



2015 Minerals Yearbook

ITALY [ADVANCE RELEASE]

THE MINERAL INDUSTRY OF ITALY

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In 2015, Italy's gross domestic product (GDP) measured at market prices increased by 1.3% to \$1.822 trillion¹ from \$1.799 trillion (revised) in 2014. The country reported an unemployment rate of 11.9% in 2015 and an inflation rate of 0.1%. The Government budget deficit amounted to 2.6% of the GDP in 2015, and the national debt was equivalent to 132.3% of the GDP, making Italy the second most indebted country in the European Union (EU), after Greece. Italy ranked fourth in the EU in terms of GDP, however, following Germany, the United Kingdom, and France. The output value of Italy's services sector accounted for 74.2% of the GDP; the industrial sector, 23.9% (including 4.8% from the construction sector); and the agricultural sector, 2.2% (Istituto Nazionale di Statistica [Italian National Institute of Statistics], 2016b, p. 27, 30, 43, 45, 47; World Bank, The, 2016).

The mineral industry in Italy was composed mostly of companies that manufacture and process metals (including steel), construction products, and industrial products, although an important amount of industrial minerals and aggregates were still being mined annually in the country. The industrial mineral mining industry, particularly the companies that produce construction materials, mineral manufacturing components, and stone were some of the leading producers in the world in terms of the quantity produced. Italy was the 11th-ranked crude steel producer and the 14th-ranked manufacturer of cement in the world, as measured by tonnage of production. Italy had ceased mining for metals and the raw materials necessary for its metal refining industry. The country imported the necessary materials or obtained them from secondary scrap recovery. Italy produced principally cement, clays, gypsum, lime, limestone, salt, sand and gravel, silica sand, and talc. Production of natural gas, crude petroleum, and petroleum refinery products continued to be important for the economy. In terms of volume, the production of crude petroleum in Italy decreased by 5.1% in 2015, and that of natural gas decreased by 5.6% compared with that of the previous year. In 2015, 66% more natural gas was produced from offshore fields, mostly in the Adriatic Sea, than from onshore fields. Most crude petroleum production, however, was produced onshore in the Provinces of Basilicata and Sicilia, rather than at sea. Despite the availability of domestically produced gas and crude petroleum, however, Italy was not energy self-sufficient, and it relied on energy imports to satisfy its domestic energy consumption (tables 1, 2; Cembureau, 2016, p. 10; Ministero dello Sviluppo Economico, 2016, p. 108–109; World Steel Association, 2016, p. 9).

Minerals in the National Economy

In 2015, the production of the mineral industry decreased by 3.9% in terms of value, and the industry's revenue decreased by

7.4% compared with that of the previous year. The production of the metallurgical and metal manufacturing sector decreased by 2.6% compared with that of 2014, and the sector's revenue decreased by 0.8%. Italy's production of coke and refined petroleum products increased by 10.8% compared with that of 2014, but revenue decreased by 15.8% (Istituto Nazionale di Statistica, 2016a, p. 569).

In 2014, the mining and quarrying industry was made up of 2,257 companies, of which 1,775 had 9 or fewer employees. The industry overall, however, employed a total of 32,827 people, of which the vast majority (27,777) worked for companies with 10 or more workers (Istituto Nazionale di Statistica, 2016b, p. 51).

Government Policies and Programs

The Government played a significant role in the mining industry through regulation of ownership of large financial and industrial companies; privatizations and regulatory reform in accordance with EU directives, however, had 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 of June 10, 1982. Quarrying operations are regulated by law No. 44 of September 1982. All petroleum and 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 UNMIG now all operate within the Direzione generale per l'energia e le risorse minerarie [Directorate General for Energy and Mineral Resources]. By presidential decree, in 2007, the Commissione per gli idrocarburi e le risorse minerarie [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 (Ministero dello Sviluppo Economico, 2010).

Production

In 2015, the largest increases in production (in terms of amount produced) were for salt (increased by 103%); nitrogen (54%); primary and secondary aluminum (37%); and marble and crude travertine (9%). The largest decreases in the amount of production were for sand and gravel (55%), granite and silica sand (32% each), pig iron (21%), and crushed and broken stone (16%) (table 1).

¹Where necessary, values have been converted from euro area euros (EUR) to U.S. dollars (US\$) at an annual average exchange rate of EUR0.9016=US\$1.00 for 2015 and EUR0.7489=US\$1.00 for 2014.

