

THE MINERAL INDUSTRIES OF EUROPE AND CENTRAL EURASIA

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Central Eurasia, Eastern Europe, and Western Europe encompass three subregions that because of their divergent histories, as well as varied resource bases, perform different functions in the world's mineral economy. The Western European subregion was a large processor and consumer of minerals and metals, but not a significant mining region. The Eastern European subregion, which consists of formerly centrally planned economy countries, was only a modest mineral mining, processing, and consuming area. The Eastern European and Western European subregions were deficient in many nonfuel mineral raw material resources needed by their economies, and their mineral processing and manufacturing industries depended on imported mineral raw materials and mineral products. In the case of fuels, Western Europe had significant petroleum and natural gas resources, and Eastern Europe and Western Europe had adequate coal resources. Since the breakup of the Soviet Union, the Central Eurasian subregion was no longer a major mineral consuming region, but still remained one of the world's largest mineral mining and processing areas and was a major exporter of fuel and nonfuel mineral products to world markets.

Mine output of metals in Western Europe played a small role in world production, with mine output for all metals listed in table 1 accounting for less than 10% of world output in 1998. However, the area played a more significant role in world output in the extraction of some industrial minerals and mineral fuels, such as salt (23%), potash (20%), lignite (28%), and natural gas, (12%). In 1998, Western Europe remained a major world mineral processing and consuming region, accounting for a significant share of world production of such ferrous and nonferrous metals as primary zinc (26%), secondary zinc (31%), primary lead (21%), secondary lead (34%), crude steel (21%), pig iron (17%), primary aluminum (16%), secondary aluminum (28%), alumina (11%), primary copper (8%), and secondary copper (44%); and such industrial mineral products as hydraulic cement (12%), sulfur (11%), and nitrogen (10%). Germany remained Western Europe's dominant producer of most metals, a number of industrial minerals, and coal. Other Western European countries that were particularly large regional producers of a specific mineral commodity included Finland (mine output of chromite, mercury, and phosphate rock), Greece (bauxite), Sweden (mine output of lead and silver), Portugal (mine output of tin and tungsten), Austria (mine output of tungsten), and Norway and the United Kingdom (crude petroleum).

In 1998, the trend in mineral exploration in Western Europe continued to be for copper, gold, lead, and zinc, as well as for diamond exploration in the Scandinavian area. Sweden, which has had significant metal mining activity for at least 1,000 years,

was still relatively unexplored and was experiencing an exploration boom.

Eastern Europe comprises the Czech Republic, Hungary, Poland, and Slovakia (these countries also are referred to as part of Central Europe) and the Balkans (Albania, Bulgaria, Romania, and the successor states of the former Yugoslavia). Under central economic planning as members of the Soviet-based Council for Mutual Economic Assistance (CMEA), Eastern Europe, as a whole, developed mineral industries that, for the most part, were isolated from world markets. During that period, the region also was dependent to a great extent on the Soviet Union for many base metals, as well as for substantial amounts of coal, natural gas, and petroleum. Following the dissolution of the central economic planning system in the region, many mineral industries—mining, processing, and semimanufacturing—could not be economically sustained. With respect to mining in Eastern Europe, Poland appeared to be the only country to have commercial resources of world significance, which were coal, copper, lead, salt, silver, sulfur, and zinc. After an initial economic winnowing process in Eastern Europe, the surviving mineral industries increasingly were able to attract foreign investment.

By 1998, major minerals-oriented foreign investment centered on such industrial minerals industries in Central Europe as quarry products, cement plants, and construction materials. In Hungary and Poland, some foreign investment also was apparent in the base metals sector. In the Balkans, Bulgaria's copper and gold sectors continued to attract the interest of foreign investors. Exploration for gold continued in the Czech Republic, Hungary, and Slovakia.

Despite the large decline in production and consumption levels from those of the Soviet period, the former Soviet Union (FSU) subregion remained a major world mineral producing region and had increased its exports of a number of mineral commodities to world markets in comparison with that of the Soviet period. The FSU was a significant world producer of such nonferrous metals as mine output of mercury (31%), primary aluminum (15%), alumina (11%), mine output of tungsten (10%), and mine output of copper and refined copper (8% each) and of such precious metals as palladium (53%), platinum (15%), gold (9%), and silver (5%). With respect to ferrous metals, the FSU had a significant share of the world output of manganese ore (31%), mine output of nickel and refined nickel (22% each), chromite (14%), iron ore (13%), and pig iron (10%). This subregion also produced a significant share of the total world production of such selected industrial minerals and fuels as natural gas and potash (28% each), uranium (17%), nitrogen and sulfur (11% each), crude petroleum (10%), and phosphate rock (10%).

Although Kazakhstan, Ukraine, and Uzbekistan were important producers of a number of mineral commodities and many of the FSU countries were important producers of one or more mineral commodities, Russia, which had 75% of the territory of the FSU, was a significant producer of a broad range of mineral commodities. Russia's status as a world mineral producer in 1998 may be summarized as follows:

Asbestos.....	First
Natural gas.....	First
Nickel.....	First
Palladium.....	First
Titanium, sponge.....	First
Aluminum.....	Second
Mica.....	Second
Petroleum, crude.....	Second
Platinum.....	Second
Potash.....	Second
Antimony, mine output.....	Third
Boron.....	Third
Diamonds, gem and industrial.....	Third
Tungsten, mine output.....	Third
Beryl.....	Fourth
Cobalt, mine output.....	Fourth
Iron ore.....	Fourth
Magnesium, metal.....	Fourth
Phosphate rock.....	Fourth
Steel, crude.....	Fourth
Sulfur.....	Fourth
Copper, mine output.....	Fifth
Gold.....	Fifth

Russia also was one of the world's major exporters of a significant number of mineral commodities, which included aluminum, diamonds, gold, nickel, petroleum and petroleum products, platinum group metals, and titanium metal.

