



2007 Minerals Yearbook

HUNGARY

THE MINERAL INDUSTRY OF HUNGARY

By Mark Brininstool

Hungary continued to be a modest producer of minerals in 2007; bauxite was the only mineral product that was significant in terms of European production. Overall, mineral production decreased in 2007 compared with production in 2006, and Hungary's dependence on imported mineral fuels continued.

Minerals in the National Economy

In 2007, Hungary's gross domestic product (GDP) increased by 1.3% compared with the GDP in 2006. Industrial production accounted for 25.3% of the GDP in 2007. Basic metals (7.6%), the manufacture of coke and refined petroleum products (6%), industrial mineral products (2.8%), and mining and quarrying (.3%) together made up about 17% of industrial production, which was approximately the same proportion as in 2006 (Hungarian Central Statistical Office, 2008, p. 22, 25).

Minerals and mineral products played a significant role in Hungary's trade balance in 2007. The Hungarian Central Statistical Office reported that mineral products was the third largest import category in terms of dollar value and accounted for about \$3.9 billion worth of imports in 2007. Mineral fuels, mineral oils, and distilled products made up 95% of the value of mineral product imports. Base metals and articles of base metals was the fourth largest import category, with a value of \$3.6 billion. Exports of mineral products were valued at \$746 million in 2007, and exports of base metals and articles of base metals were valued at \$2.2 billion (Hungarian Central Statistical Office, 2009).

Government Policies and Programs

Act XLVIII of 1993 on Mining (The Mining Act) forms the basis for the legal structure that governs mining in Hungary. The Ministry of Environmental Protection and the Hungarian Mining Office enforce existing environmental laws and regulations.

Production

Hungary produced a fairly wide range of minerals in 2007, but it was not a significant world producer of any mineral. In terms of European production, Hungary was significant only in bauxite production. Production decreased for most minerals in 2007, most notably for primary aluminum, industrial minerals, and natural gas. Only crude steel, gas oil, and peat were reported to have significant increases in production (table 1).

Structure of the Mineral Industry

Table 2 is a list of the major mineral industry facilities.

Commodity Review

Metals

Bauxite and Alumina and Aluminum.—Bauxite production rose by 1.5% compared with that of 2006 (table 1). In January 2006, Magyar Aluminium Ltd. (MAL), which was the only producer of bauxite, alumina, and aluminum in Hungary, had begun the process of shutting down its aluminum smelter at Inota and opening two new scrap-metal furnaces. Higher electricity costs were cited as the reason for the closure of the Inota smelter, and MAL planned to continue regular production of aluminum semimanufactures by purchasing primary aluminum and aluminum scrap. The Inota smelter was sold in June 2007 to INOTAL Aluminium Processing Ltd. (Magyar Aluminium Ltd., 2005, 2009).

Primary aluminum production was likely halted in 2007 because of the closure of the Inota smelter, but this could not be verified because production figures were not reported. Production is likely to resume at a reduced level if INOTAL is able to reopen the plant. Future production of secondary aluminum metal could also increase as a result of operations at MAL's two new scrap-metal furnaces.

Gallium.—Gallium is a byproduct of the processing of bauxite and zinc ores, and very few countries in the world produce gallium. Only 80 metric tons (t) was estimated to have been produced worldwide in 2007, and Hungary accounted for 7.5% of this production (Kramer, 2008).

Gold.—No gold was produced in Hungary in 2007. Carpathian Gold Inc. continued exploratory activities on its Fuzzerrandvany Concession and Kanazsvar License in the Tokaj Mountains and the Matra Mountains, respectively, in northeastern Hungary. The company made no announcements of important discoveries but indicated that it planned to continue exploration activities in 2008 (Carpathian Gold Inc., 2008, p. 7).

Iron and Steel.—Crude steel and pig iron production in Hungary increased by about 8% and 4%, respectively, compared with 2006 production (table 1). Hungary's leading steel producer, ISD Dunafer Co. Ltd., invested 50 billion forint (Ft) (\$272 million¹) in 2007 to increase production capacity and to improve quality at its various operations. One of the biggest investments was made in the company's hot-rolling mill in Dunaujvaros to expand the mill's capacity to 3 million metric tons per year (Mt/yr) (ISD Dunafer Co. Ltd., 2008).

