

# ITALY

By Harold R. Newman

Italy has been a significant processor of imported raw materials as well as a significant consumer and exporter of mineral and metal semimanufactured and finished products. The world's largest producer of pumice and related materials, it produced almost one-half of the world's output. Also the world's largest feldspar producer, it produced about one-fourth of the world's output. The country was the world's 8th and 10th largest producer of crude steel and cement, respectively. Italy was also an important producer of dimension stone and marble (Metal Bulletin, 2000e).

Italy's gross domestic product, adjusted for inflation, grew at a rate of 2.8% in 2000 as the Italian Government continued to exercise budget austerity and to reduce its role in the economy through privatization of its assets. Italy had the world's sixth largest economy in 2000 and continued to maintain an open economy. The Government has traditionally played a dominant role in the economy through regulation and through ownership of large industrial and financial companies. Privatization and regulatory reform since 1994 have reduced that presence. The Government, however, retained a potentially blocking "golden share" in all the industrial companies privatized thus far (U.S. Department of State, 2001).

Italy's mineral sector declined in 2000. Among the metallic ores, lead and zinc were mined, although production was minimal and decreasing. Most of the small output of these ores came from the Silius Mine in Sardinia.

Industrial mineral production, which included construction materials, was the most important sector with overall output remaining about the same as that of 1999. Domestic production of natural gas and petroleum decreased (table 1).

Italy was the slowest growing country among the 11 founding members of the European Economic and Monetary Union and was expected to remain so through 2001. The indices of industrial production are listed in table 2.

Private and public companies own facilities for mining and processing minerals and mineral products. Some enterprises were under State control for economic reasons and to maintain employment (table 3). The Government was proceeding with privatization efforts to divest its holdings in aluminum and a number of other industrial sectors.

## Commodity Analysis

### *Metals*

**Aluminum.**—In 2000, Eurallumina S.p.A. raised the capacity of its alumina refinery to 1 million metric tons per year (Mt/yr) from 950,000 metric tons per year (t/yr). Eurallumina sourced 90% of its bauxite requirements from Comalco Ltd.'s Weipa Mine in Australia and 10% from Comalco's Boké Mine in Guinea. Eventually, bauxite supplied by Boké will be phased out, and Weipa will furnish all Eurallumina's requirements. Comalco owned 56.2% of Eurallumina (Eurallumina S.p.A.,

[undated], The company, accessed June 19, 2001, at URL <http://www.eurallumina.com/eursoceng.htm>).

**Copper.**—Enirisorse S.p.A., which was the largest producer of refined copper in Italy, accounted for about one-half of Italy's copper output. Italy's refined copper production averaged about 89,000 t/yr between 1993 and 1997 and dropped significantly in 1998 and 1999 owing to availability and the price of scrap material. Scrap, ashes, slag, and other residues imported from other Western European countries were the major sources of the copper produced in Italy. Copper mines in Italy were not significant, and imports of ore were small.

**Gold.**—Gold Mines of Sardinia Ltd. (GMS) [a joint venture of Gold Mines of Sardinia Ltd. (70%) and Progemisa S.p.A. (30%)] operated the Furtei Mine, which is located north of Cagliari. Furtei was the first gold mine of GMS and the first gold mine in Italy.

GMS reported that the latest drilling results from the Osilo project in northern Sardinia confirmed a major epithermal gold deposit. The company planned to raise \$4 million by way of private placement to fund the further development of the Furtei and the Osilo mines. GMS's third project was an exploration program on a new area of 2,800 square kilometers. The company was anticipating that it would eventually have six separate gold mines on Sardinia (Metal Bulletin, 2000b).

GMS signed an agreement to enter into a strategic alliance with Homestake Mining Co. of the United States; the agreement was expected to help accelerate gold exploration in Sardinia. It provides Homestake with a 3-year option to select up to 20% of the GMS gold-prospective ground for inclusion in a joint venture with Homestake holding a 75% interest and GMS, a 25% interest. Homestake would be responsible for carrying 100% of all joint-venture costs through the first of any feasibility studies prepared by the venture. Homestake and GMS expected to collaborate with respect to exploration efforts on the island (Metal Bulletin, 2000e).