In 1998, mineral production in Central Eurasia, Eastern Europe, and Western Europe was mostly below the 1997 production level. The mineral economies of these three subregions were affected differently by global economic factors, which indicated the differences in their stages of economic development, in the development of their mineral industries, and in their dependencies on mineral trade. Furthermore, large disparities existed in mineral resource endowments and mineral production and processing capacities in countries within each of these three subregions, and factors that affected a subregion often were more dominant in one or several of the countries within that subregion.

After going through a period of economic recovery in 1997, the FSU was affected by a severe economic crisis in summer 1998 that started in Asia and quickly spread to Russia and then to other FSU countries. According to the World Bank, the Russian financial crisis dominated economic developments in the FSU. In August, the Russian Government sharply devalued the ruble and announced a moratorium on public debt. The Russian crisis severely worsened the external economic environment for many FSU countries, and the Russian currency devaluation put downward pressure on other FSU currencies (World Bank, 1999, Europe and Central Asia—The World Bank Annual Report 1999, accessed October 4, 1999, at URL <http://www.worldbank.org/html/extpb/annrep/eca.htm>).

For the majority of FSU countries, mineral exports were a large source of foreign currency earnings. In 1998, however, an unfavorable situation for the export of oil products from the FSU developed because of the drop in oil prices on the world market. Furthermore, the slowing of economic growth in Asian countries, which were large importers of metals from the FSU, was an important factor in the reduction of demand for FSU metals on the world market. Besides lowering the volume of exports, decreased demand also lowered commodity prices, which further diminished revenues from metal exports. Devaluation of currencies in the FSU made exports from this area more competitive, and a number of foreign governments took anti-dumping measures to limit exports of ferrous metals from some FSU countries.

Following the economic crisis, the Russian economy showed signs of improvement in the fourth quarter of 1998. The Russian and the other FSU Governments were able to avoid the worst-case scenarios of hyperinflation, precipitous falls in currency exchange rates, shortages and panic in the commodity markets, and social unrest. Nevertheless, the crisis exacerbated long-term problems and disparities that could not easily be dispelled. The budgets of most FSU countries still faced revenue shortfalls and problems of debt servicing, while real disposable incomes and investments were low.

The negative effects of the Asian and then FSU economic crises on the economies of the Western European subregion, and in particular the European Union (EU), were limited, because economic forces that were operating within the territory of the EU appeared to be the dominant factors. EU countries' mineral industries were affected by increased exports of ferrous metals and other mineral commodities from Eastern European and FSU countries, which resulted in a number of antidumping measures being initiated by the EU's European Commission. Still, the increasing importance of intra-EU trade and the successful start of the monetary union contributed to a favorable outlook in terms of macroeconomic activity, price stability, and public finances. Every EU country recorded a rise in production with the largest being Ireland (15%) and the lowest being the United Kingdom (1.2%). The decade-long downward trend in mineral production within the EU, however, continued. The EU countries' economies benefited from lower interest rates associated with the "flight to quality" as funds were reallocated from the troubled Asian region to more secure investments in Europe (Office for Official Publications of the European Communities, July 31, 1998, Dynamic EU trade with rest of world, Eurostat press release, accessed August 23, 1998, at URL <http://europa.eu.int/en/comm/eurostat/compres/en/5997/6605997a.htm>).

In 1998, the Asian and FSU financial crises and the social unrest and political uncertainties in the Balkans had a dampening effect on the Eastern European region as a whole. Mineral exports from this region, especially steel and steel products, which had found good markets in the far Asian regions in previous years, were reduced and often redirected to Western European countries. This resulted in investigatory actions by the EU's European Commission concerning allegations of steel and other mineral commodity dumping on the Western European market by many Eastern European countries.

TABLE 1
EUROPE AND CENTRAL EURASIA: PRODUCTION OF SELECTED MINERALS IN 1998 1/

(Thousand metric tons, unless otherwise specified)

