

# 2014 Minerals Yearbook

# **MOLDOVA**

### THE MINERAL INDUSTRY OF MOLDOVA

### By Elena Safirova

Moldova had a small mineral industry of limited regional significance that was engaged primarily in the mining and production of industrial minerals and mineral products, including cement, clays, gypsum, limestone, and sand and gravel. The breakaway Transnistria region had a minimill metallurgical plant, a cement plant, and some other industrial plants, but the Moldovan statistical agency did not report production for the Transnistria region. The country was completely dependent on imports for its coal, natural gas, and refined petroleum products, which came mainly from Russia and Ukraine. Moldova's main mineral resources were industrial minerals, which were used to produce construction materials and as inputs for the cement, chemical, food processing, and glass industries. Small deposits of iron ore, natural gas, and oil had been explored in the past but still were not determined to be economic to develop.

In 2014, Moldova imported almost 100% of its natural gas from Russia. At the same time, the country was working on developing alternatives to Russia's energy sources. In August, it was reported that the Yassy-Ungeny gas pipeline (a pipeline between the city of Yassy in Romania and the city of Ungeny in Moldova) was completed. The completion of construction technically meant that Moldova was included in the energy system of the European Union (EU). The total cost of the pipeline was estimated to be EUR20 million (\$25.5 million),1 and was financed by the European Union as a part of the EU's Moldova-Romania-Ukraine Joint Operational Program for the period 2007 through 2013. Romania planned to immediately start shipments of natural gas to Moldova, but, at yearend, the negotiations about shipments were still underway. It was clear, however, that shipments from Romania could decrease Moldova's dependence on Russia's natural gas by 5%, from 100% to 95%. Moreover, Romania itself did not have enough gas to satisfy its domestic demand, and had to purchase from Russia between 22% and 42% of its domestic demand. It was expected that by 2020 Romania would increase its natural gas production, and Moldova would be able to substitute imports from Romania for natural gas from Russia (Regnum.ru, 2013b; 2014a-c).

#### Minerals in the National Economy<sup>2</sup>

In 2014, the nominal gross domestic product (GDP) of Moldova, according to the preliminary data, was \$7.94 billion; real GDP increased by 4.6% compared with that of 2013. Industrial production contributed 33.0% to the GDP in 2014; the share of mining and quarrying output in total industrial

production was 1.8%. In 2014, industrial production increased by 7.3% compared with that of 2013; the output in mining and quarrying and manufacturing increased by 0.2% and 8.5%, respectively, whereas the output of the energy sector increased by 4.4%. The output of the chemical sector increased by 42.4%, and the production of other nonmetal mineral products (such as cement, concrete, glass, and gypsum) increased by 2.6% (National Bureau of Statistics of the Republic of Moldova, 2015; U.S. Central Intelligence Agency, 2015).

In 2014, the Moldovan trade deficit decreased by 3.0% to \$2.98 billion; the value of exports decreased by 3.7% to \$2.34 billion, and that of imports decreased by 3.2% to \$5.32 billion. In 2014, Moldova was a net importer of mineral commodities; the total value of mineral exports amounted to \$39.7 million, and the total value of mineral imports was \$1.10 billion. Moldova was a net importer of pig iron and steel (exported materials were worth \$4.8 million and imported materials were worth \$133.0 million); of nonferrous metals (exports of \$2.1 million and imports of \$67.0 million); and of articles made out of metals (exports of \$22.0 million and imports of \$137.2 million). The major export categories were foodstuffs, machinery, and textiles, and the main export trade partners were Romania (which received 18.6% of Moldova's exports), Russia (18.2%), Italy (10.4%), Germany (5.9%), Belarus (5.8%), Ukraine (4.7%), the United Kingdom (4.6%), and Turkey (4.5%). Moldova imported chemicals, machinery and equipment, mineral products and mineral fuels, and textiles. The country's major import trade partners were Romania (which supplied 15.1% of Moldova's imports), Russia (13.5%), Ukraine (10.3%), China (9.0%), Germany (8.0%), Italy (6.6%), and Turkey (5.7%) (National Bureau of Statistics of the Republic of Moldova, 2015; U.S. Central Intelligence Agency, 2015).