**Lead and Zinc.**—Italy imported most of its supplies of lead and zinc concentrates. Within Italy, the small amount of lead and zinc concentrate production came from Enirisorse's mines in Sardinia. In August, Enirisorse signed a contract with the Italian consortium Cogefin S.p.A. for the sale of the Crotona zinc smelter. This was considered to be the first step in the consortium's acquisition of Crotona. It will be a while, possibly 3 years, before the idled smelter reopens owing to the need for modernization of the plant and the resolution of environmental issues (Metal Bulletin, 2000a).

Zincatura Bresciana S.p.A. opened a new hot-dip zinc-galvanizing plant near Brescia. The \$11 million plant took 2 years to complete and has an increased capacity of 65,000 t/yr. Zincatura closed an existing 40-year-old plant and moved to the new site. The plant will treat a wide range of metallic products,

which will include larger items that the previous plant was not equipped to handle (Metal Bulletin, 2000d).

**Steel.**—In Italy, all the steel was produced by private companies after the completion of a privatization program by the Government between 1992 and 1997. About 60% of Italian steel was produced by electric-arc furnaces, and 40% was produced by basic oxygen furnaces. Production reached a 5-year high in 2000 because the country's steel demand increased substantially. Apparent steel consumption in the first half of 2000 was up by 10% from the same period in 1999, but a large portion of the increase was due to a rise in merchants' and consumers' stocks; real consumption was only 6% ahead of the same period in the previous year. Mills worked at 72.4% of their capacity from January to September, up from 68% in the equivalent period in 1999. The industry appeared to be benefiting from the restructuring of the sector that took place in the early 1990s; some 25 plants had been closed, and 6.6 Mt/yr of capacity was eliminated (Metal Bulletin, 2000c).

### *Industrial Minerals*

**Cement.**—Italy was the second largest cement producer of the European Union (EU) after Germany. Italcementi Fabbriche Riunite Cemento S.p.A. was the largest of Italy's cement producers with 28 plants (table 3). Italy was a net exporter of cement.

**Clay.**—Although most of Italy's bentonite ores were mined in Sardinia, several processing plants were on the mainland. More than one-half of the country's bentonite production came from Industria Chimica Carlo Laviosa S.p.A. The company's main mining activity was in the Pedra de Fogu and the Puntenuova areas of Sardinia. Production from these areas fed the processing plants at Livorno and Oristano on Sardinia.

Montmorillonite clay (white bentonite) was quarried at S'Aliderru in northwestern Sardinia. Caffaro S.p.A., which operated in Sardinia, was Italy's only producer of acid-activated montmorillonite. The clay was shipped to the company's plant at Porto Marghera near Venice. Several small bentonite producers operated at Foggia and at Pietracuta di San Leo.

**Feldspar.**—Italy was a significant producer of feldspar and feldspathic minerals (table 1). These materials are important constituents of ceramic tile. Italy accounted for about 30% of world tile output and more than 50% of the total tile produced in the EU (Industrial Minerals, 2000).

**Marble.**—Marble occurs in many localities from the Italian Alps to Sicily and is quarried at hundreds of operations. The most important geographic area for producing white marble is in the Apuan Alps in Tuscany, particularly near the town of Carrara. Lombardy, the Po Valley, Puglia, Sicily, and Verona-Venezia are important colored-marble-producing areas. About one-half of production was in block form. About one-half of the total production was exported. Other major marble-producing areas include the Valle di Susa, near Turin, and Benevento, northeast of Naples.

**Potash.**—Production of potash remained suspended in 2000. The main reasons were the restricted availability of ground water owing to a severe drought and the inability to remove

waste material and mine water owing to environmental and ecological concerns. In Sicily, the underground mines that were previously operating at Pasquasia, Racalmuto, and Realmonte remained on care and maintenance.

**Pumice and Pozzolan.**—Italy was a significant producer of pumice and pozzolan (table 1). The Mediterranean island of Lipari, 40 kilometers (km) off the northern coast of Sicily, was the center of the Italian pumice industry, where two companies—Pumex S.p.A. and Sta Siciliana per l'Industria ed il Commercio della Pomice di Lipari S.p.A. (Italpomice S.p.A.)—quarried pumice for world markets. Pumex, with about a 600,000-t/yr capacity, was Italy's largest pumice producer. The company quarried the Mount Pelato deposit on Lipari.

**Talc.**—White talc was produced by Luzenac Val Chisone S.p.A., which operated an underground mine at Pinerolo near Turin. The white talc, which is mined from metamorphic rocks, is of very high quality. Talco Sardegna S.p.A. operated an open pit mine at Orani.