Structure of the Mineral Industry

The Government had ultimate control of Italy's mineral industry. Mineral resources are, by law, the property of the Italian nation, but private and mixed public and private entities were the principal owners of Italy's mineral industry. Significant companies with operations in Italy were Glencore plc of Switzerland, which had a lead refinery at San Gavino; IMI FABI S.p.A., which had a talc mine at Orani; Italcementi S.p.A., which had major cement plants in Calusco, Collefero, and Monselice; Lucchini S.p.A. which produced pig iron at its plant in Trieste; the steelmaking Riva Group, which had steel works in Taranto as well as several other plants; and the petroleum and hydrocarbon production company Eni S.p.A., which had oilfields offshore Sicily and in the Adriatic Sea, and onshore in the Po River Valley (table 2).

Mineral Trade

In 2015, Italy exported a total of \$459.05 billion worth of goods and services and imported a total of \$408.96 billion in goods and services. Italy's principal export trade partners were Germany, to whom Italy exported \$51.02 billion; France, \$42.55 billion; the United States, \$35.99 billion; the United Kingdom, \$22.48 billion; and Spain, \$19.85 billion. Italy's principal import trade partners were Germany, from whom Italy imported \$56.81 billion; France, \$32.11 billion; China, \$28.16 billion; the Netherlands, \$20.67 billion; and Spain, \$18.39 billion (Istituto Nazionale di Statistica, 2016b, p. 49).

In 2015, Italy's share of the EU's imports and exports of mineral fuels, lubricants, and related materials to countries outside the EU was 12.2% and 10.9%, respectively. Italy's share of the EU's imports and exports of raw materials was 11.9% and 6.9%, respectively. Italy traded mostly with its EU partners, as 54.9% of all Italy's exports went to EU members and 58.7% of its imports came from EU members (European Commission 2016a–e).

Commodity Review

Metals

Iron and Steel.—Pig iron production in Italy decreased in 2015 owing in part to the slowing of production at the Piombino plant and the general slowdown in production linked to a decrease in world demand. In mid-2015, the conglomerate Cevital Group of Algeria finalized the purchase of the complex in Piombino, Tuscany, from steelmaker Lucchini, S.p.A. In December 2014, the Italian Ministry of Economic Development had authorized the sale of the Lucchini steel complex, stating that this transaction would entail an investment of \$534 million and that Cevital would immediately rehire all 1,860 workers that had previously been employed at the plant. By the end of 2015, however, it had become apparent that the redevelopment plans offered by Cevital would not be implemented as expected. Cevital created the company Acciaierie e Ferriere di Piombino S.p.A (Aferpi) to take over the facilities and business of the ex-Lucchini plant. Aferpi had run into liquidity problems, however, because it had been unable to raise capital to implement necessary investments in the plant, including refurbishing one of

its electric furnaces. To be able to recapitalize the company, the parent company Cevital needed to invest out of its own revenue rather than trying to raise capital, something that, as of the end of the year, the company did not seem to have decided to do, and instead it was still searching for bank support and financial institution investment to recapitalize the plant (Il Sole 24 Ore S.p.A., 2016).

Lead and Zinc.—Glencore owned the country's principal processor (smelter and refinery) of lead and zinc, which was located in Porto Vesme, Sardinia. Glencore stated that the Porto Vesme facility had increased production as a result of the upkeep and maintenance performed during the current year, the improvements done to the processing plant in 2014, and the commissioning of the solvent extraction plant in 2013. Lead production increased in 2015, and zinc production increased by about 1% (Glencore plc, 2015, p. 24; 2016, p. 7).

Industrial Minerals

Cement.—In 2015, HeidelbergCement AG of Germany was planning to buy Italcementi S.p.A for \$4.10 billion and follow what industry leader LafargeHolcim Ltd. did the previous year to consolidate further the cement industry. HeidelbergCement planned first to acquire the 45% stake in Italcementi owned by Italmobiliare SpA; it would pay \$11.76 for each share, or \$1.85 billion total in stock and cash. Bloomberg reported that the price offered for each share was 61% higher than Italcementi's closing price before the deal was announced. Bloomberg further reported that the acquisition of Italcementi would expand HeidelbergCement's operations in countries located on the Mediterranean coast, such as Italy and Egypt, as well as other European countries, such as Belgium, which combined represented the company's biggest market. It was reported that Italcementi's stock gained 33% in 2015 and was valued at \$2.55 billion. By completing this deal, HeidelbergCement would double its market share; however, the company would still lag behind LafargeHolcim in the Middle East and Africa in terms of market share (Bloomberg Inc., 2015).

