



2019 Minerals Yearbook

ITALY [ADVANCE RELEASE]

THE MINERAL INDUSTRY OF ITALY

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The mineral industry of Italy was composed mostly of companies that manufacture and process metals (including steel), construction products, and industrial products, although a variety of industrial minerals were still being mined in the country. Italy was one of the leading producers, in terms of volume, of construction materials, mineral manufacturing components, and stone in the world. Italy has largely ceased mining for metals and relies on secondary scrap recovery or imports for necessary materials. In 2019, Italy was the second-ranked (tied with India) producer of both feldspar and nepheline syenite, accounting for 17% of world production (tables 1, 2; Briocche, 2021).

Minerals in the National Economy

In 2019, Italy's nominal gross domestic product (GDP) was \$2.0 trillion.¹ The country's real GDP increased by 0.3% compared with that in 2018. Italy ranked third in the European Union (EU) in terms of GDP, following Germany and France. The country's national debt, however, was equivalent to 135% of the GDP, which ranked it second behind Greece in the European Union. The country had an unemployment rate of 9.9% in 2019 and an inflation rate of 0.6%. The output value of Italy's services sector accounted for 74% of the GDP; the industrial sector, 24%; and the agriculture sector, 2%. In 2019, mineral industry production accounted for 0.3% of the GDP. The value of mineral industry production overall decreased by 11% compared with that in 2018. The value of the production of coke and refined petroleum products increased by 33% compared with that in 2018, and that of the manufacturing sector, by 0.1%. The value of the production of basic metals and fabricated metal products decreased by 3.3% (International Monetary Fund, 2020a, p. 4, 46; 2020b, p. 153; Istituto Nazionale di Statistica, 2020b, 2020c).

At yearend 2019, the mining and quarrying sector employed 22,000 people, which accounted for about 0.4% of the country's total employment. The manufacturing sector had 3.9 million employees, which accounted for about 15% of the country's total employment (Istituto Nazionale di Statistica, 2020d).

Government Policies and Programs

The Government played a significant role in the mineral industry through regulation of ownership of large financial and industrial companies; however, privatizations and regulatory reform in accordance with European Union directives have reduced that role in recent years. Italy's basic mining legislation is mining law No. 1443 of July 29, 1927, which gives subsoil ownership of minerals to the state. The reimbursement of the state by mining concessionaires is regulated by law No. 752

¹Where necessary, values have been converted from euro area euros (EUR) to U.S. dollars (US\$) at the annual average exchange rate of EUR0.8937=US\$1.00 for 2019.

of June 10, 1982. Quarrying operations are regulated by law No. 44 of September 1982. All petroleum and natural gas upstream activities are supervised by the Ufficio Nazionale Minerario per gli Idrocarburi e la Geotermia [National Office for Mining, Hydrocarbons, and Geothermal Resources] (UNMIG), which operates within the Ministero dello Sviluppo Economico [Ministry of Economic Development]. After various organizational changes, the eight divisions that compose the UNMIG all operate within the Directorate General for Energy and Mineral Resources. By Presidential decree, in 2007, the Committee for Hydrocarbons and Mineral Resources (CIRM) was set up to carry out the UNMIG's duties. The committee performs technical advisory tasks related to mining, hydrocarbons, and mineral royalties. Law No. 239 of August 23, 2004, established regulations for the hydrocarbon sector and defines the rights and duties of the state with regard to the energy sector. In February 2019, law No. 12 of 2019 imposed a moratorium on both onshore and offshore oil and gas prospection and exploration. The moratorium was applicable for 18 months while the Government sought to conclude a plan to support the transition to decarbonization of the country's energy system (Giuffrè and others, 2019).

Production

The production of iron ore oxides increased by 267% to 32,626 metric tons (t); refractory clays, by 218% to 197,000 t; calcareous dolomite, by 146% to 4.38 million metric tons (Mt); gypsum, by 58% to 298,000 t; marble, including travertine and calcareous marble, by 40% to 2.21 Mt; secondary refined copper, by 36% to 9,800 t; table salt, by 28% to 336,000 t. The production of dimension granite decreased by 85% to 57,000 t; dimension sandstone, by 62% to 156,000 t; limestone for lime and cement, by 50% to 10 Mt; slate, by 35% to 11,000 t; calcareous alabaster, by 26% to 7.7 Mt; bentonite, by 17% to 83,000 t; ball clay, by 12% to 864,000 t; and natural gas, by 11% to 4.62 billion cubic meters. Data on mineral production are in table 1.