#### **Production**

In 2014, production of rolled steel increased by 112%, and that of crude steel, by 81%, compared with production levels in 2013. Cement production increased by an estimated 13% and sand and gravel production, by an estimated 8.5%. Data on mineral production are in table 1.

#### **Structure of the Mineral Industry**

Most mineral industrial facilities in Moldova were privately owned. Both cement plants had foreign owners (Lafarge S.A. of France and Metalloinvest Holding Co. of Russia), and the only metallurgical plant was also controlled by Metalloinvest, although it was officially owned by OOO Greenan Holdings Ltd. Table 2 lists major mineral industry facilities.

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¹Where necessary, values have been converted from Moldovan lei (MDL) to U.S. dollars (US\$) at an annual average exchange rate of MDL14.042=US\$1.00 for 2014, MDL12.592=US\$1.00 for 2013, and from euro area euros (EUR) to U.S. dollars at an annual average exchange rate of EUR=0.783=US\$1.00 for 2013.

<sup>&</sup>lt;sup>2</sup>The data cited in this section do not include Transnistria region and Bendery municipality.

#### **Commodity Review**

#### Metals

Iron and Steel.—In 2014, OAO Moldovan metallurgical plant (MMZ), which was located in the Transnistria region, produced 344,470 metric tons (t) of crude steel and 391,228 t of rolled steel, which was an increase of 81% and 112%, respectively, compared with production in 2013. The plant's annual capacity was 1.1 million metric tons per year (Mt/yr), but the last time that the plant operated at capacity was in 2005. In 2013, MMZ was idle for 7 months because, at the beginning of 2013, the Transnistria authorities increased electricity rates, which made steelmaking at the plant unprofitable. In June 2013, the plant's owners and the Transnistria authorities met and the authorities offered a support package to the plant's owners; the details of the package were not disclosed. In 2014, MMZ continued operations amid reduced demand for its output and difficulties with purchasing metal scrap as a raw material. MMZ shipped its products to Moldova, Poland, Romania, Russia, and Ukraine (NOI.md, 2013b; NovostiPMR.com, 2014b; Infogeo.ru, 2015).

#### **Industrial Minerals**

Cement.—The two leading cement producers in Moldova were Lafarge Ciment Moldova SA (a part of Lafarge S.A. of France), which was located in the city of Rezina in the northern part of Moldova, and the ZAO Rybnitsa cement complex (RCK), which was located in the Transnistria region (table 2). Cement production in Moldova in 2014 was estimated to have increased by 13% because RCK increased production by 42% (NewsMoldova.md, 2014; NovostiPMR.com, 2014a).

Lafarge purchased the Rezina cement plant in 1999 and since then invested about EUR50 million (about \$63.9 million) to modernize the plant, which, as of 2014, had the capacity to produce 1.4 Mt/yr of cement. Lafarge expanded its presence in Moldova by opening the concrete testing center in Chisinau in 2011 and the Comrat rail terminal in the southern part of the country in 2013 (Gagauzinfo.md, 2013; Lafarge S.A. Moldova, 2015).

In April 2014, Lafarge and Holcim Ltd. of Switzerland announced their plan to merge and to form the world's largest cement maker with \$40 billion in annual revenue. To win regulatory approval, the companies planned to sell about \$6.4 billion worth of assets; the Rezina plant was not expected to be sold. The merger was expected to be finalized in the summer of 2015. It was not immediately clear what, if any, effect the merger would have on the operations of the Rezina plant (Winters and De Beaupuy, 2014).

The RCK produced cement and lime for use in construction. The plant had the capacity to produce 1.1 Mt/yr of cement but had not produced at capacity since 2008. In 2014, the RCK produced 494,200 t of cement, which was a 42% increase compared with the 2013 output. As of 2014, the major shareholder of the plant was Metalloinvest Holding Co. of Russia (NewsPMR.com, 2013; Rupor PMR, 2013; NOI.md, 2015).