Italian cement consumption decreased by 2.5% in 2015 compared with that of 2014. This decrease was evident across all sectors, but the residential construction sector seemed to be the most affected. This reduction was a reflection of the prevailing economic conditions of the country in 2015; however, Cembureau expected that cement consumption would increase by up to 2% in 2016 owing to an expected recovery in the public construction sector (Cembureau, 2016, p. 17).

Outlook

Italy is one of the largest EU members in terms of population and the size of its industrial sector. The economic conditions that have affected the country since 2008 continued to affect its mineral and industrial production sectors, but there seem to be indications in the mineral commodity markets that these sectors may begin to recover slowly. Unemployment and a sizable public debt have historically reduced the capacity of national consumption to support the manufacturing and construction sectors in Italy, and the country will likely continue to rely on

exports to strengthen its production industry. The country is also likely to continue to rely on major imports of mineral fuels, despite potential increases in domestic mineral fuel production. Economic reforms and austerity programs are expected to continue and, as such, it is likely that these measures will curtail possible future increases in domestic consumption.

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TABLE 1
ITALY: PRODUCTION OF MINERAL COMMODITIES^{1,2}

(Metric tons unless otherwise specified)

Commodity	2011	2012	2013	2014	2015
METALS					
Aluminum:					
Metal:					
Primary	141,000	110,000	--	--	--
Secondary ³	1,049,101	1,002,814	1,061,603	1,000,000	1,369,840
Total	1,190,101	1,112,814	1,061,603	1,000,000	1,369,840
Copper, metal, refined, all kinds ^c	7,600	7,700	4,900	7,900	7,300
Iron and steel, metal:					
Pig iron thousand metric tons	9,838	9,424	6,935	6,371	5,051
Steel, crude do.	28,735	27,257	24,058	23,714	22,018
Lead:					
Mine output, Pb content ^c	800	--	--	--	--
Metal, refined:					
Primary	--	--	30,000	50,000	50,000
Secondary	149,500	138,400	151,000 ^r	160,000	158,000
Total	149,500	138,400	181,000	210,000	208,000
Zinc, metal, primary	110,200	97,200	111,000	138,000	139,000
INDUSTRIAL MINERALS					
Bromine ^c	300	--	--	--	--
Cement, hydraulic thousand metric tons	33,120	26,200	22,000	21,400	20,800
Clay, crude:					
Common clay do.	4,750	3,777	4,212	5,297	2,797
Bentonite do.	102	144	103	100	100
Refractory, excluding kaolinitic earth do.	844 ^c	878	870	870	870
Ball clay do.	638	746	696	387	343
Gypsum do.	5,939	2,563	2,994	8,551	8,000 ^c
Lime, hydrated, hydraulic, and quicklime ^c	5,800	5,800	3,640	3,600	1,900
Nitrogen, N content of ammonia ^c	460	590	570	570	880
Pigments, mineral, iron oxides, natural ^c	112	118	137	130	130
Salt do.	2,912	3,098	2,879	1,501	3,042
Sand and gravel do.	164,844	123,049	102,381	73,690	33,506
Silica sand do.	16,369	13,946	13,870	11,602	7,943
Stone:					
Calcareous:					
Alabaster do.	7,000 ^c	7,000 ^c	2,912	2,900 ^c	2,874
Chalk do.	200 ^c	200 ^c	790	719	720 ^c
Dolomite do.	1,139	1,069	751	723	700
Limestone for lime and cement do.	37,269	28,524	24,706	26,297	24,012
Marble and travertine, crude do.	3,516	3,348	2,819	3,014	3,274
Crushed and broken ⁴ do.	76,793	74,169	63,782	44,143	36,922
Granite do.	1,585	1,734	1,160	1,001	678
Sandstone do.	440	281	270	336	294
Slate do.	61	44	43	95	61
MINERAL FUELS AND RELATED MATERIALS					
Asphalt and bituminous rock, natural thousand metric tons	2,169	2,100 ^c	1,158	1,140	1,100 ^c
Gas, natural million cubic meters	8,438	8,608	7,731	7,136	7,100 ^c
Petroleum:					
Crude thousand 42-gallon barrels	36,201	36,865	37,157	38,690	38,700 ^c
Refinery products do.	653,533	617,543	549,690	517,570 ^r	517,000 ^c

^cEstimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. ^rRevised. do. Ditto. -- Zero.

¹Table includes data available through January 11, 2017.

²In addition to the commodities listed, Italy produced a number of other metals, alloys, and industrial minerals, such as barite, coke, diatomite, feldspar, ferromanganese, ferrosilicone, fuller's earth, kaolin, magnesia, perlite, pozzolan, pumice, silicomanganese, soda ash, sodium sulfate, sulfur, and talc, but actual output was not regularly reported, and the information available was inadequate to make reliable estimates of output.

