 407	2 483

Zinc ore

Bulgaria Imports

tonnes

Exporting Countries	1982	1983	1984	1985	1986
Greece	3 000	-	-	-	-
Sweden	-	-	5 250	-	-
Turkey	-	1 200	-	2 900	6 000
Yugoslavia	1 181	-	609	-	314
Canada	* 14 500	* 6 800	* 6 600	-	* 11 100
USA	14 134	9 934	* 5 500	-	-
Peru	16 132	7 000	13 596	36 004	18 516
Total	48 947	24 934	31 555	38 904	35 930

Bulgaria Imports

	tonnes				
Exporting Countries	1982	1983	1984	1985	1986
Germany, Federal Republic of	1 520	1 779	160	1 183	466
Italy	198	-	-	-	-
Netherlands	-	-	1 108	490	574
Australia	845	-	-	-	-
Total	2 563	1 779	1 268	1 673	1 040

Unwrought aluminium & alloys

Czechoslovakia Exports

tonnes

Importing Countries	1982	1983	1984	1985	1986
Belgium-Luxembourg	-	50	-	-	-
France	802	101	-	-	218
Germany, Federal Republic of	635	1 352	2 661	943	2 203
Italy	1 571	55	398	-	6
Netherlands	191	-	-	-	-
Poland	1 561		2 292	2 066	2 063
Sweden	-	22	100	44	-
Yugoslavia	80	250	22	-	-
USA	-	-	-	71	-
Japan	10 533	17 632	12 701	17 946	10 769
Total	15 373	19 462	18 174	21 070	15 259

Barytes

Czechoslovakia Exports

tonnes

Importing Countries	1982	1983	1984	1985	1986
Belgium-Luxembourg	-	-	-	-	25
Austria	2 218	1 994	2 030	2 003	1 441
Yugoslavia	390	-	-	-	-
Total	2 608	1 994	2 030	2 003	1 466

Diatomite

Czechoslovakia Exports

tonnes

Importing Countries	1982	1983	1984	1985	1986
Austria	2 058	2 372	3 062	4 050	4 841
Syria	-	-	-	189	
Total	2 058	2 372	3 062	4 239	4 841

Graphite

Czechoslovakia Exports

tonnes

Importing Countries	1982	1983	1984	1985	1986
Greece	100	40	20	22	20
Italy	-	-	1	-	-
Poland	1 000	* 1 000	1 500	1 724	1 427
Yugoslavia	858	2 000	1 245	1 328	1 391
Total	1 958	3 040	2 766	3 074	2 838

Ferro-chrome

Czechoslovakia Exports

tonnes

Importing Countries	1982	1983	1984	1985	1986
United Kingdom	580	* 300	603	-	-
Belgium-Luxembourg	207	1 247	27	910	-
Denmark	-	2	-	-	-
France	-	161	-	-	-
Germany, Federal Republic of	381	108	496	1 261	422
Italy	310	240	23	-	-
Portugal	-	-	-	8	-
Austria	4 554	3 510	2 761	511	297
Sweden	305	-	-	97	-
Yugoslavia	-	-	-	-	17
Total	6 337	5 568	3 910	2 787	736

Czechoslovakia Exports

					tonnes
Importing Countries	1982	1983	1984	1985	1986
United Kingdom	1 661	2 201	1 493	2 011	1 004
Germany, Federal Republic of	10 441	10 908	9 787	11 822	10 531
Italy	1 804	2 145	1 246	1 229	1 805
Netherlands	277	399	-	-	-
Austria	76	-	-	-	-
Hungary	-	-	-	-	3 680
Sweden	-	-	-	360	1 854
Colombia	10				
Total	14 269	15 653	12 526	15 422	18 874

Other ferro-alloys

Czechoslovakia Exports

					tonnes
Importing Countries	1982	1983	1984	1985	1986
Denmark	-	2	-	-	-
France	-	-	-	28	-
Germany, Federal Republic of	-	189	1 267	814	739
Italy	46	108	90	144	-
Austria	1 380	3 659	3 445	4 150	3 512
Hungary	-	-	-	1 358	552
Sweden	-	46	12	-	-
Switzerland	-	55	-	-	-
Kenya	12	-	-		
Peru	-	-	2	-	-
Thailand	-	-	37	-	-
Total	1 438	4 059	4 853	6 494	4 803

Iron & steel, scrap

Czechoslovakia Exports

tonnes

Importing Countries	1982	1983	1984	1985	1986
United Kingdom	-	-	-	-	3
France	-	-	-	59	-
Germany, Federal Republic of	9 641	12 186	14 902	15 094	22 298
Italy	67 240	71 367	95 700	84 363	40 507
Netherlands	276	-	-	13	-
Austria	16 885	32 015	47 784	32 549	26 495
Poland	-	-	1 857	-	-
Switzerland	-	-	203	-	333
Yugoslavia	1 712	8 820	25 119	8 070	11 126
India	1 280	-	-	-	-
Pakistan	209	-	-	-	-
Syria	-	-	1	-	-
Total	97 243	124 388	185 566	140 148	100 762

