



2011 Minerals Yearbook

HUNGARY

THE MINERAL INDUSTRY OF HUNGARY

By Steven T. Anderson

Since the fall of communism in Hungary at the end of 1989, many large state-owned industrial companies were either closed or transformed into smaller privatized companies. In particular, many large uneconomic coal mines were closed in the country. Mining operations for crude construction materials (including aggregates, crushed rock, dimension stone, gravel, and sand) and other industrial minerals continued production, however. In 2011, Hungary was estimated to be the fifth ranked producer of perlite (mostly for use in construction) in the world and to have accounted for about 4% of global production. With respect to metallic minerals, bauxite was still mined in the country; alumina was produced from the bauxite, as was gallium (as a byproduct of alumina refining), but the main alumina plant near Ajka still appeared to be facing strong political pressure to shut down following a tailings dam breach in 2010. Manganese ore was also produced in 2011, but Hungary accounted for no more than 1% of global mine production. The country continued to produce mineral fuels and related materials, but imports still accounted for about two-thirds of total energy consumption (U.S. Central Intelligence Agency, 2011; Bolen, 2012; Hungarian Central Statistical Office, 2012b; Encyclopedia of the Nations, undated).

Minerals in the National Economy

In 2011, the value¹ of production by the mining and quarrying sector accounted for 0.3% (about \$417 million) of the gross domestic product (GDP) compared with about the same percentage (about \$355 million) of the GDP in 2010; the value of output by the coke and petroleum refinery products manufacturing sector accounted for about 6.4% (\$9 billion) of the GDP in 2011 compared with about 5.4% (about \$7 billion) in 2010. In 2011, the value added to the GDP by the entire industrial sector accounted for about 23% of the GDP, but this had mostly to do with manufacturing assembly activities for export. The country was not a major consumer of nonfuel minerals. The value added to the GDP by the construction sector accounted for about 4% of the GDP, and this sector appeared to use at least some domestically produced construction materials (Hungarian Central Statistical Office, 2012c, d).

In 2011, Hungary's trade balance for crude materials (including nonfuel minerals) was \$0.8 billion compared with \$0.46 billion in 2010; and that for mineral fuels, related materials, and energy (including electricity) was about -\$8.5 billion compared with -\$6.7 billion in 2010. In 2011, the value of the country's imports of mineral fuels and related materials (including electricity) accounted for about 12% of the total value of all imports compared with about 11% in 2010. MOL Hungarian Oil and Gas Plc. (MOL) was a participant in

the Nabucco natural gas pipeline development project, which could provide Hungary with additional sources (possibly including Azerbaijan) and route (through Turkey, Bulgaria, and Romania) for importing natural gas. Currently, Hungary obtains more than 80% of its imports of natural gas from Russia. MOL was also in discussions to become a participant in the South Stream pipeline project, however, which could provide an additional route for importing natural gas (possibly direct across the bed of the Black Sea to Bulgaria, then through Bulgaria and Serbia), but the source of the natural gas would be Russia (U.S. Central Intelligence Agency, 2011; Hungarian Central Statistical Office, 2012a; Schneeweiss and Shiryaevskaya, 2012; U.S. Department of Commerce, 2012, p. 33, 42).

Government Policies and Programs

In 2011, the main mining law was Act No. 48, which came into effect in 1993, but it has been amended many times. The Mining Law and related amendments, decrees, and codes apply to all mineral commodities, including mineral fuels and related materials. The Mining Law defines the Government's legal basis for estimating reserves, providing the geologic and technical information needed to outline concession tender conditions, determining environmental risks associated with mining, (temporarily) stopping mine production, and regulating exploration, mine operation, and mineral processing, as well as overseeing mine closures and mine site remediation (United Nations Department of Social and Economic Affairs, Division for Sustainable Development, 2009; Hungarian Office for Mining and Geology, undated).

Production

In 2011, production of kaolin decreased by 4% compared with that of 2010. Herendi Porcelánmanufaktúra Zrt. produced high-quality china and porcelain at the Herend porcelain factory near the city of Veszprem, which it claimed was the largest single porcelain factory in the world. Three main mineral raw materials that were used in the company's products were feldspar, kaolin, and quartz, but information was not available concerning how much (if any) of the raw materials used by Herendi were produced in Hungary (table 1; Herendi Porcelánmanufaktúra Zrt., 2011).

