

EUROPE AND CENTRAL EURASIA

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As a part of the Eurasian landmass, Europe and Central Eurasia encompass continental territory that extends from the Atlantic coast of Europe to the Pacific coast of Russia and includes the British Isles and Iceland. Greenland in the northwest Atlantic Ocean and Sakhalin and Kurile Islands off the Sea of Japan in the Pacific Ocean, which are political extensions of Denmark and Russia, respectively, also are treated in this volume.

The post-cold-war European and Central Eurasian environment (1990-2001) included new political and economic configurations and trends. In the countries of Central Europe (Czech Republic, Hungary, Slovakia, and Poland), the Balkans (Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Macedonia, Serbia and Montenegro, and Slovenia, but excluding Greece), Central Eurasia [the Commonwealth of Independent States (CIS), which comprises Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Uzbekistan, and Ukraine], and the Baltic countries (Estonia, Latvia, and Lithuania), central economic planning was replaced with varying degrees of transition to more open political systems and market-based economies.

The CIS was founded initially in 1991 by several republics of the former Soviet Union (FSU) to promote free economic space in the FSU region; it does not, however, have supranational powers, and its member countries have equal standing in international law. The Central European Free Trade Agreement (CEFTA) was founded on December 21, 1992, by Czechoslovakia (now, the Czech Republic and Slovakia), Hungary, and Poland. The chief purpose of CEFTA was to harmonize all spheres of economic relations among the member countries in conformity with standards and principles promulgated by the General Agreement on Tariffs and Trade (GATT) and the World Trade Organization (WTO). CEFTA members also viewed the organization as a necessary first step toward ultimate accommodation within Western European political and economic structures. Slovenia, Romania, and Bulgaria joined CEFTA in 1996, 1997, and 1999, respectively.

Economic integration in Western Europe evolved into the formation of the European Union (EU), which is a supranational entity that comprises Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom. The admission of CEFTA member countries and other countries in the region was one of the significant political questions that had faced the leadership of the EU. The European Community (EC) opened accession negotiations in 2000 with Bulgaria, Latvia, Lithuania, Malta, Romania, Slovakia, and Turkey. The EC was already negotiating formally with the following countries: Cyprus, the Czech Republic, Estonia, Hungary,

Poland, and Slovenia. No date has been set, but membership is expected to be extended to these six countries by about 2005. This enlargement would represent the single largest EU enlargement. The last enlargement was in 1995 when Austria, Finland, and Sweden acceded. Candidate countries will face great challenges. These countries must fulfill such political and economic criteria as achieving stability of institutions guaranteeing democracy, the rule of law, human rights, and respect for and protection of minorities; having a functioning market economy and the capacity to cope with competitive pressure and market forces within the EU; and being able to take on the obligations of EU membership, which includes adherence to the aims of political, economic, and monetary union.

These and other issues made the integration of even the more transitionally advanced formerly centrally planned countries slow and contingent on structural conformity with EU norms. Because of the very different paths of development that Western Europe and Central Eurasia, Central Europe, and the Balkans followed after the Second World War, an economic asymmetry between these two areas emerged and remained throughout the post-cold-war period of the 1990s. This asymmetry framed the initial commercial relationship in the minerals sphere between the two areas. Western Europe imported raw materials from, toll-smelted raw materials in, sold equipment and technology to, and invested in the mineral development projects in the formerly centrally planned economy countries largely without reciprocal activities on the part of the latter.

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Economic Conditions and Issues

Europe and Central Eurasia remained a substantial participant in the world mineral economy by occupying important roles at both poles within that economy as a supplier and consumer of all major mineral commodity groups. In 2001, Western Europe continued to be a major world processing and consuming region and accounted for a significant share of world production and consumption of ferrous and nonferrous metals, whereas the role of Central Eurasia remained that of a major world supplier of minerals. Central Europe and the Balkans, however, played a much lesser role with respect to supply and disposition of most mineral commodities.

Western Europe, which had a population that exceeded 392 million, had one of the most advanced regional economies in the world with a gross domestic product (GDP) that amounted to about \$9.6 trillion. Although Western Europe had a population that was 35% greater than that of the United States, its GDP was about 5% less than that of the United States.

On January 1, 1999, the EU adopted the euro (€) as its new single currency for the member states that had satisfied the macroeconomic conditions necessary to join the European Monetary Union (EMU). Although euro banknotes and coins will not enter into circulation until January 2002, the euro was being used in electronic transactions and as a unit of account whose value has been fixed irrevocably with the participating member state's currencies. Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain will be the initial EC-member countries to

use the euro. Not yet part of the EMU are Denmark, Sweden, and the United Kingdom.

Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, Slovenia, and Turkey have applied for EU membership; this is expected to develop important issues for discussion in 2002. Candidate countries represent 45% of the EU population and 7% of its GDP, per capita GDP varies between 24% of the EU average in Bulgaria and 82% in Cyprus.

In contrast to Western European countries, the transitional economy countries of Central Eurasia and Central Europe and the Balkans, which had a combined population that exceeded 410 million, had a combined GDP that amounted to about \$2.8 trillion, or about 29% of that of Western Europe and about 28% of that of the United States.

In 2001, within the transitional economy group of countries, such factors as the growth of per capita income continued to appear to be more favorable with respect to CEFTA member countries whose average per capita GDP was more than 2.5 times greater than that of the CIS but whose negative demographic rate of growth was significantly worse than that of the CIS (table 1). Compared with Western Europe's low but positive demographic growth (0.32% compared with that of 2000), the population growth rates of Central Eurasia, Central Europe, and the Balkans were varied, which showed a net decrease of 0.20% within the CEFTA group of countries; this was a net increase of 0.65% within the unaffiliated Balkan group of countries and a net increase of about 0.5% in the Central Eurasian subregion. The CIS's average GDP growth rate of nearly 8% in 2001 was greater than that in most groupings within the region, which reflected varying combinations of low economic baselines, favorable rises in world prices for hydrocarbons, and the corresponding production increases for such commodities as petroleum by major producing countries (Kazakhstan, 13.6%, Russia 7.4%, Turkmenistan, 6.8%, and Azerbaijan, 6.4%).

The countries of Western Europe had no common mineral policy. The mining legislations of the different countries of the EU and Europe as a whole differ widely in objectives and regulatory details. Even though the EU was not involved in harmonization of the various countries' mining laws, this was nevertheless taking place owing mainly to increased competition for mining and exploration investments.

As a major world mineral-processing and mineral-consuming region, Western Europe consequently remained a major determinant of world demand for all mineral commodities. With the near exhaustion of its mineral reserves and the decline in its role as a world mine producer of minerals, Western Europe continued to be a major producer and fabricator of such metals as copper, iron and steel, lead, and zinc, which were based largely on imported raw materials. Germany remained Western Europe's dominant smelter and refiner of most metals.

Despite the diminution of Western Europe's importance as a metals mining subregion, the subregion developed into an important world financial center and the headquarters of such major global mining transnationals as Anglo American S.A., Rio Tinto plc, and Billiton plc.

Western Europe played a significant international role in the extraction and processing of certain industrial minerals and mineral fuels. Significant petroleum and natural gas resources

had been developed in the North Sea, and coal reserves were adequate. Germany remained a significant mine producer of a number of industrial minerals and coal.

The countries of the CIS had an extensive minerals economy that accounted for a major share of the world's extraction of fuels, industrial minerals, and metals and the production of processed mineral products, which included metals and petroleum refinery products. Although domestic demand for mineral products was reviving in the CIS, consumption of most mineral products remained far below the levels that had existed prior to the break-up of the Soviet Union and well below the levels of advanced industrialized countries.

In 2001, the CIS remained a major world producer of such nonferrous metals as primary aluminum (15%), alumina (12%), and mined and primary refined copper (9% and 8%, respectively); mercury (metal content of mine output, 17%), titanium (titanium oxide content of mine output, 32%), tungsten (metal content of mine output, 8%), and of such precious metals as palladium (44%), platinum (20%), gold (11%), and silver (8%). With respect to ferrous metals, the CIS had a significant share of the world output of manganese ore (22%), mine output of nickel and refined nickel (24% and 22%, respectively), chromite (17%), iron content of iron ore (26%), and direct-reduced iron and pig iron (12%). The CIS also produced a significant share of the total world production of such selected industrial minerals and fuels such as natural gas (27%), nitrogen (in ammonia, 14%), petroleum (crude, 13%), and phosphate rock (P_2O_5) (9%) potash (K_2O) (34%) sulfur, (15%) and uranium (19%).

Russia, which encompasses about 75% of the territory of the CIS, had the largest mineral industry in Europe and Central Eurasia, which produced a broad range of crude and processed mineral commodities. Kazakhstan and Ukraine followed Russia as regions that had important places in Central Eurasia. Uzbekistan and several countries in the CIS also were important producers and processors of minerals. In 2001, according to data and estimates available for this report, Russia ranked first in the world in the production of asbestos, natural gas, nickel, palladium, and titanium sponge, second in the world in the production of aluminum, platinum, and potash, and among the top five world producers of other mineral commodities, which included mine output of antimony, boron, beryl, and mine output of cobalt, gem and industrial diamond, ferroalloys, gold, iron ore, magnesium metal, crude petroleum, phosphate rock, crude steel, sulfur, and mine output of tungsten.

Kazakhstan was a significant producer of such mineral products as arsenic, beryllium metal, bismuth, cadmium, chromite, copper, ferroalloys, lead, titanium sponge, uranium, and zinc. Ukraine was a significant producer of such mineral products as ferroalloys, iron ore, manganese ore, pig iron, crude steel, and titanium raw materials. Other countries in the CIS were significant world producers of one or more mineral commodities—Azerbaijan (oil), Armenia (molybdenum), Belarus (potash), Kyrgyzstan (antimony metal, mercury ore and metal), Tajikistan (aluminum), Turkmenistan (natural gas), and Uzbekistan (gold, uranium). All countries in the CIS produced a range of other mineral commodities.

The countries of the Caspian Sea region were of great importance to world energy markets because of the large oil and gas reserves in this region that were further developed. These

resources have created competition between countries concerning their ownership, among companies to get development rights, and among countries to establish export routes. Proven oil reserves for the entire Caspian Sea region, which were estimated to be between 18 billion and 35 billion barrels (Gbbbl), were comparable to those of the United States (22 Gbbbl), and greater than those in the North Sea, 17 Gbbbl; undiscovered oil resources could yield another 235 Gbbbl of oil.

For the oil and gas in the Caspian Sea region to be developed to its full oil and gas potential, the littoral states must first agree on the legal status of the Caspian Sea to settle the issue of the ownership of resources. Negotiations between the littoral states have made slow progress in resolving differences. Consequently, no agreed-upon convention exists that delineates the littoral states' ownership of the Caspian's resources or their development rights. Several conflicts have arisen over claims to regions of the Caspian. Disputes exist concerning whether the resources in the Caspian should be shared in common by all littoral states or if it should be divided into national sectors. Division into national sectors has been the de facto solution, but disputes have arisen over the delineation of these national sectors.

Central Europe and the Balkans, which transect Western Europe and Central Eurasia roughly from the Baltic Sea to the Black Sea and Mediterranean-Adriatic areas, had economies and mineral industries similar in kind, though not in scope, to those of Central Eurasia. With the exception of Poland, which remained a ranking world producer of bituminous coal, copper, salt, silver, and mined sulfur, most countries of Central Europe and the Balkans continued to produce most minerals largely for domestic or local use. In the Balkan area before the 1991, the former Yugoslavia (now the independent republics of Bosnia and Herzegovina, Croatia, Macedonia, Serbia and Montenegro, and Slovenia) was a major European producer of aluminum, copper, lead, and zinc, as well as a broad range of mined and processed metals, industrial minerals, and mineral fuels. The former Yugoslavia also was a major European toll smelter of nonferrous and precious metals. The civil war and ethnic strife, which followed the dissolution of the former Yugoslavia, with the exception of Slovenia, left these countries with damaged and ruined industrial plants and infrastructure and generally depressed economies that greatly diminished investor confidence and interest in them. In 2001, however, the conflicts from ethnic disputes that arose in the Province of Kosovo of Serbia and Montenegro and in Macedonia in 1999 and 2000 appeared to have abated.

Investment Overview

In Western Europe, despite up-to-date mining legislation, deregulation, and tax relief to encourage investment in mineral resource exploration and development, these activities generally have been decreasing. Apart from exploration activities described later, some investment to reevaluate older mining areas appeared to be continuing in 2001.

Apart from denationalization, the need to rationalize and modernize industrial processes to raise their competitiveness and to bring them into compliance with environmental standards was one of the chief aims of the economic transition process in Central Europe and the Balkans and Central Eurasia. Another

was the modernization of infrastructure to serve social and commercial interests more efficiently. In Central Europe, these transitional needs presented targets of opportunity for foreign investors. During most of the 1990s and through 2001, strong foreign investor interest in Central Europe and the Balkans was manifested by very high activity in the area's industrial minerals sector, especially its cement plants and associated quarries for calcareous stone, clay, gypsum, and marl. Investment in other branches of the industrial minerals sector was highlighted by activity in Hungary's kaolinite, perlite, and silica mining operations.

By 2001, virtually all Central Europe's cement operations (clinker and grinding) and their quarries had been acquired by Western Europe's (mainly, the EU) leading cement producers and building material manufacturers. The output of these plants met not only the domestic needs of the Central European countries, but also was exported, in many cases, to the foreign owner's home countries in the EU. In the Balkans, this also was the case with respect to Bulgaria, Croatia, Macedonia, and Serbia and Montenegro. Foreign investment activity (mostly from the EU) in 2000 was especially pronounced.

In 2001, Central Europe's iron and steel sector saw investor interest in Poland's, Cedler, Florian, Katowice, and Sendzimir steel mills. The Czech Republic's Trinecke Zelezarny acquired stock in the Nova Hut (Czech Republic) steelworks. In midyear, Italian stainless steel producer Cogne Acciai Speciali Srl acquired Dam-Diogyor Acelmuvek Rt., which was Hungary's stainless and other alloy steel producer.

Foreign investment in base and precious metals in the Balkans involved the acquisition of mine production and processing rights for copper and gold in Albania, Bulgaria, and Romania. Albania also reported foreign investor interest in its chromite mining and ferrochromium-producing operations and in its steel plant at Elbasan. Foreign capital also was channeled for acquisition and modernization of iron and steel plants in Bosnia and Herzegovina; Bulgaria; Macedonia, which included an earlier sale of the ferronickel producer FENI; Romania; and Slovenia.

One of the major investment issues that continued to have significant economic, environmental, and geopolitical ramifications involved the proposed routing of additional pipelines to export hydrocarbons from this region. These host of issues included the degree that Russia should control export routes by having them pass through its territory, the intent of countries to avoid routing pipelines through potentially unfriendly countries such as Iran and Afghanistan, the role of Armenia as a potential transit route owing to its conflict with Azerbaijan, and the potential environmental hazards of routing shipments by pipeline under the Caspian Sea or by tanker through the Bosphorus. Such unresolved issues have obstructed the planning and construction of potential export pipelines from the region. A "northern route" that transits more than 128 kilometers (km) through the war-torn Russian republic of Chechnya en route to the Black Sea port of Novorosiisk was being used to transport the first oil production (early oil) from Azerbaijan. A western route was also in use for early oil that passed through Georgia to the Black Sea. A major route that was being considered was the Baku-Ceyhan Pipeline route, which was termed the "Main Export Pipeline" (MEP). The MEP would extend 1,670 km through Azerbaijan, Georgia, and

Turkey and transport oil from the Caspian littoral states. The three countries on whose territory the pipeline would be built have affirmed their support for the project, but oil companies, which would finance the construction of the pipeline, would have to agree on the economic feasibility of this project.

Legislation

Contrary to Western Europe where much of the legislation needed to restrict pollution and to stimulate and regulate general commercial and mineral industry operations was firmly in place, the legislative situation in the transitional economy countries remained more fluid during the 1990s. The legislative agendas of the countries of Central Europe and the Balkans and Central Eurasia focused mainly on reducing social tensions that stemmed from denationalization of whole economies while attempting to bring legal and regulatory practices in the area into greater conformity with those of the developed market economy countries of Western Europe, especially as they related to environmental standards, private ownership practice, mining law, and foreign investment rules.

Environmental Issues

Environmental protection continued to be a major issue. Implementation of most environmental laws and regulations had been fully established during the 1980s and 1990s in Western Europe, and most industrial enterprises, which included those in the mineral sector, were obligated to meet set standards for effluent discharges into the environment. Meeting these environmental standards was among the major criteria for accession by new member countries into the EU. The environmental situation in Central Europe and the Balkans and Central Eurasia at the start of their transition to market-based economic systems revealed a landscape of highly polluting heavy industries, many of which caused serious health concerns in the area. This was not due to an absence or lack of environmental laws in the transitional economy countries, but mainly owing to very little effort being expended by the former regimes to enforce the existing pollution laws and, in some cases, to correct confusing and sometimes contradictory laws and regulations. Although some evidence pointed to an abatement of discharges of harmful pollutants from the mining and mineral-processing sector during the early 1990s in several Central European and Central Eurasian countries, this was mostly the result of a sharp decline in production during that period. More recently, the new applicants for EU membership from this area have undertaken serious efforts to make major improvements with respect to the regulatory process and enforcement. Environmental concerns in the Czech Republic and Poland, for example, have prevented the development of gold and lead-zinc deposits.

Exploration

Exploration budgets for Asia, Europe, and the CIS as a whole decreased by a relatively modest 11% based upon data reported by the Metals Economics Group (MEG). According to the MEG findings, these regions accounted for 8.7% of the total world exploration budget. Exploration in Europe and Central

Eurasia accounted for 54% of the total outlay in Asia, Europe, and the CIS. Based on data that reflected the number of sites being explored and compiled by the USGS, activity in this region focused on Finland, Romania, and Russia with additional significant exploration activity in Greenland and Italy.

European exploration activity focused in Finland where the Arctic Platinum Partnership recently announced significant platinum-group metal (PGM) resource estimates, and Ridderhyttan Resources AB delineated substantial gold values at the Suurikuusikko project. Base-metal exploration concentrated in Ireland and Sweden, and exploration for gold continued in Bulgaria, Greenland, Romania, and Spain. Many historical mining areas of Europe were being reevaluated by using current technology after gravity surveying led to the recent discovery of the concealed Las Cruces massive sulfide deposit in Spain.

In Russia, exploration focused on the search for diamond, gold, and PGMs. On the Kola Peninsula, PGM resources reportedly totaled about 1,040 metric tons (t) (about 33 million ounces) in the Pana tundra deposit, thus making it one of the world's richest PGM resources. Extensive drilling programs in Russia were ongoing at the Birkachan gold and Verkhotina diamond deposits, but exploration by foreign companies for new deposits in Russia during 2001 was limited.

A new reporting code for mineral industry activities in Europe came into effect in October 2001. The "Code for Reporting of Mineral Resources and Mineral Reserves," which was similar to the one implemented in Canada in 2000, updates the reporting standards used by the Institution of Mining and Metallurgy, the European Federation of Geologists, and the Institute of Geologists of Ireland. It sets out guidelines for public reporting of mineral exploration results, mineral reserves, and mineral resources in Europe, Ireland, and the United Kingdom.

Amendments to the Russian Production Sharing Agreement of 1996 were passed on December 20, 2000. The purpose of these amendments was to introduce a simplified and more stable regime of foreign investment into the Russian natural resource sector.

Production

The data presented below in the commodity overview section was obtained from the summary table in this report and from comparable data and the summary tables in the Minerals Yearbook, volume III (Europe and Central Eurasia), from 1990 to 2001.

A salient aspect to emerge from the data in these tables was the increase of secondary production and/or recovery of nonferrous metals. Although large-scale ferrous scrap collection as an important component of the raw materials matrix has been in circulation for some time, the large-scale recovery of nonferrous metals was a more recent undertaking. The statistics for nonferrous scrap metal recovery, which have become more readily available in recent years, have shown Europe and Central Eurasia to be playing a major world role in this endeavor with Western Europe as the dominant producer of such secondary nonferrous metals as aluminum, copper, lead, tin, and zinc. Despite playing a much lesser role in secondary nonferrous scrap production, Central Europe and the Balkans and Central Eurasia also began to display some results in this

endeavor. Russia in particular showed marked increases in the output of secondary copper and lead from 1997 to 2001.

Additionally, this report has initiated the inclusion of an outlook component in the commodity overview section below. The commodity outlook for 2003, 2005, and 2007 was based on reported planned or in-progress changes to net production capacities for selected mineral commodities among those reviewed in this report. The data in tables 4-23 may not be comparable or additive because of rounding differences.

Commodity Overview

Metals

Western Europe.—With a high social and industrial development base but a static demographic picture, Western Europe should continue to rely more on imported ore and concentrates of ferrous and nonferrous metals and less on domestic mining for most metals. An increased use of secondary metals also will reduce reliance on primary raw materials. Most production increases in this area most likely will be associated increased exports stemming from rising demand for Western European-made durables and consumer products outside the area. Domestic consumption should not be expected to rise in the near future.