Country	Metals															
	Iron and steel			Ferroalloying materials				Aluminum				Antimony, mine output (metric tons)	Copper (metal content)			
	Iron ore (metal content)	Pig iron	Crude steel (gross weight)	Chromite (gross weight)	Manganese ore (gross weight)	Nickel (metal content)		Bauxite	Alumina	Metal			Mine	Refined 2/		
					Mine	Plant	Primary			Secondary	Primary	Secondary			Primary	Secondary
Western Europe:																
European Union (EU):																
Austria	420	4,022	5,298	--	--	--	2	--	--	--	126	--	--	2	76	
1997-98 % change	(22)	15	2	--	--	--	--	--	--	--	142	--	--	--	3	
Belgium	--	8,730	11,617	--	--	--	--	--	--	--	--	--	--	185	183	
1997-98 % change	--	8	8	--	--	--	--	--	--	--	--	--	--	(9)	--	
Denmark-Greenland	--	--	824	--	--	--	--	--	--	--	14	--	--	--	--	
1997-98 % change	--	--	5	--	--	--	--	--	--	--	(3/)	--	--	--	--	
Finland	--	2,914	3,947	611	--	2	46	--	--	--	41	--	9	100	20	
1997-98 % change	--	17	20	--	--	(33)	18	--	--	--	8	--	--	--	25	
France	85	13,603	20,241	--	--	--	12	164	450	424	245	--	--	--	22	
1997-98 % change	(80)	1	2	--	--	--	9	(3/)	29	6	6	--	--	(3/)	(24)	
Germany	28	30,575	44,018	--	--	--	--	--	750	612	453	--	--	323	373	
1997-98 % change	--	(2)	(2)	--	--	--	--	--	--	7	5	--	--	9	(1)	
Greece	NA	--	1,109	12	3	17	15	2,000	600	146	--	--	--	--	--	
1997-98 % change	NA	--	9	140	50	(6)	(17)	(10)	(4/)	4	--	--	--	--	--	
Ireland	--	--	358	--	--	--	--	--	1,200	--	--	--	--	--	--	
1997-98 % change	--	--	6	--	--	--	--	--	(6)	--	--	--	--	--	--	
Italy	--	10,704	25,530	--	6	--	--	--	850	187	502	--	--	--	29	
1997-98 % change	--	(6)	(4/)	--	20	--	--	--	--	(1)	13	--	--	--	--	
Luxembourg	--	--	2,478	--	--	--	--	--	--	--	--	--	--	--	--	
1997-98 % change	--	--	(4)	--	--	--	--	--	--	--	--	--	--	--	--	
Netherlands	--	5,561	6,379	--	--	--	--	--	--	264	102	--	--	--	--	
1997-98 % change	--	(4)	(4)	--	--	--	--	--	--	14	(31)	--	--	--	--	
Portugal	7	365	854	--	--	--	--	--	--	--	3	--	114	--	--	
1997-98 % change	--	(15)	(1)	--	--	--	--	--	--	--	(3/)	--	7	--	--	
Spain	--	4,278	14,400	--	--	--	--	--	1,100	360	210	--	40	247	57	
1997-98 % change	--	9	6	--	--	--	--	--	(1)	(4/)	36	--	5	8	(10)	
Sweden	13,186	3,373	5,569	--	--	--	--	--	--	96	27	--	86	130	35	
1997-98 % change	(5)	10	8	--	--	--	--	--	--	(2)	50	--	(1)	44	30	
United Kingdom	(5/)	12,574	17,066	--	--	--	39	--	--	258	275	--	--	8	44	
1997-98 % change	--	(4)	(8)	--	--	--	5	--	--	4	7	--	--	(11)	(14)	
Total EU	13,726	96,699	159,688	623	9	19	114	2,164	4,950	2,347	1,998	--	249	995	839	
1997-98 % change	(86)	(1)	(4/)	4	(50)	(10)	16	(9)	(4/)	5	11	--	3	(3)	2	
European Free Trade Association (EFTA):																
Iceland	--	--	--	--	--	--	--	--	--	173	--	--	--	--	--	
1997-98 % change	--	--	--	--	--	--	--	--	--	66	--	--	--	--	--	
Norway	1,000	70	500	--	--	3	70	--	--	996	62	--	3	32	--	
1997-98 % change	52	--	(2)	--	--	50	11	--	--	2	5	--	(57)	(3)	--	
Switzerland	--	100	1,000	--	--	--	--	--	--	32	15	--	--	--	--	
1997-98 % change	--	--	--	--	--	--	--	--	--	(3)	88	--	--	--	--	
Total EFTA	1,000	170	1,500	--	--	3	70	--	--	1,201	77	--	3	32	--	
1997-98 % change	(9)	--	(1)	--	--	50	11	--	--	8	15	--	(57)	(3)	--	
Total Western Europe	14,726	96,869	161,188	623	9	22	184	2,164	4,950	3,548	2,075	--	252	1,027	839	
1997-98 % change	(10)	(1)	(4/)	4	(50)	(8)	14	(9)	(4/)	6	11	--	2	(3)	2	

See footnotes at end of table.

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	Iron ore (metal content)	Crude steel (gross weight)	Pig iron	Chromite (gross weight)	Manganese ore (gross weight)	Nickel (metal content)		Bauxite	Alumina	Metal			Mine	Refined 2/	
						Mine	Plant			Primary	Secondary	Primary		Secondary	
Eastern and Central Europe:															
Albania	--	10	15	100	--	--	--	45	--	--	--	--	1	1	--
1997-98 % change	--	--	(25)	(6)	--	--	--	4,400	--	--	--	--	--	--	--
Bosnia and Herzegovina	50	100	115	--	2	--	--	75	50	4	10	--	--	--	--
1997-98 % change	--	--	--	--	--	--	--	--	25	--	(4/)	--	--	--	--
Bulgaria	320	1,500	2,500	--	40	--	--	--	--	--	5	--	100	20	5
1997-98 % change	--	--	--	--	--	--	--	--	--	--	(3/)	--	(8)	--	--
Croatia	--	--	70	--	--	--	--	--	--	17	18	--	--	--	--
1997-98 % change	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--
Czech Republic	--	NA	6,500	--	--	--	--	--	--	--	45	--	--	--	--
1997-98 % change	--	NA	(4/)	--	--	--	--	--	--	--	(3/)	--	--	--	--
Hungary	--	1,200	1,900	--	30	--	--	750	76	34	65	--	--	11	--
1997-98 % change	--	5	4	--	(12)	--	--	1	--	3	(3/)	--	--	--	--
Macedonia	9	20	30	5	--	4	4	--	--	--	4	--	9	--	--
1997-98 % change	--	--	(67)	--	--	33	33	--	--	--	(3/)	--	29	--	--
Poland	--	7,000	11,500	--	--	--	(5/)	--	--	53	3	--	415	425	20
1997-98 % change	--	(4/)	(1)	--	--	--	--	--	--	4	(4/)	--	(12)	--	--
Romania	170	4,000	6,500	--	100	--	--	130	300	174	--	--	23	20	1
1997-98 % change	--	(12)	(3)	--	--	--	--	2	6	5	--	--	--	(9)	--
Serbia and Montenegro	31	980	1,100	--	--	2	2	110	70	66	5	--	80	60	56
1997-98 % change	(11)	8	12	--	--	(33)	(33)	(77)	(65)	(4/)	(3/)	--	(4)	--	4
Slovakia	220	3,000	3,000	--	--	--	--	--	100	117	17	--	(5/)	123	--
1997-98 % change	(8)	(9)	--	--	--	--	--	--	--	6	(3/)	--	--	392	--
Slovenia	--	--	400	--	--	--	--	--	100	71	2	--	--	--	--
1997-98 % change	--	--	--	--	--	--	--	--	567	(1)	(3/)	--	--	--	--
Total Eastern and Central Europe	800	17,810	33,630	105	172	6	6	1,110	696	536	174	--	628	660	82
1997-1998 % change	11	(26)	(3)	(35)	(22)	100	--	(22)	(2)	3	(4/)	--	(9)	17	3
Central Eurasia:															
Armenia	--	--	--	--	--	--	--	--	--	--	--	--	9	--	--
1997-98 % change	--	--	--	--	--	--	--	--	--	--	--	--	(4/)	--	--
Azerbaijan	NA	--	24	--	--	--	--	--	10	5	--	--	--	--	--
1997-98 % change	NA	--	(4)	--	--	--	--	--	--	(50)	--	--	--	--	--
Belarus	--	--	1,299	--	--	--	--	--	--	--	--	--	--	--	--
1997-98 % change	--	--	6	--	--	--	--	--	--	--	--	--	--	--	--
Estonia	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1997-98 % change	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Georgia	--	--	100	--	50	--	--	--	--	--	--	--	6	--	--
1997-98 % change	--	--	(4)	--	67	--	--	--	--	--	--	--	--	--	--
Kazakhstan	5,100	2,594	3,120	1,600	561	6	--	3,400	1,085	--	--	--	337	325	--
1997-98 % change	(32)	(14)	(20)	60	40	(40)	--	10	3	--	--	--	6	8	--
Kyrgyzstan	--	--	--	--	--	--	--	--	--	--	--	100	--	--	--
1997-98 % change	--	--	--	--	--	--	--	--	--	--	--	(92)	--	--	--
Latvia	--	--	450	--	--	--	--	--	--	--	--	--	--	--	--
1997-98 % change	--	--	50	--	--	--	--	--	--	--	--	--	--	--	--

