

# GLOBAL BAUXITE MARKET QUARTERLY UPDATE

## 1 BAUXITE PRICES

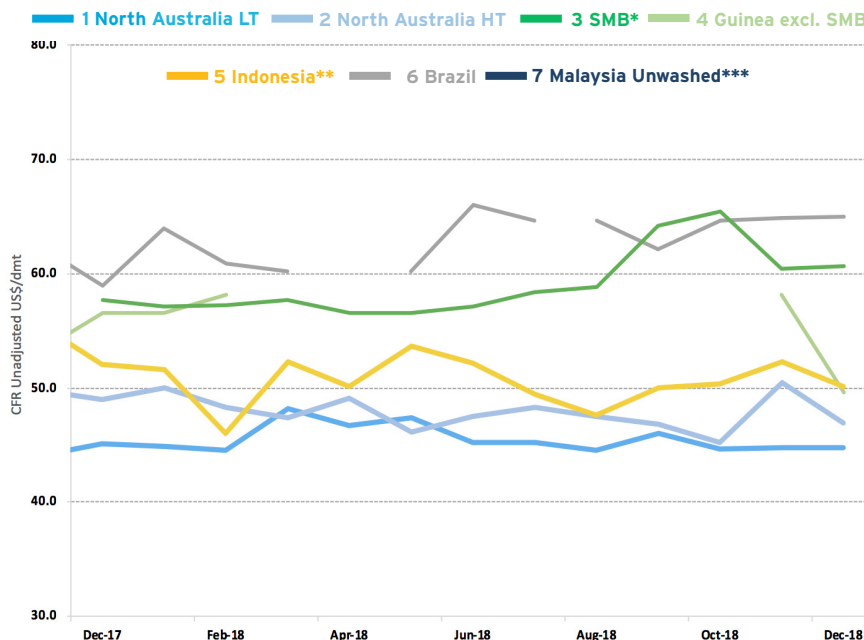
### BAUXITE PRICES BY SOURCE COUNTRY (CFR SHANDONG, CHINA, US\$/DMT)

Source: CM

TABLE 1 & FIGURE 1

Month	AUST LT	AUST HT	Guinea SMB	Guinea Other	Indo	Brazil	Malay
Dec-18	44.8	47.0	60.7	49.6	50.1	65.0	NA
Nov-18	44.7	50.4	60.4	NA	52.3	64.9	NA
Oct-18	44.7	45.2	65.4	NA	50.4	64.6	NA
Sep-18	46.0	46.8	64.2	NA	50.0	62.1	NA
Aug-18	44.6	47.5	58.8	NA	47.7	NA	NA
Jul-18	45.2	48.3	58.4	NA	49.5	64.6	NA
Jun-18	45.2	47.5	57.2	NA	52.1	66.0	NA
May-18	47.4	46.1	56.5	NA	53.7	NA	NA
Apr-18	46.7	49.1	56.5	NA	50.1	NA	NA
Mar-18	48.2	47.4	57.7	NA	52.3	60.2	NA
Feb-18	44.6	48.3	57.3	58.1	46.0	60.9	NA
Jan-18	44.9	50.0	57.2	NA	51.6	63.9	NA
Dec-17	45.1	49.0	57.7	56.6	52.1	59.0	NA
Nov-17	44.0	49.8	NA	53.2	55.4	62.3	NA
Oct-17	43.7	46.5	NA	60.1	54.6	65.9	NA

NA - No trade reported in that month.



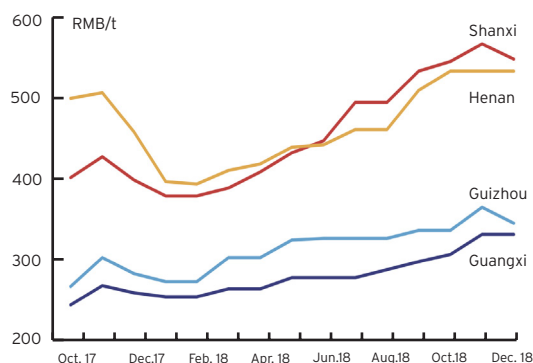
\* SMB's third party bauxite trades to China started in December 2017 and is seemingly on track to become a steady stream of third party bauxite supply in the past six months.  
 \*\* Following the first post-ban cargo by PT Antam in June 2017, Indonesia is now exporting steady volumes of bauxite.  
 \*\*\* No Malaysia Unwashed cargo landed since September 2017.

