



# 2013 Minerals Yearbook

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## MOLDOVA

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# THE MINERAL INDUSTRY OF MOLDOVA

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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 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 used to produce construction materials and as an input 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 found to be economic to develop.

In 2013, 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 December, it was reported that the Romanian portion of the Yassy-Ungeny gas pipeline (a pipeline between the city of Yassy in Romania and the city of Ungeny in Moldova) was completed; the Moldovan portion was expected to be completed in March 2014. The total cost of the pipeline was estimated to be EUR20 million (\$25.5 million)<sup>1</sup> and was financed by the European Union (EU) as a part of the EU's Moldova-Romania-Ukraine Joint Operational Program for the period 2007 through 2013. Romania expected to use the pipeline to transport natural gas produced from its Black Sea shelf to Moldova, but the Black Sea shelf project was still at the stage of economic viability assessment, and production was not expected to start before 2020. In addition, the practical integration of the gas transportation systems of the two countries would also require building compression stations and one more gas pipeline between Ungeny and Chisinau. The total cost of those projects was estimated to be about EUR200 million (\$250 million) (Regnum, 2013b, 2014).

Another series of projects expected to increase mutual energy security and reliability between Moldova and Romania was the Bălți-Suceava, the Ungeny-Yassy, and the Gotesht-Felchii high-voltage electric power lines. In addition, Moldova was planning to begin countrywide exploration for its own natural gas resources. In November 2013, the Moldovan Government initiated an Association Agreement with the EU and made efforts to establish stronger economic and energy-related ties with the EU and its members (Regnum, 2013a, 2014; U.S. Central Intelligence Agency, 2014).

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<sup>1</sup>Where necessary, values have been converted from Moldovan lei (MDL) to U.S. dollars (US\$) at an annual average exchange rate of MDL12.592=US\$1.00 and from euro area euros (EUR) to U.S. dollars at an annual average exchange rate of EUR0.783=US\$1.00 for 2013.

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

In 2013, the nominal gross domestic product (GDP) of Moldova was \$7.93 billion; real GDP increased by 8.9% compared with that of 2012. Industrial production contributed 38.0% to the GDP; the share of mining and quarrying output in total industrial production was 1.8%. In 2013, industrial production increased by 6.8% compared with that of 2012; the outputs of the mining and quarrying and the manufacturing industries increased by 22.2% and 7.9%, respectively, whereas the output of the energy sector decreased by 4.3%. The output of the chemical sector increased by 19.0%, and the production of other nonmetal mineral products (such as cement, concrete, glass, and gypsum) increased by 21.9% (National Bureau of Statistics of the Republic of Moldova, 2013, 2014a, b; U.S. Central Intelligence Agency, 2014).

In 2013, the Moldovan trade deficit increased by 1.4% to \$3.09 billion; the value of exports increased by 11% to \$2.4 billion, and that of imports increased by 5.4% to \$5.49 billion. In 2013, 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 \$1.25 billion. Moldova was a net importer of pig iron and steel (exported materials worth \$8.8 million and imported materials worth \$134.9 million); of nonferrous metals (exports of \$4.2 million and imports of \$30.7 million); and of articles made out of metal (exports of \$54.4 million and imports of \$147.3 million). The major export categories were foodstuffs, machinery, and textiles, and the main export trade partners were Russia (which received 26.3% of Moldova's exports), Romania (17.2%), Italy (7.7%), Ukraine (5.9%), Turkey (5.3%), Germany (4.7%), the United Kingdom (3.8%), and Belarus (3.6%). Moldova imported chemicals, machinery and equipment, mineral products and mineral fuels, and textiles. The country's major import trade partners were Russia (which supplied 14.3% of Moldova's imports), Romania (13.1%), Ukraine (12.0%), China (8.7%), Germany (7.2%), Turkey (6.9%), and Italy (6.3%) (National Bureau of Statistics of the Republic of Moldova, 2014a; U.S. Central Intelligence Agency, 2014).

## Production

In 2013, production of rolled steel decreased by 48%, and that of crude steel, by 40%, compared with production levels in 2012. On the other hand, production of sand and gravel increased by 15%, and that of clay, by 10%. Data on mineral production are in table 1.

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<sup>2</sup>The data cited in this section do not include the Transnistria Region and the Bendery municipality.

## 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 (Lafarge) and Metalloinvest Holding Co. of Russia], and the metallurgical plant was also controlled by Metalloinvest. Table 2 lists major mineral industry facilities.

## Commodity Review

### Metals

**Iron and Steel.**—From the beginning of 2013, production at OAO Moldovan metallurgical plant (MMZ), which was located in the Transnistria Region, was shut down. The reason was the sluggish demand for metals in the countries of the EU, Russia, and Ukraine; the increase in metal scrap prices; and, most importantly, a 70% increase of electricity rates for private companies in the Transnistria Region. In June, Transnistria's authorities agreed to conduct negotiations with the de facto owner and managing company of the plant, Metalloinvest. The authorities reportedly offered the plant financial support as an incentive to restart production, but the exact details of the support package were not disclosed. In August, MMZ restarted production and worked without further interruptions throughout the rest of the year. During 2013, the plant produced 190,086 metric tons (t) of crude steel and 184,676 t of rolled steel. Those production volumes were 40% and 48%, respectively, lower than the 2012 production volumes and very much below the plant's annual capacity of about 1.1 million metric tons per year (Mt/yr) (Black Sea News, 2013; MetallIndex, 2013; Sizov, 2013; Novosti PMR, 2014b).