Structure of the Mineral Industry

The Italian Government had ultimate control of Italy's mineral industry. Mineral resources were, by law, the property of the state, but mixed public and private entities were the principal owners of Italy's mineral industry. Some of the companies with operations in Italy were Acciaieria Arvedi S.p.A., which had a steel plant in Cremona and a pig iron plant and steel mill in Trieste; ArcelorMittal Italia S.p.A, which had steelworks in Taranto and several other steel plants; Glencore plc of Switzerland, which had a lead refinery at San Gavino Monreale; IMI FABI S.p.A, which had talc mines at Orani and Postalesio; Italcementi S.p.A., which had major cement plants in Calusco d'Adda, Collefero and Monselice; and the petroleum and hydrocarbons company ENI S.p.A., which had oilfields located

offshore Sicily in the Ionian Sea and in the Adriatic Sea, and on shore in the Po River Valley. Table 2 is a list of major mineral industry facilities.

Mineral Trade

In 2019, Italy exported a total of \$532.4 billion worth of goods and services, which was an increase of 2.3% compared with that in 2018. The country imported a total of \$473.2 billion worth of goods and services, which was a decrease of 0.7% compared with that in 2018. Italy exported \$297.6 billion worth of goods and services to the EU, or 55.9% of all its exports. The country imported a total of \$280.5 billion in goods and services to the EU, or 59.3% of all its imports (Istituto Nazionale di Statistica, 2020a, p. 542, 549).

In 2019, exports of mineral sector products totaled \$1.06 billion, which was a 20% decrease in terms of value compared with that in 2018. Minerals from quarries and mines accounted for \$862 million; crude petroleum and natural gas, \$117 million; metallic ores, \$62 million; and coal, \$15 million. Other significant exports included those of base metals and metal products and coke and refined petroleum products, which were valued at \$57.0 billion and \$14.7 billion, respectively. Imports of mineral sector products totaled about \$48.5 billion, which was a 7% decrease in terms of value compared with that in 2018. Crude petroleum and natural gas accounted for about \$44.8 billion; metallic ores, \$1.3 billion; and minerals from quarries and mines and coal, \$1.2 billion each (Istituto Nazionale di Statistica, 2020a, p. 550).

In 2019, the United States exported about \$23.8 billion worth of goods to Italy. The most significant mineral-related items of these exports were, in order by value, crude petroleum valued at \$2.7 billion; precious metals, \$1.3 billion; chemicals, \$616 million; nonmonetary gold, \$578 million; industrial machines, \$556 million; natural gas, \$325 million; manufactured mineral supplies, \$311 million; nonferrous metals, \$262 million; metallurgical-grade coal, \$243 million; other petroleum products, \$185 million; finished metal shapes, \$140 million; iron and steel products, \$91 million; and aluminum and alumina, \$33.8 million (U.S. Census Bureau, 2020a).

In 2019, the United States imported about \$57.3 billion worth of goods from Italy. The most significant mineral-related items of these imports were, in order by value, industrial machines valued at \$2.7 billion; iron and steel products and petroleum products, \$1.1 billion each; excavating machines, \$601 million; cement, sand, and stone, \$493 million; finished metal shapes, \$447 million; precious metals, \$437 million; and drilling and oilfield equipment, \$143 million. Italy accounted for 55% of the United States imports of antimony ore and concentrates from 2016 through 2019 (Klochko, 2020; U.S. Census Bureau, 2020b).

Commodity Review

Metals

Cobalt.—In 2019, Alta Zinc Ltd. of Australia continued exploration at the Punta Corna cobalt project. In May, the company was granted the Balme exploration license which, combined with the Punta Corna exploration license

that covered the historic Usseglio area, extended the total prospective exploration area to 29.8 square kilometers (km²). Preliminary grab and rock chip samples returned positive results that confirmed cobalt, nickel, copper, silver, and antimony mineralization. The company planned to continue exploration into the next year and had initiated technical studies on mineralization to further additional exploration activities (Alta Zinc Ltd., 2020a, p. 6; 2020b, p. 2).