### CHINA'S DOMESTIC BAUXITE PRICE

TABLE 2 Dec. Q4 Average Prices (Delivered incl. VAT)

Province	A/S	RMB/t	US\$/t
Henan	4.0-5.0	540	78.4
Shanxi	4.5-5.0	555	80.6
Guizhou	5.5-6.5	345	50.1
Guangxi	7.0-8.0	330	47.9

Figure 2 China's Domestic Bauxite Prices (Delivered, inclusive of VAT)



### HIGHLIGHTS

- China's import **bauxite market remains strong**. Total 2018 shipments at **82.6 Mt, up 20.4% YoY**. China's domestic bauxite sector under increasing pressure from environmental compliance auditing, as well as deteriorating grades. Guinea consolidates its position as China's #1 supplier in 2018.
- Alufer Bel Air (Guinea) - first shipment left Cape Verga, Guinea end Sept 2018, we estimate **950kt (dry) exports in 2018**. Vessels now consistently arriving in China, prices reportedly in the range US\$47.0-53.0/dmt CFR.
- China's domestic bauxite prices **up on average during the quarter** on further supply tightness, before falling in December as some mines restarted operations after achieving requisite licensing. Shanxi and Henan prices were higher by 4.9% and 2.8% QoQ respectively, with high grade material (A/S 5.0) stabilizing at around RMB 630/t (delivered, VAT incl.).
- Indonesia - exports to China jumped 42% QoQ to 2.54Mt for the quarter, as producers strived to reach their 2018 export quotas. Prices firmed, up 3.8% (US\$1.9/dmt) to US\$50.9/dmt (non-ViU).
- Winter Production Cuts 2018/2019 are **having little impact** on alumina production - Some refiners from Shanxi and Henan have implemented the policy, with alumina curtailments estimated at around 330kt from Nov 15 to Dec 31, 2018, down by 63% YoY. In Shandong Province, Xinha started to cut production in line with the policy in early January, with other provincial refiners ran 'normally'.

# GLOBAL BAUXITE MARKET QUARTERLY UPDATE

## 1 BAUXITE PRICES

### 1.1 China Imported Bauxite Prices

- **CBIX** - quarterly average CBIX (ViU adjusted) prices up US\$1.0/dmt (2.0% QoQ) to US\$51.3/dmt.
- **SMB-WAP Alliance** - ViU prices 3.3% higher QoQ to average US\$52.0/dmt (non-ViU US\$62.2/dmt), mainly due to landed cargos still reflecting higher Q3 freight rates.
- **Alufer Bel Air** - cargos totaling 330kt (dry) averaging ViU US\$44.9/dmt (non-ViU US\$50.0/dmt).
- **Australia HT** - Bauxite prices unchanged over the month at ViU adjusted US\$58.7/dmt (non-ViU US\$47.5/dmt).
- **Australia LT** - averaged 1.1% lower QoQ at ViU US\$45.3/dmt (non-ViU US\$44.7/dmt).
- **CM** calculates the best buy was Solomon Islands bauxite at ViU US\$33.3/dmt (non-ViU US\$47.8/dmt), while the best sale was a cargo Turkish bauxite at ViU US\$74.2/dmt (non-ViU US\$75.9/dmt) (non-ViU).

