

# Mineral Industry Surveys

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## BAUXITE AND ALUMINA IN THE FIRST QUARTER 2018

Imports of crude and dried bauxite in the first quarter of 2018 were 651,000 metric tons (t), 28% less than those in the fourth quarter of 2017, 18% less than those in the first quarter of 2017, and 57% less than those in the first quarter of 2016 (fig. 1). Jamaica (84%) and Brazil (16%) were the leading sources of crude and dried bauxite imports in the first quarter of 2018 (table 1).

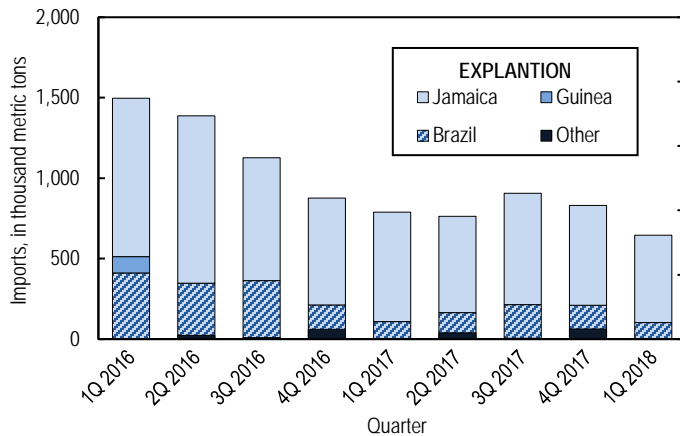


Figure 1. Quarterly imports of crude and dried bauxite from the first quarter of 2016 through the first quarter of 2018. Sources: Jamaica Bauxite Institute and U.S. Census Bureau.

Imports of alumina during the first quarter of 2018 were 463,000 t, 31% more than those in the fourth quarter of 2017, 50% more than those in the first quarter of 2017, and 76% more than those in the first quarter of 2016 (fig. 2). The increase in imports was attributed to the restart of aluminum smelting capacity scheduled to take place in the first half of 2018. (See Aluminum in November 2017 and Aluminum in January 2018.) The leading sources of imported alumina in the first quarter of 2018 were Brazil (69%), Australia (11%), and Jamaica (8%) (table 3).

Exports of alumina during the first quarter of 2018 were 87,000 t, 28% less than those in the fourth quarter of 2017, 17%

less than those in the first quarter of 2017, and 79% less than those in the first quarter of 2016 (fig. 2). The decrease in alumina exports was attributed to increased domestic consumption of alumina as aluminum smelters in the United States changed suppliers from imported sources. The leading destinations for alumina exported in the first quarter of 2018 were China (25%), Mexico (18%), and the Netherlands (18%) (table 3).

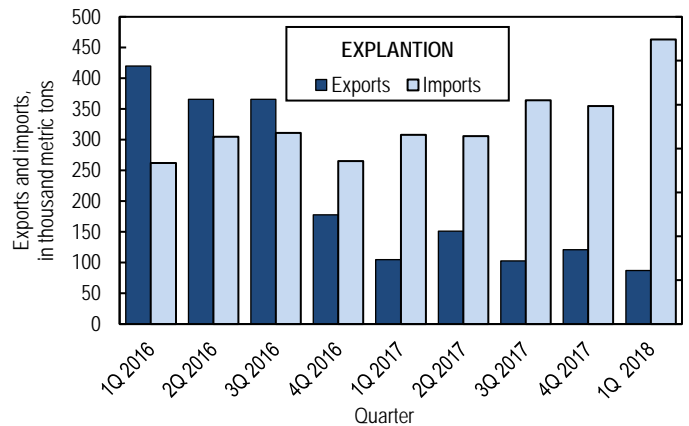


Figure 2. Alumina exports and imports from the first quarter of 2016 through the first quarter of 2018. Sources: Jamaica Bauxite Institute and U.S. Census Bureau.