Central Europe and the Balkans.—In contrast to Western Europe, almost all the countries in this subregion have a significantly lower base of development with respect to markets, industrial efficiency, commercial and social infrastructures, and per capita GDP. The transitional process to market economies, which would be more in accord with those of Western Europe, will continue, and this development will require major upstream inputs of iron and steel and nonferrous metals to modernize the area's industries and infrastructure. Consequently, increasing consumption of these metals was anticipated. This area has local resources of such nonferrous metals as bauxite, copper, lead, and zinc whose output should increase to meet most rising consumption requirements.

Central Europe, however, will continue to rely on imports of iron ore and concentrate from the CIS and EU. Also a drawdown on stocks of iron and steel scrap for domestic consumption should increase to meet the changing profiles of the area's steel industries.

Central Eurasia.—Led by Russia and Kazakhstan, the CIS will remain a major supplier of natural gas and petroleum and most ferrous, nonferrous, and precious metals to the world market for the foreseeable future. As in the case of Central Europe, an increase in domestic consumption of these commodities was anticipated.

Aluminum, Alumina, and Bauxite.—*Production.*—Despite a level of output of bauxite that was only 8% of total world production, Europe and Central Eurasia accounted for about 34% and 24% of total world output of primary aluminum and alumina, respectively. Major and almost equal shares of alumina and primary aluminum were contributed by Western Europe and Central Eurasia. Russia remained Central Eurasia's main producer of primary aluminum by accounting for about 89% of the subregion's production in 2001 (table 3). Western Europe remained the primary producer of secondary aluminum

in the region by contributing about 92% of Europe and Central Eurasia's output of secondary aluminum. In 2001, the region as a whole contributed about 36% of total world production of secondary aluminum. Western Europe also showed apparent steady growth with respect to its share in total world recovery of secondary aluminum—28% in 1998, 29% in 1999, 31% in 2000, and 33% in 2001. In contrast to Western Europe, the recovery of secondary aluminum in Central Europe and the Balkans and Central Eurasia continued in the range of 1% to 2% of world output during these years.

Outlook.—On the basis of reported ongoing and planned facility expansion and/or decommissioning, net changes in production capacity for primary and secondary aluminum for the region through 2007 indicate steady potential production increases. Norway was positioned to be a major element in those increases of primary aluminum (table 4). A steady increase of Russia's substantial primary aluminum smelting capacities could enable a production increase of about 9% by 2007, thereby contributing to the region's positive outlook for aluminum production during this period. The region's production of secondary aluminum should remain at about or slightly more than 3 million metric tons (Mt) with Western Europe contributing about 85% of total output between 2002 and 2007 (table 3, 5).

Regional bauxite production should be sufficient to meet the needs of at least one-fourth of the expected output of primary aluminum between 2002 and 2007 (table 3, 6). Imports of alumina and bauxite should continue to be the region's main source of raw materials for aluminum production (table 3).

Copper.—Production.—In 2001, mine production of copper in Europe and Central Eurasia amounted to about 15% of total world production. Central Eurasia (Kazakhstan and Russia) and Central Europe (mainly Poland) and the Balkans contributed about 9% and 5%, respectively, of total world production (table 3).

Although Western Europe was only a minor mine producer of copper, the subregion produced a significant share (8.1%) of total world output of primary refined copper. Germany and Belgium remained the largest producers of primary refined copper by accounting for about 30% and 21%, respectively, of total primary refined copper output in Western Europe.

Central Eurasia and Central Europe and the Balkans contributed about 8% and 4%, respectively, of total world production of primary refined copper. Russia and Kazakhstan remained major producers of primary refined copper by contributing about 57% and 37%, respectively, of total primary refined copper production in Central Eurasia. Primary refined copper production in Central Europe and the Balkans remained about the same compared with that of 2000; the subregion's ranking remained about 4% of total world production. Poland, which remained the area's main producer of primary refined copper (84%), saw primary refined copper rise by about 2.6% compared with that of 2000. On balance, however, Kazakhstan, Poland, and Russia were the region's principal copper mining, smelting, and refining areas by accounting for about 83% of total metal in ore and concentrate and about 55% of total primary refined copper.

In 2001, about 60% of recorded world output of secondary copper was produced in Europe and Central Eurasia. Western

Europe produced about 812,000 t of secondary copper (43% of the world total). Germany and Belgium were the main producers of secondary refined copper by accounting for about 46% and 23%, respectively, of the total produced in Western Europe.

Central Eurasia's share of recorded secondary copper recovery amounted to about 13% of the world total. Stricter enforcement of Russian export laws for nonferrous metals (including secondary copper) resulted in more accurate official reporting on secondary copper collection. Secondary copper production in Central Europe and the Balkans appeared to have remained at about the level as that of 2000.

In general, the data used to report the recovery of secondary copper and other metals in Central Europe and the Balkans and Central Eurasia has not been well documented. The data on secondary metals recovery in the tables in this chapter do not reflect the total recovery of secondary metals in the countries of these subregions.

Outlook.—Development and expansion of mine production of copper in Europe and Central Eurasia in conjunction with the reported ongoing and planned mine closures could result in an increase of copper production of more than 200,000 t by 2007. Kazakhstan, Poland, Portugal, and Russia appeared to be positioned to become the mainstays of production growth in their respective subregions. Russia by itself could account for more than 30% of Europe's and Eurasia's total increase of mined copper by 2007.

Although assessments of Russia's copper reserves and resources have been the subjects of debate, recent estimates have varied from 5% to 10% of total world reserves. In 2001, Russia ranked among the top 10 copper mine producing nations in the world. The Noril'sk complex in East Siberia, which was the country's major copper mining enterprise, was seen as the principal vehicle to lead the expansion of mine production of copper by 2007. In 2001, Noril'sk produced more than 70% of Russia's copper. The planned facility expansion at Noril'sk to increase the output of PGMs would increase the output of copper because mining would transition to copper-rich ores with a high PGM content (table 9).

The net changes in refinery production for the region would appear to be stable, given a potential net increase in 2007 of less than 1% compared with that of 2001. This stability, however, would be underpinned by net capacity growth in Central Europe and the Balkans (mainly Poland) and Central Eurasia, where Uzbekistan, Russia, and Kazakhstan could see growth of about 19%, 12%, and 4%, respectively, compared with that of 2001. Western Europe, however, appears set to reduce the output of refined copper by about 10% during this period. Sweden was the only refined copper producer in Western Europe that could register an increase in the output of refined copper (table 10).

Gold.—Production.—In 2001, Europe and Central Eurasia's share of the world's output of gold amounted to about 12%, which was comparable to the region's position in 2000. Central Eurasia remained the dominant producing area by accounting for more than 92% of the region's total output of gold; Central Eurasia's output increased by about 13% compared with the output level reached in 2000 (table 3).

Central Eurasia's total output of gold in 2001 amounted to almost 296 t. Russia, Uzbekistan, Kazakhstan, and Kyrgyzstan produced about 153 t, 87 t, 27 t, and 24 t, respectively.

Russia's gold production reached a 10-year high with about a 7% output increase compared with that of 2000. Plans called for lode deposits to generate about 50% of Russia's gold output.

After Russia, Uzbekistan was the second largest producer of gold in Europe and Central Eurasia. Gold was mined primarily at the Muruntau deposit and also recovered from the mine's tailings, which accumulated over the years. The Newmont Mining Corp. of the United States continued to process the tailings as part of a joint venture (50%) with Uzbek governmental and commercial entities.

To a much greater degree, however, Kazakhstan's gold production was a byproduct associated with the country's nonferrous metals industry. After Kazakhstan, Kyrgyzstan was the fourth largest regional producer of gold. The Kumtor deposit ranked 16th in the world in the size of its gold reserves. Kumtor's gold ore was worked by a joint venture with Canada's Cameco Corporation. In 2001, reserves at Kumtor were estimated to be more than 250 t of contained gold.

Central Europe and the Balkans and Western Europe produced much less gold. In 2001, production levels in Central Europe and the Balkans and Western Europe registered a decrease of about 4% and an increase of about 7%, respectively, compared with those of the preceding year.

Outlook.—Central Eurasia led by Russia would continue to be the region's main gold-producing area. By 2007, gold output in Russia, Kazakhstan, and Kyrgyzstan could increase by about 31%, 13%, and 11%, respectively (table 12).

Iron and Steel.—Iron Ore.—Production.—In 2001, Europe and Central Eurasia's share of world output crude steel, pig iron, and iron ore amounted to about 34%, 30%, and 29%, respectively. Russia and Ukraine were the region's major iron ore producers. Russia's iron ore output in 2001, however, decreased by more than 4.4% to 82.8 Mt compared with that of 2000. Production of iron ore concentrate decreased by 4.2% to 77.7 Mt, and that of pellets, by 9.2% to 27.8 Mt. Russian estimates of its iron ore reserves placed about 27% of the world's reserves of iron ore in its domain. Mining was conducted at 26 iron ore deposits with reserves adequate for 15 to 20 years at the current rate of extraction. Ukraine had about 30 billion metric tons (Gt) of explored iron ore reserves, which was more than 24% of the explored iron ore reserves in Central Eurasia and about 15% of the world's iron ore reserves. Ukraine's iron ore production in 2001 decreased by 2.2% to 54.65 Mt compared with that of 2000 (table 3).

In Central Europe and the Balkans, iron ore output continued on a small scale. In 2001, iron ore production in this area continued to contract as output fell by 13.5% in comparison with the preceding year. Sweden remained the only significant source of iron ore in Western Europe. In 2001, however, Sweden's production of iron ore declined by about 5.5% to 12.8 Mt of contained iron.

Outlook.—Based on ongoing and planned net changes in capacity, clearly suggests that Central Eurasia should continue to be the region's main source of iron ore. The anticipated decline of iron ore production in Central Europe and the Balkans and Western Europe from 2002 through 2007 may be

compensated for production growth by as much as 12% and 4% by Ukraine and Russia, respectively. Total output of iron ore (Fe content) in the region could increase by about 7% during this period (table 13).

Steel.—Production.—In 2001, Western Europe's and Central Eurasia's (mainly Russia and Ukraine) share of world output of crude steel remained at 19% and 12%, respectively. In Western Europe, Germany continued to be the largest producer of crude steel followed by Italy, France, and Spain. Steel production in all four countries, however, declined compared with their respective output levels in 2000. Decreases ranged from less than 1% to 7.5%; the total decrease for Western Europe was 2.3% (table 3).

Steel production in Central Europe and the Balkans, which constituted about 10% of the region's output, declined by about 3.8%. Despite an output decline of about 16% compared with that of 2000, Poland remained the subregion's largest producer of steel.

Steel production in Central Eurasia was more than 100 Mt, which was an increase of about 1.0% compared with the subregion's total output in 2000. Russia and Ukraine, accounted for about 59% and 33%, respectively, of total steel output.

Steel trade continued to be the major issue that affected the world economy, which included that of the United States. Russia and the EU have been reaching general agreements on steel trade since 1994. Starting in 2002, the quotas for deliveries of Russian steel to the EU will be increased by 28% to more than the 840,000 t Russia was entitled to ship to the EU in 2001. The United States announced in December the beginning of investigations of a number of countries whose steel exports may have been damaging to the U.S. economy; Russia was named. Agreements between the United States and Russia already had limited steel exports to the United States since 1999. The United States declared in March 2002 that for a 3-year period, it would impose duties that ranged from 8% to 40% on a wide variety of types of imported steel from a number of countries, which include Russia.

Outlook.—Based on anticipated net capacity changes in the region's steel industry, data suggest a possible growth could be about 1.0% by 2007 compared with production reached in 2001. The anticipated increase in steel production of about 12% during this period in Central Eurasia should offset a decline of steel production in Western Europe (table 23).

Ferroalloying Materials.—Production.—Europe and Central Eurasia remained a major mine producer of such major ferroalloying materials as nickel, manganese, chromite, and accounted for about 25%, 23%, and 22%, respectively, of total world production. As in 2000, the Central Eurasian countries of Kazakhstan, Ukraine, and Russia had the dominant share of the region's mine output of these commodities.

In 2002, Kazakhstan produced more than 2 Mt of chromite, or about 16% of total world output. Minor amounts of chromite (70,000 t) also were produced in Russia's Ural Mountains. In Central Europe and the Balkans, chromite was produced in Albania and Macedonia. Although Macedonia's chromite output historically was minor, Albania was one of the major world producers in the 1980s. Recent production levels, however, have been well below 100,000 t. Finland remained the main producer of chromite in Western Europe and accounted for about 5% of total world production in 2001.

Ukraine continued to be the leading producer of manganese ore in Europe and Central Eurasia and accounted for about 14% of world output. Also, production of manganese was significant in Kazakhstan where ore production increased by almost 24% to more than 1.4 Mt compared with that of 2000. Overall, Central Eurasia contributed about 22% of world production of manganese in 2001.

Russia's production of nickel in ore represented more than 24% of total world production of nickel. The major portion of Russia's nickel output came from Norilsk, which was obtained from complex sulfide ores at Norilsk in Western Siberia and to a lesser degree on the Kola Peninsula near the border with Finland; laterite ores in the Ural Mountains also were mined. Small quantities of mined nickel came from Kazakhstan and Ukraine. In Western Europe, relatively small quantities of nickel were mined in Greece from laterite deposits and a much lesser amount was produced by Finland (table 3).

In 2001, Central Eurasia (Russia) and Western Europe also contributed 22% and 16%, respectively, of total world output of plant nickel.

Outlook.—Most of the prospective growth in the nickel mining sector is expected to come from Russia's Norilsk operations. Russian production could grow by as much as 11% by 2007 compared with output reached in 2001, whereas mine production of nickel was expected to decrease by as much as 11% in Western Europe. Mine output of nickel in Central Europe and the Balkans was expected to begin during this period (table 18).

Lead and Zinc.—Lead.—Production.—Europe and Central Eurasia's share of world mine output of lead amounted to about 14% in 2001. Western Europe and Central Europe and the Balkans each accounted for about 6% of world mine lead production. Central Eurasia was a relatively minor mine producer of lead whose output had not exceeded 2% of total world production for any year from 1997 to 2001.

Central Europe and the Balkans saw growth of mine lead production buoyed by output increases of about 70%, 7%, and 5% by Bulgaria, Poland, and Romania, respectively. Poland remained a leading regional mine producer of lead; production reached about 122,000 t of lead in ore. In Western Europe, Spain had the highest growth of mine output of lead—23% compared with that of 2000. Sweden remained the subregion's largest producer, although production declined by almost 20% to 86,000 t (table 3).

Outlook.—Based on reported ongoing and planned net changes in the lead and zinc mining sector, an overall decline in mine production of lead in the region appears to be set to continue through 2007 with some in mine output projected for Central Eurasia. Such factors as depletion and greater reliance on secondary sources of lead have played an important role in this trend (table 4).

Europe and Central Eurasia continued to be an important producing region for primary and secondary refined lead. In 2001, the region accounted for about a 30% share of world production of primary refined lead and a 34% share of total world output of secondary refined lead. The region's share of world production of primary and secondary lead appeared to have declined from 33% and 35%, respectively, of world output levels in 2000 (tables 3, 15).

Western Europe accounted for about 19% and 33% of world output of primary and secondary refined lead, respectively. Although data on recovery and use of secondary lead in Central Eurasia is incomplete, the subregion continued to be major producer of primary refined lead. In 2001, Central Eurasia's production of primary lead, which was based entirely on that of Kazakhstan and Russia, amounted to almost 7% of world production. Central Europe and the Balkans constituted about 5% of total world production; secondary lead production, however, also remained at the level of 2000, or 2% of world production.

Stable regional production of primary refined lead is expected to be buoyed by anticipated production increases in the Central Eurasian and Central European and Balkan areas, especially in Kazakhstan (table 15). Also, full political stabilization in the Balkans, especially in the countries that once comprised Yugoslavia, could well result in an outlook revision in favor of greater output by 2007.

The outlook for secondary lead points to stable regional output through 2007 despite the current paucity of information from Central Eurasia on secondary lead recovery and circulation (table 16).

Zinc.—Production.—Europe and Central Eurasia's mine output of zinc accounted for about 16% of world production. The production primary zinc metal, however, accounted for about 70% of total world production. Western Europe accounted for about 50% of the world's production of primary zinc metal, and Central Eurasia and Central Europe and the Balkans contributed 12% and 7%, respectively. In 2001, secondary recovery of zinc in Europe and Central Eurasia apparently increased by about 7% compared with the recovery level of 2000. The latest available data indicated the region's total output of secondary zinc to have constituted about 10% of world output (table 27).

Outlook.—The outlook for the region's mine output of zinc appears to be set to increase for most years through 2007 and would account for between 46% and 50% of zinc needed for metal production within the region. The output of refined zinc also appears set to grow in small increments owing mainly to significant production growth that was anticipated through 2007 in Kazakhstan and Russia (table 28).

Mercury.—Western Europe was a major world mine producer of mercury; output in 2001 accounted for about 37% of total world production. Production in Western Europe centered on output in Spain, which accounted for about all Western Europe's production (table 3).

The total output of mercury by Central Eurasia amounted to about 17% of world production. Kyrgyzstan was the main producer of mined mercury in Central Eurasia and accounted for 75% of the subregion's mine production.

Platinum-Group Metals.—Production.—As in the case of nickel, Russia's Norilsk complex, which produced about 72 t of palladium and 35 t of platinum in 2001, accounted for virtually all Europe and Central Eurasia's output of PGMs. Insubstantial amounts of platinum and palladium production also were accounted for by Finland, Poland, and Serbia and Montenegro. Russia's production of palladium and platinum represented about 44% and 20%, respectively, of total world mine

production in 2001 (table 3). Although platinum has been used more in the manufacture of jewelry and numismatics than palladium, both metals have such major applications in the industrial sector as catalysts in catalytic converters to reduce automobile emissions. Moreover, platinum may find increasing application as a catalyst in automotive fuel cell technology.

Russia was the world's second largest producer of PGMs after South Africa in 2001 and was the world's largest palladium producer owing to a higher ratio of palladium to platinum in Russian ores than in South African ores. The Russian company MMC Noril'sk Nickel mined more than 90% of the country's PGM output from mixed sulfide ores at its Polar Division deposits at its in East Siberia. An estimated 10 metric tons per year of PGM (mostly platinum) was mined from placer deposits in the Urals, Siberia, and the Russian Far East.

Noril'sk's long-term development strategy appeared oriented towards maximizing PGM production. Although nickel-rich ores at Noril'sk, which are the primary source of PGM, are being depleted, Noril'sk's remaining resources of copper-rich and disseminated ores are rich in PGM. Along with developing new ore sources, Noril'sk Nickel continued to develop the capability to recover PGM from abundant pyrrhotite tailings that were accumulated from many years of mining. PGM production is planned to increase between 2000 and 2010.

Outlook.—Official Noril'sk company production plans through 2015 indicated that Russian production should continue to account for most, if not entirely all, of the region's output of PGM (table 21).

Silver.—Production.—Europe and Central Eurasia was an important source of mined silver and accounted for about 18% of world production in 2001; substantial contributions came from Central Eurasia (8%) and Central Europe and the Balkans (7%). The dominant portion of this output was as a byproduct of nonferrous metals processing. Poland and Kazakhstan remained the region's main producers of silver with output reaching 1,190 t and 982 t respectively.

Outlook.—Kazakhstan, Poland, and Russia are expected to remain the major producers of silver in the region. Russia is expected to be the principal contributor to regional growth of silver output through 2007 (table 22).

Tin.—Production.—Mine output of tin in Europe and Central Eurasia, which was minor by world standards, amounted to about 3% of total world production. Portugal and Spain in Western Europe and Russia and, to a lesser extent, Kazakhstan in Central Eurasia were the region's main mine producers of tin (table 3).

Despite a large drop in Russian tin production since the dissolution of the Soviet Union, Russia was still ranked among the world's 10 largest tin producers in 2001. Russian companies were also involved in tin development in Kyrgyzstan, which was developing its tin mining industry. The Novosibirsk tin complex, which was a monopoly tin producer, controlled Russia's only major tin smelter and a large share of the country's tin mining enterprises. In 2001, Novosibirsk produced 4,548 t of tin metal, which accounted for the major portion of Russia's tin metal production.

The region's production of secondary tin was significant and accounted for 36% of known world production; Western

Europe's share of world secondary tin output amounted to about 34% of known total world output. Western Europe's output of secondary tin showed significant growth compared with its 18% ranking in 1998. Although the production of secondary tin in Central Eurasia was estimated to be 2% of total world output, the actual condition of secondary tin recovery was not known because of a lack of information from this area.

Outlook.—Compared with the region's production of mined tin in 2001, mine output of tin in 2007 is anticipated to recover marginally after a marked decline in Russia in 2002. During this period, Western Europe's mine production of tin is expected to remain stable (table 24).

Primary tin will continue to be produced in Russia with output expected to decrease sharply in 2002 but to remain stable through 2007 (table 25).

Tungsten.—Production.—In 2001, the output of tungsten in ore in Europe and Central Eurasia declined by 4.4% to about 5,600 t compared with that of 2000 and represented about 13% of total world mine production. The main producers were, in order of magnitude, Russia, Austria, and Portugal (table 3).