**FIGURE 3** Bauxite Price - CBIX (US\$/dmt) (thebauxiteindex.com)



### Bauxite Prices by Region (ViU Adjusted, CFR Shandong, China)

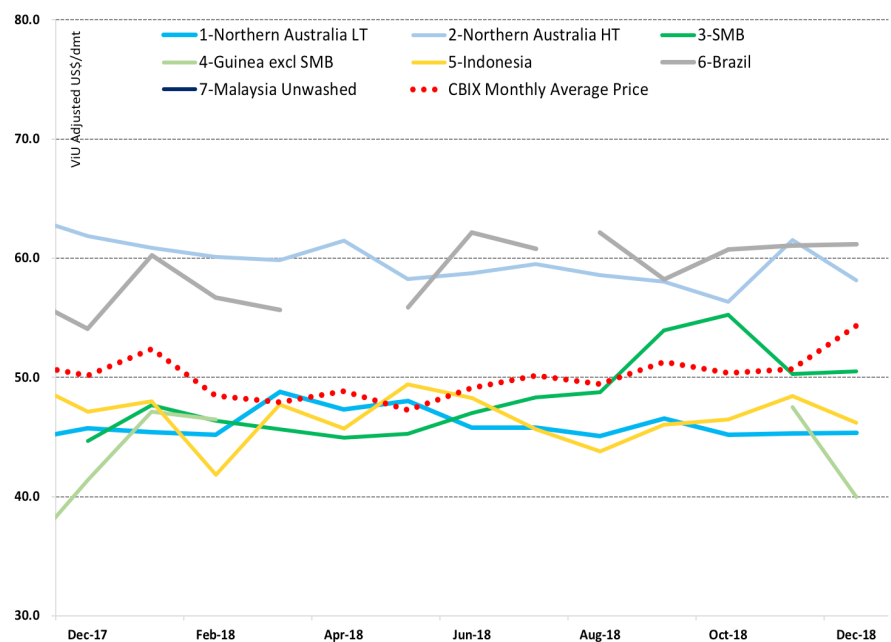
Source: CM

**TABLE 3**

Month	AUST LT	AUST HT	Guinea SMB	Guinea Other	Indo	Brazil	Malay
Dec-18	45.3	58.2	50.5	40.0	46.2	61.1	NA
Nov-18	45.3	61.5	50.3	NA	48.5	61.1	NA
Oct-18	45.2	56.3	55.3	NA	46.5	60.7	NA
Sep-18	46.5	58.1	53.9	NA	46.0	58.2	NA
Aug-18	45.1	58.6	48.8	NA	43.8	NA	NA
Jul-18	45.8	59.5	48.3	NA	45.7	NA	NA
Jun-18	45.8	58.7	47.0	NA	48.3	62.1	NA
May-18	48.0	58.3	45.2	NA	49.4	NA	NA
Apr-18	47.3	61.5	45.0	NA	45.7	NA	NA
Mar-18	48.8	59.9	45.6	NA	47.7	55.6	NA
Feb-18	45.2	60.1	46.4	46.5	41.8	56.7	NA
Jan-18	45.4	60.9	47.7	NA	48.0	60.3	NA
Dec-17	45.7	61.9	44.7	41.4	47.1	54.1	NA
Nov-17	44.7	63.6	NA	35.2	49.8	56.8	NA
Oct-17	44.5	61.1	NA	40.0	48.4	59.9	NA

NA - No trade reported in that month.

**FIGURE 4**



# GLOBAL BAUXITE MARKET QUARTERLY UPDATE

## 1 BAUXITE PRICES

### 1.2 China Domestic Bauxite Market

Domestic bauxite prices continued to climb during October and November on supply shortages caused by environmental inspections and subsequent forced closures, then receded marginally in December, as some supply re-entered the market.

Q4 average domestic prices for four major bauxite producing provinces all increased, with Henan bauxite (A/S ratio 4.5-5.0) trading in the range of RMB 450 - 630/t and Guizhou bauxite (A/S ratio 5.5-6.5) trading in the range RMB 320 - 370/t.

Given the easing in supply, domestic prices retreated slightly in December, but are likely to remain firm, at the high levels, in Q1 2019, due to

- **Healthy demand** - an estimated 2.6 MTPY alumina refining capacity, based on domestic bauxite consumption, is forecast to come online in Q1. In addition, we expect some currently idled capacity, in accordance with the winter cut policy, to restart in mid-March. As a result, refinery demand for domestic bauxite is likely to stay strong during Q1 2019.
- **Supply** - many bauxite mines in Northern China are likely to suspend production for the coming CNY holiday, and not resume production until late February, keeping the market relatively tight. In addition, Chinese authorities are unlikely to relax their environmental inspection campaign, meaning supply restrictions on domestic miners will continue for some time.

China's Domestic Bauxite Prices\* (Delivered, inclusive of VAT)