Industrial Minerals

Hungary produced such industrial minerals as aggregates, clays, gypsum and anhydrite, and perlite. Production of most industrial minerals decreased in 2007. Notably, kaolin

¹Where necessary, values have been converted from Hungarian forint (Ft) to U.S. dollars (US\$) at the rate of Ft183.83=US\$1.00.

production decreased by 57%; common sand, by 54%; raw bentonite, by 18%; gravel, by 15%; gypsum and anhydrite, by 13%; and cement, by 4.6% (table 1). The reduction in industrial mineral manufacturing was most likely related to the 12% decline in construction in 2007 as the pace of road construction projects slowed (Hungarian Central Statistical Office, 2008, p. 2).

Mineral Fuels

Production of fuel oil manufacturing decreased by 45% compared with that of 2006; natural gas production, by 18%; brown coal, by 7%; and crude petroleum, by 5%. Peat production increased by 16% and gas oil production increased by 7%.

Hungary was dependent on imports of oil and gas from Russia to supply the majority of its energy needs, which had a negative impact on Hungary's trade balance and energy security. Hungary's only natural gas pipeline operator, FGSZ Natural Gas Transmission Closed Co. Ltd. by Shares (FGSZ Ltd.), reported 7.89 billion cubic meters (278.7 billion cubic feet) of gas imported through the Druzhba pipeline that entered Hungary from Ukraine at Beregdaroc, and 2.61 billion cubic meters (92.2 billion cubic feet) of natural gas imported through the Hungarian-Austrian Gas (HAG) pipeline (FGSZ Natural Gas Transmission Closed Co. Ltd. by Shares, 2008, p. 14).

Oil and gas exploration projects in Hungary continued in 2007. Ascent Resources plc announced the signing of a partnership agreement with Hungarian Oil and Gas Co. (MOL) to redevelop the Bajcsa gasfield in southwestern Hungary. The partnership was arranged through Hungarian company ZalaGasCo kft, which was 77.46% owned by Ascent. Remaining infrastructure from previous projects at the site was expected to allow new wells to begin operating soon after permits were finalized. Ascent also became a joint technical operator in an exploration project at Szolnok in central Hungary after purchasing a 27.5% interest in the project. The second technical operator was Toreador Hungary Ltd., which owned a 25% interest in the project. Ascent expected to begin drilling two exploration wells after seismic acquisition was completed (Ascent Resources plc, 2008, p. 14-15).

Falcon Oil and Gas Ltd., through its operating subsidiary TXM Oil and Gas LLC, was also active in exploration activities in Hungary. In May, the company announced that it had been granted a long-term production license for a basin-centered gas accumulation (BCGA) in southeastern Hungary and expected to

proceed with plans for development of the BCGA (Falcon Oil and Gas Ltd., 2007).

Outlook

Hungary's dependence on imported minerals will likely continue in the metals and mineral fuels sectors even if slight production gains are made as a result of exploration and investment. Production of industrial minerals will likely be affected by developments in the domestic construction industry, and production could also increase if road projects and other infrastructure projects accelerate.

