

# Mineral Industry Surveys

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## BAUXITE AND ALUMINA IN THE FOURTH QUARTER 2019

Imports of crude and dried bauxite in the fourth quarter of 2019 were 1 million metric tons (Mt), 8% more than those in the third quarter of 2019, 15% more than those in the fourth quarter of 2018, and 10% more than those in the fourth quarter of 2017 (fig. 1). Jamaica (70%) and Brazil (27%) were the leading sources of crude and dried bauxite imports in the fourth quarter of 2019. Imports of crude and dried bauxite in 2019 were 3.71 Mt, 6% more than those in 2018 and 8% more than those in 2017 (table 1).

Exports of alumina during the fourth quarter of 2019 were 59,900 t, 74% more than those in the third quarter of 2019, 17% more than those in the fourth quarter of 2018, but 51% less than those in the fourth quarter of 2017 (fig. 2). The leading destinations for alumina exported in the fourth quarter of 2019 were Iceland (35%), the Netherlands (18%), Mexico (9%) and Canada (8%). Exports of alumina in 2019 were 200,000 t, 31% less than those in 2018 and 58% less than those in 2017 (table 3).

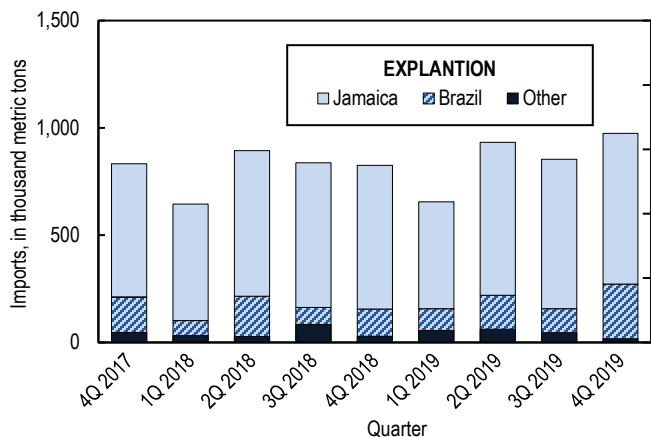


Figure 1. Quarterly imports of crude and dried bauxite from the fourth quarter of 2017 through the fourth quarter of 2019. Sources: Jamaica Bauxite Institute and U.S. Census Bureau.

Imports of alumina during the fourth quarter of 2019 were 466,000 metric tons (t), slightly less than the amount in the third quarter of 2019, 71% more than those in the fourth quarter of 2018, and 31% more than those in the fourth quarter of 2017 (fig. 2). The leading sources of imported alumina in the fourth quarter of 2019 were Brazil (41%), Australia (32%), and Jamaica (16%). Imports of alumina in 2019 were 1.94 Mt, 27% more than those in 2018 and 46% more than those in 2017 (table 3).

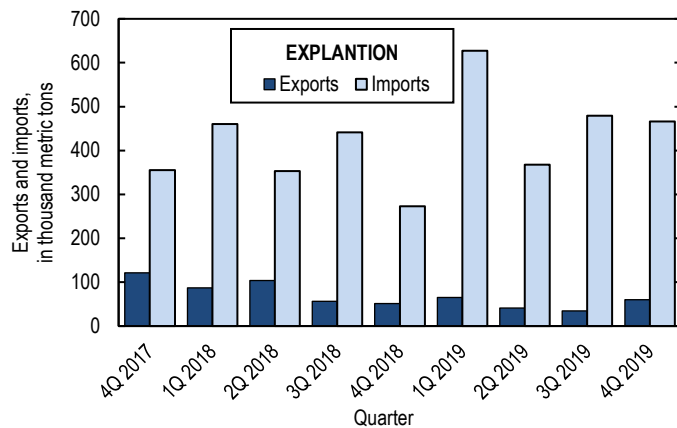


Figure 2. Alumina exports and imports from the fourth quarter of 2017 through the fourth quarter of 2019. Sources: Jamaica Bauxite Institute and U.S. Census Bureau.

**Update**

In December 2019, Alcoa Corp. announced that the temporary shutdown of the Point Comfort, TX, alumina refinery would be permanent. Alcoa shut down the 2.3-million-metric-ton-per-year (Mt/yr) alumina refinery in June 2016 citing high production costs and low alumina prices. A review of assets determined that the refinery was not economically competitive with refineries elsewhere (Alcoa Corp., 2019).

On February 3, 2020, United Company RUSAL Plc temporarily shut down production from the Bauxite Company of Guyana bauxite mine, citing civil unrest that interfered with

mining operations and damaged mine property. The 1.7-Mt/yr mine near Georgetown, Guyana, was a joint venture between Rusal (90%) and the Government of Guyana (10%). All expatriate employees were relocated, and it was uncertain when production would resume (United Company RUSAL Plc, 2020, undated).

Damage to a power transmission tower at the Paragominas Mine was cited for a temporary shutdown of production from some capacity at the Alunorte alumina refinery in Brazil. Norsk Hydro ASA reduced production at the 6.3-Mt/yr alumina refinery to between 50% and 70% of capacity after the power failure at the mine on December 18, 2019. Power was restored at the mine and production was restarted from the affected mine and refinery capacity on December 28, 2019 (Norsk Hydro ASA, 2019a, b).

A power outage on January 31, 2020 was cited for a temporary shutdown at the Kwinana alumina refinery in Western Australia, Australia. Power was restored and production resumed by February 5, 2020. The refinery was a joint venture among Alcoa (60%) and Alumina Ltd. (40%) and had 2.2 Mt/yr of capacity (Lim, 2020).