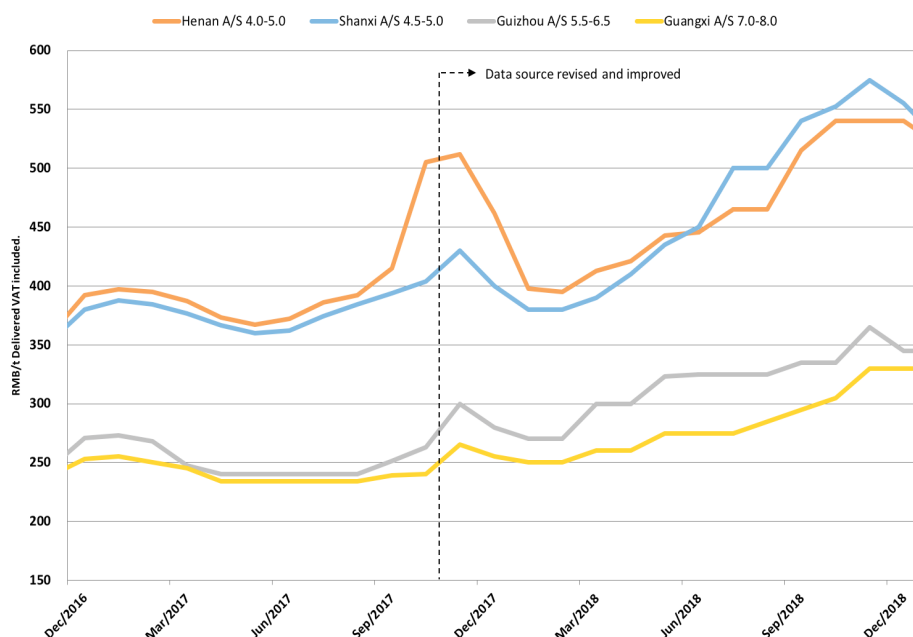
Source: CM

TABLE 4

Province	A/S	
EoQ3	EoQ4	QoQ
Henan	4.0-5.0	
RMB 430-600/t	RMB 450-630/t	4.9%
Shanxi	4.5-5.0	
RMB 480-600/t	RMB 480-630/t	2.8%
Guizhou	5.5-6.5	
RMB 310-360/t	RMB 320-370/t	3.0%
Guangxi	7.0-8.0	
RMB 280-310/t	RMB 310-350/t	11.9%

\* Data source revised and improved since November 2017

FIGURE 5



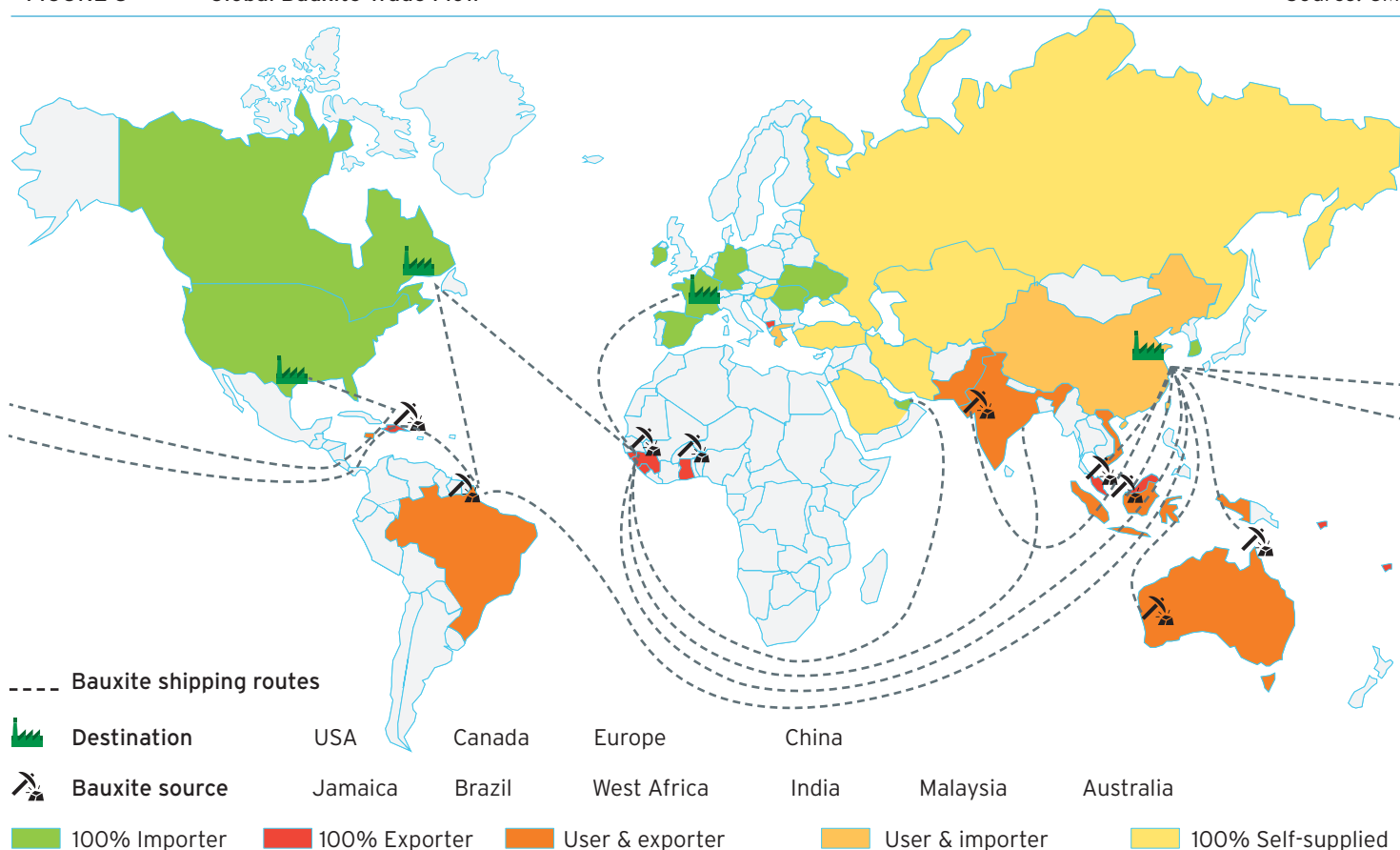
# GLOBAL BAUXITE MARKET QUARTERLY UPDATE