In 2011, production of cement was estimated to have increased by only about 1.6% compared with that of 2010 because increased production by the newly opened NOSTRA cement plant likely compensated for most of the decrease in national cement production resulting from the closure of the Hejőcsaba cement plant during the last quarter of 2011. Also, the value added to the GDP by the construction sector was about the same as in 2010 because many anticipated public projects continued to be delayed through 2011; consequently, domestic demand for construction materials did not increase significantly,

¹Where necessary, values have been converted from Hungarian forints (HUF) to U.S. dollars (US\$) at an annual average exchange rate of HUF207.94=US\$1.00 for 2010 and about HUF200.67=US\$1.00 for 2011. All values are nominal, at current prices, unless otherwise stated.

if at all, during this timeframe. Detailed information was not available concerning the main causes for the changes in reported or estimated production of other mineral commodities in 2011 compared with that in 2010, but the volume of production by the entire mining and quarrying sector (including extraction of mineral fuels) reportedly increased by about 40% during this timeframe, according to volume indices of production estimated by the Hungarian Central Statistical Office (table 1; Hungarian Cement Association, 2011; Hungarian Central Statistical Office, 2012e).

Structure of the Mineral Industry

Table 2 is a list of major mineral industry facilities. NOSTRA Cement Kft., which was a subsidiary of STRABAG SE of Austria, was merged into a joint venture with Lafarge S.A. of France called Lafarge Cement CE Holding GmbH (70% owned by Lafarge S.A. and 30% owned by STRABAG). In September, NOSTRA began operation of its new cement plant at Kiralyegyhaza, and the plant was still ramping up to a production capacity of slightly less than 1 million metric tons per year of cement through the end of the year. Sometime during the final quarter of 2011, Holcim Ltd. of Switzerland closed its Hejocsaba cement plant (table 2; Budapest Business Journal, 2011; Hungarian Cement Association, 2011; Zadavec, 2011; Holcim Ltd., 2012, p. 84–85; STRABAG SE, 2012, p. 19–20, 136).

Outlook

It appeared that the Ajka alumina plant would be allowed to continue to operate through at least 2012 after Magyar Aluminium Ltd. (MAL) paid about \$647 million in 2011 for environmental damages related to the 2010 tailings dam breach, but a complete return to pre-accident levels of production was not expected. The construction sector is still expected to increase output, but did not appear to have done so through the first 6 months of 2012; production of cement and other construction materials could remain at about the same levels as estimated for 2011 (Associated Press, The, 2011; Hungarian Cement Association, 2011; Stafford, 2011; Associated Free Press, 2012).

References Cited

Associated Free Press, 2012, Plant managers on trial for Hungarian toxic mud spill: PhysOrg.com, September 25. (Accessed November 19, 2012, at <http://phys.org/news/2012-09-trial-hungarian-toxic-mud.html>.)

Associated Press, The, 2011, Hungary—Heavy fine for caustic flood: The New York Times, September 14, p. A13. (Accessed November 19, 2012, at <http://www.nytimes.com/2011/09/15/world/europe/hungary-heavy-fine-for-caustic-flood.html>.)

Bolen, W.P., 2012, Perlite: U.S. Geological Survey Mineral Commodity Summaries 2012, p. 116–117.

Budapest Business Journal, 2011, Lafarge, Strabag to start up €270 million cement plant in Hungary at end-June: Budapest Business Journal, May 19. (Accessed October 14, 2011, at http://www.bbj.hu/business/lafarge-strabag-to-start-up-eur270-million-cement-plant-in-hungary-at-end-june-_57893.)

Encyclopedia of the Nations, [undated], Hungary—Mining: Flossmoor, Illinois, Advameg, Inc. (Accessed November 7, 2012, at <http://www.nationsencyclopedia.com/Europe/Hungary-MINING.html>.)

Herendi Porcelánmanufaktúra Zrt., 2011, Manufactory—History—Technology: Herend, Hungary, Herendi Porcelánmanufaktúra Zrt. (Accessed November 16, 2012, at <http://herend.com/en/>.)