### *Mineral Fuels*

EU membership has initiated important changes in Italy's energy sector by requiring privatization of dominant energy monopolies. Hence, the sector has been undergoing considerable restructuring in recent years. The state-held oil and gas conglomerate Ente Nazionale Idrocarburi (ENI), its main subsidiaries Agip S.p.A. (hydrocarbons exploration and production) and the state-owned electricity company Snam S.p.A. (gas supplies and distribution), and Ente Nazionale per l'Energia Elettrica (ENEL) had to be privatized. ENI and ENEL became joint-stock companies. The Government sold off shares of ENI between 1995 and 1999 and held 35% of the company in 2000. Privatization of ENEL has stalled. According to EU directives, plans for privatization must proceed quickly in coming years (U.S. Energy Information Administration, November 2000, Italy—Background, Country analysis Briefs, accessed July 11, 2000, at URL <http://www.eia.doe.gov/emeu/cabs/italy.html>).

**Coal.**—Italy was heavily dependent on imported coal. Most imports were from Russia, South Africa, the United States, and China, listed in declining order of importance. Lignite coal was produced by ENEL. Extraction problems and environmental reasons caused a further reduction in output from ENEL's Santa Barbara Mine in Tuscany, which was the only lignite mine in Italy.

**Geothermal Energy.**—Geothermal energy was produced in the Larderello, the Monte Amiata, and the Travale areas in Tuscany. Exploration that used various geologic techniques has been actively pursued in these areas as well as research for power stations exploiting geothermal energy.

**Petroleum.**—Despite increasing domestic production of crude oil, Italy was less than 20% self-sufficient in energy and was heavily reliant on Libya and Algeria for its oil and gas supplies, respectively. The future does look brighter after determining the existence of an estimated 1.02 billion barrels of recoverable reserves in the southern Apennines region. Italy

can lay claim to the largest onshore reserves on the continent. The Apennines range was considered to be Europe's most promising onshore development area (Oil & Gas Journal, 2000).

## Outlook

Public and private spending on environmental controls is expected to grow, particularly in the areas of water treatment, transportation equipment and services, disposal of urban and industrial waste, remediation of soil contamination, and control of emissions.

Mining of metallic ores will likely remain at its low levels because of ore depletion and will eventually cease altogether. The metals-processing industry, which is based primarily on imported stocks, will continue to play an important role in Italy's economy. Italy is expected to remain a large producer of crude steel and a significant producer of secondary aluminum in the EU.

The role of the industrial minerals quarrying industry and preparation plants is expected to remain significant, especially in the production of barite, cement, clays, fluorspar, marble, and talc. Italy is expected to continue to be the world's leading producer of feldspar, feldspathic minerals, and pumice. The ceramics sector will likely be important, particularly regarding exports.

Domestic outputs of natural gas, crude petroleum, and petroleum refinery products are expected to grow, although Italy will continue to depend on imported coal, gas, and

petroleum for most of its needs.

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- U.S. Department of State, 2001, Italy—Country report on economic policy and trade practices: U.S. Department of State, March, 12 p.

## Major Sources of Information

Associazione Mineraria Italiana  
Via delle Madonne, 20  
00197 Rome, Italy

Ministero dell'Industria del Commercio e dell'Artigianato  
Direzione Generale delle Miniere  
Via Molise, 2  
00184 Rome, Italy

TABLE 1  
ITALY: PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Metric tons unless otherwise specified)