## 2 FREIGHT

Seaborne freight rates fell for most routes over the quarter, driven by falls in bunker (marine fuel) prices and timecharter rates. Capesize rates fell 21.6% QoQ bringing spot freight rates on the Guinea-Shandong route down 10.7% to US\$19.9/wmt. Panamax timecharter rates firmed, up 3.0%, to counter fuel price decreases, with spot rates on the Nth Qld - Shandong route down 1.0% QoQ to US\$8.5/wmt. Supramax timecharters also fell, down 10.7%, with spot rates on the WA - Shandong route down 7.6% to US\$16.5/wmt.

**FIGURE 6 Global Bauxite Trade Flow**

Source: CM



**TABLE 5**  
**2018 Q4 Annualised Trade Flow Summary**

Exporter	Importer	Mt
Guinea	China	36.8
Australia	China	28.9
Indonesia	China	10.1
Brazil	China	2.4
Solomon Islands	China	1.6
Malaysia	China	1.0
Other	China	2.7
Guinea	Spain	4.0
Guinea	Ukraine	3.7
Guinea	Ireland	3.1
Guinea	Germany	2.7
Guinea	Other	2.2
Jamaica	U.S.	3.1
Brazil	Canada	2.4
Brazil	Ireland	1.6
Other		9.5
<b>Seaborne</b>		<b>115.5</b>
<b>China Portion</b>		<b>83.4</b>

**TABLE 6**  
**Freight Data - Q4\_18 (US\$/wmt, panamax unless specified)**      Source: CM

No.	Source	Destination	Distance (NM)	Freight	QoQ
1	Guinea (Capesize)	China	11,128	19.9	-10.7%
2	Guinea Kamsar	China	11,128	31.6	-0.7%
3	Australia QLD	China	3,280	8.5	-1.0%
4	Australia WA (Supramax)	China	4,216	16.5	-7.6%
5	Indonesia W-Kal	China	2,511	8.8	-0.5%
6	Brazil	China	11,184	35.6	-0.7%
7	Brazil (Capesize)	China	12,306	25.4	-9.0%
8	Malaysia	China	2,604	9.7	-0.3%
9	Ghana	China	10,450	29.8	-0.7%
10	Gujarat	China	5,341	17.0	-0.6%
11	Guinea Kamsar	Spain	2,292	13.4	0.6%
12	Guinea Kamsar	Ireland	2,791	13.7	0.4%
13	Guinea Kamsar	Ukraine	4,161	15.8	-0.1%
14	Guinea Kamsar	UAE	6,612	19.8	-0.7%
15	Guinea (Capesize)	India	8,382	15.5	-10.8%
16	Brazil	Canada	3,939	12.1	-0.7%
17	Jamaica	U.S.	1,155	4.9	-0.4%
18	Sierra Leone	Romania	4,002	15.1	-0.1%

# GLOBAL BAUXITE MARKET QUARTERLY UPDATE

## 3 GLOBAL SUPPLY

Global bauxite production increased 3.2% QoQ to 94.2 Mt during Q4, with increases in Brazil (1.3Mt) and Jamaica (0.7Mt) accounting for the bulk of the increase.