Iron and Steel.—In September 2019, Acciaieria Arvedi S.p.A., which was a wholly owned subsidiary of Finarvedi S.p.A., announced the closure of the pig-iron portion of the Trieste plant. The plant had two blast furnaces, but only one had been in operation; that furnace had a capacity of 400,000 metric tons per year. The company planned to focus investment on the cold-rolling mill and announced an investment of \$166 million. The cold-rolling mill and the pig iron facility employed 200 and 400 workers, respectively (Villa, 2019).

Lead and Zinc.—In 2019, Alta Zinc Ltd. continued the exploration and development of the Gorno Zinc project. In October, the company reported data from two 1,030-meter channel samples, which graded 19.1% to 39.5% zinc, 4.4% to 9.4% lead, and 128 grams per metric tons (g/t) gold each. High-grade intercept results from two assays graded 47.8% zinc and 10.5% lead. By yearend, the company had submitted the application for the renewal and expansion of the existing mining license (Alta Zinc Ltd., 2020a, p. 3–4, 6).

Industrial Minerals

Cement.—The production of cement remained stagnant in Italy at an estimated 19.3 Mt in 2019. Italy's cement sector had been in decline since the financial crisis in 2008 and continued to consolidate in 2019. In April 2019, Italcementi S.p.A, which was wholly owned by HeidelbergCement AG of Germany, sold the Spoleto cement plant in Perugia to Colacem S.p.A. The plant had a production capacity of 700,000 t/yr. In July, Buzzi Unicem Group of Italy acquired the Testi Cement plant in Tuscany and two grinding plants in Piedmont from HeidelbergCement (table 2; HeidelbergCement AG, 2020, p. 27).

Mineral Fuels

Natural Gas and Petroleum.—In 2019, Italy produced a total of 32.4 million barrels of crude petroleum, which was a decrease of 8.7% compared with that in 2018. The country's total natural gas production decreased by 11% to 4.62 billion cubic meters from 5.19 billion cubic meters in 2018. From 2008 to 2018, Italy's primary energy consumption decreased at an average annual rate of 1.5%; in 2019, primary energy consumption decreased by 2.4%. In 2019, crude petroleum and natural gas accounted for about 39% and 40%, respectively, of the country's primary energy consumption. The country imported 54.1 billion cubic meters of natural gas by pipeline and 13.5 billion cubic meters of liquefied natural gas. Italy's imported natural gas came mainly from, in order of amount, Russia (31%), Norway (21%), Algeria (19%), and Qatar (9%) (table 1; BP p.l.c., 2020, p. 8–9, 42–43).

In 2019, ENI S.p.A. operated 31 onshore and 63 offshore productive concessions, carried out activities at 13 onshore

and 9 offshore exploration licenses, and operated the Livorno, Sannazzaro, and Taranto refineries. In 2019, the company reported operation and development activities that included maintenance and production optimization at offshore fields in the Adriatic Sea. Other gas development activities included the Cassiopea project—an offshore gas development project located in the Strait of Sicily, in which ENI held a 60% interest and Edison Exploration and Production S.p.A. of Italy held a 40% interest. ENI planned to transport gas from the fields through a 60-kilometer pipeline to a treatment and compression facility at the Gela refinery. The project had a planned startup date in early 2023. In July 2019, Energiean Oil and Gas plc of the United Kingdom had agreed to acquire Edison Exploration and Production S.p.A. from Edison S.p.A. of Italy for \$750 million, which included Edison's 40% interest ownership of the Cassiopea project (Energiean Oil and Gas plc, 2020, p. 14, 31–32, 53; ENI S.p.A., 2020, p. 49, 64).