Holcim Ltd., 2012, Annual report 2011; Jona, Switzerland, Holcim Ltd., February 29, 252 p.

Hungarian Cement Association, 2011, Hungary—Building on traditions: International Cement Review, December, p. 22–28.

Hungarian Central Statistical Office, 2012a, Commodity pattern of external trade in HUF—2001–2011: Budapest, Hungary, Hungarian Central Statistical Office, August 31. (Accessed November 19, 2012, at http://www.ksh.hu/docs/eng/xstadat/xstadat_annual/i_qkt006.html.)

Hungarian Central Statistical Office, 2012b, Energy balance—1990–2011: Budapest, Hungary, Hungarian Central Statistical Office, August 8. (Accessed November 19, 2012, at http://www.ksh.hu/docs/eng/xstadat/xstadat_annual/i_qe001.html.)

Hungarian Central Statistical Office, 2012c, Value and distribution of gross value added by industries—NACE Rev. 2—1995–2011: Budapest, Hungary, Hungarian Central Statistical Office, October 19. (Accessed November 19, 2012, at http://www.ksh.hu/docs/eng/xstadat/xstadat_annual/i_qpt002c.html.)

Hungarian Central Statistical Office, 2012d, Value of industrial production by subsections—NACE Rev. 2—2001–2011: Budapest, Hungary, Hungarian Central Statistical Office, August 17. (Accessed September 27, 2012, at http://www.ksh.hu/docs/eng/xstadat/xstadat_annual/i_oia006a.html.)

Hungarian Central Statistical Office, 2012e, Volume indices of industrial production by subsections—NACE Rev. 2—2001–2011: Budapest, Hungary, Hungarian Central Statistical Office, August 17. (Accessed November 19, 2012, at http://www.ksh.hu/docs/eng/xstadat/xstadat_annual/i_oia006a.html.)

Hungarian Office for Mining and Geology, [undated], Law in English: Budapest, Hungary, Hungarian Office for Mining and Geology. (Accessed November 7, 2012, at <http://www.mbfh.hu/home/html/index.asp?msid=1&sid=0&hkl=435&lng=1>.)

Schneeweiss, Zoe, and Shiryayevskaya, Anna, 2012, Nabucco faces ‘terminal blow’ as Hungary woos Russia link: New York, New York, Bloomberg L.P., April 24. (Accessed November 19, 2012, at <http://www.bloomberg.com/news/2012-04-24/nabucco-faces-terminal-blow-as-hungary-woos-russia-link.html>.)

Stafford, Ned, 2011, One year on from Hungary’s red mud disaster: Chemistry World, London, United Kingdom, The Royal Society of Chemistry, October 5. (Accessed November 19, 2012, at <http://www.rsc.org/chemistryworld/News/2011/October/05101102.asp>.)

STRABAG SE, 2012, Annual report 2011: Villach, Austria, STRABAG SE, April 27, 179 p.

United Nations Department of Social and Economic Affairs, Division for Sustainable Development, 2009, Hungary—Mining: New York, New York, United Nations, July 22, 8 p. (Accessed November 7, 2012, at http://www.un.org/esa/dsd/dsd_aofw_ni/ni_pdfs/NationalReports/hungary/Mining.pdf.)

U.S. Central Intelligence Agency, 2011, Hungary, in The world factbook: U.S. Central Intelligence Agency. (Accessed September 22, 2011, at <https://www.cia.gov/library/publications/the-world-factbook/geos/hu.html>.)

U.S. Department of Commerce, 2012, Doing business in Hungary—Country commercial guide for U.S. companies 2012: U.S. and Foreign Commercial Service and U.S. Department of State, March 2, 110 p.

Zadavec, Zsófia, 2011, Europe’s youngest cement plant: International Cement Review, December, p. 30–35.