³Unwrought aluminum alloys in secondary form.

⁴Output of limestone and serpentine for dimension stone is included with "Stone: crushed and broken."

TABLE 2
ITALY: STRUCTURE OF THE MINERAL INDUSTRY IN 2015

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
Barite	Bariosarda S.p.A. (Ente Mineraria Sarda)	Barega and Mont 'Ega Mines on 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, Sto. Stefano, and Peppixeddu, Sardinia	20
Do.	Società 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 S.p.A., 40%; Icofin Co., 20%)	Mine at Olmedo, Sardinia	350
Bentonite	Industria Chimica Carlo Laviosa S.p.A.	Mines and plant on Sardinia and a plant near Pisa	250
Cement	11 companies, of which the largest are: Italcementi S.p.A. (Italcementi Group)	Locations: 18 plants, of which the largest are Calusco, Monselice, and Collefero	15,000
Do.	Buzzi Unicem Group	11 plants, of which Guidonia, Lugagnano, Morano, Piacenza, S'Arcangelo di Romagna, and Settimello are the largest	9,000
Do.	Cementerie del Tirreno S.p.A.	6 plants at Arquasta Scivia, Livorno, Maddaloni, Napoli, Spoleto, and Taranto	5,300
Copper:			
Refined	Simar S.p.A. (Cordifin S.p.A.)	Refinery at Porto Marghera	60
Refined, secondary	KME Italy S.A. (KME Group S.p.A.)	Refinery at Fornaci di Barga and Scrivia	24
Do.	Sitindustrie S.p.A.	Refinery at Pieve Vergonte	22
Feldspar	At least 5 companies, of which the largest are: Maffei S.p.A. do. Miniera di Fragne S.p.A. Sabbie Silicee Fossanova S.P.A.	Various locations, including: Surface mines at Pinzolo and Campiglia Underground mine at Vipiteno Surface mine at Alagna Valsesia Surface mine at Fossanova	1,500 (200) (300) (60) (30)
Gypsum	Fassa S.r.l.	Plant at Moncalvo, Asti	90
Lead, metal	Glencore plc	Refinery at San Gavino, Sardinia	100
Do.	do.	Kivcet smelter and Imperial smelter at Porto Vesme, Sardinia	85
Lime	Unicale S.p.A.	Plants in Lombardy region	500
Magnesium, metal	Società Italiana Magnesio S.p.A.	Plant at Bolzano	8
Marble	A number of companies, of which the largest include: Mineraria Marittima Srl Industria dei Marmi Vicentini S.p.A. Figaia S.p.A.	Various locations, including: Quarries in the Carrara and Massa areas do. do.	2,000 (500) (300) (100)
Nitrogen, N content of ammonia	Hydro Agri S.p.A.	Plant at Ferrara	410
Petroleum:			
Crude	Eni S.p.A.	Oilfields offshore Sicily and in the Adriatic Sea, and onshore in Po River Valley	90
Refined	thousand 42-gallon barrels per day	Various companies About 14 refineries	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.	Sta. Italiana Sali Alcalini S.p.A. (Italkali)	Underground mines at Casteltermini and Pasquasia, Sicily	700

See footnotes at end of table.

TABLE 2—Continued
ITALY: STRUCTURE OF THE MINERAL INDUSTRY IN 2015

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity owners	Location of main facilities	Annual capacity
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. (Italkali)	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
Iron and steel:			
Pig iron	Altiforni e Ferriere di Servola S.p. A. (Lucchini S.p.A.)	Pig iron and coke plant at Trieste	500
Steel	Ilva S.p.A. (Riva Group)	5 steel plants, the largest of which is Taranto (1,500)	4,000
Do.	Riva Acciaio S.p.A. (Riva Group)	7 steel plants	7,000
Do.	Cevital S.A.	Steel plant in Piombino	2,500
Do.	Acciaierie e Ferriere Vicentine Beltrame S.p.A. (AFV-Beltrame S.p.A.)	Steel plant at Vicenza	1,000
Talc	Luzenac Val Chisone S.p.A.	Mines at Pinerolo, near Turin, and an open pit mine in Orani, Sardinia	120
Do.	IMI FABI S.p.A.	Mine at Orani, Sardinia	20
Zinc, metal	Glencore plc	Plant at Porto Vesme, Sardinia	140
Do.	Pertulosa Sud S.p.A.	Plant at Crotone, Calabria	100
Do., do. Ditto.			