See footnotes at end of table.

TABLE 1--Continued
EUROPE AND CENTRAL EURASIA: PRODUCTION OF SELECTED MINERALS IN 1998 1/

(Thousand metric tons, unless otherwise specified)

Country	Metals--Continued														
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	Iron ore (metal content)	Pig iron	Crude steel (gross weight)	Chromite (gross weight)	Manganese ore (gross weight)	Nickel (metal content)		Bauxite	Alumina	Metal			Mine	Refined 2/	
						Mine	Plant			Primary	Secondary	Primary		Secondary	
Central Eurasia--Continued:															
Lithuania	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1997-98 % change	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Moldova	--	--	718	--	--	--	--	--	--	--	--	--	--	--	--
1997-98 % change	--	--	182	--	--	--	--	--	--	--	--	--	--	--	--
Russia	39,700	36,377	43,822	130	3,044	250	230	3,450	2,465	3,005	--	4,000	515	565	60
1997-98 % change	2	(7)	(10)	(13)	(3/)	(4)	--	3	(15)	3	--	(33)	2	3	--
Tajikistan	--	--	--	--	--	--	--	--	206	196	--	1,200	--	--	--
1997-98 % change	--	--	--	--	--	--	--	--	--	(5)	--	--	--	--	--
Turkmenistan	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1997-98 % change	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ukraine	27,900	20,840	24,085	--	2,226	--	--	--	1,291	107	40	--	--	--	--
1997-98 % change	(4)	4	(6)	--	(27)	--	--	--	29	6	(4/)	--	--	--	--
Uzbekistan	--	--	344	--	--	--	--	--	--	--	3	--	73	75	5
1997-98 % change	--	--	(4)	--	--	--	--	--	--	--	(3/)	--	(9)	3	--
Total Central Eurasia	72,700	59,811	73,962	1,730	5,881	256	230	6,850	5,057	3,313	43	5,300	940	965	65
1997-1998 % change	(32)	(2)	(8)	(11)	69	(5)	--	6	16	3	(4/)	(37)	3	5	--
Total Europe and Central Eurasia	88,226	174,490	268,780	2,458	6,062	284	420	10,124	10,703	7,397	2,292	5,300	1,820	2,652	986
1997-1998 % change	(29)	(4)	(3)	(9)	63	(4)	6	(1)	6	4	10	(37)	(2)	4	2
Total United States	39,724	49,960	98,638	--	--	--	4	NA	5,592	3,713	3,442	242	1,859	2,109	336
Total world	560,991	578,198	780,718	12,689	18,708	1,143	1,048	121,899	46,768	22,623	7,473	139,847	12,197	12,198	1,898
Western Europe as a percent of world total	3	17	21	5	(4/)	2	18	2	11	16	28	--	2	8	44
Eastern and Central Europe as a percent of world total	(4/)	3	4	1	1	1	1	1	1	2	2	--	5	5	4
Central Eurasia as a percent of world total	13	10	9	14	31	22	22	6	11	15	1	4	8	8	3
Europe and Central Eurasia as a percent of world total	16	30	34	19	32	25	40	8	23	33	31	4	15	22	52

See footnotes at end of table.

TABLE 1--Continued
EUROPE AND CENTRAL EURASIA: PRODUCTION OF SELECTED MINERALS IN 1998 1/

(Thousand metric tons, unless otherwise specified)