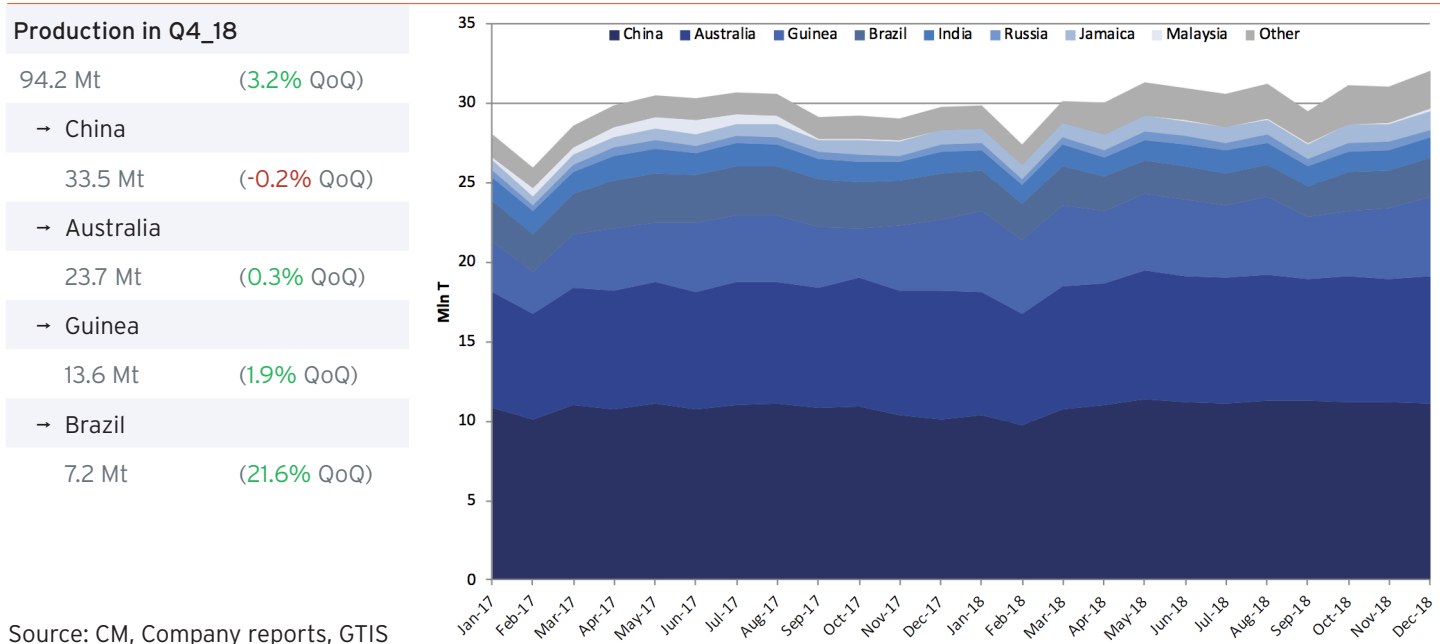
In China, the continued focus on environmental issues led to an easing in production, down 0.2% QoQ.

MRN bauxite production increased by 43.0% QoQ during Q4, leading to a rise of 21.6% QoQ in Brazil's bauxite production.

Guinea's drier weather allowed an increase in exports, up 1.9% QoQ, and new miner Alufer Bel Air, looking to achieve nameplate capacity, is estimated to have produced approximately 1Mt (dry) over the quarter.