Outlook

Italy's economy is expected to contract at a dramatic pace in 2020 owing to the effects of the coronavirus disease 2019 (COVID-19) pandemic. The International Monetary Fund forecasted a decrease in real GDP of 10.6% in 2020 and a moderate recovery of 5.2% in 2021. Although there are some exploration activities for metallic minerals, such as zinc, ongoing in Italy, the country is not expected to resume mining of metallic ore in the near future owing to subeconomic resources. Consolidation within the industrial sectors will likely continue as mining and metal processing companies reorganize owing to regulatory and economic pressures. In general, the output of the mineral industry is expected to decline significantly in 2020 and into 2021 (International Monetary Fund, 2020a, p. 35; 2020b, p. 144).

References Cited

- Alta Zinc Ltd., 2020a, Half yearly report for the six months ended 31 December 2019: Perth, Western Australia, Australia, Alta Zinc Ltd., February 27, 26 p. (Accessed November 20, 2020, at <http://clients3.weblink.com.au/pdf/AZI/02208225.pdf>.)
- Alta Zinc Ltd., 2020b, Quarterly activities report period ending 30 June 2019: Perth, Western Australia, Australia, Alta Zinc Ltd., July 31, 6 p. (Accessed November 20, 2020, at <http://clients3.weblink.com.au/pdf/AZI/02128822.pdf>.)
- BP p.l.c., 2020, BP statistical review of world energy—June 2020: London, United Kingdom, BP p.l.c., 65 p. (Accessed November 20, 2020, at <https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2020-full-report.pdf>.)
- Brioché, A.S., 2021, Feldspar and nepheline syenite: U.S. Geological Survey Mineral Commodity Summaries 2021, p. 58–59.
- Energiean Oil and Gas plc, 2020, Annual report 2019: London, United Kingdom, Energiean Oil and Gas plc, March 18, 200 p. (Accessed November 20, 2020, at <https://www.energiean.com/media/4395/annual-report-energiean-2019-spreads.pdf>.)
- ENI S.p.A., 2020, Annual report on Form 20F 2019: Rome, Italy, ENI S.p.A., April 2, 171 p. (Accessed November 20, 2020, at <https://www.eni.com/assets/documents/eng/reports/2019/Annual-Report-On-Form-20-F-2019.pdf>.)
- Giuffrè, E., Familiari, C., Johnson, Emma, and Hari Haran, H., 2019, Italian oil and gas prospection and exploration—What next for investors?: London, United Kingdom, Ashurst, April 8. (Accessed November 20, 2020, at <https://www.ashurst.com/en/news-and-insights/legal-updates/italian-oil-and-gas-prospection-and-exploration-halted---what-next-for-investors/>.)
- HeidelbergCement AG, 2020, Annual report 2019: Heidelberg, Germany, HeidelbergCement AG, March 19, 228 p. (Accessed November 20, 2020, at https://www.heidelbergcement.com/en/system/files_force/assets/document/f2/98/annual_report_2019.pdf?download=1.)
- International Monetary Fund, 2020a, Italy—2020 Article IV Consultation: Washington, DC, International Monetary Fund, March 20, 80 p. (Accessed November 20, 2020, via <https://www.imf.org/en/Publications/CR/Issues/2020/03/19/Italy-2020-Article-IV-Consultation-Press-Release-Staff-Report-and-Statement-by-the-Executive-49277>.)
- International Monetary Fund, 2020b, World economic outlook database: Washington, DC, International Monetary Fund, October, 182 p. (Accessed November 20, 2020, via <https://www.imf.org/-/media/Files/Publications/CR/2020/English/IITAEA2020001.ashx>.)
- Istituto Nazionale di Statistica, 2020a, Annuario Statistico Italiano 2020 [Statistical yearbook of Italy 2020]: Rome, Italy, Istituto Nazionale di Statistica, 830 p. (Accessed January 8, 2020, via https://www.istat.it/storage/ASI/AnnuarioStatistico_2020/Asi_2020.pdf.) [In Italian.]
- Istituto Nazionale di Statistica, 2020b, National accounts: Rome, Italy, Istituto Nazionale di Statistica. (Accessed November 18, 2020, via <https://www.istat.it/en/national-accounts?data-and-indicators>.)
- Istituto Nazionale di Statistica, 2020c, National accounts annual main aggregates—Output and value added by industry: Rome, Italy, Istituto Nazionale di Statistica, September. (Accessed November 18, 2020, via <http://dati.istat.it/Index.aspx?QueryId=11965&lang=en>.)
- Istituto Nazionale di Statistica, 2020d, Quarterly national accounts—Employment breakdown by industry: Rome, Italy, Istituto Nazionale di Statistica, October. (Accessed November 18, 2020, via <http://dati.istat.it/Index.aspx?QueryId=17887&lang=en>.)
- Klochko, Kateryna, 2021, Antimony: U.S. Geological Survey Mineral Commodity Summaries 2021, p. 22–23.
- U.S. Census Bureau, 2020a, U.S. exports to Italy by 5-digit end-use code 2010–2019: U.S. Census Bureau, October 6. (Accessed November 19, 2020, at <https://www.census.gov/foreign-trade/statistics/product/enduse/exports/c4759.html>.)
- U.S. Census Bureau, 2020b, U.S. imports from Italy by 5-digit end-use code 2010–2019: U.S. Census Bureau, October 6. (Accessed November 19, 2020, at <https://www.census.gov/foreign-trade/statistics/product/enduse/imports/c4759.html>.)
- Villa, Annalisa, 2019, Italy's Servola to quit making pig iron, invest in cold-rolled sheet—Sources: S&P Global, September 18. (Accessed November 20, 2020, at <https://www.spglobal.com/platts/en/market-insights/latest-news/metals/091819-italys-servola-to-quit-making-pig-iron-invest-in-cold-rolled-sheet-sources>.)