Lead ore

Czechoslovakia Exports

tonnes

Importing Countries	1982	1983	1984	1985	1986
Germany, Federal Republic of	5 664	5 692	5 757	5 943	6 141

Czechoslovakia Exports

	tonnes				
Importing Countries	1982	1983	1984	1985	1986
United Kingdom	20	50	65	66	15
Denmark	24	21	20	24	17
France	-	2	15	7	23
Germany, Federal Republic of	-	1	90	74	-
Irish Republic	-	10	9	-	-
Italy	60	85	43	50	-
Netherlands	-	34	52	36	83
Yugoslavia	28 318	24 715	16 684	9 225	3 479
Argentina	10	2	2	2	
Brazil	31	49	-	-	
Hong Kong	-	-	-	-	5
Pakistan	51	32	17	17	13
Total	28 514	25 001	16 997	9 501	3 635
				Other potassic chemicals	
Italy	36	-	22	-	-
Sweden	-	-	80	100	-
Turkey	-	-	-	25	
Total	36	-	102	125	-
Total potassic chemicals	28 550	25 001	17 099	9 626	3 635

Sillimanite minerals

Czechoslovakia Exports

	tonnes				
Importing Countries	1982	1983	1984	1985	1986
Greece	-	-	-	20	
Austria	17 843	14 617	14 125	16 351	18 490
Total	17 843	14 617	14 125	16 371	18 490

Talc

Czechoslovakia Exports

	tonnes				
Importing Countries	1982	1983	1984	1985	1986
Portugal	-	-	-	-	23
Poland	6 670	* 6 000	7 080	6 489	6 555
Yugoslavia	145	170	120	60	212
Total	6 815	6 170	7 200	6 549	6 790

Czechoslovakia Exports

					tonnes
Importing Countries	1982	1983	1984	1985	1986
United Kingdom	360	363	497	297	467
France	306	360	200	222	260
Germany, Federal Republic of	460	1 036	674	632	986
Italy	753	1 001	1 041	720	963
Austria	-	22	20	115	45
Sweden	240	80	-	40	-
Turkey	345	460	30	190	160
Yugoslavia	100	390	220	380	400
Algeria	-	-	29	11	
Burkina	4				
Egypt	-	-	52		
Total	2 568	3 712	2 763	2 607	3 281

Zinc ore

Czechoslovakia Exports

					tonnes
Importing Countries	1982	1983	1984	1985	1986
Belgium-Luxembourg	1 864	-	-	-	-
Germany, Federal Republic of	808	1 874	1 725	-	-
Austria	1 216	-	672	-	-
Yugoslavia	8 706	12 747	12 044	15 651	14 167
Saudi Arabia	90	317	105	-	-
Total	12 684	14 938	14 546	15 651	14 167

Alumina

Czechoslovakia Imports

	tonnes				
Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	10	23	14	5	9
France	71	67	17	79	22
Germany, Federal Republic of	74	26	131	124	108
Hungary	16 198	15 629	17 446	16 546	15 061
Yugoslavia	4 021	7 523	10 462	8 085	10 209
Japan	1	1	3	3	3
Total	20 375	23 269	28 073	24 842	25 412

Diamond

Czechoslovakia Imports

	carats				
Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	101 730	30 205	8 520	5 006	-
Belgium-Luxembourg	-	-	95 019	47 851	55 598
India	169				
Total	101 899	30 205	103 539	52 857	55 598

Diatomite

Czechoslovakia Imports

						tonnes
Exporting Countries	1982	1983	1984	1985	1986	
United Kingdom	10	-	-	-	-	-
Belgium-Luxembourg	133	-	-	-	-	0
France	-	-	-	492	-	332
Germany, Federal Republic of	-	-	-	19	-	-
Italy	-	100	-	-	-	-
Austria	213	203	296	158	-	197
Iceland	532	2 151	2 161	2 209	*	2 000
Total	888	2 454	2 457	2 878		2 529

Graphite

Czechoslovakia Imports

						tonnes
Exporting Countries	1982	1983	1984	1985	1986	
Germany, Federal Republic of	179	226	169	176	-	109
Italy	125	8	-	6	-	-
Austria	100	-	-	-	-	-
Japan	126	288	162	125	-	248
Total	530	522	331	307		357

Ferro-chrome & silico-chrome

Czechoslovakia Imports

	tonnes				
Exporting Countries	1982	1983	1984	1985	1986
Germany, Federal Republic of	1 135	1 207	1 037	2 627	382
Italy	-	-	-	542	528
Sweden	-	-	164	-	-
Total	1 135	1 207	1 201	3 169	910

Ferro-titanium & silico-titanium

Czechoslovakia Imports

	tonnes				
Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	706	1 186	636	1 059	524
Belgium-Luxembourg	473	-	-	-	7
France	80	100	94	-	-
Germany, Federal Republic of	261	-	100	156	-
Italy	-	-	-	16	-
Netherlands	-	-	-	-	178
Sweden	127	20	-	-	-
Total	1 647	1 306	830	1 231	709