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TABLE 1
HUNGARY: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity ²	2003	2004	2005	2006	2007	
METALS						
Aluminum:						
Bauxite, gross weight	thousand metric tons	666	647	535	538	546
Alumina, gross weight, calcined basis	do.	300	300	270	270	270 ^e
Metal:						
Primary		34,000 ^e	34,400	31,000	34,400	--
Secondary ^e		50,000	50,000	50,000	50,000	50,000
Total		84,000	84,400	81,000	84,400	50,000
Gallium ^e	kilograms	5,500 ³	5,500	5,500	5,500 ³	6,000
Iron and steel, metal:						
Pig iron	thousand metric tons	1,333	1,350	1,329	1,335	1,394
Ferroalloys ^{e,4}		8,000	8,000	8,000	8,000	8,000
Steel:						
Crude	thousand metric tons	2,045 ^r	1,944 ^r	2,005 ^r	2,144 ^r	2,317
Semimanufactures, rolled only ^e	do.	1,803 ³	1,844 ³	1,850	2,000 ^r	2,100
Manganese ore:						
Run-of-mine:						
Gross weight		48,000	49,000	50,000	50,000	51,000
Mn content ^e		12,500	13,200	13,500	13,350 ^{r,3}	13,464 ³
Concentrate:^e						
Gross weight		15,000	15,000	15,000	15,000	15,000
Mn content		5,000	5,000	5,000	5,000	5,000
INDUSTRIAL MINERALS						
Cement, hydraulic	thousand metric tons	3,573	3,580	3,371 ^r	3,724 ^r	3,552
Clays:						
Bentonite:						
Raw		5,770 ^r	6,449 ^r	9,000	6,600	5,400
Processed ^e		42,000	3,700 ³	3,700	2,500	2,250
Kaolin, raw and washed		13,250	7,530	7,000	7,000	3,000
Gypsum and anhydrite		62,000	62,000 ^r	55,000	30,000	26,000
Lime, calcined ^e	thousand metric tons	500	500	500	500	500
Nitrogen, N content of ammonia ^e	do.	232 ³	274 ³	275	275	300
Perlite		59,530	65,100	65,000	71,000	67,000
Sand and gravel:						
Gravel	thousand metric tons	35,000 ^e	33,544	33,500	34,483	29,400
Sand:						
Common	do.	12,000 ^e	12,500 ^e	12,800	11,634	5,400
Foundry		162,600	138,200	138,000	120,000	117,000
Glass		225,300	163,900	164,000	251,000	220,000
Stone:						
Dimension, all types ^e	thousand metric tons	5,500	5,000	5,000	5,000	5,000
Dolomite	do.	4,398	7,200	7,200 ^e	8,142 ^r	6,270
Limestone	do.	2,459	3,014	3,014	3,517 ^r	3,287
Sulfur, byproduct, elemental, all sources ^e		51,000	50,000	50,000	50,000	50,000
Sulfuric acid ^e		73,000 ^{r,3}	80,000	80,000	80,000	80,000
MINERAL FUELS AND RELATED MATERIALS						
Coal:						
Bituminous	thousand metric tons	667	260	--	--	--
Brown	do.	4,128	2,495	1,426	1,431	1,331
Lignite	do.	8,564	8,470	8,154	8,467	8,351
Total	do.	13,359	11,225	9,580	9,898	9,682
Coke, metallurgical ^e		650	650	650	650	650
Gas, natural, marketed	million cubic meters	3,145 ^r	3,112 ^r	3,159	3,246	2,653
Peat		NA ^r	NA ^r	NA ^r	77,300 ^{r,e}	89,500

See footnotes at end of table.

TABLE 1—Continued
HUNGARY: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity ²	2003	2004	2005	2006	2007	
MINERAL FUELS AND RELATED MATERIALS—Continued						
Petroleum:						
Crude:						
As reported	thousand metric tons	1,133	1,077 ^r	948	886	839
Converted	thousand 42-gallon barrels	7,580 ^r	7,205 ^r	6,342 ^r	5,927 ^r	5,613
Refinery:						
Motor fuel (including aviation fuel)	do.	12,478	12,376	11,263	11,637	11,849
Gas oil	do.	23,096	24,663	26,177	25,938	27,751
Fuel oil	do.	2,045	1,758	1,092	1,638	899
Total	do.	37,619 ^r	38,797 ^r	38,532 ^r	39,213 ^r	40,499

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

¹Table includes data available through January 31, 2009.

²In addition to the commodities listed, diatomite and a variety of industrial minerals and construction materials, such as common clay and talc, are also produced, but available information is inadequate to make reliable estimates of output.

³Reported figure.

⁴Hungary is believed to produce some blast ferromanganese.