Commodity	1996	1997	1998	1999	2000 e/
<b>METALS</b>					
<b>Aluminum:</b>					
Alumina, calcined basis e/	881,000	913,000	930,000	973,000	950,000
<b>Metal:</b>					
Primary	184,377	187,719	186,953	187,281	190,000
Secondary	376,600	442,900	502,600	501,800	525,000
Antimony, oxides, gross weight 3/	800	800	700 e/	600 e/	600
Bismuth metal e/	5	5	5	5	5
Cadmium metal, smelter	296	287	328	360	284 4/
Copper, metal, refined, all kinds e/	85,800	85,700	29,100	28,500	70,000
Gold, Au content kilograms	--	--	1,200	1,000 e/	1,000
<b>Iron and steel, metal:</b>					
Pig iron thousand tons	10,427	11,348	10,704	10,622	11,219 4/
<b>Ferroalloys:</b>					
<b>Electric furnace:</b>					
Ferromanganese	29,915	11,295	11,487	12,000 e/	12,000
Ferromanganese	25,143	40,000 r/	49,000 r/	19,000 r/	40,000
Ferrosilicon e/	11,741 4/	12,000	12,000	12,000	12,000
Silicomanganese	100,353	100,000	70,000 r/	67,000 r/	90,000
Silicon metal	14,433 r/	12,619 r/	8,094 r/	6,257 r/	5,000
Other e/	10,000	10,000	10,000	10,000	10,000
Total e/	191,000	185,914 r/	160,581 r/	126,257 r/	165,000
Steel, crude thousand tons	23,922	25,537	25,826	24,964	26,445 4/
Steel, hot rolled do.	23,048	23,146	22,648	22,918 r/	23,858 4/
<b>Lead:</b>					
Mine output, Pb content	14,070	11,792	6,800	6,000 e/	2,000
<b>Metal, refined:</b>					
Primary	65,900	65,700	57,400	66,954	75,000
Secondary	143,900	145,900	141,900	148,354	160,000
Total	209,800	211,600	199,300	215,308	235,000
Manganese, mine output, Mn content	1,450	1,490	1,440 e/	1,200 e/	1,200
Silver metal kilograms	9,100 e/	4,500	2,500	4,000 r/	4,000
<b>Zinc:</b>					
Mine output, Zn content	11,055	8,470	2,459	--	--
Metal, primary	269,000	268,300	231,600	145,318	168,000
<b>INDUSTRIAL MINERALS</b>					
Barite	80,463	26,300	36,000 e/	30,000 e/	30,000
Bromine e/	300	300	300	300	300
Cement, hydraulic thousand tons	33,327	33,721	35,000	34,000	34,000
<b>Clays, crude:</b>					
Bentonite do.	475	513	592	600	600
Refractory excluding kaolinitic earth e/ do.	784 4/	750	750	700	700
Fuller's earth e/ do.	26 4/	30	30	30	30
Kaolin 'e do.	126 4/	100	100	100	100
Kaolinitic earth e/ do.	9 4/	10	10	10	10
Diatomite e/	25,000	25,000	25,000	25,000	25,000
Feldspar thousand tons	2,310	2,200 e/	2,748	2,700 e/	2,500
<b>Fluorspar:</b>					
Acid-grade	103,527	105,800	92,000 e/	95,000 e/	50,000
Metallurgical-grade	23,000	20,000	15,000 e/	15,000 e/	15,000
Total	126,527	125,800	107,000 e/	110,000 e/	65,000
Gypsum e/ thousand tons	1,275 4/	1,300	1,300	1,300	1,200
Lime, hydrated, hydraulic and quicklime e/ do.	3,500	3,500	3,500	3,500	3,500
Nitrogen, N content of ammonia do.	397	445	409	367	408 4/
Perlite e/	60,000	60,000	60,000	60,000	60,000
Pigments, mineral, iron oxides, natural e/	500	500	500	500	500
<b>Pumice and related materials: e/</b>					
Pumice and pumiceous lapilli thousand tons	600	600	600	600	600
Pozzolan do.	4,000	4,000	4,000	4,000	4,000
<b>Salt:</b>					
Marine, crude e/ 5/ do.	600	600	600	600	600
Rock and brine do.	2,941	3,500	3,300 e/	3,200 e/	3,200

See footnotes at end of table.

TABLE 1--Continued  
 ITALY: PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Metric tons unless otherwise specified)