Russia was the region's only major tungsten producer. The tungsten trioxide content of Russian reserves averaged 2.2 times lower than that in deposits under development in other countries. Russian tungsten reserves have been decreasing. Production could be maintained by expanding capacity for mining tungsten ore at existing mining enterprises and by developing reserves at new deposits, which included a number of other small deposits with rich ore. Russian tungsten production was important to the United States because after China, Russia was the largest supplier of imported tungsten materials. In 2000, total imports of tungsten from Russia to the United States were 1,710 t of contained tungsten, but this was 26% less than what Russia supplied the United States in 1999.

Outlook.—Based on ongoing and planned net changes to mining capacity, data suggest a steady decline in production level through 2007 (table 26).

Industrial Minerals

Western Europe.—The production of most major industrial minerals has remained stable during recent years. As in the case of metals, the disposition of production increases more than likely would be directed toward export rather domestic sales.

Central Europe and the Balkans.—Resources of most industrial minerals in the region are adequate to meet anticipated production and consumption increases. Almost all cement manufacturing and associated quarrying activities have been acquired by major EU cement and building materials manufacturers; many of these enterprises have been undergoing modernization to bring them in accord with EU standards.

Central Eurasia.—Resources of most industrial minerals in the region are adequate to meet anticipated production and consumption increases.

Cement.—Europe and Central Eurasia produced about 17% of total world production of cement in 2001. Western Europe accounted for about 12% of total world output of cement; Central Eurasia and Central Europe and Balkans accounted for about 3% and 2% of total world cement production (table 3).

The acquisition of cement plants in Central Europe and the Balkans by major EU cement companies during the preceding 11-year period remained a trend that extended into Central Eurasia. Foreign investors have been acquiring cement-producing and associated assets in Russia and several other Central Eurasian countries with large cement industries.

Diamond.—Production.—Europe and Central Eurasia was one of the world's major diamond-producing regions. In 2001, the region accounted for about 20% of world production of natural diamond and about 15% of world synthetic diamond production. Russia, which produced more than 23 million carats of natural diamond, accounted for virtually all the regions production of natural gem and industrial-grade stones (table 3). In 2001, Russia's output of natural diamond was at about the same level of output as that reached in 2000. Within the category of natural diamond, Russia produced about equal amounts of gem- and industrial-grade material (table 11).

Outlook.—Russian diamond output was expected to increase given the anticipated start of production at the Lomonosov field in the Arkhangelsk region in late 2004 and the new development to be undertaken in Yakutia where reserves were being depleted. Mine development work in Yakutia included facility expansion to bring the Internatsionalny underground mine to full capacity, the development of underground mining below the depleted open pits at the Aikhmal and Mir and pipes, the development of underground mining at the Udachnaya pipe, and the expansion of ore-processing capacity at the Nyurba Mine.

Nitrogen.—Europe and Central Eurasia's share of world output of nitrogen in ammonia amounted to more than 28% in 2001, which was an increase of about 1.5% compared with its share of world output in 2000. Central Eurasia was the largest producing area with about 14% of world production in 2001. Lesser contributions to world output by Western Europe and Central Europe and the Balkans amounted to about 11% and 4%, respectively.

Phosphate Rock.—Production.—Russia continued to be the major producer of phosphate rock in Europe. Russia produced a 96% share of Central Eurasian output, which accounted for about 8% of world production in 2001. Phosphate rock production in other areas of Europe and Central Eurasia was insignificant by contrast with Russian output (table 3).

Russian phosphate production came almost entirely from apatite ore on the Kola Peninsula. More than 3.2 Gt of reserves of apatite ore, which averaged about 14% P_2O_5 , was on the Kola Peninsula. The Apatite Production Association on the Kola Peninsula was the country's major producer of phosphate raw material in the form of apatite concentrate, which averaged between 35% and 39% P_2O_5 . The Kola Peninsula's production represented more than 90% of the country's phosphate output. Apatite concentrate exports from the Kola Peninsula amounted to more than one-third of total apatite concentrate production. Decreasing levels of ore quality and more complicated mining and hydrological conditions have been increasing at the Kola operation owing to the growing depth of the mines. The Apatite Production Association planned to maintain apatite concentrate production in the range from 9 million to 9.5 million metric tons per year (Mt/yr), which would require attracting investment to

maintain existing production capacities and to prepare new horizons for underground mining.

Outlook.—Based on ongoing and planned net changes to phosphate mining capacity, data suggest an overall increase in production through 2007. This increase mainly would reflect anticipated output growth in Russia, as well as some growth in Western Europe (table 20).

Potash.—Europe and Central Eurasia, which was a substantial producer of potash (K_2O equivalent), accounted for 53% of world production in 2001. Central Eurasia was the leading producing region; Belarus and Russia produced almost an equivalent amount of mined potash that amounted to about 34% of world production. Potash output by Western Europe accounted for about 19% of world production; Germany remained the dominant mine producer. Central Europe and Balkans had no appreciable production of potash (table 3).

Salt.—Major production of salt came from Western Europe, which accounted for about 17% of world production in 2001 (table 3). Central Europe and the Balkans, which was led by Poland, accounted for about 4% of world output. With Russia's output having declined by more than 13%, Central Eurasia's ranking as a salt producer also declined to about 2.5% of world output from 3% in 2000.

Sulfur.—Europe and Eurasia's share of world sulfur production amounted to about 29% in 2001. Central Eurasia, which led the region in the production of sulfur from all sources, accounted for about 15% of world output. Western Europe's share of world sulfur production remained at about 11%, and that of Central Europe and the Balkans (led by Poland), at about 4% (table 3). Sulfur production in Central Eurasia mainly was a byproduct of natural gas and oil production. The availability of byproduct sulfur increased as the countries in the region continued to develop hydrocarbon deposits with high sulfur content.

Titanium.—Europe and Central Eurasia's mine production of titanium, which was substantial, accounted for more than 45% of world output in 2001. Ukraine was the major regional producer and accounted for about 32% of world mine output of titanium. Norway also continued to be an important source of titanium and accounted for about 13% of world output (table 3).

Ukraine, which was the only major producer of titanium raw materials in Central Eurasia, produced ilmenite and rutile and continued to supply ores and concentrates to titanium metals producing plants in the CIS.

The Avisma Titanium-Magnesium complex, which was Russia's only titanium sponge producer, was one of the world's largest producers of titanium sponge. In 2001, Russian titanium sponge production represented about 33% of world output.

The AO Ust'-Kamenogorsk Titanium and Magnesium complex was Kazakhstan's only titanium-sponge-producing plant. AO Ust'-Kamenogorsk exported all its titanium sponge outside the CIS. In 2001, sales from AO Ust'-Kamenogorsk, which were reported in local currency, increased by 76.3% compared with those of 2000. Production of titanium sponge in 2001 amounted 14,000 t, or about 14.3% of world output.

The state-owned Zaporizhya Titanium and Magnesium plant, which was Ukraine's only producer of titanium sponge, had an original design capacity to produce about 20,000 t/yr of titanium. The plant exports most of its output outside the CIS. Sponge production in 2001 amounted to 6,000 t.

Mineral Fuels

Western Europe.—With the exception of North Sea hydrocarbon production, Western Europe sources of energy should continue to be based on imports from the Middle East and from the CIS. A resolution of the pipeline issue described in this report would increase imports from within the region in the Caspian oil- and gas-producing areas of the CIS. Major increases of energy consumption in the near term, however, were not anticipated.

Western Europe, with increasingly integrated economies and energy sectors, was the world's second largest energy consumer after the United States. Members of the EU, with the exception of the United Kingdom, were net energy importers. The EC estimated that the EU would have to import 70% of its total energy and up to 90% of its oil in the next 20 to 30 years if no new measures are taken.

EU members possessed only about 0.7% of the world's proven reserves of oil and 2.5% of the world's natural gas reserves. They have, however, 7.3% of proven coal reserves, 16% of the world's capacity for refining crude oil into petroleum products, and 17% of the world's electric-generating capacity. In 2001, they produced about 4% of the world's crude oil, 10% of the world's natural gas, and 7% of the world's coal. The EU has moved to increase the penetration of renewable energy in the European energy mix. In 2001, the European Parliament approved a Renewables Directive that would require the EU to double its renewable share of energy by 2010. The share of total energy consumption met by renewable energy resources would have to increase to 12% in 2010 from the current level of 6%.

Central Europe and the Balkans.—Most of the countries in the region were net importers of energy. Domestic production of brown coal and lignite for electric power generation will be maintained to reduce the cost of imported natural gas and petroleum, which was largely supplied by the CIS. Poland's hard coal industry will continue to modernize and should continue to play an important regional role in the energy field.

Lignite, which was the fuel mainly used to power thermal electric power stations, continued to be an important source of energy in Central Europe and the Balkans. In 2001, Poland remained the area's largest producer of anthracite coal, bituminous coal, and lignite. As of December 31, 2001, Poland's resources of bituminous coal and anthracite coal amounted to about 45.9 Gt and those of lignite, 13.9 Gt.

Central Eurasia.—Russia and other CIS oil and gas producers will continue to be among the major providers of hydrocarbons to the world market. The rate of increases of future deliveries of these commodities to the world market, however, will depend on the resolution of the pipeline issue for their delivery. The area has sufficient resources to meet demand increases in domestic and export markets. Coal was produced in a majority of the countries in the CIS; Kazakhstan, Russia, and Ukraine, were the major coal producers.

Kazakhstan's resources were assessed to be between 150 and 160 Gt. In 2001, Kazakhstan announced plans to increase coal production to more than 80 Mt/yr by 2005.

In 2001, Russia's coal production increased to 270 Mt from 257 Mt in 2000. During the past 3 years, production increased as the Russian economy grew and domestic demand for coal increased. The greatest increases in coal output were in the West Siberian Economic Region, specifically in the Kuznets Basin (Kuzbass), where coal production increased by 32.9% and also in the East Siberian Economic Region where coal production increased by 19.8%. Increases were smaller in the Northern (17%) and Far East (4.4%) Economic Regions. In 2001, the Russian coal mining industry added 21.5 Mt of capacity. In 2001, total capacity of the mines and open pits increased to 279 Mt compared with 267.5 Mt in 2000.

In Ukraine, the decrease in coal extraction since independence ended in 1998. By 2000, coal extraction had reached about 82 Mt, and in 2001, extraction was about 84 Mt. Goals were set to stabilize coal extraction at between 85 and 90 Mt/yr. Most of Ukraine's coal was mined in the Donetsk Basin (Donbas) in the eastern part of the country.

Coal.—Anthracite.—Production.—Central Eurasia, which was the region's chief producer of anthracite, accounted for about 9% of total world production in 2001, and production by Central Europe and the Balkans was negligible. Europe and Central Eurasia's production of bituminous coal in 2001 amounted to more than 13% of world production; Western Europe accounted for about 3%. Led by Russia, Kazakhstan, and Ukraine, Central Eurasia accounted for more than 8% of world output of bituminous coal. Poland produced about 85% of the total bituminous coal production in Central Europe and Balkans, which accounted for about 3% of world output (table 3).

Outlook.—Although anticipated production of anthracite and bituminous coal should remain considerably less than the regional output levels of 1990 and 1995, steady output by Poland and expected incremental production growth by Russia's anthracite sector should provide stable prospects for the region's coal industry by 2007 (table 7).

Lignite.—Production.—Europe and Central Eurasia was the world's dominant producer of lignite, which continued to represent an almost 65% share of world output. Lignite production by Western Europe, Central Europe and the Balkans, and Central Eurasia was 28%, 25%, and 12%, respectively, of world output.

Outlook.—Data based on anticipated net changes to mine output capacities suggest only a slight decline of production in the region through 2007. Lignite should continue to be an important fuel to be used for electric power generation in the region (table 8).

Natural Gas.—Production.—Central Eurasia (mainly Russia) held a substantial share of the world's production of natural gas, which amounted to about 27% of the total in 2001; this share has remained virtually unchanged since 1998. Western Europe, however, saw its share of natural gas production decline to 11% in 2000 from about 13% of the world total in 1997. In 2001, however, natural gas production in Western Europe rose by about 13%, but the subregion's share of

world production declined to 10%. Central Europe and the Balkans accounted for a much lesser share of world natural gas output; this share has remained below 2% since the 1997 (table 3).

Outlook.—Anticipated increases in production capacity in Central Eurasia will make this subregion a mainstay for natural gas production increases for the entire region through 2007. Russia, which had the world's largest reserves of natural gas, remained the largest natural gas producer and exporter. Given the slight decline in natural gas production in 2001, Russia may well have to develop new production capacities to maintain and increase production. Most of its fields, however, are located in the more remote regions that lack infrastructure and would require much higher levels of investment. In addition, such major world producers of natural gas as Kazakhstan, Turkmenistan, and Uzbekistan also could be major factors in the region's expected rise in output. The rate at which natural gas production increases will largely will depend on near-term investments in pipelines and other infrastructure that would enable the efficient marketing of this product (table 17).

Petroleum.—Production.—In 2001, Europe and Central Eurasia accounted for about 22% of world petroleum production. Western Europe's share of world production accounted for about 9% of world petroleum production. Central Eurasia, which was led by Russia (about 11% of world oil production), accounted for about 13% of the world's output of petroleum in 2001; this level of output was an increase of almost 11% compared with Central Eurasia's output in 2000. Petroleum production in Central Europe and the Balkans continued to be less than 1% of total world output (table 3).

Although Central Eurasia's oil production was centered mainly in West Siberia, major new petroleum resources that occur mostly offshore in the Caspian Sea were developed by the littoral states in conjunction with major Western firms.

In 2001, Russia's oil production increased by about 7% to 348 Mt from 324 Mt in 2000. By early 2002, Russia's oil production was expected to surpass Saudi Arabia's for the first time since the Soviet era and made Russia, at least temporarily, the world's leading oil producer. Russia had the world's eighth largest oil reserves with proven oil reserves of 48.6 Gbbl (about 6.6 Gt).

Following Russia, Kazakhstan was the second largest oil-producing country in Central Eurasia. Kazakhstan's proven petroleum reserves were estimated to be 5.4 Gbbl (about 735 Mt). In addition, Kazakhstan's onshore and offshore petroleum resources were estimated to range from 30 to more than 50 Gbbl (about 4.1 to 6.8 Gt); these roughly equal or exceed its proven reserves. Petroleum output increased by more than 12% in 2001 to 39.7 Mt from 35.3 Mt in 2000. Kazakhstan's oil production was expected to reach almost 60 Mt/yr in 2005, almost 100 Mt/yr by 2010, and 125 Mt/yr by 2015.

Azerbaijan's economic development was based on its vast oil and natural gas resources in the Caspian Sea region. Following independence, Azerbaijan's enormous potential reserves in undeveloped offshore Caspian fields attracted international investors, and multinational energy companies began major investments in the country's oil sector. In 2001, Azerbaijan's oil production increased for the fourth straight year. Output rose to 14.9 Mt in 2001 from 14 Mt in 2000.

Outlook.—The anticipated growth of petroleum production in Europe and Central Eurasia would be sustained by production increases of about 33% from 2001 to 2007 in Central Eurasia (table 19). During the same period, the anticipated production growth in Western Europe should amount to only 6%. Central Eurasia should also see its oil production decline slightly during this period.

Uranium.—Europe and Central Eurasia was the major regional source of mined uranium oxide (table 3). This area's share of world output steadily rose to 21% in 2001 from 17% in 1998.

In the CIS, uranium was mined mainly in the Central Asian countries. Russia did not produce enough uranium to meet its consumption requirements and had to consume stockpiled material. It was planning to make up for shortfalls by participating in uranium development projects at home and abroad. Russia planned to increase the capacity of its nuclear reactors by 50% by 2010 and by more than 450% by 2050. Kazakhstan and Uzbekistan are endowed with substantial resources of uranium ore. Uranium mining in Kyrgyzstan ceased in the mid-1980s. The Kara Balta mining and processing enterprise in Kyrgyzstan remained one of the largest uranium-processing plants in the CIS. Uranium mining ceased in Tajikistan in the mid-1980s.

Trade

Mineral commodity trade in transitional economy countries of Central Eurasia and Central Europe and the Balkans showed mixed features. Of the transitional economy countries, the countries of the CIS were the major exporters of extracted and processed mineral commodities. Exports went to countries primarily outside the CIS. Domestic trade, however, was significant for mineral products in which these countries were deficient and that were not saleable on world markets. Mineral commodity trade in Central Europe and the Balkans was largely distinguished by import dependence on natural gas and petroleum, raw materials for iron and steel production, and a variety of nonferrous metal ores. The CIS continued to be a significant exporter of many of these commodities, especially hydrocarbons. With respect to nonmineral trade, the CEFTA-member countries of Central Europe and the Balkans were gradually redirecting a substantial portion of their trade toward markets in the EU.

Steel trade in the region was of special importance. The flow of excess steel to Western Europe and other world markets from Central Europe and the Balkans and Central Eurasia was significant. World steel supply was outstripping demand, and much of this surplus production targeted the European market. The top countries that exported material into the EU were, in order of descending tonnage, Russia, Turkey, Poland, the Czech Republic, Ukraine, Slovakia, Brazil, and Bulgaria. These countries accounted for more than 55% of EU imports. Since 1997, imports from countries outside the EU doubled or more than doubled into Italy, Spain, Sweden, and the United Kingdom and rose by about one-half into Germany. Import penetration by countries outside the EU was highest among the major EU markets in Italy, Spain, and the United Kingdom.

During the latter one-half of the 1990s, an array of dumping charges were initiated against many steel-producing countries in Central Eurasia and Central Europe and the Balkans. Between 1995 and 2002, 74 antidumping actions were initiated against Russian ferrous metals exports, of which 33 resulted in sanctions. Other CIS steel-producing countries were experiencing similar problems. According to Russian analysts, the major problem was that Russian steel exports competed primarily based on their low price because they lacked the necessary attributes to compete on quality, which made these exports an easy target for antidumping actions. These analysts did not envision a quick resolution of this problem owing to the overcapacity of steel production in world markets. A longer term solution to facilitate sales on the world and domestic markets would require the restructuring of the Russian steel industry and the continued restructuring of the domestic economy to facilitate growth and an underlying modernization of the country's financial and legal systems

The issue of iron and steep scrap trade was of some concern in the region. During the 1990s the transitional economy countries of Europe and Central Eurasia became a major source of ferrous scrap feedstock for Western Europe, which had been increasingly redirecting its steelmaking operations toward the greater use of electric-arc furnaces (EAFs) to obtain greater savings and environmental dividends. In Central Europe and the Balkans and Central Eurasia, the trend toward using EAFs and continuous casting technology, although nowhere near the levels attained in Western Europe, also had been growing incrementally. Consequently, decreasing supplies of ferrous scrap to Western Europe and rising exports of steel from Central Europe and the Balkans and Central Eurasia had pressed the steel interests in Western Europe to seek a reversal of these trends.

In 2001, the EU and the United States continued to share the largest two-way trade and investment relationship in the world. The U.S. trade deficit with the EU was about \$62 billion. U.S.

merchandise exports to the EU were more than \$158 billion. U.S. merchandise imports from the EU were about \$220 billion. In contrast, commercial activity between the United States and Central Europe and the Balkans and Central Eurasia remained at levels that were significantly less developed.

Consumption

Consumption of practically all mineral commodities in the transitional economy countries of Europe and Central Eurasia had fallen sharply during the 1990s. To some extent, this linked the future of many of the mineral industries in these countries to a revival of consumption in this region. If demand there were to revive, then many mineral commodities that were not economic to export because of large transport charges could be marketed domestically. Also, a revival of demand would lessen the pressure to export many mineral products, which could reduce some of the dumping charges that were being leveled at many of the transitional economy countries. A revival of domestic demand would result not only in increased domestic consumption, but also in the production of more value-added products from these mineral commodities. If a large portion of the population of the transitional economy countries were to consume minerals at a rate comparable to that of the more developed industrialized economies, then the mineral trade profile of this region would be significantly changed, probably to the economic advantage of some mineral producers in the transitional economy countries and to the disadvantage of some consumers of mineral products in other parts of the world. As would be the case with any major populated region of the world that was raising its mineral consumption to the level of more advanced industrialized countries, the overall demand for the world's mineral resources would increase.

Consumption of minerals in Western Europe has not shown any significant shifts in 2001 or for several preceding years. The area's low population growth and a fully developed industrial base accounted for the steady rate of minerals consumption.