Czechoslovakia Imports

					tonnes
Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	970	-	-	-	-
Germany, Federal Republic of	45 455	40 385	32 209	37 002	39 563
Austria	-	-	484	1 670	626
Soviet Union	27 300	116 000	51 600	5 200	3 000
Yugoslavia	-	-	46	-	16
Total	73 725	156 385	84 339	43 872	43 205

Kaolin

Czechoslovakia Imports

					tonnes
Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	2 027	2 301	1 968	1 426	1 491
France	-	50	40	40	-
Germany, Federal Republic of	-	-	19	14	-
Italy	-	13	-	-	-
Netherlands	-	78	27	-	-
Hungary	4 608	4 707	5 280	6 609	6 172
Yugoslavia	-	-	5	-	-
Total	6 635	7 149	7 339	8 089	7 663

Mercury

Czechoslovakia Imports

kilograms

Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	-	-	6	-	-
Italy	1 000	-	-	-	-
Netherlands	-	34 000	9 000	-	-
Turkey	103 500	-	-	-	-
Algeria	-	8 452	17 250	8 625	* 10 000
Total	104 500	42 452	26 256	8 625	* 10 000

Molybdenum ores & concentrates

Czechoslovakia Imports

tonnes

Exporting Countries	1982	1983	1984	1985	1986
Belgium-Luxembourg	308	599	294	288	615
Germany, Federal Republic of	108	191	197	41	60
Netherlands	-	-	111	286	270
Total	416	790	602	615	945

Czechoslovakia Imports

kilograms

Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	5	5	9	127	49
Germany, Federal Republic of	32	24	13	115	186
Netherlands	-	10	-	-	-
Japan	-	-	-	8	-
Total	37	39	22	250	235

Salt

Czechoslovakia Imports

tonnes

Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	-	9	-	-	-
Belgium-Luxembourg	-	-	-	-	17
Germany, Federal Republic of	21 028	-	-	-	-
Italy	-	-	9	-	-
Austria	1 201	-	-	-	-
Poland	4 992	-	-	19 890	-
Soviet Union	150 037	120 339	120 340	120 065	150 320
Total	177 258	120 348	120 349	139 955	150 337

Silver metal

Czechoslovakia Imports

kilograms

Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	51	110	49	0	-
Belgium-Luxembourg	-	-	-	3 023	-
Germany, Federal Republic of	-	-	-	323	1 776
Italy	1	169	-	-	-
Netherlands	618	-	3 000	505	-
Spain	551	-	-	-	-
Poland	-	-	-	3 000	-
Switzerland	-	47	67	93	79
Yugoslavia	7 000	11 000	13 000	9 000	13
Japan	4	7	-	1	4
Total	8 225	11 333	16 116	15 945	1 872

Talc

Czechoslovakia Imports

tonnes

Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	80	-	38	30	-
Belgium-Luxembourg	-	412	417	422	421
Germany, Federal Republic of	-	68	124	-	145
Austria	76	199	364	967	913
Total	156	679	943	1 419	1 479

Titanium oxides

Czechoslovakia Imports

	tonnes				
Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	1 011	484	421	600	625
Belgium-Luxembourg	-	-	-	28	56
France	-	230	245	453	221
Germany, Federal Republic of	1 019	849	743	757	730
Netherlands	1 739	1 475	1 540	1 917	1 577
Yugoslavia	-	-	-	8	-
Total	3 769	3 038	2 949	3 763	3 209

Zirconium concentrates

Czechoslovakia Imports

	tonnes				
Exporting Countries	1982	1983	1984	1985	1986
Germany, Federal Republic of	2 156	2 145	1 577	2 209	1 908
Italy	-	-	120	98	322
Total	2 156	2 145	1 697	2 307	2 230

Unwrought aluminium & alloys

German Democratic Republic Exports

tonnes

Importing Countries	1982	1983	1984	1985	1986
United Kingdom	935	208	229	167	204
Belgium-Luxembourg	-	281	332	10	99
France	-	-	-	-	1 013
Germany, Federal Republic of	23 209	21 231	24 396	18 004	19 634
Italy	-	-	75	-	5
Netherlands	191	122	121	-	70
Spain	21	-	-	-	-
Austria	399	-	403	305	176
Poland	-	-	3 001	3 043	5 019
Sweden	397	-	-	-	-
Japan	1 445	1 518	1 863	1 421	2 003
Singapore	-	-	22	-	-
Total	26 597	23 360	30 442	22 950	28 223

Aluminium scrap

German Democratic Republic Exports

tonnes

Importing Countries	1982	1983	1984	1985	1986
United Kingdom	-	2 491	126	-	-
Belgium-Luxembourg	1 170	411	471	1 530	659
Denmark	8	214	45	1 100	544
France	2 204	2 127	974	769	567
Germany, Federal Republic of	* 3 000	* 3 000	* 3 000	* 3 000	* 3 000
Italy	478	1 104	60	-	18
Netherlands	3 014	2 974	1 865	2 679	2 543
Spain	22	-	-	78	37
Finland	-	261	-	-	-
Pakistan	-	-	30	55	-
Total	9 896	12 582	6 571	9 211	7 368