Commodity	1996	1997	1998	1999	2000 e/
<b>INDUSTRIAL MINERALS--Continued</b>					
Sand and gravel: e/					
Volcanic sand thousand tons.	100	100	100	100	100
Silica sand do.	2,950	3,000	3,000	3,000	3,000
Other sand and gravel	90,000	100,000	100,000	100,000	100,000
Sodium compounds: e/					
Soda ash thousand tons	1,100	1,000	1,000	1,000	1,000
Sodium sulfate do.	125	125	125	125	125
Stone: e/ 6/					
Calcareous:					
Alabaster do.	25	25	25	25	25
Marble in blocks:					
White do.	103	100	100	100	100
Colored do.	3,000	3,000	3,000	3,000	3,000
Travertine do.	2,610	2,500	2,500	2,500	2,500
Other:					
Granite do.	67	100	100	100	100
Sandstone do.	1,800	1,800	1,800	1,800	1,800
Slate do.	107	100	100	100	100
Crushed and broken:					
Dolomite do.	780	760	711 4/	700	700
Limestone do.	120,000	120,000	120,000	120,000	120,000
Marl for cement do.	14,000	15,000	15,000	1,500	1,500
Serpentine do.	1,662	1,500	1,500	1,500	1,500
Quartz and quartzite do.	29	30	30	30	30
Sulfur, recovered as elemental, in compounds, byproducts, other sources e/ do.	551	609	624	678 4/	693 4/
Talc and related materials e/	136,000	142,000	138,000	14,000	10,000
<b>MINERAL FUELS AND RELATED MATERIALS</b>					
Asphalt and bituminous rock, natural e/	29,646 4/	30,000	30,000	30,000	30,000
Coal:					
Lignite thousand tons	223	203	156 r/	19 r/	14
Subbituminous, Sulcis coal	4,787	2,800	10 e/	5 e/	5
Coke, metallurgical thousand tons	4,686	5,214	3,500 e/	4,825 r/	5,264 4/
Gas, natural e/ million cubic meters	20,218 4/	19,500 e/	19,000 e/	18,500	18,500
Natural gas liquids e/ thousand 42-gallon barrels	400	400	400	350	350
Petroleum:					
Crude do.	36,994	36,720	42,923 r/	34,245 r/	35,000
Refinery products:					
Liquefied petroleum gas do.	25,114	26,181	25,750	25,404 r/	27,446 4/
Gasoline do.	160,000 e/	171,615	173,264	174,063 r/	175,576 4/
Naphtha do.	30,000 e/	33,040	37,341	30,209 r/	30,000
Jet fuel e/ do.	24,000	24,000	25,000	25,000	36,440 4/
Kerosene e/ do.	35,000 e/	35,000	30,000	30,000	15,000
Distillate fuel oil do.	220,000 e/	256,833	271,910	271,820 r/	262,226 4/
Residual fuel oil do.	140,000 e/	112,180	114,226	104,948 r/	100,459 4/
Other do.	35,000 e/	35,000 e/	38,850 r/	42,042 r/	46,137 4/
Refinery fuel and losses e/ do.	2,000	1,800	1,568 r/	1,778 r/	1,700
Total e/ do.	671,000	696,000	718,000 r/	705,000	695,000

e/ Estimated. r/ Revised. -- Zero.

1/ Table includes data available through May 2001.

2/ Estimated data are rounded to no more than three significant digits; may not add to totals shown.

3/ Antimony content is 83% of gross weight.

4/ Reported figure.

5/ Does not include production from Sardinia and Sicily, which was estimated to be 200,000 metric tons per year.

6/ Output of limestone and serpentine for dimension stone is included with "Stone: Crushed and broken." In addition to the commodities listed, a variety of other dimension stone was produced and previously listed, but available general information was inadequate for continued reliable estimation of output levels.

TABLE 2  
ITALY: SELECTED INDICES OF PRODUCTION

(1990 = 100)

Sector	1997	1998	1999	2000 e/
General	110	112	112	112
Mining	110	112	112	112
Manufacturing	109	111	110	110
Electricity and gas	115	120	124	125

e/ Estimated.

Source: United Nations, 2000, Monthly Bulletin of Statistics, v. LIV, no. 12, December, p. 28.