TABLE 1
ITALY: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons, gross weight, unless otherwise specified)

Commodity ²		2015	2016	2017	2018	2019
METALS						
Aluminum, secondary, metal		708,700 ^r	721,600	743,000	684,500 ^r	687,600
Copper, refinery, secondary		7,300	6,600	8,700	7,200 ^r	9,800
Iron and steel:						
Pig iron	thousand metric tons	5,051	6,048	5,052	4,836	4,607
Raw steel	do.	22,018	23,373	24,068	24,532 ^r	23,245
Lead, refinery:						
Primary		52,100	47,300	30,400	32,900	32,900
Secondary		157,800	139,900	143,300	134,600	134,600
Zinc, smelter, primary and secondary		158,214	188,897	185,956 ^r	195,000 ^e	188,504
INDUSTRIAL MINERALS						
Cement, hydraulic	thousand metric tons	20,800	19,300	19,300	19,300 ^r	19,290
Clay:						
Ball clay	do.	305	409	569	978	864
Bentonite	do.	13	46	86	100	83
Common clay	do.	2,925	3,685	4,569	1,889	2,000 ^e
Refractory, excluding kaolinitic earth	do.	300	406	408	62	197
Feldspar ^e	do.	4,500	4,000	4,000	4,000	4,000
Gypsum, mine	do.	572	617	469	189	298
Iron oxide pigments		37,962	36,837	34,902	8,819 ^r	32,626
Lime, hydrated, hydraulic, and quicklime ^e	thousand metric tons	3,500	3,500	3,600	3,600	3,500
Pumice and related minerals, pozzolan ^e		30,300	30,900	42,500	46,500	47,000
Salt:						
Industrial salt	thousand metric tons	3,031 ^r	2,551 ^r	2,283 ^r	1,515 ^r	1,538
Table salt	do.	305	484	576	262	336
Sand and gravel, industrial	do.	13,900	13,900	14,000 ^e	14,000 ^e	14,000 ^e
Stone, sand, and gravel, construction:						
Sand and gravel ^e	do.	74,000	75,000	75,000	75,000	75,000
Stone:						
Crushed:						
Limestone, for lime and cement	do.	22,044	18,938	20,250	20,148	10,001
Other, unspecified	do.	36,922	40,000 ^e	40,000 ^e	40,000 ^e	40,000 ^e
Dimension:						
Alabaster, calcareous	do.	5,122	6,682	9,080	10,423	7,697
Chalk, calcareous	do.	720 ^e	135	130 ^e	130 ^e	130 ^e
Dolomite, calcareous	do.	516	595	743	1,782	4,380
Granite	do.	673	547	487	376	57
Marble, including travertine, crude, calcareous	do.	1,310	1,463	1,590	1,574	2,207
Sandstone	do.	322	444	570	408	156
Slate	do.	59	43	41	17	11
Sulfur, byproduct, metallurgy, S content		40,200	40,000	40,000 ^e	40,000 ^e	40,000 ^e
MINERAL FUELS AND RELATED MATERIALS						
Natural gas	million cubic meters	6,497	5,550	5,314	5,190	4,620
Petroleum:						
Crude	thousand 42-gallon barrels	41,416 ^r	28,389 ^r	31,406 ^r	35,463 ^r	32,392
Refinery	do.	479,658 ^r	460,481 ^r	497,991 ^r	479,292 ^r	478,048