#### Mineral Fuels

Natural Gas and Petroleum.—In 2014, Valiexchimp SRL was the only company producing crude oil and natural gas in Moldova. Both petroleum and natural gas deposits were located in the southern part of Moldova. Valiexchimp had exclusive rights for development of deposits near the villages of Valeni and Viktorovca, where it was producing up to 12,000 cubic meters of natural gas per month and up to 1,000 t of petroleum per month (exact production figures were not reported). According to some estimates, production could be increased if the depth of the wells was increased to 4 kilometers, but it was not clear if such an investment would be profitable (Lyabina, 2011; Nedova, 2013; NOI.md, 2013a).

Canyon Oil and Gas Ltd. of the United Kingdom was founded in 2011 and was planning to explore for and produce natural gas and petroleum in Moldova. In particular, the company was interested in exploration for shale oil and gas. At the end of 2013, Canyon Oil and Gas was acquired by Aminex plc of Ireland. At yearend 2014, it was not clear how the company's operations in Moldova would be affected by the acquisition (Regnum.ru, 2013a; Sholar, 2013).

#### Outlook

In 2014, Moldova's economy grew by 4.6%, although the Transnistrian economy continued to struggle. Moldova took a decisive step in the direction of energy independence from Russia by constructing a gas pipeline between Romania and Moldova. It remains to be seen how reliable Romania's shipments of natural gas will be and how soon they will be able to meet a large portion of Moldova's demand. Regardless of future economic growth, Moldova is likely to remain a small producer of mineral commodities, specializing in the production of industrial minerals used in construction.

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TABLE 1
MOLDOVA: PRODUCTION OF MINERAL COMMODITIES<sup>1</sup>

#### (Metric tons)

Commodity <sup>2</sup>	2010	2011	2012	2013	2014
METALS					
Steel:					
Crude	241,500	320,600	316,682	190,086	344,470
Rolled	231,400	306,500	356,754	184,676	391,228
INDUSTRIAL MINERALS					
Cement <sup>e</sup>	900,000	1,000,000	1,200,000	1,150,000	1,300,000
Clays, unspecified <sup>e, 3</sup>	160,000	140,000	150,000	165,000	170,000
Gypsum <sup>3</sup>	99,800	100,540	115,100	120,000 <sup>e</sup>	125,000 <sup>e</sup>
Lime <sup>e</sup>	5,000	5,500	12,000	12,500	12,500
Limestone <sup>3</sup>	196,900	295,500	279,160	253,200	250,000 <sup>e</sup>
Sand and gravel <sup>3</sup>	2,146,000	2,547,000	3,042,000	3,501,500	3,800,000 e

<sup>&</sup>lt;sup>e</sup>Estimated; estimated data are rounded to no more than three significant digits.

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<sup>&</sup>lt;sup>1</sup>Table includes data available through June 17, 2015.

<sup>&</sup>lt;sup>2</sup>In addition to the commodities listed, Moldova was thought to have produced granite, natural gas, peat, and petroleum, but available information was inadequate to make reliable estimates of output.

<sup>&</sup>lt;sup>3</sup>Excludes the Transnistria region.

# $\label{eq:table 2} \text{MOLDOVA: STRUCTURE OF THE MINERAL INDUSTRY IN 2014}$

### (Metric tons unless otherwise specified)

Major operating companies and				Annual
Commodity		major equity owners	Location of main facilities	capacity
Cement		Lafarge Ciment Moldova SA	Rezina	1,400,000
Do.		ZAO Rybnitsa Cement Complex (RCK)	Rybnitsa, Transnistria region	1,100,000
		(Metalloinvest Holding Co.)		
Granite	thousand cubic meters	NA	Kosoutskoye deposit	150
Gypsum		CMC-Knauf joint venture	Kirovskoye deposit	850,000
Oil and natural gas:				
Oil		Valiexchimp SRL	Valeni oilfield	NA
Natural gas		do.	Victorovca gasfield	NA
Sand and gravel		NA	Throughout the country	NA
Steel, crude		OAO Moldovan metallurgical plant (MMZ)	Rybnitsa, Transnistria region	1,100,000
	[OOO Greenan Holdings Ltd. (98.83%)]			

Do., do. Ditto. NA Not available.