



2009 Minerals Yearbook

BELGIUM AND LUXEMBOURG [ADVANCE RELEASE]

THE MINERAL INDUSTRIES OF BELGIUM AND LUXEMBOURG

By Alberto Alexander Perez

BELGIUM

Belgium is located at the heart of one of the world's most highly industrialized regions. It has an export-oriented economy, and as such, it was affected by the world economic slowdown. In 2009, the gross domestic product (GDP) based on purchasing power parity was \$321 billion. Belgium's real GDP decreased by 1.5% compared with that of 2008.

In 2009, Belgium's industry depended greatly on nondomestic markets, especially those of other European Union (EU) countries. Its main trading partners were, in order of the percentage of total trade, Germany (which accounted for 19.5% of Belgium's exports and 17.7% of its imports), the Netherlands (11.9% of exports and 17.6% of imports), France (16.7% of exports and 11.2% of imports), the United Kingdom (7.6% of exports and 6.2% of imports), the United States (5.7% of exports and 5.4% of imports), Italy (5.2% of exports), Ireland (4.9% of imports) and China (4.1% of imports). More than one-half of Belgium's GDP stemmed from foreign sales, which was one of the highest percentages of the industrialized nations. Belgium, Luxembourg, and the Netherlands comprise the BENELUX customs unit, which is an economic union aimed at reinforcing cross-border cooperation between the three countries (U.S. Department of State, 2010).

Minerals in the National Economy

Trading of diamond and processing of metals were the leading mineral industries in Belgium. The country had no economically exploitable reserves of coal or metallic ores in 2009.

The country imported substantial quantities of raw materials. The metal processing industries were significant to the Belgian economy, in particular, steel. Belgium was the 18th ranked producer of steel in the world, producing 10.7 million metric tons in 2008 (the latest year for which rankings were available) (World Steel Association, 2009, p. 9).

Umicore Group (Umicore), which was one of Europe's leading metal recyclers and processors, was headquartered in Hoboken, Belgium. Its most profitable business sectors were the zinc processing division; the advanced materials division, which dealt with processing such minerals as cobalt and germanium; and the precious metals processing division (N.V. Umicore S.A., 2009).

According to the Antwerp World Diamond Centre, Antwerp was the primary business center for the diamond industry. It was the hub of the secondary diamond market, meaning that most of the uncut stones that were not sold by the Diamond Trading Company (DTC) (a subsidiary of the De Beers Group) were sold in Antwerp. The city was also a center of operations for the primary rough diamond market—the most valuable stones in the diamond trade were cut mainly in Antwerp and, although

the manufacturing (cutting and polishing) of most other stones was performed in other countries, the manufacturing process was controlled mostly from Antwerp. The rough diamonds were sorted and planned in Antwerp, then dispatched from Antwerp to cutting plants across the globe. Later, these diamonds returned to the city as polished diamonds to be sold in the jewelry markets. Of Antwerp's four diamond exchanges, three served primarily the polished diamond trade (Antwerp World Diamond Center, 2010).

Production

Owing to the world economic recession and the slowdown in the car manufacturing market, the steel industry in Belgium suffered a decrease in production of crude steel of 47% and a decrease in the production of pig iron of 57%. The effect of the recession on other sectors of the mineral industry was not clear owing to lack of data. Because the Belgian economy relied heavily on exports, however, the slowdown of global demand most likely affected the other sectors of the Belgian mineral economy significantly as well.

Mining was less important to the country's economy than in the past, and in 2009 just as in 2008, mining was conducted only for industrial minerals. The refining of copper, minor metals, and zinc, and the production of steel were the leading mineral industries in Belgium. The country was also a producer of cadmium, cobalt, germanium, selenium, and tellurium. Belgium's well-developed industrial minerals sector included the production of such industrial and construction materials as carbonates, cement, dolomite, limestone, and silica sand (table 1).

Structure of the Mineral Industry

The principal mining and mineral-processing facilities in Belgium, with their locations and capacities, are listed in table 2. Most facilities were privately owned either by Belgian companies or other EU companies.

Commodity Review

Metals

Iron and Steel.—By January 2009, one of ArcelorMittal Liège's two blast furnaces was still idle, although the company brought it back online in the second half of the year. ArcelorMittal's Gent and Liege plants were heavily reliant on demand from the car manufacturing industry; as such, demand for the company's products was reduced by the car industry's slowdown. Duferco-Sif's three plants also decreased production by about 30% in response to market conditions (Business Monitor International, 2010).