Barytes

German Democratic Republic Exports

tonnes

Importing Countries	1982	1983	1984	1985	1986
Belgium-Luxembourg	-	-	-	100	100
Germany, Federal Republic of	2 710	537	1 571	543	-
Yugoslavia					100
Total	2 710	537	1 571	643	200

Bromine

German Democratic Republic Exports

kilograms

Importing Countries	1982	1983	1984	1985	1986
France	365 000	330 000	288 000	333 800	356 800
Germany, Federal Republic of	154 300	155 700	198 200	824 500	955 300
Italy	-	-	83 000	180 000	-
Hungary	276 000	101 000	149 000	20 000	179 000
Total	795 300	586 700	718 200	1 358 300	1 491 100

Unwrought copper & alloys

German Democratic Republic Exports

tonnes

Importing Countries	1982	1983	1984	1985	1986
United Kingdom	449	219	325	381	192
Denmark	-	115	-	-	-
France	-	661	854	1 635	2 072
Germany, Federal Republic of	4 488	6 269	6 827	5 843	7 902
Netherlands	86	4 670	4 568	3 322	3 607
Portugal	-	-	-	21	
Spain	-	17	-	-	
Austria	-	50	-	-	791
Sweden	-	201	25	-	18
USA	-	-	-	-	7
Total	5 023	12 202	12 599	11 202	14 589

Fluorspar

German Democratic Republic Exports

tonnes

Importing Countries	1982	1983	1984	1985	1986
Belgium-Luxembourg	1 761	1 563	1 675	1 019	1 066
Denmark	-	418	444	383	299
Germany, Federal Republic of	14 229	15 501	17 599	15 679	16 316
Italy	567	2 939	4 218	3 317	-
Netherlands	-	-	-	-	9 157
Austria	5 677	7 786	5 981	5 816	1 102
Norway	7 993	8 071	7 022	7 211	* 7 000
Poland	9 884	* 9 000	6 103	5 268	5 454
Sweden	2 004	1 593	2 293	1 859	1 343
Yugoslavia	1 457	1 229	1 208	1 202	1 246
Total	43 572	48 100	46 543	41 754	42 983

German Democratic Republic Exports

tonnes

Importing Countries	1982	1983	1984	1985	1986
Belgium-Luxembourg	2 254	1 238	-	25	27
Denmark	1 429	408	-	-	-
France	711	-	-	-	-
Germany, Federal Republic of	478	1 957	5 021	-	-
Netherlands	3 600	990	-	-	-
Spain	-	20	-	-	-
Austria	6 065	-	-	-	-
Finland	74	7	12	-	-
Sweden	2 563	4 008	-	-	-
Total	17 174	8 628	5 033	25	27

Ferro-silicon

German Democratic Republic Exports

tonnes

Importing Countries	1982	1983	1984	1985	1986
Belgium-Luxembourg	-	841	122	-	98
France	784	3	227	-	-
Germany, Federal Republic of	5 247	7 111	6 314	5 904	7 550
Netherlands	-	1 394	302	-	-
Spain	200	-	-	-	-
Austria	980	702	-	-	-
Sweden	216	-	-	-	-
Switzerland	54	126	-	-	-
Turkey	-	-	297	-	-
Total	7 481	10 177	7 262	5 904	7 648

Other ferro-alloys

German Democratic Republic Exports

	tonnes				
Importing Countries	1982	1983	1984	1985	1986
United Kingdom	95	-	64	-	-
Belgium-Luxembourg	-	-	125	-	-
France	-	-	-	24	-
Germany, Federal Republic of	2 472	1 746	230	13	1 096
Austria	120	-	-	46	-
Finland	-	-	-	-	390
Sweden	41	9	-	-	-
Gabon	-	-	-	-	10
USA	-	-	-	* 310	-
Total	2 728	1 755	419	393	1 496

Iron & steel ingots, blooms, billets

German Democratic Republic Exports

	tonnes				
Importing Countries	1982	1983	1984	1985	1986
United Kingdom	191	541	-	8	290
Belgium-Luxembourg	35 413	21 348	15 699	14 339	20 150
Denmark	-	109	59	140	57
France	20 189	3 096	2 819	5 828	3 168
Germany, Federal Republic of	142 287	176 270	249 909	433 740	482 619
Italy	168 965	140 132	50 077	71 987	68 481
Netherlands	-	-	-	26	-
Portugal	5 561	-	-	-	-
Spain	91	-	-	2 754	4 299
Austria	909	1 918	580	841	451
Malta	-	998	549	-	-
Sweden	5 571	-	-	-	-
Switzerland	-	111	-	-	-
Turkey	-	30 250	2 799	2 704	6 322
Yugoslavia	5 316	2 710	1 355	2 689	2 579
Kenya	1 105	-	-	-	-
Nigeria	10 975	-	2 324	-	-
Ecuador	1 250	-	-	-	-
Bahrain	1 467	-	-	-	-
Bangladesh	969	-	-	-	-
Dubai	1 998	-	-	-	-
Hong Kong	-	-	10 002	-	-
Indonesia	5 000	14 117	-	-	-
Jordan	5 473	-	-	-	500
Philippines	295	-	-	-	-
Singapore	-	4 592	-	-	-
Total	413 025	396 192	336 172	535 056	588 916