**Update**

On April 6, the U.S. Department of the Treasury, in consultation with the U.S. Department of State, designated several Russian individuals and businesses for sanctions in response to activities of the Government of the Russian Federation. Among those designated were United Company RUSAL Plc, EN+ Group (which owns or controls RUSAL), and the chairman and chief executive officer of RUSAL. RUSAL owns all primary aluminum smelters and alumina refineries in Russia. All assets subject to U.S. jurisdiction of those sanctioned were frozen, and U.S. persons were generally

prohibited from doing business with sanctioned individuals or businesses. The Department of the Treasury authorized a wind-down period until June 5 for contracts and deliveries, but payments must be deposited into frozen accounts in financial institutions in the United States. On April 23, the wind-down period for agreements entered prior to April 6 was extended until October 23. RUSAL petitioned the Department of the Treasury to remove the sanctions against its products. Because RUSAL is a major supplier of alumina to third-party customers, the sanctions were affecting the alumina market. RUSAL's alumina refineries in Australia, Ireland, and Jamaica were reportedly having difficulties making deliveries to customers concerned about violating the sanctions. Also in response to the sanctions, the London Metal Exchange (LME) announced that it would suspend putting aluminum produced by RUSAL on warrant, initially effective April 17. The effective date was later changed to October 23, and only contracts entered prior to April 6 were eligible for the extended wind-down period. The LME also stated that it would consider delisting or suspending RUSAL brands. CME Group stopped accepting aluminum produced in Russia for delivery or registration at its warehouses effective April 10 to comply with the sanctions (Butt, 2018; Grenham, 2018; Lim, 2018; McBeth, 2018; U.S. Department of the Treasury, 2018a, b).

The shutdown of one-half of the capacity of the 6.3-million-metric-ton-per-year Alunorte alumina refinery in Barcarena, Brazil, continued. Norsk Hydro ASA was ordered by environmental regulators to temporarily shut down production on February 27 after heavy rainfall on February 16 and 17 resulted in high water levels in one of the refinery's waste disposal impounds. (See Bauxite and Alumina in the Fourth Quarter 2017.) The alumina shortage that resulted from the refinery shutdown was cited for the shutdown of 230,000 metric tons per year (t/yr) of capacity at the 460,000-t/yr Albras aluminum smelter in Barcarena. (See Aluminum in February 2018.) Norsk Hydro reported that waste water containing caustic soda was discharged into a canal because of a power failure during the heavy rainfall. The company did not have a permit to

discharge waste water into the canal at the time of the release. To prevent similar situations in the future, upgrades to the water treatment system would be made. The project was scheduled to be completed in the first quarter of 2019 (Poole and Lim, 2018).

The sanctions against RUSAL and the shutdown at the Alunorte refinery were creating concerns of alumina shortages at many smelters and were cited as reasons for the alumina price increasing by more than 10% according to some alumina traders and industry sources. On April 13, the price for Australian alumina was reported to have increased to \$550 per metric ton from \$485 per metric ton (Lim, 2018).

## References Cited

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TABLE 1  
U.S. IMPORTS AND EXPORTS OF CRUDE AND DRIED BAUXITE<sup>1</sup>

(Metric tons)

Country or locality	2017				1st quarter– 4th quarter	2018 1st quarter
	1st quarter	2d quarter	3d quarter	4th quarter		
<b>Imports for consumption:</b>						
Brazil	109,000	164,000	215,000	211,000	699,000	102,000
Jamaica <sup>2</sup>	679,000	600,000	692,000	620,000	2,590,000	543,000
Other	2,550	47,600	7,330	79,000	137,000	5,220
<b>Total</b>	<b>790,000</b>	<b>812,000</b>	<b>914,000</b>	<b>910,000</b>	<b>3,430,000</b>	<b>651,000</b>
<b>Exports:</b>						
Canada	352	1,130	1,120	813	3,410	1,220
Mexico	153	40	--	--	193	60
Other	146	543	460	402	1,550	285
<b>Total</b>	<b>651</b>	<b>1,710</b>	<b>1,580</b>	<b>1,220</b>	<b>5,160</b>	<b>1,570</b>

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Source: Jamaica Bauxite Institute.

Source: U.S. Census Bureau; data adjusted by the U.S. Geological Survey.