TABLE 1
HUNGARY: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity ²	2007	2008	2009	2010	2011	
METALS						
Alumina, gross weight, calcined basis	thousand metric tons	301	299	185	214 ^r	200 ^e
Aluminum, unwrought, including secondary ^e		200,000 ^r	200,000 ^r	184,005 ^{r,3}	233,671 ^{r,3}	200,000
Bauxite, gross weight	thousand metric tons	546	511	267 ^r	307 ^r	278
Gallium	kilograms	5,600	5,100	3,400	3,200	3,000 ^e
Iron and steel, metal:						
Pig iron	thousand metric tons	1,394	1,289	1,050	1,325	1,315
Steel:						
Crude	do.	2,317	2,160	1,401	1,681 ^r	1,733
Semimanufactures	do.	2,138	2,196	1,452	1,594	1,600 ^e
Manganese ore:						
Run-of-mine:						
Gross weight		51,000	49,579	43,000	55,000	58,000
Mn content		13,500 ^r	13,200 ^r	11,600 ^{r,e}	14,850 ^r	15,500 ^e
Concentrate: ^e						
Gross weight		NA ^r	NA ^r	NA ^r	NA ^r	NA
Mn content		NA ^r	NA ^r	NA ^r	NA ^r	NA
INDUSTRIAL MINERALS						
Cement, hydraulic	thousand metric tons	3,552	3,544	3,200 ^e	2,560 ^e	2,600 ^e
Clays:						
Bentonite, raw		20,846 ^r	7,464 ^r	5,298 ^r	20,000 ^{r,e}	17,308
Chamotte, refractory clays ^e	thousand metric tons	200	200	209 ³	82 ³	80
Kaolin, beneficiated	do.	618 ^r	584 ^r	266 ^r	239 ^r	248
Other, unspecified	do.	4,910	4,900 ^e	1,851	1,271	1,600 ^e
Gypsum and anhydrite		26,000	15,940 ^r	19,766 ^r	20,000 ^e	3,000 ^e
Lime, calcined ^e	thousand metric tons	250	250	210 ³	260 ³	250
Nitrogen, N content of ammonia ^e	do.	300	300	300	300	300
Perlite		68,000 ^r	67,000 ^e	82,000	71,000 ^r	70,000
Quartzite ^e		1,300	1,300	1,000	1,000	1,000
Sand and gravel:						
Gravel	thousand metric tons	29,400	25,000 ^e	23,496	19,157 ^r	14,200 ^e
Sand:						
Common	do.	5,400	5,400	12,095	5,902 ^r	6,000 ^e
Foundry	do.	117	100	111	137 ^r	138
Glass (silica)	do.	220	220	85	271 ^r	170
Stone:						
Dimension, all types ^e	do.	5,745 ³	5,700	5,500	5,500	5,500
Dolomite	do.	6,270	6,200 ^e	4,393 ^r	2,503 ^r	4,000 ^e
Limestone	do.	3,287	3,200 ^e	5,082 ^r	2,874 ^r	6,000 ^e
Marl	do.	746	700 ^e	506	25	53
Sulfur, byproduct, elemental, all sources ^e		65,000	65,000	60,000	60,000	60,000
Sulfuric acid ^e		80,000	80,000	75,000	75,000	75,000
MINERAL FUELS AND RELATED MATERIALS						
Coal:						
Brown	thousand metric tons	1,392	1,373	973 ^r	911	758
Lignite	do.	8,352	8,041	8,027 ^r	8,203	8,801
Total	do.	9,744	9,414	9,000 ^r	9,114	9,559
Coke, metallurgical		1,016,547	998,809	746,155	750,000 ^e	750,000 ^e
Gas, natural	million cubic meters	2,653	2,703 ^r	2,748 ^r	2,600 ^r	2,670 ^e
Peat		89,000	90,000	85,000 ^{r,e}	54,000 ^r	24,000
Petroleum: ^{e,4}						
Crude	thousand 42-gallon barrels	5,610	5,180	4,970	5,280 ^r	4,470
Refinery:						
Motor fuel (including aviation fuel)	do.	11,900	11,600	11,600	11,100	11,500
Gas oil	do.	28,800	28,900	28,900	28,600	28,800
Fuel oil	do.	1,000	900	900	900	1,000
Total	do.	41,700	41,400	41,400	40,600	41,300

See footnotes at end of table.

TABLE 1—Continued
HUNGARY: PRODUCTION OF MINERAL COMMODITIES¹

^eEstimated; estimated data are rounded to no more than three significant digits; may not add to totals shown. ^fRevised. do. Ditto. NA Not available.

¹Table includes data available through September 30, 2012.