Iron & steel, scrap

German Democratic Republic Exports

	tonnes				
Importing Countries	1982	1983	1984	1985	1986
Belgium-Luxembourg	-	853	-	4	24
Denmark	-	-	-	75	-
Germany, Federal Republic of	7 403	7 666	10 364	5 112	5 979
Greece	-	-	-	-	90
Italy	832	-	43	1 571	-
Netherlands	-	844	-	-	41
Spain	13 785	3 082	4 500	-	-
Sweden	-	-	-	-	1 688
Yugoslavia	110	202	245	343	249
Hong Kong	-	-	-	-	849
India	610	-	-	-	-
Japan	-	-	-	-	20
Thailand	-	1 052	2 305	16 533	15 063
Total	22 740	13 699	17 457	23 638	24 003

Sillimanite minerals

German Democratic Republic Exports

	tonnes				
Importing Countries	1982	1983	1984	1985	1986
Austria	832	551	795	1 449	1 027

German Democratic Republic Exports

	kilograms				
Importing Countries	1982	1983	1984	1985	1986
United Kingdom	325 159	199 334	281 457	289 726	451 772
Germany, Federal Republic of	1 102	866	1 874	1 171	663
Italy	-	-	779	-	-
Total	326 261	200 200	284 110	290 897	452 435

Alumina

German Democratic Republic Imports

	tonnes				
Exporting Countries	1982	1983	1984	1985	1986
France	10	-	16	12	24
Germany, Federal Republic of	75 699	73 894	74 629	70 657	76 203
Netherlands	174	60	86	7	-
Hungary	25 267	27 259	29 077	26 767	23 928
Japan	-	2	10	1	1
Total	101 150	101 215	103 818	97 444	100 156

Unwrought aluminium & alloys

German Democratic Republic Imports

					tonnes
Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	59	48	50	-	34
France	4 970	1 979	-	-	1 012
Germany, Federal Republic of	-	3 993	250	3 185	865
Netherlands	152	100	95	-	48
Austria	-	-	-	-	130
Hungary	7 327	9 891	16 987	8 089	8 625
Norway	-	-	-	38	-
Yugoslavia	32 050	35 094	37 619	31 291	23 280
Total	44 558	51 105	55 001	42 603	33 994

Antimony oxide

German Democratic Republic Imports

					tonnes
Exporting Countries	1982	1983	1984	1985	1986
France	253	220	224	111	54
Netherlands	-	-	1	-	-
Total	253	220	225	111	54

Bentonite

German Democratic Republic Imports

	tonnes				
Exporting Countries	1982	1983	1984	1985	1986
Germany, Federal Republic of	125	-	-	72	120
Bulgaria	-	4 141	7 020	7 001	6 640
Hungary	10 324	10 499	8 032	5 195	6 232
Total	10 449	14 640	15 052	12 268	12 992

Fuller's earth

German Democratic Republic Imports

	tonnes				
Exporting Countries	1982	1983	1984	1985	1986
Belgium-Luxembourg	-	-	20	-	-
Germany, Federal Republic of	519	870	860	736	1 434
Total	519	870	880	736	1 434

German Democratic Republic Imports

					tonnes
Exporting Countries	1982	1983	1984	1985	1986
Germany, Federal Republic of	44	15	81	-	-
Netherlands	-	-	25	-	-
Sweden	-	-	-	15	-
Japan	208	205	36	96	184
Total	252	220	142	111	184

German Democratic Republic Imports

					tonnes
Exporting Countries	1982	1983	1984	1985	1986
France	15	-	-	-	-
Netherlands	-	25	-	-	-
Finland	165	107	83	83	58
Sweden	1	-	-	-	-
Total	181	132	83	83	58

Copper ore

German Democratic Republic Imports

tonnes

Exporting Countries	1982	1983	1984	1985	1986
Spain	3 811	-	3 055		
Sweden	-	-	3 014	5 180	-
Morocco	-	3 772	6 157	5 480	-
Total	3 811	3 772	12 226	10 660	-

Unwrought copper & alloys

German Democratic Republic Imports

tonnes

Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	-	-	40	-	-
Belgium-Luxembourg	500	523	99	69	3 012
France	790	5 096	-	-	-
Germany, Federal Republic of	22 400	23 169	31 969	35 812	33 534
Italy	-	-	24	-	-
Netherlands	-	20	1 394	-	-
Austria	-	-	-	-	103
Finland	3 733	4 923	1 821	1 832	2 540
Poland	-	-	2 483	3 655	4 162
Sweden	23	75	26	-	-
Switzerland	-	25	-	-	-
Yugoslavia	1 687	3 338	1 320	1 781	1 770
Guatemala	-	19			
Chile	7 800	10 200	11 500	9 700	4 500
Total	36 933	47 388	50 676	52 849	49 621