^eEstimated. ^rRevised. do. Ditto.

¹Table includes data available through November 12, 2020. All data are reported unless otherwise noted. Estimated data are rounded to no more than three significant digits.

²In addition to the commodities listed, barite, magnesium metal, nitrogen, potash, refined silver, sythetic soda ash, byproduct sulfur from petroleum, talc and related material may have been produced, but available information was inadequate to make reliable estimates of output.

TABLE 2
ITALY: STRUCTURE OF THE MINERAL INDUSTRY IN 2019

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Aluminum, secondary	Raffimetal S.p.A.	Three plants at Casto and Odolo	300
Do.	Teksid Aluminum SRL	Plant at Carmagnola	32
Do.	Aluminum Company Carisio S.p.A (Cordifin S.p.A., 100%)	Plant at Carisio	NA
Barite	Bariosarda S.p.A. (Ente Mineraria Sarda)	Barega and Mont'Ega Mines on Sardinia	100
Do.	Edem S.p.A. (Government, 100%)	Mines at Val di Castello, Lucca	20
Do.	Edemsarda S.p.A. (Soc. Imprese Industriali)	Mines at Su Benatzu, Sto. Stefano, and Peppixeddu, Sardinia	20
Do.	Società Mineraria Baritina S.p.A.	Mines at Marigolek, Monte Elto, and Primaluna, near Milan	20
Cement	11 companies, of which the largest are: Italcementi S.p.A (HeidelbergCement AG, 100%)	16 plants, of which the largest are Calusco d'Adda, Colleferro, and Monselico	15,000
Do.	Buzzi Unicem Group	10 plants, including Augusta, Barletta, Fanna, Greve in Chianti, Guidonia, Monselice, Robilante, Siniscola, Tuscany, and Vernasca	10,800
Do.	Colacem S.p.A.	Spoletto plant in Perugia	700
Do.	W&P Cementi S.p.A.	Cadola plant near Ponte nelle Alpi	300
Clay, bentonite	Industria Chimica Carlo Laviosa S.p.A.	Mines and plant on Sardinia and a plant near Pisa	250
Copper, refined:			
Primary	Simar S.p.A. (Cordifin S.p.A., 100%)	Refinery at Porto Marghera, Venice	60
Secondary	KME Italy S.A. (KME Group S.p.A.)	Refineries at Fornaci di Barga and Serravalle Scrivia	24
Do.	Sitindustrie S.p.A.	Refinery at Pieve Vergonte	22
Feldspar	At least 5 companies, of which the largest are: Maffei Sarda Silicati S.r.l. do. Miniera di Fragne S.p.A. Sabbie Silicee Fossanova S.p.A.	Locations: Surface mines at Pinzolo and Campiglia Underground mine at Vipiteno Surface mine at Alagna Valsesia Surface mine at Fossanova	4,000
Gypsum	Gyproc Saint Gobain	Monte Tondo Quarry	200
Do.	Fassa S.r.l.	Quarry at Moncalvo, Asti	NA
Iron and steel:			
Pig iron	Acciaieria Arvedi S.p.A. (Finarvedi S.p.A., 100%)	Pig iron and coke plant in Trieste ¹	900
Steel	Riva Acciaio S.p.A. (Riva Group)	5 steel plants in Caronno Pertusella, Cerveno, Lesegno, Malegno, and Sellero	6,300
Do.	ArcelorMittal Italia S.p.A. (ArcelorMittal, 100%)	5 steel plants, of which the largest is Taranto	6,000
Do.	Acciaieria Arvedi S.p.A. (Finarvedi S.p.A., 100%)	Steel plant in Cremona	3,400
Do.	do.	Steel plant in Trieste	1,200
Do.	Aferpi S.p.A. (JSW Steel Italy S.r.l., 100%)	Steel plant in Piombino	1,320
Do.	Acciaierie e Ferriere Vicentine Beltrame (AFV-Beltrame) S.p.A.	Steel plant at Vicenza	1,000
Do.	Scrap Metalli Italia S.p.A. (Cordifin S.p.A.)	2 steel plants at Castelnuovo Del Garda and Lainate	100
Lead, metal	Portovesme S.r.l. (Glencore plc, 100%)	Kivcet smelter and Imperial smelter at Portovesme, Sardinia	85
Do.	do.	Refinery at San Gavino Monreale, Sardinia	80
Lime	Unicalce S.p.A.	Plants in Lombardy region	3,500
Magnesium, metal	Società Italiana Magnesio S.p.A.	Plant at Bolzano	8
Natural gas	Eni S.p.A.	Gasfields in the Adriatic and Ionian Seas	NA
Nitrogen, N content of ammonia	Hydro Agri S.p.A.	Plant at Ferrara	570
Petroleum:			
Crude	Eni S.p.A.	Oilfields: offshore Sicily and in the Adriatic Sea, the Ionian Sea, and onshore in Po River Valley	NA