Country	Metals--Continued													
	Gold, mine output (kilograms)	Lead		Mercury, mine output (metric tons)	Silver, mine output (metric tons)	Tin (metric tons)			Titanium, mine output 6/ (metric tons)	Tungsten, mine output (metric tons)	Zinc			
		Mine	Refined 2/			Mine	Smelter 2/				Mine	Smelter 2/		
			Primary				Secondary	Primary				Secondary	Primary	Secondary
Western Europe:														
European Union (EU):														
Austria	--	--	--	22	--	--	--	--	--	1,400	--	--	--	
1997-98 % change	--	--	--	--	--	--	--	--	--	--	--	--	--	
Belgium	--	--	93	27	--	--	--	2,500	--	--	--	250	--	
1997-98 % change	--	--	11	4	--	--	--	(17)	--	--	--	2	--	
Denmark-Greenland	--	--	--	--	--	--	--	100	--	--	--	--	--	
1997-98 % change	--	--	--	--	--	--	--	--	--	--	--	--	--	
Finland	3,000	--	--	--	80	32	--	--	--	--	30	176	--	
1997-98 % change	--	--	--	--	(11)	--	--	--	--	--	(3)	--	--	
France	4,500	--	91	215	--	2	--	--	--	--	--	321	--	
1997-98 % change	(21)	--	(21)	28	--	--	--	--	--	--	--	1	--	
Germany	--	--	140	194	--	--	100	--	--	--	--	270	91	
1997-98 % change	--	--	56	29	--	--	--	--	--	--	--	8	(7)	
Greece	--	18	--	--	--	45	--	150	--	--	21	--	--	
1997-98 % change	--	(5)	--	--	--	29	--	50	--	--	17	--	--	
Ireland	--	46	--	8	--	13	--	--	--	--	182	--	--	
1997-98 % change	--	2	--	(20)	--	--	--	--	--	--	(7)	--	--	
Italy	--	10	71	177	--	10	--	--	--	--	8	190	42	
1997-98 % change	--	--	(38)	86	--	--	--	--	--	--	(33)	(20)	35	
Luxembourg	--	--	--	--	--	--	--	--	--	--	--	--	--	
1997-98 % change	--	--	--	--	--	--	--	--	--	--	--	--	--	
Netherlands	--	--	--	13	--	--	--	--	--	--	--	219	--	
1997-98 % change	--	--	--	(48)	--	--	--	--	--	--	--	9	--	
Portugal	--	--	--	6	--	32	4,000	100	--	--	831	4	--	
1997-98 % change	--	--	--	(50)	--	(6)	--	--	--	(20)	--	--	--	
Spain	2,000	24	--	87	--	65	2	150	50	--	128	370	--	
1997-98 % change	(38)	(4/)	--	(1)	--	(2)	--	--	--	--	(26)	2	--	
Sweden	6,000	140	41	52	--	275	--	--	--	--	165	--	--	
1997-98 % change	(8)	40	(18)	16	--	(2)	--	--	--	--	10	--	--	
United Kingdom	--	2	185	165	--	--	376	--	100	--	--	100	--	
1997-98 % change	--	(4/)	(14)	(6)	--	--	(79)	--	--	--	--	(7)	--	
Total EU	15,500	240	621	966	80	474	4,378	350	2,900	--	2,231	534	1,900	133
1997-98 % change	(16)	18	(7)	18	(11)	(4/)	(25)	--	(13)	--	(8)	(8)	(6)	3
European Free Trade Association (EFTA):														
Iceland	--	--	--	--	--	--	--	--	--	--	--	--	--	
1997-98 % change	--	--	--	--	--	--	--	--	--	--	--	--	--	
Norway	--	3	--	--	--	--	--	50	590	--	8	138	--	
1997-98 % change	--	--	--	--	--	--	--	--	(21)	--	(53)	1	--	
Switzerland	--	--	--	8	--	--	--	--	--	--	--	--	--	
1997-98 % change	--	--	--	33	--	--	--	--	--	--	--	--	--	
Total EFTA	--	3	--	8	--	--	--	50	590	--	8	138	--	
1997-98 % change	--	--	--	33	--	--	--	--	(21)	--	(53)	1	--	
Total Western Europe	15,500	243	621	974	80	474	4,378	350	2,950	590	2,231	542	2,038	133
1997-98 % change	(16)	18	(7)	18	(11)	(4/)	(25)	--	(13)	(21)	(8)	(9)	(6)	3

See footnotes at end of table.

TABLE 1--Continued
EUROPE AND CENTRAL EURASIA: PRODUCTION OF SELECTED MINERALS IN 1998 1/

(Thousand metric tons, unless otherwise specified)

Country	Metals--Continued													
	Gold, mine output (kilograms)	Lead			Mercury, mine output (metric tons)	Silver, mine output (metric tons)	Tin (metric tons)			Titanium, mine output 6/	Tungsten, mine output (metric tons)	Zinc		
		Mine	Refined 2/				Mine	Smelter 2/				Mine	Smelter 2/	
			Primary	Secondary				Primary	Secondary				Primary	Secondary
Eastern and Central Europe:														
Albania	--	--	--	--	--	--	--	--	--	--	--	--	--	
1997-98 % change	--	--	--	--	--	--	--	--	--	--	--	--	--	
Bosnia and Herzegovina	--	(5/)	--	--	--	--	--	--	--	--	(5/)	--	--	
1997-98 % change	--	--	--	--	--	--	--	--	--	--	(63)	--	--	
Bulgaria	3,000	25	60	10	--	25	--	--	10	--	20	83	--	
1997-98 % change	(12)	(11)	--	--	--	--	--	--	--	--	--	1	--	
Croatia	--	--	--	--	--	--	--	--	--	--	--	--	--	
1997-98 % change	--	--	--	--	--	--	--	--	--	--	--	--	--	
Czech Republic	--	--	--	15	--	--	--	--	100	--	--	--	1	
1997-98 % change	--	--	--	--	--	--	--	--	--	--	--	--	--	
Hungary	--	--	--	--	--	--	--	--	--	--	--	--	--	
1997-98 % change	--	--	--	--	--	--	--	--	--	--	--	--	--	
Macedonia	--	15	20	5	--	10	--	--	--	--	8	20	--	
1997-98 % change	--	(4/)	(20)	150	--	--	--	--	--	--	(47)	--	--	
Poland	600	60	50	15	--	1,000	--	--	--	--	155	175	--	
1997-98 % change	--	2	--	--	--	--	--	--	--	--	--	2	--	
Romania	4,000	20	20	5	--	60	--	--	--	--	30	25	--	
1997-98 % change	--	5	--	--	--	--	--	--	--	--	3	--	--	
Serbia and Montenegro	3,000	12	26	--	--	35	--	--	--	--	7	30	--	
1997-98 % change	--	140	8	--	--	(8)	--	--	--	--	40	3	--	
Slovakia	500	1	--	--	20	--	--	--	--	--	3	--	1	
1997-98 % change	9	--	--	--	--	--	--	--	--	--	--	--	--	
Slovenia	--	--	--	7	5	--	--	--	--	--	--	--	--	
1997-98 % change	--	--	--	--	--	--	--	--	--	--	--	--	--	
Total Eastern and Central Europe	11,100	133	176	57	25	1,130	--	--	110	--	223	333	2	
1997-1998 % change	(3)	(25)	(2)	6	--	(4/)	--	--	--	--	(2)	2	--	
Central Eurasia:														
Armenia	350	--	--	--	--	--	--	--	--	--	--	--	--	
1997-98 % change	(30)	--	--	--	--	--	--	--	--	--	--	--	--	
Azerbaijan	--	--	--	--	--	--	--	--	--	--	--	--	--	
1997-98 % change	--	--	--	--	--	--	--	--	--	--	--	--	--	
Belarus	--	--	--	--	--	--	--	--	--	--	--	--	--	
1997-98 % change	--	--	--	--	--	--	--	--	--	--	--	--	--	
Estonia	--	--	--	--	--	--	--	--	--	--	--	--	--	
1997-98 % change	--	--	--	--	--	--	--	--	--	--	--	--	--	
Georgia	700	(5/)	--	--	--	--	--	--	--	--	1	--	--	
1997-98 % change	--	--	--	--	--	--	--	--	--	--	--	--	--	
Kazakhstan	12,500	30	90	--	--	470	--	--	--	--	225	241	--	
1997-98 % change	4	(14)	13	--	--	(6)	--	--	--	--	--	42	--	
Kyrgyzstan	22,000	--	--	--	620	--	--	--	--	--	--	--	--	
1997-98 % change	26	--	--	--	1	--	--	--	--	--	--	--	--	
Latvia	--	--	--	--	--	--	--	--	--	--	--	--	--	
1997-98 % change	--	--	--	--	--	--	--	--	--	--	--	--	--	