In June, it was announced that the formal ownership structure of MMZ was changed. Prior to the change, the plant had been owned by EIM Energy and Investment Management Corp. (45.6%), Rumney Trust Reg. (45%), Decagon Avionics Ltd. (8.23%), and plant employees (1.17%). As a result of the change, the plant would be 98.83% owned by OOO Greenan Holdings Ltd., which was registered in the British Virgin Islands; however, Metalloinvest continued to manage and control MMZ financially (NOI.md, 2013).

### Industrial Minerals

**Cement.**—The two leading cement producers in Moldova were Lafarge Ciment Moldova SA (a part of Lafarge), which was located in the city of Rezina in the northern part of Moldova, and ZAO Rybnitsa Cement Complex (RCK), which was located in the Transnistria Region (tables 1 and 2). Cement production in Moldova in 2013 was estimated to have decreased by 4.2% because of the idling period at the RCK (News Moldova, 2014; Novosti PMR, 2014a).

Lafarge purchased the Rezina cement plant in 1999 and since then had invested about EUR50 million (about \$63.9 million) to modernize the plant. 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. It was expected that the new terminal would become a cement distribution hub for the southern

customers of the plant, would reduce cement delivery times, and would benefit the environment by removing about 1,000 trucks from cement transportation. As of 2013, the three facilities combined employed 247 workers (Gagauzinfo, 2013; Lafarge S.A. Moldova, 2014).

In May, Lafarge Moldova announced that it had installed a new sleeve-type air filtration system at the Rezina plant. The new system cost EUR6.6 million (\$8.4 million) and about 2 million worker-hours were spent on its assembly between September 2012 and April 2013. The filtration system worked as a multistage vacuum cleaner under high-heat conditions and replaced the old and much less effective electric filters. The system belongs to a new generation of filtration systems used by Lafarge in its other plants, including those in Western Europe. The tests have shown that the new system would reduce dust emissions at the plant by at least 90% (Logos Press, 2013).

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 the beginning of 2013, RCK was shut down because of increased electricity prices, high export tariffs, and decreased demand for its products. In March, the plant owners and the Transnistria administration conducted negotiations, as a result of which cement tariffs were reduced from 4% to 1%. The electricity rates for the plant were reduced as well so that the effective rate increase between 2012 and 2013 was only 7% rather than 70%, which was in effect at the beginning of 2013. As a result of the concessions, RCK restarted production at the end of April and continued production through the end of the year. Nevertheless, in 2013, the plant produced 18% less cement than in 2012. As of 2013, the major shareholder of the plant was Metalloinvest Holding Co. of Russia (NewsPMR.com, 2013; Rupor PMR, 2013).

### Outlook

In 2013, Moldova's economy returned to economic growth and prerecession levels, although the Transnistrian economy continued to struggle. Regardless of the future economic growth, Moldova is likely to remain a small producer of mineral commodities, specializing in the production of industrial minerals used in construction. By 2020, the country intends to diversify its energy sources and to establish closer economic ties with Romania and the EU while distancing itself from Russia. It remains to be seen if Moldova will be able to reach this goal and sustain its economic growth.

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

(Metric tons)

Commodity <sup>2</sup>	2009	2010	2011	2012	2013
<b>METALS</b>					
<b>Steel:</b>					
Crude	425,900	241,500	320,600	316,682	190,086
Rolled	440,900	231,400	306,500	356,754	184,676
<b>INDUSTRIAL MINERALS</b>					
Cement <sup>e</sup>	700,000 <sup>r</sup>	900,000 <sup>r</sup>	1,000,000 <sup>r</sup>	1,200,000 <sup>r</sup>	1,150,000
Clays, unspecified <sup>e,3</sup>	150,000	160,000	140,000	150,000	165,000
Gypsum <sup>3</sup>	94,400	99,800	100,540	115,100	120,000 <sup>e</sup>
Lime <sup>e</sup>	4,000	5,000	5,500	12,000	12,500
Limestone <sup>3</sup>	226,900	196,900	295,500	279,160 <sup>r</sup>	253,200
Sand and gravel <sup>3</sup>	1,830,000	2,146,000	2,547,000	3,042,000 <sup>r</sup>	3,501,500

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

<sup>1</sup>Table includes data available through July 10, 2014.

<sup>2</sup>In addition to the commodities listed, Moldova is thought to produce granite, natural gas, peat, and petroleum, but available information is inadequate to make reliable estimates of output.

<sup>3</sup>Does not include the Transnistria Region.

TABLE 2  
MOLDOVA: STRUCTURE OF THE MINERAL INDUSTRY IN 2013

(Metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Cement		Lafarge Ciment Moldova SA	Rezina	1,400,000
Do.		ZAO Rybnitsa Cement Complex (RCK) (Metalloinvest Holding Co.)	Rybnitsa, Transnistria Region	1,100,000
Granite	thousand cubic meters	NA	Kosoutskoye deposit	150
Gypsum		CMC-Knauf joint venture	Kirovskoye deposit	850,000
Petroleum and natural gas:				
Petroleum		Redeco Moldova Oil and Gas Co.	Valeni oilfield	100,000
Natural gas	thousand cubic meters	do.	Victorovca gasfield	5,000
Sand and gravel	do.	NA	Throughout the country	NA
Steel, crude		OAO Moldovan metallurgical plant [OOO Greenan Holdings Ltd. (98.83%)]	Rybnitsa, Transnistria Region	1,100,000

Do., do. Ditto. NA Not available.