See footnotes at end of table.

TABLE 2—Continued
 ITALY: STRUCTURE OF THE MINERAL INDUSTRY IN 2019

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Petroleum:—Continued			
Refined thousand 42-gallon barrels per day	A number of companies, of which the largest include: Agip Petroli S.p.A. do. Exxon Mobil Corp. Eni S.p.A. ISAB S.r.l. (Lukoil Oil Co.) Saras S.p.A.	About 14 refineries, including: Sannazzaro de' Burgondi, Pavia; Gela, Ragusa San Martino di Trecate; Augusta, Siracusa ERG Raffinerie North Mediterranee, Priola, Sicily Sannazaro, Taranto, Livorno Priolo, Sicily Sarroch	2,000
Potash, ore	Industria Sali Otassici e Affini per Aziono S.p.A.	Underground mines at Corvillo, Pasquasia, and Racalmuto, Sicily.	1,300
Do.	Societa Italiana Sali Alcalini S.p.A. (Italkali)	Underground mines at Casteltermini and Pasquasia, Sicily	700
Pumice	Pumex S.p.A.	Quarries at Lipari Island, north of Sicily	450
Do.	Sta. Siciliana per l'Industria ed il Commercio della Pomice di Lipari S.p.A. (Italpomice S.p.A.)	do.	150
Salt, rock	Atisale S.p.A.	Puglia salt pan	5,000
Do.	do.	Sardina salt pan	2,000
Do.	Societa Italiana Sali Alcalini S.p.A. (Italkali)	Underground mines at Petralia, Racalmuto, and Realmonte, Sicily	2,000
Do.	Solvay S.p.A.	Underground mines at Buriano, Ponteginori	2,000
Sulfuric acid	Nuova Solmine S.p.A.	Plant in Scarlino, Grosseto	600
Do.	do.	Plant in Serravalle Scrivia, Alessandria	110
Stone, marble	A number of companies, of which the largest include: Figaia S.p.A. Industria dei Marmi Vicentini S.p.A. Mineraria Marittima S.r.l	Quarries in the Carrara and Massa areas do. do.	2,500
Talc	IMI FABI S.p.A.	Mines at Orani, Sardinia and Postalesio, Sondrio	20
Zinc:			
Metal	Portovesme S.r.l. (Glencore plc, 100%)	Imperial smelter at Portovesme, Sardinia	140
Do.	Pertusola Sud S.p.A.	Plant at Crotone, Calabria	100
Alloy	Simar S.p.A. (Cordifin S.p.A.)	Smelter at Porto Marghera	60

Do., do. Ditto. NA Not available.

¹The coke plant was not in operation in 2019.