In China, some alumina refineries have decreased production owing to shortages of bauxite and caustic soda used in refining alumina. Bauxite shipments from ports to inland alumina refineries have been delayed because of limited rail and truck service but deliveries to ports have not been interrupted as of the end of February. Alumina prices in China and other parts of the world have increased on supply shortages and concerns about future availability. Supplies of anodes and coal tar pitch used to make anodes used in smelters were also reported to be constrained. Coal deliveries to some powerplants have also slowed. Several industry sources in China report that downstream demand for aluminum has decreased and that aluminum stocks are high. Health officials in China imposed travel and work restrictions in some parts of the country most affected by the COVID-19 virus to contain it and in other regions higher rates of absenteeism have been attributed to

concerns about the virus (Goh, 2020; Latham, 2020; Lazzaro, 2020; Liu, 2020; Tana, 2020).

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

(Metric tons)

Country or locality	2018	2019				1st quarter– 4th quarter
		1st quarter	2d quarter	3d quarter	4th quarter	
<b>Imports for consumption:</b>						
Brazil	637,000	157,000	220,000	157,000	272,000	806,000
Guinea	--	--	--	52,800	--	52,800
Jamaica <sup>2</sup>	2,570,000	498,000	713,000	696,000	702,000	2,610,000
Turkey	84,500	89,500	99,100	22,100	28,200	239,000
Other	201,000	3,290	3,240	617	--	7,150
<b>Total</b>	<b>3,490,000</b>	<b>748,000</b>	<b>1,030,000</b>	<b>929,000</b>	<b>1,000,000</b>	<b>3,710,000</b>
<b>Exports:</b>						
Canada	2,880	277	768	541	535	2,120
Other	1,530	215	354	292	237	1,100
<b>Total</b>	<b>4,410</b>	<b>492</b>	<b>1,120</b>	<b>833</b>	<b>772</b>	<b>3,220</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	2019											
	2018		1st quarter		2d quarter		3d quarter		4th quarter		1st quarter– 4th 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	--	115,000	--	54,200	--	54,000	--	49,500	--	55,000	--	213,000
China	43,400	10,000	4,990	1,780	3,510	790	4,040	4,010	4,310	5,300	16,900	11,900
Guyana	58,100	146,000	8,780	23,700	23,600	23,200	13,500	47,100	5,670	38,900	51,600	133,000
India	712	753	--	--	125	--	--	--	--	--	125	--
Other	373	636	282	5	323	3,600	44	2	89	14	738	3,620
<b>Total</b>	<b>103,000</b>	<b>273,000</b>	<b>14,100</b>	<b>79,700</b>	<b>27,600</b>	<b>81,600</b>	<b>17,600</b>	<b>101,000</b>	<b>10,100</b>	<b>99,200</b>	<b>69,300</b>	<b>361,000</b>
<b>Exports:</b>												
Canada	5,210	--	853	--	1,360	--	1,110	--	856	--	4,170	--
China	583	--	149	--	181	--	100	--	1,080	--	1,510	--
Mexico	733	--	415	--	141	--	195	--	94	--	845	--
Other	669	289	203	33	421	1	70	--	20	2	714	36
<b>Total</b>	<b>7,190</b>	<b>289</b>	<b>1,620</b>	<b>33</b>	<b>2,100</b>	<b>1</b>	<b>1,470</b>	<b>--</b>	<b>2,050</b>	<b>2</b>	<b>7,240</b>	<b>36</b>

-- 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, BY COUNTRY OR LOCALITY<sup>1</sup>

(Metric tons, calcined equivalent)

Country or locality	2018	2019				1st quarter– 4th quarter
		1st quarter	2d quarter	3d quarter	4th quarter	
<b>Imports for consumption:<sup>2</sup></b>						
Australia	293,000	166,000	47,000	96,600	149,000	459,000
Brazil	858,000	296,000	234,000	288,000	189,000	1,010,000
Canada	89,200	20,000	20,800	21,300	16,400	78,500
Jamaica <sup>3</sup>	141,000	90,600	33,400	31,700	76,000	232,000
Other	147,000	53,700	33,200	40,800	35,800	164,000
<b>Total</b>	<b>1,530,000</b>	<b>627,000</b>	<b>368,000</b>	<b>479,000</b>	<b>466,000</b>	<b>1,940,000</b>
<b>Exports:<sup>4</sup></b>						
Canada	34,100	9,070	9,280	7,350	4,610	30,300
China	26,300	967	1,200	1,290	1,500	4,960
Iceland	14	--	--	--	20,800	20,800
India	9,270	4,340	1,030	721	557	6,650
Mexico	59,400	14,700	12,200	10,000	5,420	42,300
Netherlands	28,600	1,020	1,780	1,110	10,700	14,600
Norway	26,100	69	32	36	36	173
Russia	355	262	165	28	321	776
United Arab Emirates	1,190	256	167	36	337	796
Venezuela	55,700	20,800	18	--	--	20,800
Other	47,200	13,300	15,000	13,900	15,500	57,700
<b>Total</b>	<b>288,000</b>	<b>64,800</b>	<b>40,800</b>	<b>34,500</b>	<b>59,900</b>	<b>200,000</b>

-- 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: 455,782 metric tons (t) in 2018; 99,610 t in the first quarter of 2019; 93,660 t in the second quarter of 2019; 109,261 t in the third quarter of 2019; 99,774 t in the fourth quarter of 2019.

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

<sup>4</sup>Includes exports of aluminum hydroxide reported in calcined equivalent. As shipped, aluminum hydroxide: 90,331 t in 2018; 26,228 t in the first quarter of 2019; 26,942 t in the second quarter of 2019; 20,349 t in the third quarter of 2019; 9,516 t in the fourth quarter of 2019.

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