German Democratic Republic Imports

						tonnes
Exporting Countries	1982	1983	1984	1985	1986	
United Kingdom	181	171	76	41	185	
Belgium-Luxembourg	386	658	374	239	962	
Denmark	73	86	123	126	353	
France	25	-	-	-	26	
Germany, Federal Republic of	* 20 000	* 20 000	* 20 000	* 20 000	* 20 000	
Irish Republic	103	165	85	-	-	
Italy	-	93	-	21	-	
Netherlands	452	691	550	702	1 406	
Austria	-	-	-	-	23	
Switzerland	509	473	395	709	1 018	
Jamaica	-	-	-	34	59	
Trinidad & Tobago	-	-	24			
Chile		3 001				
Total	21 729	25 338	21 627	21 872	24 032	

Diatomite

German Democratic Republic Imports

						tonnes
Exporting Countries	1982	1983	1984	1985	1986	
Denmark	8	-	-	-	-	
France	211	864	1 023	1 082	1 627	
Germany, Federal Republic of	638	559	255	-	-	
Iceland	890	210	256	-		
Total	1 747	1 633	1 534	1 082	1 627	

Feldspar

German Democratic Republic Imports

tonnes

Exporting Countries	1982	1983	1984	1985	1986
Norway	9 383	7 158	9 950	18 795	6 506
Sweden	5 200	6 950	7 070	3 000	4 100
Yugoslavia	40	2 544	1 722	886	-
Total	14 623	16 652	18 742	22 681	10 606

Unwrought lead & alloys

German Democratic Republic Imports

tonnes

Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	-	5	500	-	-
Belgium-Luxembourg	-	-	1 830	1 012	-
France	999	703	-	848	-
Germany, Federal Republic of	300	300	816	3 357	3 325
Italy	-	-	292	1 646	852
Sweden	-	1 997	702	-	7 361
Yugoslavia	2 608	-	-	-	-
Total	3 907	3 005	4 140	6 863	11 538

German Democratic Republic Imports

						tonnes
Exporting Countries	1982	1983	1984	1985	1986	
United Kingdom	784	1 822	303	186	389	
Belgium-Luxembourg	525	560	548	1 613	-	
Denmark	136	1 382	3 234	2 342	-	
Germany, Federal Republic of	* 1 500	* 1 500				
Netherlands	257	2	617	3 166	1 355	
Switzerland	-	-	210	316	-	
Australia	-	-	29	-		
Total	3 202	5 266	4 941	7 623	1 744	

Magnesite

German Democratic Republic Imports

						tonnes
Exporting Countries	1982	1983	1984	1985	1986	
Greece	700	-	900	-		
Austria	571	-	-	-	-	
Czechoslovakia	36 000	33 000	52 000	53 000	32 000	
Turkey	12 800	-	10 250	5 190	* 5 000	
Total	50 071	33 000	63 150	58 190	37 000	

Mercury

German Democratic Republic Imports

kilograms

Exporting Countries	1982	1983	1984	1985	1986
Germany, Federal Republic of	47 000	193 000	17 300	-	-
Netherlands	-	27 000	38 000	2 000	-
Spain	-	-	-	35 000	-
Algeria	182 850	100 602	277 725	338 100	* 300 000
Total	229 850	320 602	333 025	375 100	* 300 000

Platinum & platinum metals

German Democratic Republic Imports

kilograms

Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	4	-	10	13	37
Germany, Federal Republic of	981	490	525	1 890	2 139
USA	-	-	182	-	-
Japan	-	9	-	-	-
Total	985	499	717	1 903	2 176

German Democratic Republic Imports

kilograms

Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	51	13 218	2 700	290	4 372
France	-	4 997	-	-	-
Germany, Federal Republic of	452 730	284 192	437 058	482 893	574 234
Italy	-	-	-	-	666
Mexico	90 000	42 910			
Total	542 781	345 317	439 758	483 183	579 272

Sulphur

German Democratic Republic Imports

tonnes

Exporting Countries	1982	1983	1984	1985	1986
Italy	-	-	40	-	-
Poland	166 000	157 600	135 000	135 000	135 000
Total	166 000	157 600	135 040	135 000	135 000

Talc

German Democratic Republic Imports

tonnes

Exporting Countries	1982	1983	1984	1985	1986
Belgium-Luxembourg	-	-	20	4	6
Germany, Federal Republic of	1 410	580	1 280	1 535	189
Italy	20	-	-	-	-
Austria	1 377	617	345	963	695
Finland	1 955	326	-	-	-
Egypt			522	630	603
India	439	687	-		
Total	5 201	2 210	2 167	3 132	1 493