TABLE 1
EUROPE AND CENTRAL EURASIA: OVERVIEW OF POPULATION AND GROSS DOMESTIC PRODUCT IN 2001

Major areas and economic affiliations	Population		Gross domestic product 1/		
	Total	Growth rate 2/	Gross value (billions)	Per capita	Growth rate 2/
Balkans and Central Europe:					
Central European Free Trade Agreement:					
Bulgaria	7,621,337	-1.11	\$48	\$6,200	4.00
Czech Republic	10,256,760	-0.07	148	14,400	3.40
Hungary	10,075,034	-0.30	121	12,000	3.90
Poland	38,625,478	-0.02	340	8,800	1.50
Romania	22,317,730	-0.21	153	6,800	4.80
Slovakia	5,422,366	0.14	62	11,500	3.00
Slovenia	1,932,917	0.14	31	16,000	4.00
Total or average	96,251,622	-0.20	903	10,814	3.51
Unaffiliated countries:					
Albania	3,544,841	1.06	13	3,000	7.30
Bosnia and Herzegovina	3,964,388	0.76	7	1,800	6.00
Croatia	4,390,751	1.12	36	8,300	4.00
Macedonia	2,054,800	0.41	9	4,400	-4.00
Serbia and Montenegro	10,656,929	-0.12	24	2,300	5.00
Total or average	24,611,709	0.65	89	3,960	3.66
Total or average, Balkans and Central Europe	120,863,331	0.15	992	8,025	3.58
Central Eurasia:					
Commonwealth of Independent States:					
Armenia	3,330,099	-0.15	\$11	3,400	9.60
Azerbaijan	7,798,497	0.38	24	3,100	9.90
Belarus	10,335,382	-0.14	85	8,200	4.10
Georgia	4,960,951	-0.55	16	3,100	8.40
Kazakhstan	16,741,519	0.01	98	5,900	12.20
Kyrgyzstan	4,822,166	1.45	14	2,800	5.00
Moldova	4,434,547	0.09	11	2,600	6.10
Russia	144,978,573	-0.33	1,200	8,300	5.20
Tajikistan	6,719,567	2.12	8	1,140	8.30
Turkmenistan	4,688,963	1.84	22	4,700	10.00
Ukraine	48,396,470	-0.72	205	4,200	9.00
Uzbekistan	25,563,441	1.62	62	2,500	3.00
Total or average	282,770,175	0.47	1,756	4,162	7.57
Unaffiliated countries:					
Estonia	1,415,681	-0.52	14	10,000	4.70
Latvia	1,266,515	-0.77	19	7,800	6.30
Lithuania	3,601,138	-0.25	27	7,600	4.80
Total or average	6,283,334	-0.51	60	8,467	5.27
Total or average, Central Eurasia	289,053,509	0.27	1,816	5,023	7.11
Western Europe:					
European Union:					
Austria	8,169,929	0.23	\$203	\$25,000	1.20
Belgium and Luxembourg	10,696,164	0.15	318	26,693	1.10
Denmark, Faroe Islands, Greenland	5,471,241	0.30	152	28,000	1.10
Finland	5,183,545	0.14	134	25,800	0.60
France	59,765,983	0.35	1,510	24,400	2.10
Germany	83,251,851	0.26	2,174	26,200	0.60
Greece	10,645,343	0.20	190	17,900	3.70
Ireland	3,883,159	1.07	105	27,300	5.60
Italy	57,715,625	0.05	1,402	24,300	1.80
Netherlands	16,067,754	0.53	413	25,800	1.10
Portugal	10,084,245	0.18	174	17,300	1.70
Spain	40,077,100	0.09	757	18,900	2.80
Sweden	8,876,744	0.02	219	24,700	1.60
United Kingdom	59,778,002	0.21	1,470	24,700	2.40
Total or average	379,666,685	0.27	4,758,036	24,071	1.96
European Free Trade Association:					
Iceland	279,384	0.52	7	24,800	4.30
Norway	4,525,116	0.47	139	30,800	1.30
Switzerland	7,301,994	0.24	226	31,100	1.60
Total or average	12,106,494	0.41	372	28,900	2.40
Unaffiliated countries, Malta	397,499	0.73	6	15,000	4.00
Total or average, Western Europe	392,170,678	0.32	4,758,414	24,594	2.14

See footnotes at end of table.

TABLE 1--Continued
EUROPE AND CENTRAL EURASIA: OVERVIEW OF POPULATION AND GROSS DOMESTIC PRODUCT IN 2001

1/ Calculated on the basis of purchasing power parity.
2/ Calculated as percentage change from 2000 to 2001.

Source: U.S. Central Intelligence Agency, 2002, The world factbook 2002: U.S. Central Intelligence Agency, 658 p. Country references are in the respective country chapters in this volume.

TABLE 2
EUROPE AND CENTRAL EURASIA: SELECTED EXPLORATION SITES IN 2001 1/

Location	Type 2/	Site	Commodity	Company	Resource 3/	Exploration 4/
Finland	E	Arctic/Penikat/Portimo	PGM, Au, Cu, Ni	NA	11.3 Moz PGM and Au	Extensive drilling.
Do.	F	Suurikuusikkko	Au	Riddarhyttan Resources AB	1.6 Moz Au	Do.
Greenland	F	Nalunaq	Au	Crew Development Corp.	396,000 oz Au	Feasibility drilling.
Italy	E	Monte Ollasteddu	Au	Gold Mines of Sardinia Ltd.	Data not released	Extensive drilling.
Romania	E	Certej	Au, Ag	European Goldfields Ltd.	2.83 Moz Au	Do.
Do.	F	Rosia Montana	Au, Ag	Gabriel Resources Ltd.	10.5 Moz Au, 54.6 Moz Ag	Feasibility drilling.
Russia	E	Birkachan	Au	Kinross Gold Corp.	Data not released	Extensive drilling.
Do.	F	Pana	PGM	NA	1,040 t PGM	Extensive work program.
Do.	E	Verkhovina	Diamond	Archangel Diamond Corp.	67 million carats diamond	Do.

NA Not available.

1/ Abbreviations used for commodities in this table include the following: Ag--silver, Au--gold, Cu--copper, Ni--nickel, and PGM--platinum-group metals. Abbreviations used for units of measurement include the following: Moz--million troy ounces, oz--troy ounces, and t--metric tons.

2/ E--Active exploration; F--Feasibility work ongoing/completed.

3/ Resources reported where available based on data from various public sources. Data have not been verified by the U.S. Geological Survey.

4/ Sites where extensive (greater than 10,000 meters) drilling or significant (more than \$4 million) expenditure have been reported.

Source: Resource data are unverified public information reported in Wilburn, D.R., 2002, Exploration: Mining Engineering, v. 54, no. 5, May, p. 26-36.

TABLE 3
EUROPE AND CENTRAL EURASIA: PRODUCTION OF SELECTED MINERAL COMMODITIES IN 2001 1/ 2/

(Thousand metric tons unless otherwise specified)

Region and/or country	Metals													
	Aluminum								Antimony					
	Alumina		Bauxite		Metal				Mine		Chromite		Copper, mine	
	Quantity	Percentage change 4/	output (metric tons)	Percentage change 4/	Gross weight	Percentage change 4/	Metal content	Percentage change 4/						
Central Eurasia:														
Armenia	--	--	--	--	--	--	--	--	--	--	--	--	7	--
Azerbaijan	95	-56.2%	--	--	--	--	--	--	--	--	--	--	--	--
Belarus	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Estonia	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Georgia	--	--	--	--	--	--	--	--	--	--	--	--	8	--
Kazakhstan	1,220	0.2%	3,668	-1.7%	--	--	--	--	--	--	2,046	-21.5%	470	9.3%
Kyrgyzstan	--	--	--	--	--	--	--	--	150	--	--	--	--	--
Latvia	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lithuania	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Moldova	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Russia	3,050	7.0%	4,000	-4.8%	3,300	1.7%	--	--	4,500	--	70	-23.9%	620	8.8%
Tajikistan	--	--	--	--	289	-3.7%	--	--	2,500	25.0%	--	--	--	--
Turkmenistan	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ukraine	1,370	0.7%	--	--	121	1.7%	130	0.8%	--	--	--	--	--	--
Uzbekistan	--	--	--	--	--	--	3	50.0%	--	--	--	--	65	--
Total	5,740	1.6%	7,670	-3.3%	3,710	1.3%	133	1.5%	7,150	7.5%	2,120	-21.6%	1,170	8.3%
Share of world total	11.7%	2.2%	5.6%	-5.4%	15.2%	2.1%	1.7%	9.0%	4.7%	-16.0%	16.8%	-10.4%	8.6%	6.3%
Central Europe and Balkans:														
Albania	--	--	--	--	--	--	--	--	--	--	55	-3.5%	--	--
Bosnia and Herzegovina	--	--	75	--	96	6.7%	4	-20.0%	--	--	--	--	--	--
Bulgaria	--	--	--	--	--	--	8	--	--	--	--	--	88	282.6%
Croatia	--	--	--	--	7	--	8	--	--	--	--	--	--	--
Czech Republic	--	--	--	--	--	--	20	-50.0%	--	--	--	--	--	--
Hungary	300	-16.0%	1,000	-4.4%	35	2.9%	50	-9.1%	--	--	--	--	--	--
Macedonia	--	--	--	--	--	--	4	-20.0%	--	--	5	--	9	-10.0%
Poland	--	--	--	--	55	17.0%	--	-100.0%	--	--	--	--	545	3.8%
Romania	319	-23.5%	--	--	182	1.7%	1	-50.0%	--	--	--	--	19	18.8%
Serbia and Montenegro	201	8.1%	610	-3.2%	100	13.6%	--	--	--	--	--	--	22	-57.7%
Slovakia	110	--	--	--	134	-2.2%	--	--	--	--	--	--	--	--
Slovenia	--	--	--	--	77	-8.3%	--	--	--	--	--	--	--	--
Total	930	-13.1%	1,690	-3.8%	686	3.0%	95	-24.6%	--	--	60	5.3%	683	9.1%
Share of world total	1.9%	-12.6%	1.2%	-5.9%	2.8%	3.8%	1.2%	-19.0%	--	--	0.5%	20.3%	5.0%	7.0%
Western Europe:														
European Free Trade Association:														
Iceland	--	--	--	--	243	8.5%	--	--	--	--	--	--	--	--
Norway	--	--	--	--	1,068	4.1%	265	1.9%	--	--	--	--	--	--
Switzerland	--	--	--	--	36	--	6	-60.0%	--	--	--	--	--	--
Total	--	--	--	--	1350	4.7%	271	-1.5%	--	--	--	--	--	--

See footnotes at end of table.

TABLE 3--Continued
EUROPE AND CENTRAL EURASIA: PRODUCTION OF SELECTED MINERAL COMMODITIES IN 2001 1/ 2/

(Thousand metric tons unless otherwise specified)

Region and/or country	Metals													
	Aluminum								Antimony					
	Alumina		Bauxite		Metal				Chromite		Copper, mine			
	Quantity	Percentage change 4/	Quantity	Percentage change 4/	Primary 3/	Percentage change 4/	Secondary	Percentage change 4/	Mine output (metric tons)	Percentage change 4/	Gross weight	Percentage change 4/	Metal content	Percentage change 4/
Western Europe--Continued:														
European Union:														
Austria	--	--	--	--	--	--	150	-5.1%	--	--	--	--	--	--
Belgium	--	--	--	--	--	--	1	--	--	--	--	--	--	--
Denmark and Greenland	--	--	--	--	--	--	16	--	--	--	--	--	--	--
Finland	--	--	--	--	--	--	43	--	--	--	575	-8.7%	12	--
France	500	--	153	--	462	4.8%	253	-2.7%	--	--	--	--	--	--
Germany	600	--	--	--	652	1.2%	620	8.4%	--	--	--	--	--	--
Greece	660	-1.0%	1,990	-1.0%	168	-1.0%	3	--	--	--	12	--	--	--
Ireland	1,200	--	--	--	--	--	--	--	--	--	--	--	--	--
Italy	950	--	--	--	187	-1.6%	575	1.2%	--	--	--	--	--	--
Luxembourg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Malta	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Netherlands	--	--	--	--	294	-2.3%	115	9.5%	--	--	--	--	--	--
Portugal	--	--	--	--	--	--	--	--	--	--	--	--	83	9.2%
Spain	1,100	-8.3%	--	-8.3%	376	2.7%	222	-7.9%	--	--	--	--	10	-56.5%
Sweden	--	--	--	--	102	1.0%	26	--	--	--	--	--	74	-5.1%
United Kingdom	100	--	--	--	341	11.8%	238	-16.5%	--	--	--	--	--	--
Total	5,110	-2.1%	2,140	-2.1%	2,580	2.6%	2,260	-0.7%	--	--	587	-8.6%	179	-5.3%
Total Western Europe	5,110	-2.1%	2,140	-2.1%	3,930	3.3%	2,530	-0.8%	--	--	587	-8.6%	179	-5.3%
Share of world total	10.4%	-1.5%	1.6%	-1.5%	16.1%	4.2%	32.8%	6.5%	--	--	4.7%	4.5%	1.3%	-7.1%
Total Europe and Central Eurasia	11,800	-1.3%	11,500	-1.3%	8,330	2.4%	2,760	-1.7%	7,150	7.5%	2,770	-18.7%	2,030	7.2%
Share of world total	24.1%	-0.7%	8.3%	-0.7%	34.1%	3.2%	35.8%	5.5%	4.7%	-16.0%	22.0%	-7.1%	14.9%	5.2%
United States	4,340	-9.2%	NA	-9.2%	2,640	-28.1%	2,980	-13.6%	--	--	--	--	1,340	-8.8%
Share of world total	8.9%	-8.6%	NA	-8.6%	10.8%	-27.5%	38.6%	-7.2%	--	--	--	--	9.9%	-10.6%
World total	49,000	-0.6%	138,000	-0.6%	24,400	-0.8%	7,720	-6.9%	151,000	28.0%	12,600	-12.5%	13,600	1.9%

See footnotes at end of table.

TABLE 3--Continued
EUROPE AND CENTRAL EURASIA: PRODUCTION OF SELECTED MINERAL COMMODITIES IN 2001 1/ 2/

(Thousand metric tons unless otherwise specified)

Region and/or country	Metals--Continued											
	Copper, refined						Iron and steel					
	Primary 3/		Secondary		Gold, mine output		Iron ore, mine output		Pig iron and direct-reduced iron		Steel, crude	
	Metal content	Percentage change 4/	Quantity	Percentage change 4/	Quantity (kilograms)	Percentage change 4/	Metal content	Percentage change 4/	Quantity	Percentage change 4/	Quantity	Percentage change 4/
Central Eurasia:												
Armenia	--	--	--	--	400	--	--	--	--	--	--	--
Azerbaijan	--	--	--	--	--	--	NA	NA	--	--	--	--
Belarus	--	--	--	--	--	--	--	--	--	--	1,852	14.1%
Estonia	--	--	--	--	--	--	--	--	--	--	--	--
Georgia	--	--	--	--	2,000	-31.6%	--	--	--	--	50	--
Kazakhstan	422	6.8%	--	--	27,100	-3.8%	14,140	-12.5%	3,911	-2.2%	4,694	-1.6%
Kyrgyzstan	--	--	--	--	24,000	9.1%	--	--	--	--	--	--
Latvia	--	--	--	--	--	--	--	--	--	--	500	--
Lithuania	--	--	--	--	--	--	--	--	--	--	--	--
Moldova	--	--	--	--	--	--	--	--	--	--	966	6.3%
Russia	650	1.6%	245	22.5%	152,500	6.6%	82,800	-4.4%	44,980	0.8%	59,000	-0.2%
Tajikistan	--	--	--	--	2,700	--	--	--	--	--	--	--
Turkmenistan	--	--	--	--	--	--	--	--	--	--	--	--
Ukraine	--	--	--	--	--	--	54,650	-2.2%	26,400	2.7%	33,110	4.2%
Uzbekistan	75	--	5	--	87,000	39.7%	--	--	--	--	460	9.5%
Total	1,150	3.3%	250	22.0%	296,000	13.1%	152,000	-4.5%	75,300	1.3%	101,000	1.5%
Share of world total	8.3%	-2.7%	0.0%	25.8%	11.4%	11.3%	26.3%	-4.1%	12.1%	-0.3%	11.9%	0.8%
Central Europe and Balkans:												
Albania	--	--	--	--	--	--	--	--	--	--	94	44.6%
Bosnia and Herzegovina	--	--	--	--	--	--	36	--	60	5.3%	80	3.9%
Bulgaria	28	3.7%	6	20.0%	2,540	8.2%	92	-48.3%	1,000	-16.7%	1,942	-4.0%
Croatia	--	--	--	--	--	--	--	--	--	--	58	-18.3%
Czech Republic	--	--	18	-10.0%	--	--	6	--	6,316	36.7%	6,316	1.6%
Hungary	12	--	--	--	--	--	--	--	1,300	-3.0%	2,056	4.4%
Macedonia	--	--	--	--	--	--	1	--	--	--	--	--
Poland	478	2.6%	20	--	349	-4.9%	--	--	5,540	-14.7%	8,809	-16.1%
Romania	19	18.8%	4	--	3,500	--	63	14.5%	3,235	5.5%	4,930	5.5%
Serbia and Montenegro	32	-30.4%	30	-25.0%	800	-28.6%	--	--	461	-18.1%	598	-12.3%
Slovakia	2	--	--	--	157	-48.7%	300	--	3,255	2.8%	3,989	6.9%
Slovenia	--	--	--	--	--	--	--	--	--	--	500	-3.7%
Total	571	0.4%	78	-10.3%	7,350	-3.9%	498	-13.5%	21,200	3.2%	29,400	-3.8%
Share of world total	4.1%	-5.5%	0.0%	-7.5%	0.3%	-5.3%	0.1%	-13.2%	3.4%	1.6%	3.5%	-4.5%
Western Europe:												
European Free Trade Association:												
Iceland	--	--	--	--	--	--	--	--	--	--	--	--
Norway	27	--	--	--	--	--	340	-7.9%	60	1.6%	630	1.6%
Switzerland	--	--	--	--	--	--	--	--	100	5.3%	1,200	5.3%
Total	27	--	--	--	--	--	340	-7.9%	160	4.0%	1,830	4.0%

See footnotes at end of table.

TABLE 3--Continued
EUROPE AND CENTRAL EURASIA: PRODUCTION OF SELECTED MINERAL COMMODITIES IN 2001 1/ 2/

(Thousand metric tons unless otherwise specified)

Region and/or country	Metals--Continued											
	Copper, refined				Gold, mine output		Iron and steel					
	Primary 3/		Secondary				Iron ore, mine output		Pig iron and direct-reduced iron		Steel, crude	
	Metal content	Percentage change 4/	Quantity	Percentage change 4/	Quantity (kilograms)	Percentage change 4/	Metal content	Percentage change 4/	Quantity	Percentage change 4/	Quantity	Percentage change 4/
Western Europe--Continued:												
European Union:												
Austria	1	-50.0%	68	-12.8%	--	--	575	15.0%	4,200	-2.7%	5,700	-0.4%
Belgium	236	--	189	1.1%	--	--	--	--	8,500	0.3%	12,000	3.1%
Denmark and Greenland	--	--	--	--	--	--	--	--	--	--	760	1.3%
Finland	100	--	16	14.3%	5,600	12.0%	--	--	3,000	0.6%	4,100	0.1%
France	--	--	2	--	2,510	-4.6%	--	--	12,004	-12.1%	19,431	-7.5%
Germany	334	-0.3%	375	--	--	--	--	--	29,184	-5.4%	44,775	-3.5%
Greece	--	--	--	--	--	--	600	4.3%	--	--	1,000	-8.1%
Ireland	--	--	--	--	--	--	--	--	--	--	150	-58.3%
Italy	--	--	36	-50.7%	503	--	--	--	11,000	-2.0%	26,000	-1.7%
Luxembourg	--	--	--	--	--	--	--	--	--	--	2,570	-0.04%
Malta	--	--	--	--	--	--	--	--	--	--	--	--
Netherlands	--	--	--	--	--	--	--	--	5,000	0.6%	5,700	0.6%
Portugal	--	--	--	--	--	--	11	-8.3%	360	-5.8%	900	-18.0%
Spain	235	-8.9%	56	-3.4%	3,720	--	--	--	4,094	0.9%	15,834	-0.1%
Sweden	179	70.5%	25	--	4,986	39.7%	12,811	-5.5%	3,614	14.9%	5,450	4.3%
United Kingdom	--	-100.0%	45	-8.2%	--	--	(5/)	--	10,000	-9.0%	15,000	-2.0%
Total	1,090	4.6%	812	-5.7%	17,300	-4.9%	14,000	-4.4%	91,000	-4.3%	159,000	-2.3%
Total Western Europe	1,120	4.5%	812	-5.7%	17,300	-4.9%	14,300	-4.5%	91,200	-4.3%	161,000	-2.3%
Share of world total	8.1%	-1.5%	42.7%	-2.7%	0.7%	-6.3%	2.5%	-4.2%	14.7%	-5.8%	18.9%	-3.0%
Total Europe and Central Eurasia	2,840	3.2%	1,140	-1.1%	321,000	11.5%	167,000	-4.5%	188,000	-1.3%	291,000	-1.2%
Share of world total	20.6%	-2.8%	60.0%	2.0%	12.4%	9.8%	28.9%	-4.2%	30.2%	-2.9%	34.2%	-1.9%
United States	1,630	2.5%	172	-17.3%	335,000	-5.1%	29,300	-26.2%	43,300	-12.3%	90,100	-11.7%
Share of world total	11.8%	-3.4%	9.1%	-14.7%	12.9%	-6.6%	5.1%	-25.9%	7.0%	-13.8%	10.6%	-12.3%
World total	13,800	6.2%	1,900	-3.1%	2,590,000	1.6%	578,000	-0.3%	622,000	1.6%	852,000	0.7%

See footnotes at end of table.