Zinc.—Nyrstar NV reported that the Balen smelter had been on care-and-maintenance status between December 2008 and September 2009 until market conditions facilitated the restart of the operation. By the end of 2009, the smelter was functioning at 70% capacity, and it was expected to reach full capacity by the end of the first quarter of 2010. In May 2009, Nyrstar acquired the Gordonsville Zinc mine complex in Tennessee, and in November, the company completed its acquisition of an 85% interest in the Coricancha polymetallic mine in Peru (Nyrstar NV, 2010).

Industrial Minerals

Diamond, Industrial.—Belgium's polished and rough diamond trade slowed severely by the end of 2008 and through 2009. From October 2008 to February 2009, imports and exports of rough diamond were down by 60% compared with the same period of the previous year. Much of this decrease was owing to the drop in demand for diamond in the United States, where about one-half of the world's polished diamond was used by the jewelry industry (Chu, 2009).

Mineral Fuels and Other Sources of Energy

Natural Gas and Petroleum.—Vitol Tank Terminals B.V. (VTTI) through its subsidiary Eurotank Belgium B.V. [which was part of the Vitol Group (Vitol)], entered into a purchase agreement with Universal Holding B.V. and Petroplus International B.V. (Petroplus) to acquire a 100% interest in Petroplus Refining Antwerp N.V. and Petroplus Refining Antwerp Bitumen N.V. (PABR) in October (Vitol Tank Terminals B.V., 2010).

It was expected that by January 2010, Swedish company Nynas AB (Nynas) and Vitol would strike a bitumen supply deal following the foreseen transfer of the PABR plant. Nynas expected to continue supplying crude oil to the plant, which would be renamed Antwerp Processing Co., and to continue to manufacture bitumen to be supplied to Nynas (Nynas AB, 2010).

Renewable Energy.—In 2009, Umicore decided to build an industrial-scale recycling facility for end-of-life rechargeable batteries at its Hoboken site. The investment, according to Umicore, would enable the company to deal with the expected growth in the availability of end-of-life rechargeable batteries, such as those used by hybrid electric vehicles. The plant was expected to start operating in the first half of 2011 (N.V. Umicore S.A., 2010, p. 14).

Outlook

Belgium is expected to remain a significant mineral processor and major diamond trader. Its steel production is expected to increase as demand increases and the automobile market is reactivated. Belgium is also expected to remain significant in international and intra-European cargo handling of mineral products through its major ports. The four ports in Flanders (Antwerp, Ghent, Ostend, and Zeebrugge), which are all located within 100 km of each other, are leading players in international and intra-European cargo handling and are

expected to remain so. The Port of Antwerp is a particularly important link in the chain of international trade, ranking only second in Europe to the Port of Rotterdam in terms of gross tonnage throughput and third after Rotterdam and Hamburg in terms of the number of containers passing through the port. The importance that Belgium has been giving to renewable energies is expected to continue.

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LUXEMBOURG

Minerals in the National Economy

In 2009, Luxembourg's mineral industry comprised mainly mineral information systems, mineral trading, and raw materials processing. Because it is a member of the Belgium Luxembourg Economic Union (BLEU), trade statistics for Luxembourg are inextricably linked with those of Belgium and, therefore, cannot be listed individually. International trade data for Belgium and Luxembourg are given in the Belgium section of this chapter. The iron and steel industry was Luxembourg's most valuable mineral industry sector, and steel was the country's main export commodity.

Production

Mining in Luxembourg was represented by small industrial mineral operations that produced material only for domestic consumption. These minerals included dolomite, limestone, sand and gravel, and slate. Information on these operations was not readily available. Some commodity production data are in table 1.

Structure of the Mineral Industry

The principal mineral facilities in Luxembourg with their locations and capacities are listed in table 2. Most facilities were privately owned.

Commodity Review

Metals

Iron and Steel.—ArcelorMittal, which was headquartered in Luxembourg, was the leading steel manufacturer in the world. It produced three times more steel than its nearest rival, Nippon Steel Corp. of Japan (World Steel Association, 2009, p. 8).

Luxembourg's steel production decreased by 14% in 2009 compared with production in 2008. In 2009, ArcelorMittal halved worldwide production and offered voluntary buyouts to 9,000 of its 315,000 workers. In May during the annual shareholders meeting at its Luxembourg headquarters, steel workers were bused in from several plants to stage a protest and broke in through the front door, attacking the premises (Guardian, The, 2009).

Acieries Reunies de Burbach-Eich-Dudelang (ARBED), which was a subsidiary of ArcelorMittal, dominated Luxembourg's mineral industry. ARBED was the major producer of crude steel, pig iron, and stainless steel, all of which were produced from imported material. The company specialized in the production of large structural beams and specialized value-added products (ArcelorMittal, 2009).