TABLE 2
HUNGARY: STRUCTURE OF THE MINERAL INDUSTRY IN 2007

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Alumina		Magyar Aluminium Ltd. (MAL)	Ajka Timfoldgyar plant, about 120 kilometers southwest of Budapest, near Lake Balaton	400
Do.		do.	Almasfuzito Timfoldgyar plant near the Czech Republic border, 63 kilometers northwest of Budapest	240
Do.		do.	Moson-Magyarovar plant, in northwestern corner of Hungary, about 12 kilometers from Austrian and Czech Republic borders	30
Aluminum, primary		INOTAL Aluminium Processing Ltd.	Inota plant, near Varpalota, 75 kilometers southwest of Budapest	35
Bauxite		Magyar Aluminium Ltd. (MAL) (owns and operates Bakony Bauxite Mines Ltd.)	Bakony District, extending roughly 100 kilometers northeast along Lake Balaton	1,500
Cement		Holcim Hungaria Zrt.	Labatlan and Hejocsaba	2,100
Do.		Belpafatvalvi Cement es Meszipari Rt (Heidelberger & Schwenk and Hungarian Group)	Belapatfalva, near Miskolc, 125 kilometers northeast of Budapest	1,100
Do.		Beremend Cement es Meszipari Rt (Heidelberger & Schwenk, 100%)	Beremend, 45 kilometers south of Pecs	1,090
Do.		Dunai Cement es Meszmu Kft (Heidelberger & Schwenk, 100%)	Vac, 50 kilometers north of Budapest	1,200
Do.		Hejocsabai Cement es Meszipari Rt (Holderbank and Hungarian Group)	Hejocsaba, 150 kilometers northeast of Budapest	1,450
Do.		Labatlani Cementipari kft (Holderbank)	Labatlan, 20 kilometers north of Tatabanya	550
Clays		Agyag-Asvany Kft (Navan Resources PLC)	Felsopeteny, one underground and two open pit mines and a 5,000-metric-ton-per-year processing plant. Products are ball clay, kaolin, and refractory clay	35
Coal:				
Bituminous and lignite		Magyar Szenbanyaszati Troszt (MSZT) (Hungarian Coal Mining Trust)	Tatabanya and Oroszlany coal mining region, 45 kilometers west of Budapest	8,900
Do.		do.	Mecsek coal mining region, near Pecs and Komlo, north of the Croatian border	3,100
Do.		do.	Borsod coal mining region, 130 kilometers northeast of Budapest	5,200
Lignite		do.	Thorez opencast mine at Visonta, 80 kilometers northeast of Budapest	7,000
Manganese		Orszagos Erc-es Asvanybanyak (National Ore and Mineral Mines)	Urkut manganese ore mines, 120 kilometers southwest of Budapest	160
Natural gas	million cubic feet	Hungarian Oil and Gas Co. (MOL)	Szeged and Algyo gasfields, southern Hungary	152,000
Do.		do.	Hajduszoboszo gasfields, 180 kilometers east of Budapest	50,000
Do.		do.	Smaller gasfields are Szank, Kardoskut, Bekes, Berefurdo, and others	39,000
Perlite		Perlit 92 Kft (Navan Resources PLC and Hungarian Group)	Palhaza, northeastern Hungary; open pit mine and processing plant	150
Petroleum:				
Crude	million 42-gallon barrels	Hungarian Oil and Gas Co. (MOL)	Szeged-Algyo Field, near Romanian-Serbian border; 50% of total capacity	7
Refined	do.	Danube Petroleum Refining Co. [subsidiary of Hungarian Oil and Gas Co. (MOL)]	Szazhalombatta	55
Do.	do.	Tisza Petroleum Refining Co. [subsidiary of Hungarian Oil and Gas Co. (MOL)]	Leninavros	22
Do.	do.	Zala Petroleum Refining Co. [subsidiary of Hungarian Oil and Gas Co. (MOL)]	Zalaegerszeg	4
Silica		Uveg-Asvany Kft. (Navan Resources PLC and Hungarian Group)	Mine and plant at Fehevarcsugo	660
Steel, crude		ISD Dunaferr Co. Ltd. (owned by the Ukrainian Industrial Union of Donbass)	Dunaujvaros, 60 kilometers south of Budapest	1,400
Do.		OAM-Ozdi Acelmuvek Kft	120 kilometers northeast of Budapest	360
Do.		DAM-Diosgyori Acelmuvek es Kereskedelmi Kft	Diosgyoer, 145 kilometers northeast of Budapest	850
Do., do. Ditto.				