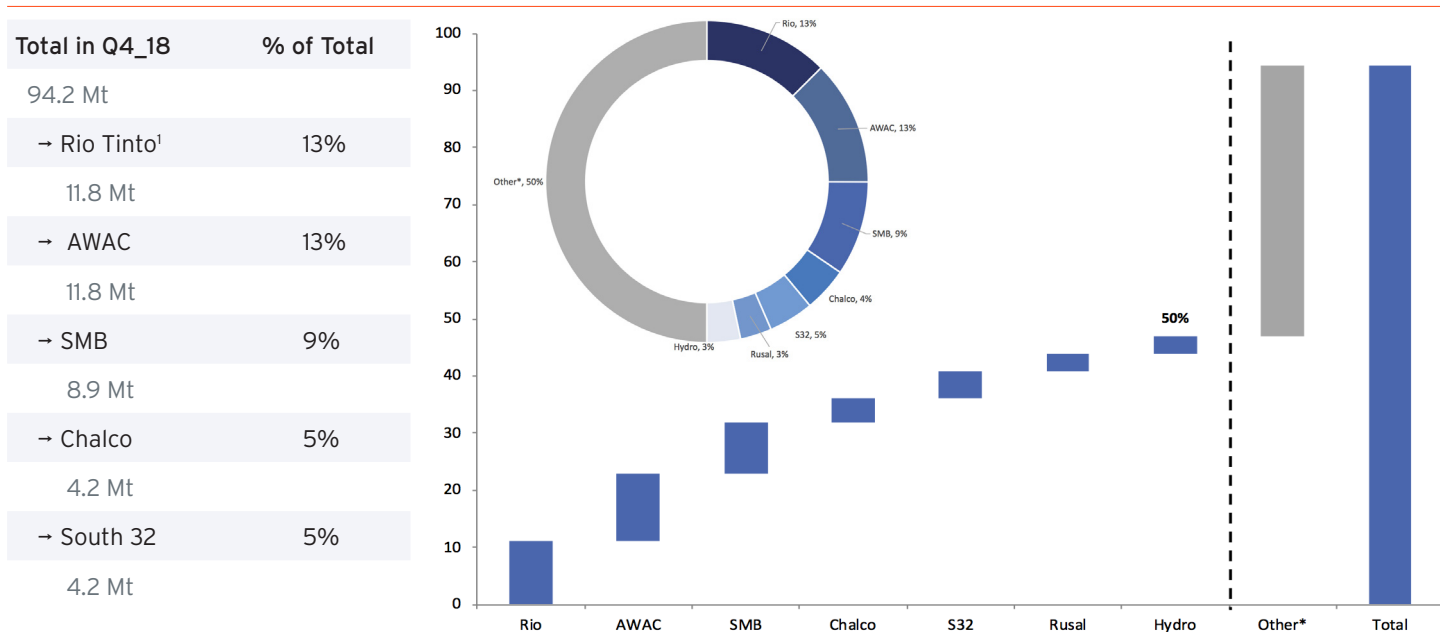
South 32, AWAC and SMB all registered increases in bauxite production, up 11.3%, 2.6% and 1.5% QoQ respectively, although RTA bauxite production decreased by 2.4% QoQ.