Titanium oxides

German Democratic Republic Imports

tonnes

Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	129	-	-	21	56
Belgium-Luxembourg	120	-	-	-	-
France	-	50	105	-	-
Germany, Federal Republic of	3 880	2 227	3 862	4 313	4 403
Spain	-	100	-	-	
Finland	3 460	3 602	3 915	3 090	2 446
Yugoslavia	11 388	11 173	12 704	12 707	13 925
USA	-	-	153	-	73
Total	18 977	17 152	20 739	20 131	20 903

German Democratic Republic Imports

					tonnes
Exporting Countries	1982	1983	1984	1985	1986
Germany, Federal Republic of	* 51 000	* 61 500	* 65 200	* 74 900	* 58 600
Sweden	2 000	3 846	8 400	2 400	8 764
USA	10 324	-	-	-	-
Peru	-	2 200	-	-	-
Australia	-	5 972	-	-	-
Total	63 324	73 518	73 600	77 300	67 364

Unwrought zinc & alloys

German Democratic Republic Imports

					tonnes
Exporting Countries	1982	1983	1984	1985	1986
Belgium-Luxembourg	1 260	-	200	-	501
France	2 997	400	1 000	-	-
Germany, Federal Republic of	12 718	2 716	4 291	15 787	12 850
Italy	-	-	667	1 614	592
Netherlands	3 468	-	1 000	-	-
Spain	-	3 098	999	-	-
Finland	-	2 825	4 500	-	1 300
Norway	550	-	-	-	50
Poland	-	-	-	500	-
Yugoslavia	6 675	10 487	6 378	4 042	5 209
Total	27 668	19 526	19 035	21 943	20 502

Gypsum

Romania Exports

	tonnes				
Importing Countries	1982	1983	1984	1985	1986
Hungary	19 905	15 100	16 872	12 225	12 283
Algeria	-	-	-	30	
Saudi Arabia	-	-	-	6 250	-
Syria	-	3	-	-	
Total	19 905	15 103	16 872	18 505	12 283

Iron & steel ingots, blooms, billets

Romania Exports

	tonnes				
Importing Countries	1982	1983	1984	1985	1986
United Kingdom	44	540	-	-	-
Germany, Federal Republic of	4 749	1 214	-	-	-
Turkey	1 483	286	21 094	7 152	2 418
Yugoslavia	12 080	11 489	1 807	1 539	10 262
Egypt				109	
USA	-	-	-	4 883	-
Jordan	-	5 975	-	-	-
Pakistan	203	-	-	-	
Syria	5	-	4	-	
Total	18 564	19 504	22 905	13 683	12 680

Romania Exports

					tonnes
Importing Countries	1982	1983	1984	1985	1986
Bulgaria	137 294	154 493	141 894	178 125	169 786
Hungary	472 566	432 982	416 861	449 733	464 345
Yugoslavia	178 702	132 611	171 452	222 016	238 110
Egypt					12
Nigeria	-	-	-	938	-
Total	788 562	720 086	730 207	850 812	872 253

Bauxite

Romania Imports

	tonnes				
Exporting Countries	1982	1983	1984	1985	1986
Greece	510 671	416 757	468 089	410 637	349 768
Hungary	-	-	-	-	34 872
Yugoslavia	69 831	117 848	201 109	274 564	225 646
Total	580 502	534 605	669 198	685 201	610 286

Alumina

Romania Imports

tonnes

Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	16	14	28	12	5
France	-	1	3	1	1
Germany, Federal Republic of	1 450	1 569	888	96	4 222
Greece	-	-	-	-	10 000
Netherlands	4 344	4 428	4 877	3 448	1 176
Hungary	5 861	3 127	2 025	11 591	11 755
Switzerland	-	4	2	6	-
Yugoslavia	-	4 507	12 713	26 004	15 000
Japan	-	-	5	-	5
Total	11 671	13 650	20 541	41 158	42 164

Asbestos

Romania Imports

tonnes

Exporting Countries	1982	1983	1984	1985	1986
Italy	9	6	-	-	-
Yugoslavia	* 100	-	-	-	-
Canada	2 437	1 406	816	727	54
Total	2 546	1 412	816	727	54

Barytes

Romania Imports

	tonnes				
Exporting Countries	1982	1983	1984	1985	1986
Bulgaria	64 105	55 141	45 587	41 308	52 166
Turkey	-	1 000	2 000	-	1 000
Yugoslavia	-	-	-	3 750	11 295
Thailand	3 800	-	-	-	-
Total	67 905	56 141	47 587	45 058	64 461

Chrome ore

Romania Imports

	tonnes				
Exporting Countries	1982	1983	1984	1985	1986
Germany, Federal Republic of	642	-	-	-	-
Finland	860	230	124	-	-
Turkey	41 707	62 135	42 126	-	47 373
Total	43 209	62 365	42 250	-	47 373