²In addition to the commodities listed, diatomite, talc, and a variety of industrial minerals and construction materials may have been produced, but available information is inadequate to make reliable estimates of output.

³Reported figure.

⁴Figures were converted to thousand 42-gallon barrels from production reported in thousand metric tons.

TABLE 2
HUNGARY: STRUCTURE OF THE MINERAL INDUSTRY IN 2011

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies and major equity holders	Location of main facilities	Annual capacity
Alumina	Magyar Aluminium Ltd. (MAL)	Ajka Timfoldgyar plant, about 120 kilometers southwest of Budapest, near Lake Balaton	400
Alumina, fused	Motim Electrocorundum Ltd.	Plant at Mosanmagyarovar	50
Bauxite	Magyar Aluminium Ltd. (MAL)	Bakony bauxite mine, 5 kilometers south of Ajka	NA
Bentonite	Bentonit Hungaria Kft (S&B Industrial Minerals S.A., 100%)	Mines and plant at Egyhazaskeszo	NA
Cement	Duna-Drava Cement Kft. (HeidelbergCement AG, 50%, and Schwenk Zement KG, 50%)	Plants at Beremend, 30 kilometers south of Pecs, and Vac, 35 kilometers north of Budapest	2,500
Do.	Holcim Hungaria Zrt. (Holcim Ltd.)	Plants at Labatlan and Hejocsaba ¹	500
Do.	Lafarge Cement CE Holding GmbH (Lafarge S.A., 70%, and STRABAG SE, 30%)	NOSTRA plant at Kiralyegyhaza, southwestern Hungary	1,000
Clays	Agyag-Asvany Kft.	Two opencast mines at Felsopeteny	NA
Coal:			
Brown coal	Vertes Power Plant Ltd. (Magyar Villamos Muvek Zrt., 96.59%)	Markushegy Mine at Oroszlany, 55 kilometers west of Budapest	1,400 ^e
Lignite	Mátrai Erömü Zrt. (MÁTRA) (RWE AG, 50.9%; Magyar Villamos Muvek Zrt., 25.5%; EnBW AG, 21.7%)	Thorez opencast mine at Visonta, 80 kilometers northeast of Budapest	4,700 ^e
Do.	do.	Opencast mine at Bukkabrány, 130 kilometers northeast of Budapest	4,000 ^e
Coke	ISD Kokszolo Ltd. (ISD Dunafer Co. Ltd.)	Dunaujvaros, 60 kilometers south of Budapest	1,000
Iron, pig iron	ISD Dunafer Co. Ltd. (Industrial Union of Donbass)	do.	1,400
Manganese	Mangán Mining and Processing Ltd.	Úrkút manganese ore mines, 120 kilometers southwest of Budapest	NA
Natural gas	MOL Hungarian Oil and Gas Co. plc. (MOL)	Oil and gas fields in southern and southwestern Hungary	NA
Perlite	Perlit 92 Kft	Palhaza, northeastern Hungary; opencast mine and processing plant	NA
Petroleum:			
Crude	42-gallon barrels per day	Oil and gas fields in southern and southwestern Hungary	14,800 ^e
Refined	Duna Refinery [MOL Hungarian Oil and Gas Co. plc. (MOL)]	Szazhalombatta, 25 kilometers southwest of Budapest	8,100
Pig iron	ISD Dunafer Co. Ltd. (Industrial Union of Donbass)	Dunaujvaros, 60 kilometers south of Budapest	1,300
Silica	Uveg-Asvany Banyaszati Ipari Kft.	Mine and plant at Fehevarosugo	NA
Steel, crude:			
Primary	ISD Dunafer Co. Ltd. (Industrial Union of Donbass)	Dunaujvaros, 60 kilometers south of Budapest	1,600
Secondary	OAM OZD Steelworks Ltd.	120 kilometers northeast of Budapest	360
Do.	Dam 2004 Acel-es Hengermu Kereskedemi es Szolgaltato Ltd. ²	Diosgyor, 145 kilometers northeast of Budapest	550

^eEstimated. Do., do. Ditto. NA Not available.

¹Holcim Ltd. closed the Hejocsaba plant sometime during the fourth quarter 2011.

²Stopped production in December 2008.