See footnotes at end of table.

TABLE 1--Continued
EUROPE AND CENTRAL EURASIA: PRODUCTION OF SELECTED MINERALS IN 1998 1/

(Thousand metric tons, unless otherwise specified)

Country	Metals--Continued													
	Gold, mine output (kilograms)	Lead			Mercury, mine output (metric tons)	Silver, mine output (metric tons)	Tin (metric tons)			Titanium, mine output 6/	Tungsten, mine output (metric tons)	Zinc		
		Mine	Refined 2/				Mine	Smelter 2/				Mine	Smelter 2/	
			Primary	Secondary				Primary	Secondary				Primary	Secondary
Central Eurasia--Continued:														
Lithuania	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1997-98 % change	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Moldova	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1997-98 % change	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Russia	103,700	19	50	--	50	350	4,500	3,000	500	--	3,000	115	196	--
1997-98 % change	(10)	(5)	(4)	--	--	(50)	(40)	(55)	(50)	--	--	(5)	6	--
Tajikistan	3,000	1	--	--	35	5	--	--	--	--	--	--	--	--
1997-98 % change	18	--	--	--	(13)	(6/)	--	--	--	--	--	--	--	--
Turkmenistan	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1997-98 % change	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ukraine	--	--	--	9	20	--	--	--	--	300	--	--	--	--
1997-98 % change	--	--	--	(50)	(20)	--	--	--	--	--	--	--	--	--
Uzbekistan	80,000	--	--	--	--	70	--	--	--	--	200	--	--	--
1997-98 % change	7	--	--	--	--	--	--	--	--	--	(20)	(3/)	--	--
Total Central Eurasia	222,250	50	140	9	725	895	4,500	3,000	500	300	3,200	341	437	--
1997-1998 % change	(4/)	(4)	44	(83)	(4/)	(30)	(40)	(55)	(50)	--	(2)	(3)	23	--
Total Europe and Central Eurasia	248,850	426	937	1,040	830	2,499	8,878	3,350	3,560	890	5,431	1,106	2,808	135
1997-1998 % change	(2)	(2)	(1)	12	(1)	(13)	(33)	(52)	(21)	(15)	(4)	(6)	(2)	3
Total United States	366,000	493	343	1,106	NA	2,060	--	--	16,145	601	--	755	218	150
Total World	2,476,855	3,103	2,899	2,857	2,315	16,423	205,805	205,020	20,255	7,122	32,153	7,540	7,909	434
Western Europe as a percent of world total	1	8	21	34	3	3	2	--	15	8	7	7	26	31
Eastern and Central Europe as a percent of world total	(4/)	4	6	2	1	7	--	--	1	--	--	3	4	--
Central Eurasia as a percent of world total	9	2	5	(4/)	31	5	2	1	2	4	10	5	6	--
Europe and Central Eurasia as a percent of world total	10	14	32	36	36	15	4	2	18	12	17	15	36	31

See footnotes at end of table.

TABLE 1--Continued
EUROPE AND CENTRAL EURASIA: PRODUCTION OF SELECTED MINERALS IN 1998 1/

(Thousand metric tons, unless otherwise specified)