Outlook

Luxembourg is expected to continue as a producer and exporter of steel. The industrial mineral production will be limited to domestic consumption.

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TABLE 1
BELGIUM AND LUXEMBOURG: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Country and commodity	2005	2006	2007	2008	2009 ^c
BELGIUM ²					
Metals:					
Aluminum, secondary including unspecified metals ^c	100	125	125	125	100
Bismuth, metal ^c	500	500	500	500	500
Cobalt, primary ³	3,298	2,840	2,825	3,020 ^r	3,000
Copper:					
Smelter, secondary	97,200	114,600	115,200	124,500	124,000
Refined, primary and secondary	382,000 ^e	382,600	394,400	395,800	395,000
Iron and steel:					
Pig iron	7,254	7,516	6,576	7,125 ^r	3,087 ⁴
Steel:					
Crude	8,906	11,238	10,692	10,700 ^e	5,635 ⁴
Hot-rolled products	11,274	12,761 ^r	11,450 ^r	11,792 ^r	6,000
Lead, refined, secondary	63,400	62,330 ^r	63,454 ^r	80,966 ^r	80,900
Selenium ^c	200	200	200	200	200
Tin, metal, secondary including alloys	7,800	7,600	8,400	9,200 ^e	9,200
Zinc:					
Slab:					
Primary	222,000	219,800	241,300	239,000 ^e	239,000
Secondary, possibly remelted zinc	40,000	40,000	40,000 ^e	40,000 ^e	40,000
Total	262,000	259,800	281,300	279,000 ^e	279,000
Powder ^c	20,000	20,000	20,000	20,000	20,000
Industrial minerals:					
Barite ^c	27	28	28	28	28
Cement	7,594	8,192	9,571	9,500 ^e	9,500
Clay, kaolin ^e	460	460	460	460	460
Lime and dead-burned dolomite, quicklime ^c	2,300	2,400	2,400	2,400	2,400
Nitrogen, N content of ammonia	890	825	830	830 ^e	830
Sodium sulfate ^c	250	250	250	250	250
Stone:					
Worked ^c	21,188 ⁴	18,798 ⁴	19,000	19,000	19,000
Natural (excluding slate) ^c	460,206 ⁴	336,584 ⁴	340,000	340,000	340,000
Sulfur:					
Byproducts: ^e					
Elemental	225,000	225,000	225,000	225,000	225,000
Other forms	175,000	175,000	175,000	175,000	175,000
Total	400,000	400,000	400,000	400,000	400,000
Sulfuric acid	1,332	1,393	1,400 ^e	1,400 ^e	1,400
Mineral fuels and related materials:					
Carbon black ^c	1,000	1,000	1,000	1,000	1,000
Coke, all types	2,856 ^r	2,895	2,607	2,309 ^r	2,300
Gas, manufactured	472,478	425,504	463,659	463,000 ^e	463,000
Petroleum refinery products: ⁵					
Liquefied petroleum gas	5,337 ^r	4,746 ^r	5,370 ^r	5,946 ^r	5,900
Naphtha and white spirit	14,531	11,158	14,356	14,300 ^e	14,300
Gasoline	50,562	53,570	42,664 ^r	34,257 ^r	34,200
Kerosene	13,005	13,512	13,806 ^r	14,758 ^r	14,700
Kerosene, other	500	340 ^r	261 ^r	283 ^r	280
Distillate fuel oil	89,056	94,443	95,815 ^r	96,425 ^r	96,400
Refinery gas	3,682	3,864	3,874	3,800 ^e	3,800
Residual fuel oil	53,563	47,472	49,227	43,701 ^r	43,700
Bitumen	6,523	8,520	8,635	8,600 ^e	8,600
Total	236,759 ^r	237,625 ^r	234,008 ^r	222,070 ^r	222,000

See footnotes at end of table.

TABLE 1—Continued
 BELGIUM AND LUXEMBOURG: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Country and commodity	2005	2006	2007	2008	2009 ^e
LUXEMBOURG					
Metals, steel:					
Crude					
	thousand metric tons				
Hot-rolled products	do.				
Industrial minerals:					
Cement, hydraulic ^e					
Phosphates, Thomas slag: ^e					
Gross weight					
P ₂ O ₅ content					

^eEstimated; 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 31, 2010.

²In addition to the commodities listed, Belgium produced a number of other metals and alloys, for which only aggregate output figures were available.

³Production reported by N.V. Umicore S.A. includes production from China and South Africa.

⁴Reported figure.

⁵Conversion factors from metric tons to 42-gallon barrels for petroleum refinery products are as follows: liquefied petroleum gas—11.6; naphtha and white spirit—8.5; gasoline—10; kerosene—7.75; distillate fuel oil—7.46; refinery gas—8.04; residual fuel oil—6.66; and bitumen—6.06.