Unwrought copper & alloys

Romania Imports

					tonnes
Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	-	-	-	10	-
Belgium-Luxembourg	1 800	20	-	-	-
Germany, Federal Republic of	808	-	-	-	-
Italy	-	-	21	-	-
Spain	-	-	-	1 000	1 000
Poland	17 589	* 15 000	11 568	3 151	-
Turkey	-	-	-	500	2 963
Yugoslavia	593	-	-	-	-
Zambia	-	1 979	-	-	-
Chile	6 000	6 000	5 900	6 000	5 900
India	4				
Total	26 794	22 999	17 489	10 661	9 863

Diamond

Romania Imports

					carats
Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	284 445	435 907	332 171	222 069	194 484
Belgium-Luxembourg	-	-	189 374	165 083	182 239
Total	284 445	435 907	521 545	387 152	376 723

Diatomite

Romania Imports

	tonnes				
Exporting Countries	1982	1983	1984	1985	1986
Denmark	-	24	1	1	-
France	490	776	609	961	933
Germany, Federal Republic of	30	-	21	22	-
Austria	-	-	64	-	64
Iceland	1 518	139	89	-	
Total	2 038	939	784	984	997

Fluorspar

Romania Imports

	tonnes				
Exporting Countries	1982	1983	1984	1985	1986
Italy	2 545	-	4 844	12 585	2 200
Spain	3 373	7 543	-		2 019
Total	5 918	7 543	4 844	12 585	4 219

Kaolin

Romania Imports

tonnes

Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	8 700	4 063	4 301	4 293	4 818
France	3 200	804	-	-	-
Germany, Federal Republic of	1 529	1 508	59	15	22
Greece	1 660	-	-	-	-
Spain	1 000	-	800	-	-
Bulgaria	11 227	14 327	20 321	21 295	28 196
India	-	12	-	-	-
Total	27 316	20 714	25 481	25 603	33 036

Magnesite

Romania Imports

tonnes

Exporting Countries	1982	1983	1984	1985	1986
Belgium-Luxembourg	-	40	-	-	-
Greece	2 000	8 950	6 000	1 500	-
Austria	2 011	-	-	-	-
Czechoslovakia	20 000	20 000	39 000	44 000	24 000
Turkey	1 800	-	31 971	21 173	25 682
Yugoslavia	-	661	1 331	-	504
Total	25 811	29 651	78 302	66 673	50 186

Mercury

Romania Imports

kilograms

Exporting Countries	1982	1983	1984	1985	1986
Netherlands	2 000	143 000	-	-	3 000
Spain	-	-	114 000	17 000	
Algeria	-	-	139 725	196 650	* 200 000
Total	2 000	143 000	253 725	213 650	203 000

Platinum & platinum metals

Romania Imports

kilograms

Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	-	-	50	-	156
France	-	-	-	45	1
Germany, Federal Republic of	90	49	86	-	-
Netherlands	-	-	5	-	-
Total	90	49	141	45	157

Pyrites (unroasted)

Romania Imports

tonnes

Exporting Countries	1982	1983	1984	1985	1986
Yugoslavia	-	-	48 867	70 285	-

Sulphur

Romania Imports

					tonnes
Exporting Countries	1982	1983	1984	1985	1986
Germany, Federal Republic of	344	526	2 561		2 140
Greece	-	-	5 000		2 500
Poland	221 000	* 100 000	116 000		159 000
Canada	-	14 250	60 800		-
Mexico	24 902	17 850	-		-
USA	49 623	31 492	18 750		-
Japan	-	49	14		-
Total	295 869	164 167	203 125		163 640

Titanium minerals

Romania Imports

					tonnes
Exporting Countries	1982	1983	1984	1985	1986
Italy	-	298	-	-	-
Netherlands	2 240	2 361	4 500	6 425	4 975
Australia	8 499	-	-	-	-
Total	10 739	2 659	4 500	6 425	4 975

Titanium oxides

Romania Imports

tonnes

Exporting Countries	1982	1983	1984	1985	1986
United Kingdom	174	161	145	54	422
Belgium-Luxembourg	-	-	-	-	4
France	657	-	315	333	886
Germany, Federal Republic of	528	857	1 871	3 328	3 095
Spain	450	651	1 216	* 500	400
Austria	-	-	-	-	173
Yugoslavia	1 000	1 713	1 595	1 224	-
Japan	2 230	2 074	650	900	608
Total	5 039	5 456	5 792	6 339	5 588

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Natural Environment Research Council

Antimony Arsenic Asbestos Barytes Bauxite Bentonite Beryl Bismuth Borates Bromine Cadmium Chromium Coal Cobalt Copper Diamond Diatomite Feldspar Ferro-alloys Fluorspar Fuller's earth Germanium Gold Graphite Gypsum Iodine Iron ore Iron and steel Kaolin Lead Lithium Magnesite Magnesium Manganese Mercury Mica Molybdenum Natural gas Nepheline syenite Nickel Niobium Perlite Petroleum Phosphates Platinum Potash Pyrites Rare earths Salt Selenium Sillimanite Silver Strontium Sulphur Talc Tantulum Tellurium Tin Titanium Tungsten Uranium Vanadium Vermiculite Wollastonite Zinc Zirconium Alumina Aluminium Antimony Arsenic Asbestos Barytes Bauxite Be...