Country	Industrial minerals						Mineral fuels					
	Hydraulic cement	Nitrogen (N content of ammonia)	Phosphate rock (gross weight)	Potash (K ₂ O equivalent)	Salt	Sulfur (all forms)	Coal			Natural gas (gross weight) (million cubic meters)	Petroleum, crude (million 42- gallon barrels)	Uranium (U ₃ O ₈) (metric tons)
							Anthracite	Bituminous	Lignite			
Western Europe:												
European Union (EU):												
Austria	3,850	450	--	--	501	60	--	--	1,100	1,568	8	--
1997-98 % change	(4/)	13	--	--	(17)	500	--	--	(3)	12	14	--
Belgium	8,000	756	--	--	--	428	--	310	--	--	--	18
1997-98 % change	14	(1)	--	--	--	43	--	(28)	--	--	--	(44)
Denmark-Greenland	2,528	2	--	--	600	10	--	--	--	7,348	87	--
1997-98 % change	(6)	--	--	--	--	(9)	--	--	--	(7)	4	--
Finland	903	6	650	--	--	921	--	--	--	--	--	--
1997-98 % change	(6)	--	--	--	--	19	--	--	--	--	--	--
France	19,500	1,570	--	656	7,000	1,050	454	4,780	245	2,183	12	599
1997-98 % change	3	5	--	(1)	(2)	(5)	(40)	(14)	(62)	(27)	(8)	(32)
Germany	36,610	2,512	--	3,200	15,700	1,175	2,065	39,235	166,200	20,500	22	47
1997-98 % change	(1)	(7)	--	(7)	--	4	(55)	(16)	(6)	(9)	10	--
Greece	15,000	178	--	--	150	72	--	--	58,900	33	2	--
1997-98 % change	15	114	--	--	(25)	3	--	--	(4/)	(3/)	(33)	--
Ireland	2,000	458	--	--	--	--	--	1	--	1,790	--	--
1997-98 % change	11	(2)	--	--	--	--	--	--	--	(26)	--	--
Italy	35,000	409	--	--	3,600	624	--	--	83	19,200	39	--
1997-98 % change	4	(8)	--	--	--	177	--	--	(59)	(2)	(5)	--
Luxembourg	650	--	--	--	--	--	--	--	--	--	--	--
1997-98 % change	(7)	--	--	--	--	--	--	--	--	--	--	--
Netherlands	3,200	2,350	--	--	5,500	563	--	--	--	76,331	19	--
1997-98 % change	7	(6)	--	--	10	95	--	--	--	(13)	(4/)	--
Portugal	9,500	204	--	--	600	8	--	--	--	--	--	24
1997-98 % change	12	4	--	--	--	--	--	--	--	--	--	9
Spain	27,943	460	--	635	3,500	993	6,393	9,929	9,750	112	4	301
1997-98 % change	1	(7)	--	(1)	(13)	30	(4)	(12)	15	(100)	33	--
Sweden	2,105	--	--	--	--	136	--	--	--	--	--	--
1997-98 % change	(9)	--	--	--	--	(16)	--	--	--	--	--	--
United Kingdom	12,409	871	--	575	6,600	190	413	40,863	--	95,614	955	--
1997-98 % change	(4)	36	--	2	--	(7)	(15)	(15)	--	4	4	--
Total EU	179,198	10,226	650	5,066	43,751	6,230	9,325	95,118	236,278	224,679	1,148	989
1997-98 % change	3	(4/)	--	(4)	(1)	24	(26)	(15)	(4)	(33)	4	(23)
European Free Trade Association (EFTA):												
Iceland	100	--	--	--	4	--	--	--	--	--	--	--
1997-98 % change	14	--	--	--	--	--	--	--	--	--	--	--
Norway	1,676	245	--	--	--	98	--	328	--	48,146	1,101	--
1997-98 % change	(1)	(12)	--	--	--	(11)	--	49	--	(32)	(4)	--
Switzerland	3,600	31	--	--	300	4	--	--	--	--	--	--
1997-98 % change	(5)	3	--	--	--	(20)	--	(100)	--	--	--	--
Total EFTA	5,376	276	--	--	304	102	--	328	--	48,146	1,101	--
1997-98 % change	(4)	(11)	--	--	(4)	(11)	--	49	--	(32)	(4)	--
Total Western Europe	184,574	10,502	650	5,066	44,055	6,332	9,325	95,446	236,278	272,825	2,249	989
1997-98 % change	3	(4/)	--	(4)	(1)	19	(26)	(15)	(4)	(32)	(4/)	(23)

See footnotes at end of table.

TABLE 1--Continued
EUROPE AND CENTRAL EURASIA: PRODUCTION OF SELECTED MINERALS IN 1998 1/

(Thousand metric tons, unless otherwise specified)

Country	Industrial minerals--Continued						Mineral fuels--Continued					
	Hydraulic cement	Nitrogen (N content of ammonia)	Phosphate rock (gross weight)	Potash (K ₂ O equivalent)	Salt	Sulfur (all forms)	Coal			Natural gas (gross weight) (million cubic meters)	Petroleum, crude (million 42- gallon barrels)	Uranium (U ₃ O ₈) (metric tons)
							Anthracite	Bituminous	Lignite			
Eastern and Central Europe:												
Albania	150	10	1	--	10	--	--	--	33	16	2	--
1997-98 % change	--	--	--	--	--	--	--	--	(53)	(3/)	(33)	--
Bosnia and Herzegovina	300	1	--	--	50	(5/)	--	--	1,600	--	--	--
1997-98 % change	50	--	--	--	--	--	--	--	(2)	--	--	--
Bulgaria	1,700	448	--	--	1,500	194	15	2,677	27,435	10	(5/)	--
1997-98 % change	(19)	(63)	--	--	--	9	(6)	--	2	(3/)	--	--
Croatia	2,000	248	--	--	17	15	--	56	--	1,570	--	--
1997-98 % change	(6)	(25)	--	--	--	--	--	17	--	(9)	--	--
Czech Republic	5,000	258	--	--	--	40	--	75,000	640	137	1	719
1997-98 % change	--	3	--	--	--	(5)	--	(1)	(14)	(3/)	(4/)	3
Hungary	2,999	288	--	--	--	31	--	6,885	7,609	1,790	9	12
1997-98 % change	7	(15)	--	--	--	(3)	--	(8)	55	(60)	(31)	(95)
Macedonia	500	--	--	--	--	20	--	--	6,500	--	--	--
1997-98 % change	--	--	--	--	--	--	--	--	--	--	--	--
Poland	14,970	1,683	--	--	3,900	1,572	290	116,706	62,820	4,852	3	--
1997-98 % change	(4/)	12	--	--	(2)	(14)	--	(15)	(1)	3	50	--
Romania	7,000	378	--	--	2,550	66	--	1,828	24,100	14,600	48	118
1997-98 % change	(4)	(52)	--	--	(4)	(31)	--	4	(25)	(57)	(2)	--
Serbia and Montenegro	2,300	141	--	--	30	51	--	105	43,500	731	7	--
1997-98 % change	14	4	--	--	7	38	--	13	7	6	(4/)	--
Slovakia	3,000	234	--	--	100	27	--	--	4,000	260	(5/)	--
1997-98 % change	20	2	--	--	--	350	--	--	2	(9)	(50)	--
Slovenia	1,100	--	--	--	5	--	--	827	3,988	12,500	--	--
1997-98 % change	22	--	--	--	--	--	--	2	(4)	(4/)	--	--
Total Eastern and Central Europe	41,019	3,689	1	--	8,162	2,016	305	204,084	182,225	36,466	70	849
1997-1998 % change	1	(23)	--	--	(2)	(10)	(4/)	(9)	(1)	(38)	(8)	(19)
Central Eurasia:												
Armenia	310	--	--	--	26	--	--	--	--	--	--	--
1997-98 % change	4	--	--	--	--	--	--	--	--	--	--	--
Azerbaijan	201	--	--	--	15	--	--	--	--	5,590	84	--
1997-98 % change	(36)	--	--	--	--	--	--	--	--	(6)	33	--
Belarus	2,035	685	--	3,400	1	--	--	--	--	252	13	--
1997-98 % change	8	16	--	5	--	--	--	--	--	(11)	--	--
Estonia	321	173	--	--	--	--	--	--	--	--	--	--
1997-98 % change	(20)	2	--	--	--	--	--	--	--	--	--	--
Georgia	85	64	--	--	--	--	--	10	--	--	1	--
1997-98 % change	(7)	(24)	--	--	--	--	--	100	--	--	(33)	--
Kazakhstan	600	--	1,600	--	--	1,145	--	66,900	2,800	8,300	174	1,474
1997-98 % change	(9)	(6/)	(6)	--	--	21	--	(5)	13	2	2	25
Kyrgyzstan	710	--	--	--	--	--	--	275	171	18	1	--
1997-98 % change	8	--	--	--	--	--	--	(15)	(15)	(3/)	--	--
Latvia	366	--	--	--	--	--	--	--	--	--	--	--
1997-98 % change	49	--	--	--	--	--	--	--	--	--	--	--