TABLE 3--Continued
EUROPE AND CENTRAL EURASIA: PRODUCTION OF SELECTED MINERAL COMMODITIES IN 2001 1/ 2/

(Thousand metric tons unless otherwise specified)

Region and/or country	Metals--Continued													
	Lead						Manganese ore, mine output		Mercury, mine output		Nickel			
	Mine		Refined		Secondary		Metal content	Percentage change 4/	Metal content	Percentage change 4/	Mine		Refined	
	Metal content	Percentage change 4/	Primary 3/ Quantity	Percentage change 4/	Quantity	Percentage change 4/					Metal content	Percentage change 4/	Quantity	Percentage change 4/
Central Eurasia:														
Armenia	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Azerbaijan	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Belarus	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Estonia	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Georgia	(5/)	--	--	--	--	--	70	18.6%	--	--	--	--	--	--
Kazakhstan	38	--	159	-14.5%	--	--	1,403	23.5%	--	--	3	--	--	--
Kyrgyzstan	--	--	--	--	--	--	--	--	270	--	--	--	--	--
Latvia	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lithuania	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Moldova	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Russia	12	-7.7%	68	15.3%	--	--	23	--	50	--	325	3.2%	252	1.6%
Tajikistan	1	--	--	--	--	--	--	--	40	--	--	--	--	--
Turkmenistan	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ukraine	--	--	--	--	12	-20.0%	2,700	-1.5%	NA	--	2	--	--	--
Uzbekistan	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total	51	-1.9%	227	-7.3%	12	-20.0%	4,200	3.6%	360	3.6%	330	4.1%	252	1.6%
Share of world total	1.6%	-5.3%	6.5%	-13.5%	0.4%	-16.0%	22.0%	9.5%	16.8%	9.5%	24.4%	-3.6%	11.8%	-1.9%
Central Europe and Balkans:														
Albania	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	(5/)	--	(5/)	--	--	--	2	--	--	--	--	--	--	--
Bulgaria	17	21.4%	89	27.1%	--	-100.0%	2	100.0%	--	--	--	--	--	--
Croatia	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Czech Republic	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hungary	--	--	--	--	--	--	43	4.9%	--	--	--	--	--	--
Macedonia	11	-57.7%	7	-68.2%	--	--	--	--	--	--	--	--	--	--
Poland	122	7.0%	66	88.6%	--	-100.0%	--	--	--	--	--	--	--	--
Romania	20	5.3%	24	-4.0%	3	--	70	191.7%	--	--	--	--	--	--
Serbia and Montenegro	19	-26.9%	--	-100.0%	--	--	--	--	--	--	--	--	--	--
Slovakia	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Slovenia	--	--	--	--	15	--	--	--	--	--	--	--	--	--
Total	189	-5.0%	186	21.6%	18	-73.5%	117	74.6%	--	--	--	--	--	--
Share of world total	5.9%	-8.3%	5.3%	13.6%	0.6%	-72.3%	0.6%	84.7%	--	--	--	--	--	--
Western Europe:														
European Free Trade Association:														
Iceland	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Norway	--	--	--	--	--	--	--	--	--	--	3	--	68	15.3%
Switzerland	--	--	--	--	10	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	10	--	--	--	--	--	3	--	68	15.3%

See footnotes at end of table.

TABLE 3--Continued
EUROPE AND CENTRAL EURASIA: PRODUCTION OF SELECTED MINERAL COMMODITIES IN 2001 1/ 2/

(Thousand metric tons unless otherwise specified)

Region and/or country	Metals--Continued																	
	Lead						Manganese ore, mine output				Mercury, mine output				Nickel			
	Mine		Refined				Metal		Metal		Metal		Mine		Refined			
	Metal content	Percentage change 4/	Quantity	Percentage change 4/	Quantity	Percentage change 4/	content	Percentage change 4/	content (metric tons)	Percentage change 4/	content	Percentage change 4/	Quantity	Percentage change 4/				
Western Europe--Continued:																		
European Union:																		
Austria	--	--	--	--	22	-8.3%	--	--	--	--	--	--	--	--				
Belgium	--	--	80	-18.4%	16	-20.0%	--	--	--	--	--	--	--	--				
Denmark and Greenland	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
Finland	--	--	--	--	--	--	--	--	--	-100.0%	2	-33.3%	55	7.8%				
France	--	--	98	-2.0%	143	-9.5%	--	--	--	--	--	--	13	30.0%				
Germany	--	--	154	-27.0%	220	7.8%	--	--	--	--	--	--	--	--				
Greece	28	55.6%	--	--	5	100.0%	10	--	--	--	20	100.0%	17	--				
Ireland	45	-22.4%	--	--	13	44.4%	--	--	--	--	--	--	--	--				
Italy	1	-50.0%	82	9.3%	121	-24.4%	1	--	--	--	--	--	--	--				
Luxembourg	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
Malta	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
Netherlands	--	--	--	--	24	9.1%	--	--	--	--	--	--	--	--				
Portugal	--	--	--	--	4	-20.0%	--	--	--	--	--	--	--	--				
Spain	50	25.0%	--	--	122	1.7%	--	--	800	-11.1%	--	--	--	--				
Sweden	86	-19.6%	31	--	44	-6.4%	--	--	--	--	--	--	--	--				
United Kingdom	1	--	203	22.3%	163	-4.7%	--	--	--	--	--	--	37	-2.6%				
Total	211	-6.6%	648	-4.8%	897	-4.6%	11	--	800	-15.3%	22	633.3%	122	5.2%				
Total Western Europe	211	-6.6%	648	-4.8%	907	-4.5%	11	--	800	-15.3%	25	316.7%	190	8.6%				
Share of world total	6.6%	-9.8%	18.6%	-11.1%	32.5%	0.3%	0.1%	--	37.4%	-11.4%	1.9%	285.8%	8.9%	4.8%				
Total Europe and Central Eurasia	451	-5.5%	1,061	-1.7%	937	-9.3%	4,328	4.7%	1,160	-10.2%	355	9.9%	442	4.5%				
Share of world total	14.0%	-8.7%	30.4%	-8.1%	33.6%	-4.7%	22.7%	10.8%	54.2%	-6.0%	26.3%	1.8%	20.7%	0.9%				
United States	466	-0.4%	290	-15.0%	1,100	-2.7%	--	--	NA	NA	--	--	--	--				
Share of world total	14.5%	-3.8%	8.3%	-20.6%	39.4%	2.2%	--	--	NA	NA	--	--	--	--				
World total	3,210	--	3,490	7.1%	2,790	-4.8%	19,100	-5.4%	2,140	-4.5%	1,350	8.0%	2,140	3.6%				

See footnotes at end of table.

TABLE 3--Continued
EUROPE AND CENTRAL EURASIA: PRODUCTION OF SELECTED MINERAL COMMODITIES IN 2001 1/ 2/

(Thousand metric tons unless otherwise specified)

Region and/or country	Metals--Continued											
	Platinum-group metals						Tin					
	Palladium		Platinum		Silver, mine output		Mine output		Primary 3/		Refined	
	Quantity (metric tons)	Percentage change 4/	Quantity (metric tons)	Percentage change 4/	Quantity (metric tons)	Percentage change 4/	Metal content (metric tons)	Percentage change 4/	Quantity (metric tons)	Percentage change 4/	Quantity (metric tons)	Percentage change 4/
Central Eurasia:												
Armenia	--	--	--	--	1	--	--	--	--	--	--	--
Azerbaijan	--	--	--	--	--	--	--	--	--	--	--	--
Belarus	--	--	--	--	--	--	--	--	--	--	--	--
Estonia	--	--	--	--	--	--	--	--	--	--	--	--
Georgia	--	--	--	--	33	-2.9%	--	--	--	--	--	--
Kazakhstan	--	--	--	--	982	5.9%	23	-89.5%	--	--	--	--
Kyrgyzstan	--	--	--	--	--	--	300	100.0%	--	--	--	--
Latvia	--	--	--	--	--	--	--	--	--	--	--	--
Lithuania	--	--	--	--	--	--	--	--	--	--	--	--
Moldova	--	--	--	--	--	--	--	--	--	--	--	--
Russia	72	-14.3%	35	--	380	2.7%	4,500	-10.0%	4,600	-2.1%	500	--
Tajikistan	--	--	--	--	5	--	--	--	--	--	--	--
Turkmenistan	--	--	--	--	--	--	--	--	--	--	--	--
Ukraine	--	--	--	--	--	--	--	--	--	--	--	--
Uzbekistan	--	--	--	--	80	-11.1%	--	--	--	--	--	--
Total	72	-14.3%	35	--	1,480	3.8%	4,820	-7.6%	4,600	-2.1%	500	--
Share of world total	44.4%	-7.9%	21.6%	-12.4%	7.9%	1.6%	2.1%	-3.1%	1.7%	-5.4%	2.1%	6.8%
Central Europe and Balkans:												
Albania	--	--	--	--	--	--	--	--	--	--	--	--
Bosnia and Herzegovina	--	--	--	--	--	--	--	--	--	--	--	--
Bulgaria	--	--	--	--	57	3.6%	--	--	--	--	10	--
Croatia	--	--	--	--	--	--	--	--	--	--	--	--
Czech Republic	--	--	--	--	--	--	--	--	--	--	--	--
Hungary	--	--	--	--	--	--	--	--	--	--	--	--
Macedonia	--	--	--	--	15	-25.0%	--	--	--	--	--	--
Poland	(5/)	--	(5/)	--	1,190	4.0%	--	--	--	--	--	--
Romania	--	--	--	--	18	--	--	--	--	--	--	--
Serbia and Montenegro	(5/)	--	(5/)	--	6	-33.3%	--	--	--	--	--	--
Slovakia	--	--	--	--	--	--	--	--	--	--	--	--
Slovenia	--	--	--	--	--	--	--	--	--	--	--	--
Total	(5/)	--	(5/)	--	1,290	3.2%	--	--	--	--	10	--
Share of world total	--	--	--	--	6.9%	1.0%	--	--	--	--	(7/)	--
Western Europe:												
European Free Trade Association:												
Iceland	--	--	--	--	--	--	--	--	--	--	--	--
Norway	--	--	--	--	--	--	--	--	--	--	--	--
Switzerland	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	--	--	--	--	--	--	--

See footnotes at end of table.

TABLE 3--Continued
EUROPE AND CENTRAL EURASIA: PRODUCTION OF SELECTED MINERAL COMMODITIES IN 2001 1/ 2/

(Thousand metric tons unless otherwise specified)

Region and/or country	Metals--Continued											
	Platinum-group metals						Tin					
	Palladium		Platinum		Silver, mine output		Mine output		Primary 3/		Refined	
	Quantity (metric tons)	Percentage change 4/	Quantity (metric tons)	Percentage change 4/	Quantity (metric tons)	Percentage change 4/	Metal content (metric tons)	Percentage change 4/	Quantity (metric tons)	Percentage change 4/	Quantity (metric tons)	Percentage change 4/
Western Europe--Continued:												
European Union:												
Austria	--	--	--	--	--	--	--	--	--	--	--	--
Belgium	--	--	--	--	--	--	--	--	--	--	8,000	-5.9%
Denmark and Greenland	--	--	--	--	--	--	--	--	--	--	--	--
Finland	(5/)	--	(5/)	--	24	--	--	--	--	--	--	--
France	--	--	--	--	1	--	--	--	--	--	2	100.0%
Germany	--	--	--	--	--	--	--	--	--	--	--	--
Greece	--	--	--	--	62	67.6%	--	--	--	--	--	--
Ireland	--	--	--	--	23	-8.0%	--	--	--	--	--	--
Italy	--	--	--	--	4	--	--	--	--	--	--	--
Luxembourg	--	--	--	--	--	--	--	--	--	--	--	--
Malta	--	--	--	--	--	--	--	--	--	--	--	--
Netherlands	--	--	--	--	--	--	--	--	--	--	--	--
Portugal	--	--	--	--	23	15.0%	1,201	20.1%	--	--	--	--
Spain	--	--	--	--	60	-27.7%	1,000	-50.0%	--	--	--	--
Sweden	--	--	--	--	306	-7.0%	--	--	--	--	--	--
United Kingdom	--	--	--	--	--	--	--	--	--	--	--	--
Total	(5/)	--	(5/)	--	503	-3.8%	2,200	-26.6%	--	--	8,000	-5.9%
Total Western Europe	(5/)	--	(5/)	--	503	-3.8%	2,200	-26.6%	--	--	8,000	-5.9%
Share of world total	--	--	--	--	2.7%	-5.9%	1.0%	-97.7%	--	--	34.2%	0.6%
Total Europe and Central Eurasia	72	-14.3%	35	--	3,270	--	7,020	-14.5%	4,600	-2.1%	8,000	-5.5%
Share of world total	44.4%	-7.9%	21.6%	-12.4%	17.5%	0.1%	3.1%	-10.4%	1.7%	-5.4%	34.2%	0.9%
United States	12	20.0%	12	33.3%	1,740	-6.5%	--	--	--	--	13,900	-7.9%
Share of world total	7.4%	28.9%	7.4%	16.8%	9.3%	-8.5%	--	--	--	--	59.4%	-1.7%
World total	162	-6.9%	162	14.2%	18,700	2.2%	227,000	-4.6%	267,000	3.5%	23,400	-6.4%

See footnotes at end of table.

TABLE 3--Continued
EUROPE AND CENTRAL EURASIA: PRODUCTION OF SELECTED MINERAL COMMODITIES IN 2001 1/ 2/

(Thousand metric tons unless otherwise specified)

Region and/or country	Metals--Continued															
	Titanium		Tungsten, mine output				Zinc						Industrial minerals			
	Mine output TiO ₂ content 6/	Metal, sponge	W content (metric tons)	Percentage change 4/	Mine		Primary 3/		Secondary		Ammonia, N content		Cement, hydraulic			
					Quantity	Percentage change 4/	Quantity	Percentage change 4/	Quantity	Percentage change 4/	Quantity	Percentage change 4/	Quantity	Percentage change 4/		
Central Eurasia:																
Armenia	--	--	--	--	--	-100.0%	--	--	--	--	--	--	276	26.0%		
Azerbaijan	--	--	--	--	--	--	--	--	--	--	--	--	500	150.0%		
Belarus	--	--	--	--	--	--	--	--	--	--	725	-0.7%	1,803	-2.4%		
Estonia	--	--	--	--	--	--	--	--	--	--	135	5.5%	405	23.1%		
Georgia	--	--	--	--	--	--	--	--	--	--	60	-55.6%	300	-13.8%		
Kazakhstan	--	--	--	--	(5/)	--	--	--	--	--	--	--	1,957	66.6%		
Kyrgyzstan	--	14	--	--	344	5.8%	277	5.7%	--	--	--	--	500	--		
Latvia	--	--	100	--	--	--	--	--	--	--	--	--	W	NA		
Lithuania	--	--	--	--	--	--	--	--	--	--	540	5.9%	529	-7.2%		
Moldova	--	--	--	--	--	--	--	--	--	--	--	--	200	-9.9%		
Russia	--	23	3,600	2.9%	124	-8.8%	237	3.0%	--	--	8,685	-0.6%	35,100	8.3%		
Tajikistan	--	--	--	--	--	--	--	--	--	--	10	--	70	40.0%		
Turkmenistan	--	--	--	--	--	--	--	--	--	--	75	--	NA	NA		
Ukraine	309	6	--	--	--	--	--	--	--	--	3,700	3.4%	5,500	3.6%		
Uzbekistan	--	--	--	--	--	--	20	11.1%	--	--	670	-17.3%	4,000	13.6%		
Total	309	43	3,700	5.7%	468	1.3%	534	4.7%	--	--	14,600	-0.7%	51,140	8.5%		
Share of world total	5.0%	43.9%	8.4%	-9.7%	5.2%	-1.7%	12.1%	2.6%	--	--	13.8%	2.1%	3.0%	4.7%		
Central Europe and Balkans:																
Albania	--	--	--	--	--	--	--	--	--	--	--	--	150	16.7%		
Bosnia and Herzegovina	--	--	--	--	(5/)	--	(5/)	--	(5/)	--	2	--	300	--		
Bulgaria	--	--	--	--	11	10.0%	89	6.0%	--	--	600	-7.3%	2,200	-0.4%		
Croatia	--	--	--	--	--	--	--	--	--	--	263	-19.8%	3,246	13.8%		
Czech Republic	--	--	--	--	--	--	--	--	(5/)	--	250	--	3,550	-13.3%		
Hungary	--	--	--	--	--	--	--	--	--	--	250	--	3,500	4.2%		
Macedonia	--	--	--	--	5	-58.3%	16	-64.4%	--	--	--	--	450	-23.1%		
Poland	--	--	--	--	153	-15.9%	164	1.9%	--	--	1,169	-3.2%	12,074	-19.8%		
Romania	--	--	--	--	30	11.1%	47	-9.6%	--	--	1,000	-3.2%	5,668	-6.4%		
Serbia and Montenegro	--	--	--	--	20	-31.0%	13	62.5%	--	--	66	10.0%	2,418	14.2%		
Slovakia	--	--	--	--	--	--	--	--	--	--	209	-2.8%	3,123	2.6%		
Slovenia	--	--	--	--	--	--	--	--	--	--	--	--	1,300	--		
Total	--	--	--	--	219	-15.8%	329	-6.0%	(5/)	--	3,810	-4.6%	38,000	-7.7%		
Share of world total	--	--	--	--	2.4%	-18.3%	7.4%	-7.9%	--	--	3.6%	-1.9%	2.2%	-10.9%		
Western Europe:																
European Free Trade Association:																
Iceland	--	--	--	--	--	--	--	--	--	--	3	--	--	-57.1%		
Norway	265	--	--	--	--	--	129	2.4%	--	--	323	--	--	-3.3%		
Switzerland	--	--	--	--	--	--	--	--	--	--	32	--	--	-3.0%		
Total	265	--	--	--	--	--	129	2.4%	--	--	358	--	--	-4.3%		

See footnotes at end of table.

TABLE 3--Continued
EUROPE AND CENTRAL EURASIA: PRODUCTION OF SELECTED MINERAL COMMODITIES IN 2001 1/ 2/

(Thousand metric tons unless otherwise specified)

Region and/or country	Metals--Continued													
	Titanium		Zinc				Industrial minerals							
	Mine output, TiO ₂ content 6/	Metal, sponge	Tungsten, mine output		Mine		Refined		Secondary		Ammonia, N content		Cement, hydraulic	
			W content (metric tons)	Percentage change 4/	Quantity	Percentage change 4/	Quantity	Percentage change 4/	Quantity	Percentage change 4/	Quantity	Percentage change 4/	Quantity	Percentage change 4/
Western Europe--Continued:														
European Union:														
Austria	--	--	1,237	-22.7%	--	--	--	--	--	--	400	-11.1%	3,800	--
Belgium	--	--	--	--	--	--	230	2.7%	30	7.1%	1,700	-2.9%	8,000	--
Denmark and Greenland	--	--	--	--	--	--	--	--	--	--	2	--	2,010	(7/)
Finland	--	--	--	--	36	125.0%	247	10.8%	--	--	6	--	1,500	5.4%
France	--	--	--	--	--	--	344	-1.7%	--	--	1,580	-2.5%	20,559	1.8%
Germany	--	--	--	--	--	--	358	0.3%	--	--	2,522	2.0%	30,989	-12.0%
Greece	--	--	--	--	20	--	--	--	--	--	120	-0.8%	14,000	-3.4%
Ireland	--	--	--	--	225	-14.4%	--	--	--	--	400	-2.4%	2,000	--
Italy	--	--	--	--	--	--	178	4.7%	--	--	434	6.4%	39,885	2.2%
Luxembourg	--	--	--	--	--	--	--	--	--	--	--	--	600	--
Malta	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Netherlands	--	--	--	--	--	--	205	-4.7%	--	--	2,500	-1.6%	3,200	--
Portugal	--	--	698	-6.1%	--	--	4	--	--	--	250	1.6%	9,200	--
Spain	--	--	--	--	309	-22.2%	437	13.2%	--	--	436	-1.4%	40,520	6.2%
Sweden	--	--	--	--	156	-11.9%	--	--	--	--	--	--	2,600	-1.9%
United Kingdom	--	--	--	--	--	--	100	--	--	--	850	4.4%	12,103	-4.7%
Total	--	--	1,940	-17.4%	746	-14.5%	2,100	3.6%	30	7.1%	11,200	-0.7%	191,000	-0.9%
Total Western Europe	265	--	1,940	-17.4%	746	-14.5%	2,230	3.6%	30	7.1%	11,600	-0.8%	191,000	-0.8%
Share of world total	4.3%	--	4.4%	-29.5%	8.3%	-17.1%	50.3%	1.5%	9.8%	21.5%	10.9%	2.0%	11.2%	-4.3%
Total Europe and Central Eurasia	574	43	5,640	-3.6%	1,430	-10.2%	3,090	2.7%	30	7.1%	30,000	-1.3%	280,100	-0.3%
Share of world total	9.3%	43.9%	12.9%	-17.7%	15.9%	-12.9%	69.8%	0.6%	9.8%	21.5%	28.3%	1.5%	16.5%	-3.8%
United States	500	--	--	--	842	1.6%	203	-11.0%	108	-24.5%	9,730	-20.9%	90,400	1.0%
Share of world total	8.1%	--	--	--	9.4%	-1.5%	4.6%	-12.8%	35.2%	-14.4%	9.2%	-18.7%	5.3%	-2.6%
World total	6,190	98	43,800	17.1%	9,000	3.1%	4,430	2.1%	307	-11.8%	106,000	-2.8%	1,700,000	3.7%

See footnotes at end of table.