TABLE 3  
ITALY: STRUCTURE OF THE MINERAL INDUSTRY IN 2000

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Alumina	Eurallumina S.p.A. (Comalco Ltd., 56.2%; Glencore, AG, 43.8%)	Plant at Portoscuso, Sardinia	1,000
Aluminum	Alcoa Italia S.p.A. (Alcoa Inc., 100%)	Smelters at Porto Vesme, Sardinia, and Fusina, near Venice	188
Asbestos	Amiantifera di Balangero S.p.A.	Mine at Balangero, near Turin	100
Barite	Bariosarda S.p.A. (Ente Mineraria Sarda)	Mines at Barega and Mont 'Ega, Sardinia	100
Do.	Edem S.p.A. (Government)	Mines at Val di Castello, Lucca	20
Do.	Edemsarda S.p.A. (Soc. Imprese Industriali)	Mines at Su Benatzu, Santo Stefano, and Peppixeddu, on Sardinia	20
Do.	Mineraria Baritina S.p.A.	Mines at Marigolek, Monte Elto, and Primaluna, near Milan	20
Bauxite	Sardabauxiti S.p.A. (Cogein S.p.A., 40%; Comtec, 40%, Icofin Co., 20%)	Mine at Olmedo, Sardinia	350
Bentonite	Industria Chimica Carlo Laviosa S.p.A.	Mines and plant on Sardinia Island and a plant near Pisa	250
Cement	52 companies, of which the largest are: Italcement Fabbriche Riunite Cemento S.p.A.	28 plants, of which the largest are Calusco, Monselice, and Collefero	-15,000
	Unicem S.p.A.	12 plants, of which Guidonia, Lugagnano, Morano, Piacenza, S'Arcangelo di Romagna, and Settimello are the largest	-10,000
	Cementerie del Tirreno S.p.A. (Cementir)	6 plants at Arquata Scivia, Livorno, Maddaloni, Napoli, Spoleto, and Taranto	-5,300
Copper, refined	Enirisorse S.p.A. (Government)	Refineries at Porto Marghera, near Venice, and Pieve Vergonte	46
Do.	Europa Metalli - LMI S.p.A.	Refineries at Campo Tizzoro, Fornaci di Barga, and Villa Carcina	26
Do.	Chimet S.p.A.	Refinery at Arezzo	13
Feldspar	At least 5 companies, of which the largest are: Maffei S.p.A.	Surface mines at Pinzolo, Sondalo, and Campiglia Marittima; underground mine at Vipiteno	1,500 -200 -300
	Miniera di Fagne S.p.A.	Surface mine at Alagna Valsesia	-60
	Sabbie Silicee Fossanova S.P.A. (Sasifo)	Surface mine at Fossanova	-30
Gold	kilograms Gold Mines of Sardinia Ltd., 70%; Progemisa S.p.A., 30%	Furtei Mine near Cagliari, Sardinia	1,400
Lead-zinc, ore	Enirisorse S.p.A. (Government)	Mines at Masua, Monteponi, and Sardinia	60
Lead, metal	do.	Refinery at San Gavino, Sardinia	80
Do.	do.	Kivcet smelter and Imperial smelter at porto Vesme, on Sardinia	114
Lignite	Ente Nazionale per l'Energia Electrica (ENEL)	Surface mines at Pietrafitta and Santa Barbara	1,500
Magnesium, metal	Societa Italiana Magnesio S.p.A. (INDEL)	Plant at Bolzano	8
Marble	A number of companies, largest of which include: Mineraria Marittima Srl Industria dei Marmi Vicentini S.p.A. Figaia S.p.A.	Quarries in the Carrara and Massa areas	2,000 -500 -300 -100

TABLE 3--Continued  
 ITALY: STRUCTURE OF THE MINERAL INDUSTRY IN 2000

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Petroleum, crude	Ente Nazionale/Idrocarburi (ENI) Government	Oilfields: offshore Sicily, the Adriatic Sea, and onshore in the Po River Valley	90
Petroleum, refined thousand 42-gallon barrels per day	do.	About 30 refineries	2,000
Potash ore	Industria Sali Otassici e Affini per Aziono S.p.A.	Underground mines at Corvillo, Pasquasia, Racalmuto, and San Cataldo, in Sicily	1,300
Do.	Sta Italiana Sali Alcalini S.p.A. (Italkali)	Underground mines at Casteltermini and Pasquasia, Sicily	700
Pumice	Pumex S.p.A.	Quarries, Lipari Island, north of Sicily	600
Do.	Sta Siciliana per l'Industria ed il Commercio della Pomice di Lipari S.p.A. (Italpomice S.p.A.)	do.	200
Pyrite	Nuova Solmine S.p.A.	Underground mines at Campiano and Niccioleta	900
Salt, rock	Sta Italiana Sali Alcalini S.p.A. (Italkahi)	Underground mines at Petralia, Racalmuto, and Realmonte, Sicily	4,000
Do.	Solvay S.p.A.	Underground mines at Buriano, Ponteginori, and Querceto, Tuscany	2,000
Steel	Ilva Laminati Piani S.p.A. (Riva Group)	5 steel plants, the largest of which is: Taranto	4,000 -1,300
Do.	Riva S.p.A.	About 5 plants	7,000
Do.	AFV Beltrame S.p.A.	Steel plant at Vicenza	700
Talc	Luzenac Val Chisone S.p.A.	Mines at Pinerolo, near Turin, and at Orani, Sardinia	120
Do.	Talco Sardegna S.p.A.	Mine at Orani, Sardinia	20
Zinc, metal	Enirisorse S.p.A. (Government)	Plants at Crotone and Porto Vesme, Sardinia, and Porto Maghera, near Venice	349