TABLE 2
BELGIUM AND LUXEMBOURG: STRUCTURE OF THE MINERAL INDUSTRIES IN 2009

(Thousand metric tons unless otherwise specified)

Country and commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
BELGIUM				
Cadmium, metal	metric tons	N.V. Umicore S.A.	Balen	1,800
Cement		Major companies:	Plants:	8,400
Do.		Cimenteries CBR SA (Heidelberg Cement Group)	Major plants at Lixhe, Mons/Obourg, Harmignies, Marchienne, and Ghent	(3,200)
Do.		Ciments d'Obourg SA (Holcim Group)	Plants at Obourg and Thieu	(2,800) ¹
Do.		Compagnie des Ciment Belge (Ciments Francais S.A.)	Plant at Gaurain-Ramecroix	(2,400)
Cobalt	metric tons	N.V. Umicore S.A.	Refinery at Olen	500
Copper		Metallo-Chimique NV (Metallum Group)	Smelter at Beerse	80
Dolomite		SA Dolomeuse (Group Lhoist)	Quarry at Marche les Dames	500
Do.		do.	Plant at Marche les Dames	750
Do.		SA de Marche-les-Dames (Group Lhoist)	Quarries at Nameche	3,000
Do.		do.	Plant at Nameche	3,000
Do.		SA Dolomies de Merlemont (Group Lhoist)	Quarry at Philippeville	100
Lead, metal		N.V. Umicore S.A.	Smelter at Antwerp-Hoboken	90
Do.		do.	Refinery at Antwerp-Hoboken	125
Do.		Nyrstar NV ²	Smelter at Balen/Overpek	450
Limestone		Carneuse S.A. (Long View Investment NV)	Mines and plant at Engis	1,850
Do.		do.	Mines and plant at Frasnes	450
Do.		do.	Mines and plant at Maizeret	850
Do.		do.	Mines and plant at Moha	800
Do.		SA Transcar (Royal Volker Stevin)	Mines and plant at Maizeret	850
Petroleum, refined	42-gallon barrels per day	Companies: Total S.A.	Refineries, of which: Refinery at Antwerp	268,000
Do.	do.	Eso S.A.NV	do.	239,000
Do.	do.	Antwerp Processing Co. (Vitol Group)	do.	125,000
Do.	do.	Belgian Refining Corp. (Petroplus AG)	do.	107,500
Do.	do.	PRA NV (Vitol Group)	do.	22,300
Salt		Zoutman NV	Plant at Roeselare	200
Sand, silica		SRC-Sibelco SA	Mines and plants at Lommel, Mol, and Maasmechelen	500
Steel		Companies:	Of which:	14,000
Do.		ArcelorMittal Liege (ArcelorMittal)	Plant at Liege	3,000
Do.		Carsid S.A. (Duferco SIF S.A. NV)	Plant at Charleroi	2,000
Do.		ArcelorMittal Gent (ArcelorMittal)	Plant at Ghent	3,000
Do.		Duferco La Louviere S.A. (Duferco SIF S.A. NV)	Plant at La Louviere	2,400
Do.		Duferco Clabecq S.A. (Duferco SIF S.A. NV)	Plant at Clabecq	750
Do.		Industeel Belgium S.A. (ArcelorMittal)	Plant at Charleroi	600
Do.		ArcelorMittal Genk (ArcelorMittal)	Plant at Genk-Zuid	360
Do.		Tubemeuse Industries S.A. (Umran Steel Pipe Inc.)	Plant at Flemalle	50
Tin		Metallo-Chimique NV (Metallum Group)	Smelter at Beerse	500
Zinc, metal		Nyrstar NV	Smelter and refinery at Balen/Overpek	450
LUXEMBOURG				
Cement		Cimalux S.A. (Dyckerhoff AG).	Plant at Esch-sur-Alzette	850
Do.		Cimalux Interroselle SARL (Dyckerhoff AG)	Plant at Rumelange	1,000
Steel		Acieries Reunies de Burbach-Eich-Dudelange (ArcelorMittal)	Plants at Differdange, Dudelange, Esch-Belval, Esch-Schifflange	5,320
Do.		Arcelor Differdange SA (ArcelorMittal)	Plant at Differdange	1,200
Do.		Ugine & ALZ Carnox (ArcelorMittal)	do.	1,000

Do., do. Ditto.

¹Includes the capacity of the company SA Ciments de Haccourt.

²Company publicly traded with the following participation: Blackrock Group, 10.31%; Glencore, 7.79%; and N.V. Umicore S.A., 5.25%.