TABLE 3--Continued
EUROPE AND CENTRAL EURASIA: PRODUCTION OF SELECTED MINERAL COMMODITIES IN 2001 1/ 2/

(Thousand metric tons unless otherwise specified)

Region and/or country	Industrial minerals--Continued												Mineral fuels	
	Diamond				Phosphate rock		Potash, K ₂ O equivalent		Salt		Sulfur, all forms		Coal, anthracite	
	Natural 8/ Quantity	Percentage change 4/	Synthetic Quantity	Percentage change 4/	Gross quantity	Percentage change 4/	Quantity	Percentage change 4/	Quantity	Percentage change 4/	Quantity	Percentage change 4/	Quantity	Percentage change 4/
Central Eurasia:														
Armenia	--	--	--	--	--	--	--	--	29	-3.3%	--	--	--	--
Azerbaijan	--	--	--	--	--	--	--	--	4	--	--	--	--	--
Belarus	--	--	--	--	--	--	4,495	18.7%	301	-3.2%	20	--	--	--
Estonia	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Georgia	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Kazakhstan	--	--	--	--	97	193.9%	--	--	--	--	1,700	13.3%	--	--
Kyrgyzstan	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Latvia	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lithuania	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Moldova	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Russia	23,000	-0.9%	80,000	--	10,500	-5.4%	4,300	16.2%	2,800	-12.5%	6,250	5.9%	14,000	-8.6%
Tajikistan	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Turkmenistan	--	--	--	--	--	--	--	--	215	--	9	--	--	--
Ukraine	--	--	8,000	--	--	--	75	-11.8%	2,300	0.6%	80	--	18,000	1.4%
Uzbekistan	--	--	--	--	300	--	--	--	--	--	460	3.4%	--	--
Total	23,000	-0.9%	88,000	--	10,900	-4.7%	8,870	17.2%	5,650	-6.6%	8,520	7.1%	32,000	-3.2%
Share of world total	19.7%	(7/)	14.3%	-19.5%	8.7%	0.6%	34.1%	14.5%	2.5%	-11.1%	14.9%	6.9%	9.3%	-9.4%
Central Europe and Balkans:														
Albania	--	--	--	--	--	--	--	--	--	--	1	--	--	--
Bosnia and Herzegovina	--	--	--	--	--	--	--	--	50	--	1	--	--	--
Bulgaria	--	--	--	--	--	--	--	--	1,931	13.6%	600	--	14	-6.7%
Croatia	--	--	--	--	--	--	--	--	33	-2.9%	15	--	--	--
Czech Republic	--	--	--	--	--	--	--	--	--	--	40	--	--	--
Hungary	--	--	--	--	--	--	--	--	--	--	30	--	--	--
Macedonia	--	--	--	--	--	--	--	--	--	--	20	23.1%	--	--
Poland	--	--	--	--	--	--	--	--	4,330	0.5%	1,085	-37.4%	268	0.4%
Romania	--	--	--	--	--	--	--	--	2,224	-3.6%	202	-3.8%	--	--
Serbia and Montenegro	--	--	--	--	--	--	--	--	62	-20.5%	101	--	--	--
Slovakia	--	--	--	--	--	--	--	--	123	0.8%	--	--	--	--
Slovenia	--	--	--	--	--	--	--	--	2	-60.0%	--	--	--	--
Total	--	--	--	--	--	--	--	--	8,760	1.8%	2,100	-24.0%	282	--
Share of world total	--	--	--	--	--	--	--	--	3.9%	-3.2%	3.7%	-24.2%	0.1%	-6.4%
Western Europe:														
European Free Trade Association:														
Iceland	--	--	--	--	--	--	--	--	5	25.0%	--	--	--	--
Norway	--	--	--	--	--	--	--	--	--	--	123	--	--	--
Switzerland	--	--	--	--	--	--	--	--	300	--	3	--	NA	NA
Total	--	--	--	--	--	--	--	--	305	0.3%	126	--	NA	NA

See footnotes at end of table.

TABLE 3--Continued
EUROPE AND CENTRAL EURASIA: PRODUCTION OF SELECTED MINERAL COMMODITIES IN 2001 1/ 2/

(Thousand metric tons unless otherwise specified)

Region and/or country	Industrial minerals--Continued												Mineral fuels	
	Diamond				Phosphate rock		Potash, K ₂ O equivalent		Salt		Sulfur, all forms		Coal, anthracite	
	Natural 8/ Quantity	Percentage change 4/	Synthetic Quantity	Percentage change 4/	Gross quantity	Percentage change 4/	Quantity	Percentage change 4/	Quantity	Percentage change 4/	Quantity	Percentage change 4/	Quantity	Percentage change 4/
Western Europe--Continued:														
European Union:														
Austria	--	--	--	--	--	--	--	--	401	--	15	66.7%	194	-26.2%
Belgium	--	--	--	--	--	--	--	--	--	--	410	--	2,573	-23.5%
Denmark and Greenland	--	--	--	--	--	--	--	--	605	--	11	--	--	--
Finland	--	--	--	--	750	--	--	--	--	--	795	-6.5%	--	--
France	--	--	3,600	--	--	--	257	-19.9%	7,100	-0.3%	1,100	--	--	--
Germany	--	--	--	--	--	--	3,550	4.2%	9,005	-3.5%	1,240	0.8%	--	--
Greece	--	--	--	--	--	--	--	--	180	--	72	-7.7%	--	--
Ireland	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Italy	--	--	--	--	--	--	--	--	3,800	--	700	1.0%	--	--
Luxembourg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Malta	--	--	--	--	--	--	--	--	5,000	--	--	--	--	--
Netherlands	--	--	--	--	--	--	--	--	580	-0.9%	510	-0.4%	--	--
Portugal	--	--	--	--	--	--	--	--	4,100	6.0%	28	-6.7%	--	--
Spain	--	--	--	--	--	--	569	-11.9%	--	--	667	-5.8%	3,130	-29.8%
Sweden	--	--	--	--	--	--	--	--	--	--	207	36.2%	--	--
United Kingdom	--	--	--	--	--	--	532	-11.3%	6,100	3.4%	192	0.5%	2,655	--
Total	--	--	3,600	--	750	--	4,910	-1.3%	36,900	0.2%	5,950	-0.5%	8,550	-20.4%
Total Western Europe	--	--	3,600	--	750	--	4,910	-1.3%	37,200	0.2%	6,080	-0.2%	8,550	-20.4%
Share of world total	--	--	0.6%	-19.5%	0.6%	5.6%	18.9%	-3.6%	16.5%	-4.7%	10.6%	-0.4%	2.5%	-25.5%
Total Europe and Central Eurasia	23,000	-0.9%	91,600	--	11,700	-4.4%	13,800	9.8%	51,600	-0.3%	16,700	-0.7%	40,800	-7.4%
Share of world total	19.7%	(7/)	14.9%	-19.5%	9.3%	0.9%	53.1%	7.3%	22.9%	-5.2%	29.1%	-0.8%	11.9%	-13.3%
United States	--	--	308,000	24.2%	31,900	-17.4%	1,200	-7.7%	44,800	-1.8%	9,250	-10.2%	3,500	-15.7%
Share of world total	--	--	50.2%	--	25.3%	-12.8%	4.6%	-9.8%	19.9%	-6.6%	16.1%	-10.4%	1.0%	-21.1%
World total	117,000	-0.8%	614,000	24.2%	126,000	-5.3%	26,000	2.4%	225,000	5.1%	57,300	0.2%	343,000	6.9%

See footnotes at end of table.

TABLE 3--Continued
EUROPE AND CENTRAL EURASIA: PRODUCTION OF SELECTED MINERAL COMMODITIES IN 2001 1/ 2/

(Thousand metric tons unless otherwise specified)

Region and/or country	Mineral fuels--Continued									
	Coal--Continued				Natural gas, marketed		Petroleum, crude		Uranium, U ₃ O ₈ content	
	Bituminous		Lignite		Quantity	Percentage	Quantity	Percentage	Quantity	Percentage
Quantity	Percentage change 4/	Quantity	Percentage change 4/	(million cubic meters)	change 4/	(thousand 42-gallon barrels)	change 4/	(metric tons)	change 4/	
Central Eurasia:										
Armenia	--	--	--	--	--	--	--	NA	NA	
Azerbaijan	--	--	--	--	5,500	--	109,515	7.1%	--	
Belarus	--	--	--	--	300	16.7%	13,965	3.4%	--	
Estonia	--	--	--	--	--	--	--	--	--	
Georgia	4	-42.9%	--	--	(5/)	--	735	0.7%	--	
Kazakhstan	77,000	10.3%	2,500	2.3%	11,600	0.5%	291,995	12.5%	2,380	
Kyrgyzstan	200	92.3%	277	-13.7%	30	-6.3%	550	-24.7%	--	
Latvia	--	--	--	--	--	--	--	--	--	
Lithuania	--	--	--	--	--	--	1,677	-23.2%	NA	
Moldova	--	--	--	--	--	--	--	--	--	
Russia	156,000	3.9%	100,000	13.9%	581,000	-0.5%	2,558,000	8.2%	2,359	
Tajikistan	20	--	--	--	50	25.0%	150	14.5%	--	
Turkmenistan	--	--	--	--	46,300	-1.5%	58,065	12.3%	--	
Ukraine	65,000	3.1%	900	-15.7%	18,300	2.5%	27,195	0.2%	590	
Uzbekistan	200	189.9%	2,800	12.0%	56,400	1.4%	55,125	65.3%	2,830	
Total	298,000	5.4%	106,000	13.1%	719,000	0.1%	3,120,000	9.1%	8,160	
Share of world total	8.3%	-1.3%	11.6%	3.1%	26.7%	-1.8%	13.1%	13.7%	19.0%	
Central Europe and Balkans:										
Albania	--	--	16	-50.0%	11	-99.8%	2,172	5.2%	--	
Bosnia and Herzegovina	--	-100.0%	1,900	-64.4%	--	--	--	--	--	
Bulgaria	101	-97.0%	27,007	2.6%	22	46.7%	235	-24.4%	--	
Croatia	--	--	--	--	2,009	13.6%	8,308	-5.2%	--	
Czech Republic	17,500	-73.0%	51,000	-0.1%	115	-2.5%	1,085	-50.5%	389	
Hungary	573	-8.3%	13,427	4.3%	3,280	-2.1%	7,000	-29.0%	--	
Macedonia	--	--	6,000	-20.2%	--	--	--	--	--	
Poland	103,992	2.0%	59,557	0.1%	5,175	4.4%	5,704	21.1%	--	
Romania	14	-95.0%	32,731	12.8%	14,090	-3.5%	47,450	8.0%	136	
Serbia and Montenegro	70	-23.9%	32,165	-6.1%	111	-30.6%	5,533	-5.3%	--	
Slovakia	--	--	3,424	-6.1%	212	100.0%	365	--	NA	
Slovenia	--	-100.0%	3,448	-7.9%	6	-14.3%	(5/)	--	NA	
Total	122,000	-30.3%	231,000	-1.6%	25,000	-18.5%	77,900	-0.3%	525	
Share of world total	3.4%	-34.7%	25.4%	-10.3%	0.9%	-20.1%	0.3%	3.9%	1.2%	
Western Europe:										
European Free Trade Association:										
Iceland	--	--	--	--	--	--	--	--	--	
Norway	320	-49.4%	--	--	41,000	-2.4%	1,137,882	-2.5%	--	
Switzerland	--	--	--	--	--	--	--	--	NA	
Total	320	-49.4%	--	--	41,000	-2.4%	1,140,000	-2.5%	NA	

See footnotes at end of table.

TABLE 3--Continued
EUROPE AND CENTRAL EURASIA: PRODUCTION OF SELECTED MINERAL COMMODITIES IN 2001 1/ 2/

(Thousand metric tons unless otherwise specified)

Region and/or country	Mineral fuels--Continued									
	Coal--Continued				Natural gas, marketed		Petroleum, crude		Uranium, U ₃ O ₈ content	
	Bituminous		Lignite		Quantity	Percentage	Quantity	Percentage	Quantity	Percentage
Quantity	Percentage change 4/	Quantity	Percentage change 4/	(million cubic meters)	change 4/	(thousand 42-gallon barrels)	change 4/	(metric tons)	change 4/	
Western Europe--Continued:										
European Union:										
Austria	--	--	1,206	-3.4%	1,800	50.0%	7,000	0.9%	--	--
Belgium	--	-100.0%	--	--	--	--	--	--	--	--
Denmark and Greenland	--	--	--	--	9,700	36.6%	88,130	-33.5%	--	--
Finland	--	--	--	--	--	--	--	--	NA	NA
France	2,170	-26.1%	324	9.5%	1,810	-66.0%	10,082	-4.8%	146	-61.2%
Germany	24,788	-25.6%	175,364	4.6%	22,000	4.8%	23,603	1.3%	24	-27.3%
Greece	--	--	67,575	5.8%	--	--	1,822	5.1%	--	--
Ireland	--	--	--	--	2,500	--	--	--	--	--
Italy	--	--	14	--	18,000	-2.7%	35,000	6.5%	--	--
Luxembourg	--	--	--	--	--	--	--	--	--	--
Malta	--	--	--	--	--	--	--	--	--	--
Netherlands	--	--	--	--	74,000	8.8%	18,000	71.3%	NA	NA
Portugal	--	--	--	--	--	--	--	--	5	-58.3%
Spain	7,361	-29.8%	12,193	43.0%	180	0.6%	2,505	44.5%	35	-88.2%
Sweden	--	--	--	--	--	--	--	--	NA	NA
United Kingdom	29,473	5.5%	--	--	96,000	37.1%	820,845	-1.1%	NA	NA
Total	63,800	-15.0%	256,700	6.2%	226,000	16.6%	1,010,000	-4.1%	210	-70.7%
Total Western Europe	64,100	-15.3%	256,700	6.2%	267,000	13.2%	2,150,000	-3.3%	210	-70.7%
Share of world total	1.8%	-20.7%	28.2%	-3.2%	9.9%	11.1%	9.0%	0.8%	0.5%	-72.1%
Total Europe and Central Eurasia	484,000	-9.2%	594,000	4.1%	1,010,000	2.7%	5,350,000	3.7%	8,900	-2.8%
Share of world total	13.4%	-15.0%	65.2%	-5.1%	37.5%	0.7%	22.4%	8.0%	20.7%	-7.3%
United States	938,000	5.2%	76,100	-1.9%	578,000	2.1%	2,120,000	--	1,180	-31.4%
Share of world total	26.0%	-1.5%	8.4%	-10.7%	21.5%	0.2%	8.9%	4.2%	2.8%	-34.6%
World total	3,610,000	6.8%	911,000	9.8%	2,690,000	1.9%	23,900,000	-4.0%	42,900	4.8%

NA Not available. W Withheld to avoid disclosing proprietary data; not included in region and world totals. -- Zero.

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.

2/ Table includes data available as of March 19, 2004.

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

4/ Percentage change is calculated for each region and/or country by taking 100 times the difference of the current year's data over last year's data minus 100.

5/ Less than 1/2 unit.

6/ Includes, ilmenite, leucosene, rutile, and titaniferous slag.

7/ Less than 0.05 percent.

8/ Includes gem and industrial diamonds.

TABLE 4
EUROPE AND CENTRAL EURASIA: HISTORIC AND PROJECTED PRODUCTION OF PRIMARY ALUMINUM 1/

(Metric tons)

	1990	1995	2000	2001	2002 e/	2003 e/	2005 e/	2007 e/
Balkans and Central Europe:								
Bosnia and Herzegovina	89,000	15,000	90,000	96,000	100,000	110,000	110,000	110,000
Croatia	74,037	30,944	7,000	7,000	--	--	--	--
Hungary	105,162	29,000	34,000	35,000	85,000	85,000	90,000	90,000
Poland	46,000	56,000	47,000	55,000	51,000	51,000	53,000	53,000
Romania	178,000	144,000	179,000	182,000	190,000	190,000	190,000	190,000
Slovakia	30,100	38,100	137,000	134,000	150,000	150,000	160,000	160,000
Slovenia	99,500	57,700	84,000	77,000	88,000	90,000	90,000	90,000
Yugoslavia	81,000	17,000	88,000	100,000	110,000	120,000	120,000	120,000
Total	703,000	388,000	666,000	686,000	770,000	780,000	800,000	800,000
Central Eurasia:								
Azerbaijan	50,000	27,000	--	--	--	10,000	20,000	40,000
Kazakhstan	--	--	--	--	--	--	--	30,000
Russia	2,700,000	2,724,000	3,245,000	3,300,000	3,400,000	3,500,000	3,600,000	3,700,000
Tajikistan	450,000	230,000	300,000	289,000	310,000	320,000	330,000	340,000
Ukraine	100,000	98,000	119,000	121,000	110,000	110,000	120,000	130,000
Total	3,300,000	3,080,000	3,660,000	3,710,000	3,800,000	3,900,000	4,100,000	4,200,000
Western Europe:								
France	325,000	366,000	441,000	462,000	460,000	460,000	450,000	450,000
Germany	720,000	575,000	644,000	652,000	650,000	650,000	650,000	600,000
Greece	149,000	144,000	168,000	168,000	160,000	170,000	160,000	150,000
Iceland	87,000	100,100	224,000	243,000	260,000	280,000	300,000	320,000
Italy	232,000	178,000	190,000	187,000	190,000	200,000	190,000	180,000
Netherlands	269,000	216,000	301,000	294,000	280,000	280,000	280,000	250,000
Norway	894,000	902,500	1,026,000	1,068,000	1,400,000	1,400,000	1,400,000	1,500,000
Spain	353,000	362,000	366,000	376,000	380,000	380,000	380,000	350,000
Sweden	126,300	117,500	101,000	102,000	130,000	130,000	130,000	140,000
Switzerland	72,000	21,000	36,000	36,000	36,000	36,000	36,000	36,000
United Kingdom	294,000	238,000	305,000	341,000	340,000	330,000	330,000	300,000
Total	3,520,000	3,220,000	3,800,000	3,930,000	4,300,000	4,300,000	4,300,000	4,200,000
Grand total	7,520,000	6,690,000	8,130,000	8,330,000	8,800,000	9,000,000	9,200,000	9,300,000

e/ Estimated; estimated data are rounded to no more than two significant digits; may not add to totals shown. -- Zero.

1/ Totals are rounded to no more than three significant digits.

TABLE 5
EUROPE AND CENTRAL EURASIA: HISTORIC AND PROJECTED PRODUCTION OF SECONDARY ALUMINUM 1/

(Thousand metric tons)

	1990	1995	2000	2001	2002 e/	2003 e/	2005 e/	2007 e/
Balkans and Central Europe:								
Bosnia and Herzegovina	10	10	5	4	5	5	5	5
Bulgaria	5	5	8	8	8	8	8	8
Croatia	NA	NA	15	16	--	15	15	15
Czech Republic	--	48	40	20	20	20	20	20
Hungary	30	4	65	50	50	50	50	50
Macedonia	5	4	5	4	5	5	5	--
Poland	--	5	6	10	10	10	10	10
Romania	10	3	--	--	2	2	2	2
Slovakia	--	--	--	--	--	--	--	--
Slovenia	--	--	--	--	--	--	--	--
Yugoslavia	NA							
Total	60	79	144	112	100	120	120	110
Central Eurasia: 2/								
Russia	NA	75	125	125	130	130	150	180
Ukraine	NA	98	129	130	130	130	130	130
Uzbekistan	NA	3	2	3	3	3	3	3
Total	NA	176	256	258	260	260	280	310
Western Europe								
Austria	36	94	158	150	150	150	150	150
Belgium	7	4	1	1	1	1	1	1
Denmark and Greenland	11	35	16	16	18	20	20	18
Finland	24	35	45	34	34	33	32	32
France	208	231	260	253	260	270	270	270
Germany	590	531	572	620	660	650	650	650
Greece	3	3	3	3	2	2	2	2
Iceland	--	--	--	--	--	--	--	--
Ireland	--	--	--	--	--	--	--	--
Italy	350	412	568	575	590	600	600	600
Netherlands	134	192	119	120	120	120	120	120
Norway	49	56	260	265	270	260	260	260
Portugal	NA	NA	18	18	16	16	16	16
Spain	63	107	241	222	240	240	240	240
Sweden	30	23	26	26	28	30	32	32
Switzerland	34	11	15	6	6	6	6	6
United Kingdom	121	282	285	238	210	230	230	230
Total	1,660	2,020	2,570	2,550	2,600	2,600	2,600	2,600
Grand total	1,720	2,270	2,970	2,920	3,000	3,000	3,000	3,000

e/ Estimated; estimated data are rounded to no more than two significant digits; may not add to totals shown. -- Zero.