See footnotes at end of table.

TABLE 1--Continued
EUROPE AND CENTRAL EURASIA: PRODUCTION OF SELECTED MINERALS IN 1998 1/

(Thousand metric tons, unless otherwise specified)

Country	Industrial minerals--Continued						Mineral fuels--Continued					
	Hydraulic cement	Nitrogen (N content of ammonia)	Phosphate rock (gross weight)	Potash (K ₂ O equivalent)	Sulfur (all forms)	Salt	Coal			Natural gas (gross weight) (million cubic meters)	Petroleum, crude (million 42-gallon barrels)	Uranium (U ₃ O ₈) (metric tons)
						Anthracite	Bituminous	Lignite				
Central Eurasia--Continued:												
Lithuania	788	407	--	--	--	--	--	--	--	--	2	--
1997-98 % change	31	6	--	--	--	--	--	--	--	--	100	--
Moldova	74	--	--	--	--	--	--	30	--	--	--	--
1997-98 % change	(39)	--	--	--	--	--	--	(9)	--	--	--	--
Russia	26,000	6,500	9,800	3,500	2,000	4,475	15,000	148,600	83,600	564,000	2,137	2,359
1997-98 % change	(2)	(9)	31	3	43	19	(18)	(7)	(2)	(1)	(1)	--
Tajikistan	18	10	--	--	--	--	--	10	--	--	--	--
1997-98 % change	(49)	(50)	--	--	--	--	--	(29)	--	--	--	--
Turkmenistan	450	75	--	--	215	9	--	--	--	14,000	40	--
1997-98 % change	--	23	--	--	(1)	(4)	--	--	--	(45)	25	--
Ukraine	5,589	3,300	--	60	2,500	97	15,100	59,034	1,100	17,967	21	590
1997-98 % change	10	(3)	--	(40)	--	(3)	(10)	(1)	(23)	(1)	(2)	--
Uzbekistan	3,400	875	--	--	--	435	--	58	2,900	55,000	42	2,359
1997-98 % change	(32)	(5)	--	--	--	5	--	(2)	(4)	7	3	13
Total Central Eurasia	40,947	12,089	11,400	6,960	4,757	6,161	30,100	274,917	90,571	665,127	2,515	6,782
1997-1998 % change	(4)	(6)	24	3	14	18	(14)	(5)	(2)	(2)	(4)	9
Total Europe and Central Eurasia	266,540	26,280	12,051	12,026	56,974	14,509	39,730	574,447	509,074	974,418	4,834	8,620
1997-1998 % change	1	(7)	22	(4)	(4)	13	(17)	(8)	(3)	(15)	(4)	1
Total United States	85,522	14,729	44,100	1,300	41,252	11,637	4,745	933,175	76,923	534,900	2,282	2,208
Total world	1,519,000	105,696	114,612	25,061	191,858	57,755	333,898	3,400,160	840,596	2,355,000	24,441	40,016
Western Europe as a percent of world total	12	10	1	20	23	11	3	3	28	12	9	2
Eastern and Central Europe as a percent of world total	3	3	(4)	--	4	3	(4)	6	22	2	(4)	2
Central Eurasia as a percent of world total	3	11	10	28	2	11	9	8	11	28	10	17
Europe and Central Eurasia as a percent of world total	18	25	11	48	30	25	12	17	61	41	20	22

NA Not available.

1/ Some of the individual entries in this table may differ from those appearing in individual country production tables elsewhere in this volume owing to the inclusion in this table of data received at a later date.

Percentages in parentheses are negative in value.

2/ Primary production also includes undifferentiated (primary and secondary) production for those countries listed.

3/ Production began or ceased.

4/ Less than 1%, but greater than 0%.

5/ Less than 1/2 unit.

6/ Includes ilmenite, rutile, and titaniferous slag.