TABLE 2  
U.S. IMPORTS AND EXPORTS OF CALCINED BAUXITE, BY COUNTRY OR LOCALITY<sup>1</sup>

(Metric tons)

Country or locality	2017										2018	
	1st quarter		2d quarter		3d quarter		4th quarter		1st quarter– 4th quarter		1st quarter	
	Refrac- tory	Other	Refrac- tory	Other	Refrac- tory	Other	Refrac- tory	Other	Refrac- tory	Other	Refrac- tory	Other
<b>Imports for consumption:</b>												
Australia	--	49,500	--	51,800	--	49,500	--	8,600	--	159,000	--	26,000
Brazil	--	--	--	--	--	--	--	--	--	--	--	--
China	17,300	2,900	13,300	5,550	9,370	2,950	31,700	6,790	71,700	18,200	10,700	1,000
Guyana	11,300	24,100	11,000	64,700	16,700	34,300	16,300	22,000	55,300	145,000	16,300	36,200
India	--	--	--	--	--	--	--	547	--	547	420	281
Turkey	--	--	--	35,300	--	33,400	--	32,800	--	101,000	--	47,100
Other	--	19,100	--	356	--	152	--	8,490	--	28,100	--	228
<b>Total</b>	<b>28,600</b>	<b>95,500</b>	<b>24,300</b>	<b>158,000</b>	<b>26,100</b>	<b>120,000</b>	<b>48,000</b>	<b>79,200</b>	<b>127,000</b>	<b>453,000</b>	<b>27,500</b>	<b>111,000</b>
<b>Exports:</b>												
Canada	934	--	1,230	--	1,190	--	1,080	--	4,430	--	1,540	--
China	7,440	--	1,130	--	300	--	200	--	9,070	--	60	--
Mexico	53	--	55	--	8 <sup>r</sup>	--	348 <sup>r</sup>	--	464 <sup>r</sup>	--	460	--
Other	173	--	89 <sup>r</sup>	--	57 <sup>r</sup>	1	236	101	555 <sup>r</sup>	102	123	--
<b>Total</b>	<b>8,600</b>	<b>--</b>	<b>2,510<sup>r</sup></b>	<b>--</b>	<b>1,550<sup>r</sup></b>	<b>1</b>	<b>1,870<sup>r</sup></b>	<b>101</b>	<b>14,500<sup>r</sup></b>	<b>102</b>	<b>2,190</b>	<b>--</b>

<sup>r</sup>Revised. -- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau; data adjusted by the U.S. Geological Survey.

TABLE 3  
U.S. IMPORTS AND EXPORTS OF ALUMINA<sup>1</sup>

(Metric tons, calcined equivalent)

Country or locality	2017					2018
	1st quarter	2d quarter	3d quarter	4th quarter	1st quarter– 4th quarter	1st quarter
<b>Imports for consumption:<sup>2</sup></b>						
Australia	98,500	96,200	98,200	99,800	393,000	49,900
Brazil	117,000	122,000	149,000	155,000	543,000	319,000
Jamaica <sup>3</sup>	35,600	32,200	55,500	45,400	169,000	35,200
Other	56,600	56,400	61,700	54,300	229,000	58,800
<b>Total</b>	<b>308,000</b>	<b>306,000</b>	<b>364,000</b>	<b>355,000</b>	<b>1,330,000</b>	<b>463,000</b>
<b>Exports:<sup>4</sup></b>						
Canada	11,900	9,010	6,560	8,010	35,400	9,290
China	968	1,970	1,350	12,400	16,700	21,900
Iceland	--	31,100	--	31,500	62,600	--
India	401	519	552	31,900	33,400	1,360
Mexico	11,400	11,300	12,300	13,200	48,200	15,600
Netherlands	27,500	26,100	29,400	12,000	95,000	15,400
Russia	157	58,200	31,600	38	90,000	95
United Arab Emirates	31,800	530	65	332	32,800	372
Other	20,900 <sup>r</sup>	12,200 <sup>r</sup>	21,500 <sup>r</sup>	12,000 <sup>r</sup>	66,600 <sup>r</sup>	22,800
<b>Total</b>	<b>105,000</b>	<b>151,000</b>	<b>103,000</b>	<b>121,000</b>	<b>481,000</b>	<b>86,900</b>

<sup>r</sup>Revised. -- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes imports of aluminum hydroxide reported in calcined equivalent. As shipped, aluminum hydroxide: 416,000 metric tons (t) in 2017; 120,000 t in the first quarter of 2018.

<sup>3</sup>Source: Jamaica Bauxite Institute.

<sup>4</sup>Includes exports of aluminum hydroxide reported in calcined equivalent. As shipped, aluminum hydroxide: 74,400 t in 2017; 24,500 t in the first quarter of 2018.

Source: U.S. Census Bureau; data adjusted by the U.S. Geological Survey.