1/ Totals are rounded to no more than three significant digits.

2/ Information about the amount of secondary aluminium collected and processed in the other member countries of the Commonwealth of Independent States at present is lacking

TABLE 6
EUROPE AND CENTRAL EURASIA: HISTORIC AND PROJECTED PRODUCTION OF BAUXITE 1/

(Metric tons)

	1990	1995	2000	2001	2002 e/	2003 e/	2005 e/	2007 e/
Balkans and Central Europe:								
Bosnia and Herzegovina	1,703,000	75,000	75,000	75,000	100,000	100,000	100,000	100,000
Croatia	309,109	1,500	--	--	--	--	--	--
Hungary	2,559,000	1,015,000	1,046,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Romania	242,800	175,000	--	--	--	--	--	--
Yugoslavia	940,000	60,000	630,000	610,000	610,000	650,000	700,000	800,000
Total	5,750,000	1,330,000	1,750,000	1,690,000	1,700,000	1,800,000	1,800,000	1,900,000
Central Eurasia:								
Kazakhstan	3,000,000	3,071,000	3,730,000	3,668,000	3,700,000	3,700,000	3,700,000	3,700,000
Russia	4,000,000	4,000,000	4,200,000	4,000,000	4,000,000	4,400,000	5,000,000	6,000,000
Total	7,000,000	7,070,000	7,930,000	7,670,000	7,700,000	8,100,000	8,700,000	9,700,000
Western Europe:								
France	490,000	75,000	185,000	153,000	160,000	160,000	150,000	150,000
Greece	2,486,000	2,200,000	1,991,000	1,990,000	2,500,000	2,300,000	2,200,000	2,000,000
Total	2,976,000	2,275,000	2,176,000	2,143,000	2,700,000	2,500,000	2,400,000	2,200,000
Grand total	15,700,000	10,700,000	11,900,000	11,500,000	12,000,000	12,000,000	13,000,000	14,000,000

e/ Estimated; estimated data are rounded to no more than two significant digits; may not add to totals shown. -- Zero.

1/ Totals are rounded to no more than three significant digits.

TABLE 7
EUROPE AND CENTRAL EURASIA: HISTORIC AND PROJECTED PRODUCTION OF ANTHRACITE AND BITUMINOUS COAL 1/

(Thousand metric tons)

	1990	1995	2000	2001	2002 e/	2003 e/	2005 e/	2007 e/
Balkans and Central Europe:								
Bulgaria	143	194	118	122	120	110	110	100
Czech Republic	30,714	21,309	17,028	17,500	18,000	17,000	17,000	17,000
Hungary	1,736	844	744	573	660	650	650	600
Poland	147,624	137,166	103,331	103,992	100,000	100,000	110,000	110,000
Romania	4,447	1,149	3,251	14	13	10	10	10
Serbia and Montenegro	137	57	88	70	70	40	40	40
Total	185,000	185,000	185,000	185,000	120,000	120,000	120,000	120,000
Central Eurasia:								
Georgia	70	40	7	4	6	6	6	6
Kazakhstan	130,000	80,000	70,000	76,500	71,000	71,000	80,000	95,000
Kyrgyzstan	1,700	250	200	200	200	200	200	200
Russia	257,000	177,000	173,000	170,000	170,000	180,000	180,000	200,000
Ukraine	135,000	83,000	80,000	83,000	81,000	80,000	75,000	70,000
Uzbekistan	200	200	200	200	200	200	200	200
Total	524,000	340,000	323,000	330,000	320,000	330,000	340,000	370,000
Western Europe:								
France	10,488	7,014	3,805	2,364	2,100	1,800	1,000	750
Germany	70,158	52,408	34,251	27,361	25,000	22,000	20,000	18,000
Norway	358	343	330	320	310	300	300	300
Spain	19,557	17,700	10,824	10,491	9,900	9,600	8,000	4,000
Sweden	11	--	--	--	--	--	--	--
United Kingdom	94,397	53,037	31,972	32,128	30,000	28,000	26,000	22,000
Total	195,000	131,000	81,200	72,700	67,000	62,000	55,000	45,000
Grand total	904,000	632,000	529,000	525,000	510,000	510,000	510,000	530,000

e/ Estimated; estimated data are rounded to no more than two significant digits; may not add to totals shown. -- Zero.

1/ Totals are rounded to no more than three significant digits.

TABLE 8
EUROPE AND CENTRAL EURASIA: HISTORIC AND PROJECTED PRODUCTION OF LIGNITE 1/

(Thousand metric tons)

	1990	1995	2000	2001	2002 e/	2003 e/	2005 e/	2007 e/
Balkans and Central Europe:								
Albania	2,071	81	21	16	20	20	25	25
Bulgaria	31,532	30,636	26,976	27,007	26,000	25,000	25,000	25,000
Bosnia and Herzegovina	18,157	1,808	1,900	1,900	2,000	3,000	4,000	4,000
Czech Republic	80,205	58,773	51,063	51,000	49,000	50,000	50,000	50,000
Hungary	15,842	13,601	13,532	13,427	12,000	12,000	12,000	12,000
Macedonia	6,635	7,991	7,100	6,000	6,000	6,000	6,000	6,000
Poland	67,584	63,547	59,484	59,557	58,000	60,000	65,000	65,000
Romania	33,737	39,979	26,043	32,781	30,000	31,000	35,000	35,000
Serbia and Montenegro	45,354	40,499	34,036	32,165	33,000	32,000	33,000	35,000
Slovakia	4,766	4,140	3,589	3,424	3,400	3,400	3,500	3,500
Slovenia	5,582	4,884	4,480	4,138	4,100	4,500	4,500	4,500
Total	311,000	266,000	228,000	231,000	220,000	230,000	240,000	240,000
Central Eurasia:								
Russia	138,000	86,000	84,000	100,000	85,000	90,000	95,000	100,000
Kazakhstan	1,000	3,300	4,900	2,500	2,500	2,500	2,500	2,500
Kyrgyzstan	1,700	200	225	277	300	300	300	300
Ukraine	1,000	800	1,000	900	1,400	1,500	1,500	1,500
Uzbekistan	3,000	2,900	2,300	2,800	3,000	3,000	4,000	6,000
Total	145,000	93,200	92,400	106,000	92,000	97,000	100,000	110,000
Western Europe:								
Austria	2,448	1,249	1,255	1,206	1,200	1,000	1,000	750
France	2,256	1,401	296	324	300	300	300	300
Germany	356,600	207,096	167,691	175,364	180,000	180,000	150,000	150,000
Greece	49,909	56,553	65,000	60,000	65,000	65,000	65,000	65,000
Italy	15,493	352	19	14	10	10	10	10
Spain	20,970	10,776	12,153	12,193	12,000	11,000	10,000	10,000
Total	448,000	277,000	246,000	249,000	250,000	250,000	230,000	230,000
Grand total	904,000	637,000	567,000	587,000	570,000	580,000	570,000	580,000

e/ Estimated; estimated data are rounded to no more than two significant digits; may not add to totals shown.

1/ Totals are rounded to no more than three significant digits.

TABLE 9
EUROPE AND CENTRAL EURASIA: HISTORIC AND PROJECTED MINE PRODUCTION OF COPPER 1/

(Metric tons of Cu content)

	1990	1995	2000	2001	2002 e/	2003 e/	2005 e/	2007 e/
Balkans and Central Europe:								
Albania	11,500	3,800	--	--	1,000	2,000	5,000	10,000
Bulgaria	26,000	76,000	92,000	88,000	85,000	85,000	90,000	90,000
Macedonia	7,300	6,000	6,000	9,000	10,000	10,000	10,000	15,000
Poland	329,000	384,200	465,000	545,000	500,000	500,000	550,000	550,000
Romania	32,000	24,500	16,100	19,000	20,000	20,000	20,000	25,000
Slovakia	3,100	--	--	--	--	--	--	--
Yugoslavia	110,000	74,600	41,000	22,000	30,000	50,000	60,000	75,000
Total	519,000	569,000	620,000	683,000	650,000	670,000	740,000	770,000
Central Eurasia:								
Armenia	15,000	8,080	7,231	7,000	7,500	8,000	9,000	9,000
Georgia	10,000	5,000	8,000	8,000	8,000	8,000	8,000	9,000
Kazakhstan	400,000	200,000	430,000	470,000	470,000	480,000	490,000	500,000
Russia	650,000	525,000	600,000	620,000	670,000	690,000	690,000	700,000
Uzbekistan	70,000	40,000	65,000	65,000	70,000	70,000	75,000	80,000
Total	1,150,000	778,000	1,110,000	1,170,000	1,200,000	1,300,000	1,300,000	1,300,000
Western Europe:								
Finland	12,600	9,790	14,354	12,000	13,000	13,000	14,000	14,000
France	483	--	--	--	--	--	--	--
Portugal	159,841	129,726	76,200	83,000	85,000	90,000	100,000	100,000
Spain	13,300	24,519	23,312	10,000	10,000	12,000	12,000	12,000
Sweden	74,300	83,603	77,765	74,000	69,000	70,000	72,000	74,000
United Kingdom	955	--	--	--	--	--	--	--
Total	261,000	248,000	192,000	179,000	180,000	190,000	200,000	200,000
Grand total	1,930,000	1,590,000	1,920,000	2,030,000	2,000,000	2,100,000	2,200,000	2,300,000

e/ Estimated; estimated data are rounded to no more than two significant digits; may not add to totals shown. -- Zero.

1/ Totals are rounded to no more than three significant digits.

TABLE 10
EUROPE AND CENTRAL EURASIA: HISTORIC AND PROJECTED PRODUCTION OF PRIMARY AND SECONDARY REFINED COPPER 1/

(Metric tons)

	1990	1995	2000	2001	2002 e/	2003 e/	2005 e/	2007 e/
Balkans and Central Europe:								
Albania	11,000	3,000	--	--	--	--	--	--
Bulgaria	24,300	28,800	32,500	34,000	35,000	35,000	45,000	50,000
Czech Republic	20,800	20,000	20,000	18,000	20,000	20,000	20,000	20,000
Hungary	12,800	11,000	12,000	12,000	10,000	5,000	5,000	5,000
Poland	346,000	406,700	518,000	498,000	530,000	550,000	550,000	550,000
Romania	44,300	27,000	19,300	23,000	25,000	25,000	30,000	30,000
Slovakia	24,600	29,000	--	2,000	--	--	--	--
Yugoslavia	151,000	78,500	45,600	32,400	35,000	45,000	50,000	60,000
Total	635,000	604,000	647,000	619,000	660,000	680,000	700,000	720,000
Central Eurasia:								
Russia	900,000	560,000	800,000	895,000	860,000	900,000	950,000	1,000,000
Kazakhstan	365,000	255,500	394,700	422,000	420,000	430,000	430,000	440,000
Uzbekistan	110,000	95,000	80,000	80,000	80,000	85,000	90,000	95,000
Total	1,380,000	911,000	1,270,000	1,400,000	1,400,000	1,400,000	1,500,000	1,500,000
Western Europe:								
Austria	--	54,000	79,000	69,000	60,000	60,000	60,000	60,000
Belgium	331,857	376,000	423,100	425,000	420,000	400,000	400,000	380,000
Finland	65,100	73,700	114,035	116,000	110,000	110,000	110,000	120,000
France	44,034	42,500	1,500	2,000	1,500	1,200	1,000	1,000
Germany	476,200	616,390	710,000	709,000	700,000	650,000	650,000	650,000
Italy	83,000	98,000	72,800	36,000	30,000	30,000	25,000	25,000
Norway								
Spain	170,567	164,213	316,000	291,000	300,000	300,000	280,000	280,000
Sweden	97,300	105,100	130,000	204,000	230,000	230,000	230,000	230,000
United Kingdom	121,634	54,799	3,000	45,000	--	--	--	--
Total	1,430,000	1,620,000	1,880,000	1,920,000	1,800,000	1,800,000	1,800,000	1,700,000
Grand total	3,440,000	3,130,000	3,800,000	3,940,000	3,900,000	3,900,000	3,900,000	4,000,000

e/ Estimated; estimated data are rounded to no more than two significant digits; may not add to totals shown. -- Zero.

1/ Totals are rounded to no more than three significant digits.

TABLE 11
EUROPE AND CENTRAL EURASIA: HISTORIC AND PROJECTED PRODUCTION OF NATURAL DIAMOND 1/

(Metric tons)

	1990	1995	2000	2001	2002 e/	2003 e/	2005 e/	2007 e/
Central Eurasia, Russia:								
Gem grade	12,000	10,500	11,600	11,600	12,000	12,000	14,000	16,000
Industrial grade	12,000	10,500	11,600	11,600	12,000	12,000	14,000	16,000
Total	24,000	21,000	23,200	23,200	23,000	24,000	27,000	32,000

e/ Estimated; estimated data are rounded to no more than two significant digits; may not add to totals shown.

1/ Totals are rounded to no more than three significant digits.

TABLE 12
EUROPE AND CENTRAL EURASIA: HISTORIC AND PROJECTED MINE PRODUCTION OF GOLD 1/

(Kilograms)

	1990	1995	2000	2001	2002 e/	2003 e/	2005 e/	2007 e/
Balkans and Central Europe:								
Bulgaria	2,400	3,100	2,347	2,540	2,500	3,000	3,500	3,500
Poland	300	510	367	349	450	450	450	450
Romania	3,000	4,000	3,500	3,500	3,500	3,500	3,500	4,000
Slovakia	500	518	306	157	200	200	200	200
Yugoslavia	8,170	3,040	1,121	800	1,500	2,000	3,000	4,000
Total	14,400	11,200	7,640	7,350	8,200	9,200	11,000	12,000
Central Eurasia:								
Armenia	1,000	514	400	400	1,800	4,000	4,200	4,400
Georgia	2,000	500	2,924	2,000	2,000	2,000	2,500	3,000
Kazakhstan	30,000	18,200	28,171	27,100	22,000	25,000	25,000	30,000
Kyrgyzstan	2,000	1,500	22,000	24,000	18,000	23,000	25,000	27,000
Russia	183,000	131,938	142,738	152,500	160,000	160,000	170,000	200,000
Tajikistan	2,500	500	2,700	2,700	3,000	3,000	3,500	4,000
Uzbekistan	65,000	65,000	80,000	87,000	80,000	80,000	80,000	80,000
Total	286,000	218,000	279,000	296,000	290,000	300,000	310,000	350,000
Western Europe:								
Finland	2,810	2,061	4,951	5,600	4,500	4,600	4,800	5,000
France	4,236	4,615	2,632	2,510	2,500	2,500	2,000	2,000
Italy	--	--	791	503	600	700	800	1,000
Portugal	276	--	--	--	--	--	--	--
Spain	6,814	4,131	4,310	3,720	3,700	3,600	3,500	3,500
Sweden	6,330	6,528	3,570	4,986	4,700	4,700	4,900	4,900
Total	20,500	17,300	16,300	17,300	16,000	16,000	16,000	16,000
Grand total	320,000	247,000	303,000	320,000	310,000	320,000	340,000	380,000

e/ Estimated; estimated data are rounded to no more than two significant digits; may not add to totals shown. -- Zero.

1/ Totals are rounded to no more than three significant digits.

TABLE 13
EUROPE AND CENTRAL EURASIA: HISTORIC AND PROJECTED PRODUCTION OF IRON ORE 1/

(Metric tons of Fe content)

	1990	1995	2000	2001	2002 e/	2003 e/	2005 e/	2007 e/
Balkans and Central Europe:								
Albania	410,000	--	--	--	--	--	--	--
Bosnia and Herzegovina	1,580,000	52,000	36,000	36,000	40,000	40,000	50,000	50,000
Bulgaria	270,000	265,000	165,000	130,000	130,000	100,000	100,000	75,000
Macedonia	3,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Poland	130	--	--	--	--	--	--	--
Romania	275,000	147,000	55,000	63,000	60,000	60,000	50,000	50,000
Slovakia	480,000	225,000	260,000	260,000	250,000	250,000	250,000	250,000
Yugoslavia	650,000	61,000	--	--	--	--	--	--
Total	3,670,000	751,000	517,000	490,000	480,000	450,000	450,000	430,000
Central Eurasia:								
Azerbaijan	275,000	825	3,000	2,600	300	--	--	--
Kazakhstan	13,000,000	8,000,000	9,000,000	8,000,000	8,000,000	9,000,000	10,000,000	10,000,000
Russia	60,000,000	46,000,000	52,000,000	49,000,000	49,000,000	50,000,000	50,000,000	51,000,000
Ukraine	50,000,000	29,000,000	31,000,000	31,000,000	32,000,000	33,000,000	34,000,000	34,000,000
Total	123,000,000	83,000,000	92,000,000	88,000,000	89,000,000	92,000,000	94,000,000	95,000,000
Western Europe:								
Austria	653,000	709,000	590,000	575,000	500,000	500,000	300,000	100,000
France	2,793,000	430,000	--	--	--	--	--	--
Germany	11,686	960	--	--	--	--	--	--
Norway	1,350,000	1,348,000	369,000	340,000	330,000	330,000	320,000	300,000
Spain	1,438,000	960,000	--	--	--	--	--	--
Sweden	12,900,000	13,880,000	13,556,000	12,811,000	13,000,000	13,000,000	13,000,000	14,000,000
United Kingdom	12,000	568	540	270	270	160	110	55
Total	19,200,000	17,300,000	14,500,000	13,700,000	14,000,000	14,000,000	14,000,000	14,000,000
Grand total	146,000,000	101,000,000	107,000,000	102,000,000	100,000,000	110,000,000	110,000,000	110,000,000

e/ Estimated; estimated data are rounded to no more than two significant digits; may not add to totals shown. -- Zero.

1/ Totals are rounded to no more than three significant digits.

TABLE 14
EUROPE AND CENTRAL EURASIA: HISTORIC AND PROJECTED MINE PRODUCTION OF LEAD 1/

(Metric tons of Pb content)

	1990	1995	2000	2001	2002 e/	2003 e/	2005 e/	2007 e/
Balkans and Central Europe:								
Bosnia and Herzegovina	7,500							
Bulgaria	57,000	33,000	10,900	18,500	19,000	20,000	20,000	25,000
Macedonia	15,000	17,000	16,500	9,000	10,000	10,000	10,000	10,000
Poland	90,300	99,400	113,800	121,600	120,000	90,000	80,000	60,000
Romania	25,100	23,200	18,800	19,700	20,000	20,000	20,000	25,000
Yugoslavia	15,200	3,300	14,000	10,000	8,000	8,000	10,000	10,000
Total	210,000	176,000	174,000	179,000	180,000	150,000	140,000	130,000
Central Eurasia:								
Kazakhstan	200,000	70,000	40,000	37,700	38,000	40,000	45,000	45,000
Russia	30,000	23,000	13,300	12,300	14,000	15,000	15,000	15,000
Tajikistan	2,000	500	1,000	1,000	500	500	1,000	1,000
Total	232,000	93,500	54,300	51,000	53,000	55,000	61,000	61,000
Western Europe:								
France	1,141	--	--	--	--	--	--	--
Germany	8,600	--	--	--	--	--	--	--
Greece	26,200	14,283	18,235	28,619	30,000	28,000	28,000	28,000
Ireland	35,300	46,100	57,825	44,500	55,000	60,000	65,000	65,000
Italy	15,600	15,400	2,000	1,000	1,000	500	--	--
Spain	61,472	30,346	40,300	49,500	50,000	50,000	40,000	35,000
Sweden	98,300	137,200	106,584	85,975	36,000	38,000	40,000	42,000
Total	247,000	243,000	225,000	210,000	170,000	180,000	170,000	170,000
Grand total	689,000	513,000	453,000	440,000	400,000	380,000	370,000	360,000

e/ Estimated; estimated data are rounded to no more than two significant digits; may not add to totals shown. -- Zero.

1/ Totals are rounded to no more than three significant digits.

TABLE 15
EUROPE AND CENTRAL EURASIA: HISTORIC AND PROJECTED PRODUCTION OF PRIMARY REFINED LEAD 1/

(Metric tons)

	1990	1995	2000	2001	2002 e/	2003 e/	2005 e/	2007 e/
Balkans and Central Europe:								
Bosnia and Herzegovina	250	100	100	100	100	100	200	300
Bulgaria	66,600	71,200	84,100	89,000	90,000	90,000	90,000	95,000
Macedonia	22,000	22,500	22,900	7,000	7,000	10,000	15,000	15,000
Poland	64,800	66,421	59,900	66,000	66,000	65,000	60,000	55,000
Romania	15,700	22,000	22,900	24,000	30,000	30,000	30,000	35,000
Yugoslavia	48,000	23,600	1,242	--	170	500	1,000	2,000
Total	217,000	206,000	191,000	186,000	190,000	200,000	200,000	200,000
Central Eurasia:								
Kazakhstan	290,300	88,500	185,000	158,800	160,000	180,000	220,000	250,000
Russia	35,000	23,000	59,000	70,000	75,000	80,000	80,000	80,000
Total	325,000	112,000	244,000	229,000	240,000	260,000	300,000	330,000
Western Europe:								
Austria	8,391	--	--	--	--	--	--	--
Belgium	69,812	95,300	98,000	80,000	75,000	--	--	--
France	162,260	133,580	109,868	98,257	84,000	80,000	80,000	80,000
Germany	207,600	146,750	210,515	153,743	150,000	150,000	130,000	130,000
Italy	64,600	84,900	75,000	82,000	80,000	80,000	75,000	75,000
Spain	60,000	--	--	--	--	--	--	--
Sweden	47,500	39,700	30,604	31,322	25,000	27,000	30,000	32,000
United Kingdom	156,000	150,000	166,411	203,000	210,000	210,000	210,000	210,000
Total	776,000	650,000	690,000	648,000	620,000	540,000	520,000	520,000
Grand total	1,320,000	968,000	1,130,000	1,060,000	1,000,000	1,000,000	1,000,000	1,100,000

e/ Estimated; estimated data are rounded to no more than two significant digits; may not add to totals shown. -- Zero.

1/ Totals are rounded to no more than three significant digits.

TABLE 16
EUROPE AND CENTRAL EURASIA: HISTORIC AND PROJECTED PRODUCTION OF SECONDARY REFINED LEAD 1/

(Metric tons)

	1990	1995	2000	2001	2002 e/	2003 e/	2005 e/	2007 e/
Balkans and Central Eurasia, Romania	5,000	4,000	3,000	3,000	3,000	4,000	4,000	5,000
Central Eurasia, Ukraine	10,000	10,000	15,000	12,000	15,000	15,000	16,000	17,000
Western Europe:								
Austria	15,120	21,919	24,999	22,000	20,000	20,000	20,000	20,000
Belgium	37,000	26,400	20,000	16,000	91,000	100,000	100,000	100,000
France	108,210	156,470	158,226	143,338	110,000	130,000	130,000	130,000
Germany	186,700	164,400	204,000	220,000	220,000	210,000	200,000	200,000
Greece	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Ireland	15,000	11,000	9,000	13,000	12,000	9,000	9,000	8,000
Italy	102,000	95,500	160,000	121,000	150,000	150,000	150,000	150,000
Netherlands	44,000	20,000	22,000	24,000	25,000	25,000	20,000	20,000
Portugal	6,000	7,700	5,000	4,000	4,000	4,000	4,000	4,000
Spain	50,000	80,000	120,000	122,000	120,000	130,000	130,000	140,000
Sweden	22,100	51,500	47,255	44,056	40,000	43,000	45,000	45,000
Switzerland	6,000	6,000	10,100	9,800	9,800	8,000	8,000	8,000
United Kingdom	174,000	171,000	171,000	163,000	170,000	160,000	160,000	150,000
Total	771,000	817,000	957,000	907,000	980,000	990,000	980,000	980,000
Grand total	786,000	831,000	975,000	922,000	1,000,000	1,000,000	1,000,000	1,000,000

e/ Estimated; estimated data are rounded to no more than two significant digits; may not add to totals shown.

1/ Totals are rounded to no more than three significant digits.

TABLE 17
EUROPE AND CENTRAL EURASIA: HISTORIC AND PROJECTED PRODUCTION OF NATURAL GAS 1/

(Million cubic meters)

	1990	1995	2000	2001	2002 e/	2003 e/	2005 e/	2007 e/
Balkans and Central Europe:								
Albania	243	28	11	11	10	9	10	10
Bulgaria	14	60	15	22	25	25	25	25
Croatia	1,989	1,966	1,768	2,009	2,100	2,200	2,200	2,500
Czech Republic	125	165	118	115	120	120	120	120
Hungary	4,932	5,451	3,010	2,947	2,800	2,800	2,800	2,800
Poland	3,866	4,803	4,956	5,175	5,300	5,300	5,300	5,300
Romania	28,336	19,016	14,607	14,090	13,000	14,000	14,000	14,000
Serbia and Montenegro	646	906	160	111	110	110	110	110
Slovakia	981	345	202	212	210	210	220	220
Slovenia	24	18	7	6	6	5	5	5
Total	41,200	32,800	24,900	24,700	24,000	24,000	24,000	25,000
Central Eurasia:								
Azerbaijan	9,900	6,600	5,600	5,500	5,100	5,000	5,000	7,000
Belarus	300	300	300	300	200	200	200	200
Georgia	40	3	100	40	20	200	200	200
Kazakhstan	7,100	5,900	11,500	11,600	13,000	16,000	32,000	40,000
Kyrgyzstan	100	40	30	30	30	30	30	30
Russia	641,000	595,000	584,000	581,000	600,000	610,000	620,000	640,000
Tajikistan	100	40	40	50	30	400	300	500
Turmenistan	84,000	32,300	47,000	46,300	54,000	68,000	75,000	85,000
Ukraine	24,000	18,200	17,800	18,300	18,000	19,000	19,000	19,000
Uzbekistan	42,000	48,600	55,600	56,400	58,000	58,000	60,000	62,000
Total	809,000	707,000	722,000	720,000	740,000	780,000	810,000	850,000
Western Europe:								
Austria	1,290	1,450	1,805	1,800	2,000	2,000	2,000	2,000
Denmark	--	6,320	9,700	9,700	8,100	9,800	9,900	10,000
France	3,031	2,830	1,873	1,810	1,800	1,800	1,800	1,800
Germany	23,000	21,000	22,000	22,000	20,000	20,000	20,000	20,000
Ireland	57	2,800	2,500	2,500	2,500	2,500	2,500	2,500
Italy	17,296	20,400	18,500	18,000	16,000	15,000	15,000	15,000
Netherlands	74,100	78,350	69,200	74,000	75,000	72,000	70,000	68,000
Norway	27,900	27,800	42,000	41,000	40,000	39,000	37,000	35,000
Spain	1,553	422	179	180	180	180	180	180
United Kingdom	50,600	75,461	96,000	96,000	110,000	110,000	110,000	100,000
Total	199,000	237,000	264,000	267,000	280,000	270,000	270,000	250,000
Grand total	1,050,000	977,000	1,010,000	1,010,000	1,000,000	1,100,000	1,100,000	1,100,000

e/ Estimated; estimated data are rounded to no more than two significant digits; may not add to totals shown.

1/ Totals are rounded to no more than three significant digits.

TABLE 18
EUROPE AND CENTRAL EURASIA: HISTORIC AND PROJECTED MINE PRODUCTION OF NICKEL 1/

(Thousand metric tons of Ni content)

	1990	1995	2000	2001	2002 e/	2003 e/	2005 e/	2007 e/
Balkans and Central Europe:								
Albania	8,800	--	--	--	--	--	--	--
Macedonia	--	3,500	--	--	2,000	3,000	5,500	5,500
Total	8,800	3,500	--	--	2,000	3,000	5,500	5,500
Central Eurasia:								
Kazakhstan	4,000	1,200	30	3,000	3,000	3,500	4,000	4,500
Russia	380,000	250,000	315,000	325,000	310,000	330,000	340,000	360,000
Ukraine	6,000	--	--	2,000	2,000	2,000	2,500	3,000
Total	390,000	251,000	315,000	330,000	320,000	340,000	350,000	370,000
Western Europe:								
Finland	11,500	3,439	2,600	2,000	2,500	2,400	2,200	2,000
Greece	18,500	19,974	20,000	20,000	21,000	20,000	20,000	19,000
Norway	3,100	3,386	2,538	3,000	1,700	1,600	1,400	1,200
Total	33,100	26,800	25,100	25,000	25,000	24,000	24,000	22,000
Grand total	432,000	281,000	340,000	355,000	340,000	360,000	380,000	400,000

e/ Estimated; estimated data are rounded to no more than two significant digits; may not add to totals shown. -- Zero.

1/ Totals are rounded to no more than three significant digits.

TABLE 19
EUROPE AND CENTRAL EURASIA: HISTORIC AND PROJECTED PRODUCTION OF PETROLEUM 1/

(Thousand 42-gallon barrels)

	1990	1995	2000	2001	2002 e/	2003 e/	2005 e/	2007 e/
Balkans and Central Europe:								
Albania	7,049	3,435	2,110	2,172	2,300	2,300	2,300	2,300
Bulgaria	440	345	301	235	250	250	250	250
Croatia	15,422	11,127	13,115	8,308	8,200	8,200	8,000	8,000
Czech Republic	319	1,010	1,139	1,085	1,100	1,100	1,100	1,100
Hungary	13,206	11,166	7,500	7,000	7,000	7,000	7,000	7,000
Poland	1,209	2,166	4,844	5,704	5,500	6,000	6,000	6,000
Romania	61,685	52,925	47,815	47,450	46,000	46,000	45,000	45,000
Serbia and Montenegro	7,885	7,908	5,971	5,533	5,100	4,900	5,000	5,000
Slovakia	495	509	407	365	360	350	350	350
Total	108,000	90,600	83,200	77,900	76,000	76,000	75,000	75,000
Central Eurasia:								
Azerbaijan	91,875	67,620	102,900	109,515	110,000	110,000	150,000	220,000
Belarus	15,435	13,965	13,230	13,965	13,000	13,000	13,000	13,000
Georgia	1,470	294	735	735	520	740	1,500	2,200
Kazakhstan	189,630	150,675	259,455	294,735	350,000	380,000	440,000	550,000
Kyrgyzstan	700	700	700	700	700	700	700	700
Lithuania	--	700	2,300	3,500	3,200	3,300	3,500	3,600
Russia	3,793,000	2,256,000	2,381,000	2,558,000	2,800,000	3,000,000	3,100,000	3,200,000
Tajikistan	1,470	22	150	150	150	200	300	500
Turmenistan	41,895	33,075	54,390	58,065	62,000	68,000	81,000	96,000
Ukraine	39,690	30,135	27,195	27,195	27,000	27,000	27,000	27,000
Uzbekistan	19,845	55,860	55,125	55,125	51,000	48,000	44,000	44,000
Total	4,200,000	2,610,000	897,000	3,120,000	3,400,000	3,700,000	3,900,000	4,200,000
Western Europe:								
Austria	8,010	7,213	7,024	7,000	7,000	7,000	7,000	7,000
Denmark	45,400	67,858	87,860	88,130	89,000	89,000	90,000	91,000
France	22,036	18,284	11,591	10,082	10,000	10,000	10,000	10,000
Germany	26,046	21,638	22,658	23,603	24,000	24,000	22,000	22,000
Italy	31,619	35,466	35,000	35,000	35,000	32,000	30,000	30,000
Netherlands	--	24,466	17,633	18,000	18,000	18,000	18,000	18,000
Norway	609,000	979,104	1,000,000	1,000,000	1,100,000	1,100,000	1,100,000	1,200,000
Spain	7,593	4,747	1,648	2,505	2,500	2,500	2,500	2,500
United Kingdom	687,015	914,250	884,115	820,845	820,000	820,000	820,000	800,000
Total	1,440,000	2,070,000	2,070,000	2,010,000	2,100,000	2,000,000	2,100,000	2,100,000
Grand total	5,750,000	4,770,000	5,050,000	5,200,000	5,500,000	5,800,000	6,000,000	6,400,000

e/ Estimated; estimated data are rounded to no more than two significant digits; may not add to totals shown. -- Zero.

1/ Totals are rounded to no more than three significant digits.

TABLE 20
EUROPE AND CENTRAL EURASIA: HISTORIC AND PROJECTED MINE PRODUCTION OF PHOSPHATE ROCK 1/

(Metric tons of P₂O₅ content)

	1990	1995	2000	2001	2002 e/	2003 e/	2005 e/	2007 e/
Balkans and Central Europe	NA	NA	NA	NA	NA	NA	NA	NA
Central Eurasia:								
Russia	12,000,000	3,400,000	4,450,000	4,200,000	4,200,000	4,500,000	4,500,000	5,000,000
Kazakhstan	2,900,000	1,700	9,570	25,000	35,000	40,000	40,000	45,000
Uzbekistan	--	--	25,000	34,000	34,000	35,000	35,000	35,000
Total	14,900,000	3,400,000	4,480,000	4,260,000	4,300,000	4,600,000	4,600,000	5,100,000
Western Europe:								
Denmark	195	440	480	480	490	500	520	540
Finland	201,000	243,000	277,000	277,000	280,000	280,000	290,000	290,000
Total	201,000	243,000	277,000	277,000	280,000	280,000	290,000	290,000
Grand total	15,100,000	3,645,000	4,760,000	4,540,000	4,500,000	4,900,000	4,900,000	5,400,000

e/ Estimated; estimated data are rounded to no more than two significant digits; may not add to totals shown. NA Not available. -- Zero.

1/ Totals are rounded to no more than three significant digits.

TABLE 21
EUROPE AND CENTRAL EURASIA: HISTORIC AND PROJECTED PRODUCTION OF PLATINUM-GROUP METALS 1/

(Metric tons)

	1990	1995	2000	2001	2002 e/	2003 e/	2005 e/	2007 e/
Central Eurasia, Russia:								
Platinum	44	31	34	35	34	36	37	37
Palladium	91	65	71	72	69	74	76	76

e/ Estimated.

TABLE 22
EUROPE AND CENTRAL EURASIA: HISTORIC AND PROJECTED MINE PRODUCTION OF SILVER 1/

(Kilograms)

	1990	1995	2000	2001	2002 e/	2003 e/	2005 e/	2007 e/
Balkans and Central Europe:								
Bulgaria	54,000	30,000	54,534	56,806	60,000	70,000	70,000	70,000
Macedonia	15,500	16,000	20,000	15,000	20,000	20,000	20,000	20,000
Poland	832,000	1,001,000	1,144,000	1,190,000	1,200,000	1,200,000	1,200,000	1,200,000
Romania	80,000	60,000	18,000	18,000	20,000	20,000	30,000	50,000
Yugoslavia	85,900	31,100	9,070	5,800	10,000	15,000	20,000	20,000
Total	1,070,000	1,140,000	1,250,000	1,290,000	1,300,000	1,300,000	1,300,000	1,400,000
Central Eurasia:								
Armenia	1,000	184	1,300	1,300	5,500	4,000	4,000	4,000
Georgia	50,000	20,000	33,884	33,000	33,000	35,000	35,000	40,000
Kazakhstan	700,000	489,000	927,110	981,900	890,000	810,000	850,000	900,000
Russia	660,000	300,000	370,000	380,000	400,000	450,000	500,000	700,000
Tajikistan	5,000	5,000	5,000	5,000	5,000	6,000	8,000	10,000
Uzbekistan	70,000	70,000	89,900	80,000	80,000	85,000	90,000	95,000
Total	1,490,000	884,000	1,430,000	1,480,000	1,400,000	1,400,000	1,500,000	1,700,000
Western Europe:								
Finland	28,500	26,098	25,364	23,998	28,000	28,000	29,000	29,000
France	22,190	3,500	720	800	750	700	700	700
Germany	8,000	--	--	--	--	--	--	--
Greece	62,600	33,000	37,145	61,500	75,000	75,000	75,000	75,000
Ireland	8,800	13,700	25,100	22,600	24,000	24,000	25,000	25,000
Italy	14,000	13,900	4,000	3,500	3,500	3,000	3,000	3,000
Portugal	722	38,600	20,430	23,100	24,000	24,000	22,000	20,000
Spain	270,000	123,615	83,000	60,000	60,000	50,000	50,000	50,000
Sweden	243,000	268,200	328,737	306,029	310,000	310,000	310,000	310,000
United Kingdom	2,695	--	--	--	--	--	--	--
Total	661,000	521,000	524,000	502,000	520,000	510,000	510,000	510,000
Grand total	3,210,000	2,540,000	3,200,000	3,270,000	3,200,000	3,200,000	3,300,000	3,600,000

e/ Estimated; estimated data are rounded to no more than two significant digits; may not add to totals shown. -- Zero.

1/ Totals are rounded to no more than three significant digits.

TABLE 23
EUROPE AND CENTRAL EURASIA: HISTORIC AND PROJECTED PRODUCTION OF CRUDE STEEL 1/

(Metric tons)

	1990	1995	2000	2001	2002 e/	2003 e/	2005 e/	2007 e/
Balkans and Central Europe:								
Albania	65,000	22,000	64,700	94,000	100,000	100,000	100,000	100,000
Bulgaria	2,185,000	2,724,000	2,020,000	1,942,000	2,000,000	2,000,000	2,000,000	2,000,000
Bosnia and Herzegovina	1,648,000	--	77,000	80,000	85,000	85,000	90,000	95,000
Croatia	423,533	45,373	71,021	58,000	65,000	65,000	65,000	65,000
Czech Republic	9,996,000	7,189,000	6,216,000	6,316,000	6,500,000	6,500,000	6,500,000	6,500,000
Hungary	2,963,000	1,865,000	1,871,000	2,056,000	2,000,000	2,000,000	2,000,000	2,000,000
Macedonia	247,000	33,000	50,000	--	50,000	50,000	70,000	80,000
Poland	13,625,000	11,890,000	10,498,000	8,809,000	8,500,000	8,500,000	8,500,000	8,500,000
Romania	9,761,000	6,557,000	4,770,000	4,930,000	5,000,000	5,300,000	5,300,000	5,300,000
Serbia and Montenegro	1,012,000	180,496	682,000	598,000	600,000	600,000	600,000	600,000
Slovakia	4,779,000	3,958,000	3,447,000	3,989,000	3,700,000	3,700,000	3,700,000	3,700,000
Slovenia	504,000	407,000	519,000	500,000	480,000	500,000	500,000	500,000
Total	47,200,000	34,900,000	30,300,000	29,400,000	29,000,000	29,000,000	29,000,000	29,000,000
Central Eurasia:								
Russia	89,600,000	51,600,000	59,098,000	59,000,000	60,000,000	62,000,000	64,000,000	65,000,000
Kazakhstan	6,754,000	3,027,000	4,770,000	4,694,000	4,900,000	5,000,000	5,200,000	5,400,000
Ukraine	55,000,000	23,309,000	31,780,000	33,110,000	34,000,000	36,000,000	38,000,000	39,000,000
Azerbaijan	NA	12,000	24,600	--	--	--	--	--
Belarus	NA	744,000	1,623,000	1,852,000	1,600,000	1,600,000	1,600,000	1,600,000
Georgia	1,200,000	84,000	49,500	50,000	50,000	50,000	50,000	50,000
Latvia	--	279,000	500,292	500,000	510,000	510,000	510,000	510,000
Moldova	NA	663,000	909,000	966,000	1,000,000	1,000,000	1,000,000	1,000,000
Uzbekistan	NA	352,000	420,000	460,000	500,000	500,000	500,000	500,000
Total	153,000,000	80,100,000	99,200,000	101,000,000	100,000,000	110,000,000	110,000,000	110,000,000
Western Europe:								
Austria	4,241,000	4,537,000	5,725,000	5,700,000	6,000,000	6,000,000	6,000,000	6,000,000
Belgium	11,419,000	11,606,000	11,637,000	12,000,000	11,000,000	11,000,000	11,000,000	11,000,000
Luxembourg	3,560,000	5,320,000	2,571,000	2,570,000	2,700,000	2,800,000	2,600,000	2,600,000
Denmark	610,000	654,000	750,000	760,000	770,000	780,000	790,000	800,000
Finland	2,861,000	3,176,000	4,096,000	4,100,000	4,200,000	4,200,000	4,300,000	4,400,000
France	19,015,000	18,096,000	21,002,000	19,431,000	21,000,000	20,000,000	20,000,000	18,000,000
Germany	43,981,000	42,051,000	46,376,000	44,775,000	45,000,000	45,000,000	42,000,000	42,000,000
Greece	999,000	939,170	1,088,000	1,000,000	1,800,000	1,800,000	1,600,000	1,600,000
Italy	25,439,000	27,766,000	26,475,000	26,000,000	26,000,000	25,000,000	24,000,000	24,000,000
Netherlands	5,412,000	6,409,000	5,666,000	5,700,000	6,100,000	6,100,000	6,000,000	6,000,000
Norway	376,000	503,000	620,000	630,000	640,000	640,000	650,000	660,000
Portugal	744,000	829,000	1,088,000	900,000	800,000	800,000	700,000	600,000
Spain	12,718,000	13,975,000	15,844,000	15,834,000	16,000,000	17,000,000	16,000,000	16,000,000
Sweden	4,454,000	4,953,000	5,227,000	5,450,000	5,600,000	5,700,000	5,800,000	5,800,000
Switzerland	970,000	1,000,000	1,000,000	1,200,000	1,100,000	1,000,000	1,000,000	1,000,000
United Kingdom	17,908,000	17,604,000	15,306,000	15,000,000	12,000,000	12,000,000	11,000,000	10,000,000
Total	155,000,000	159,000,000	164,000,000	161,000,000	160,000,000	160,000,000	150,000,000	150,000,000
Grand total	354,000,000	274,000,000	294,000,000	291,000,000	290,000,000	300,000,000	290,000,000	290,000,000

e/ Estimated; estimated data are rounded to no more than two significant digits; may not add to totals shown. -- Zero.

1/ Totals are rounded to no more than three significant digits.