**TABLE 7 & FIGURE 7 Global Bauxite Production by Month (Mt/month)**



Source: CM, Company reports, GTIS

**TABLE 8 & FIGURE 8 Bauxite Production by Major Producers (Q4 2018)**



1. Only counting 22.95% of ownership in CBG, instead of 45% benefit

\* Including over 1000 mines in China

Source: CM, Company Reports

# GLOBAL BAUXITE MARKET QUARTERLY UPDATE

## 3 GLOBAL SUPPLY

FIGURE 9 Bauxite Trade Flow into China in Q4\_18

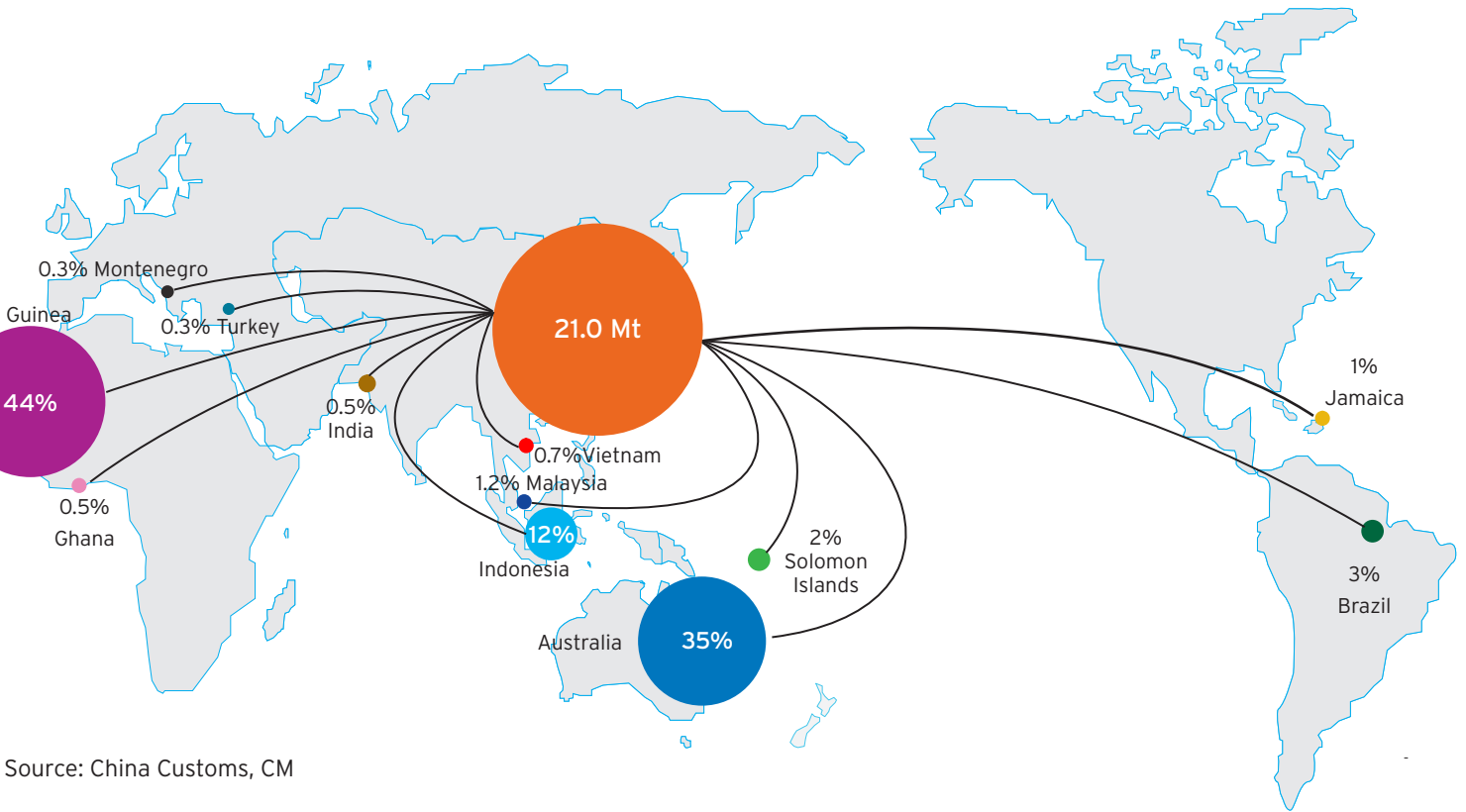
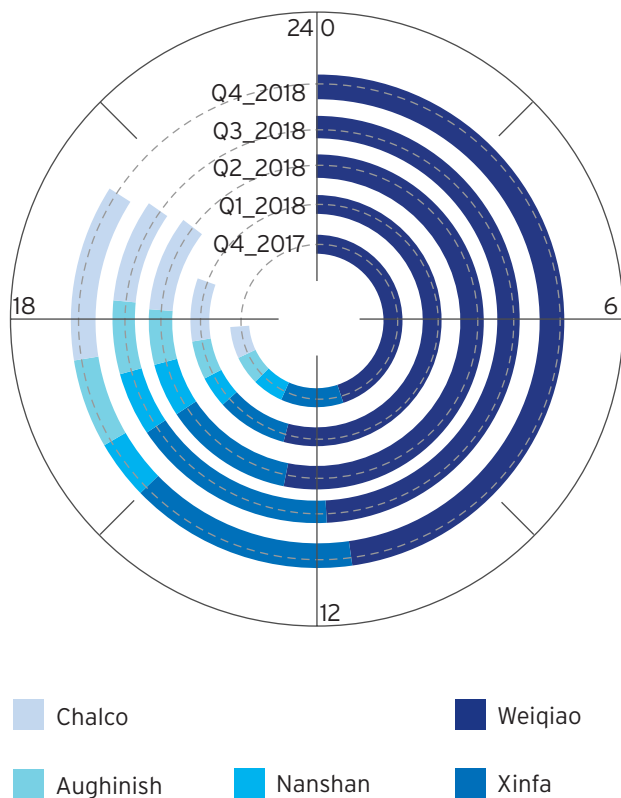


FIGURE 10 Major Third Party Bauxite Importers (Mt)



China's Q4 bauxite imports went up 0.4% to 21.0 Mt (+0.1 Mt). Guinea's Q4 exports to China increased 5.2% QoQ to 9.3 Mt, with 96% originating from SMB and associated mines.

Australia's exports to China fell significantly, down 12.4% QoQ to 7.3 Mt on the back of lower production from Rio Tinto, which is transitioning production from the depleting East Weipa mine to the newly commissioned Amrun mine.

Indonesia saw a 180% decrease QoQ in its exports to China, totaling 2.5 Mt during Q4, as exporters looked to maximise tonnages within their expiring 2018 quotas.

Weiqiao, Xinfu, Chalco and Nanshan, China's top four importers, accounted for 55%, 17%, 13% and 4% respectively of the Q4 total. Only Chalco's imports continued to increase, up a significant 41.8% QoQ, while Weiqiao, Xinfu and Nanshan witnessed decreases in imports, down 2.9%, 8.9% and 23.1% QoQ respectively.

Source: China Customs, CM, GTIS

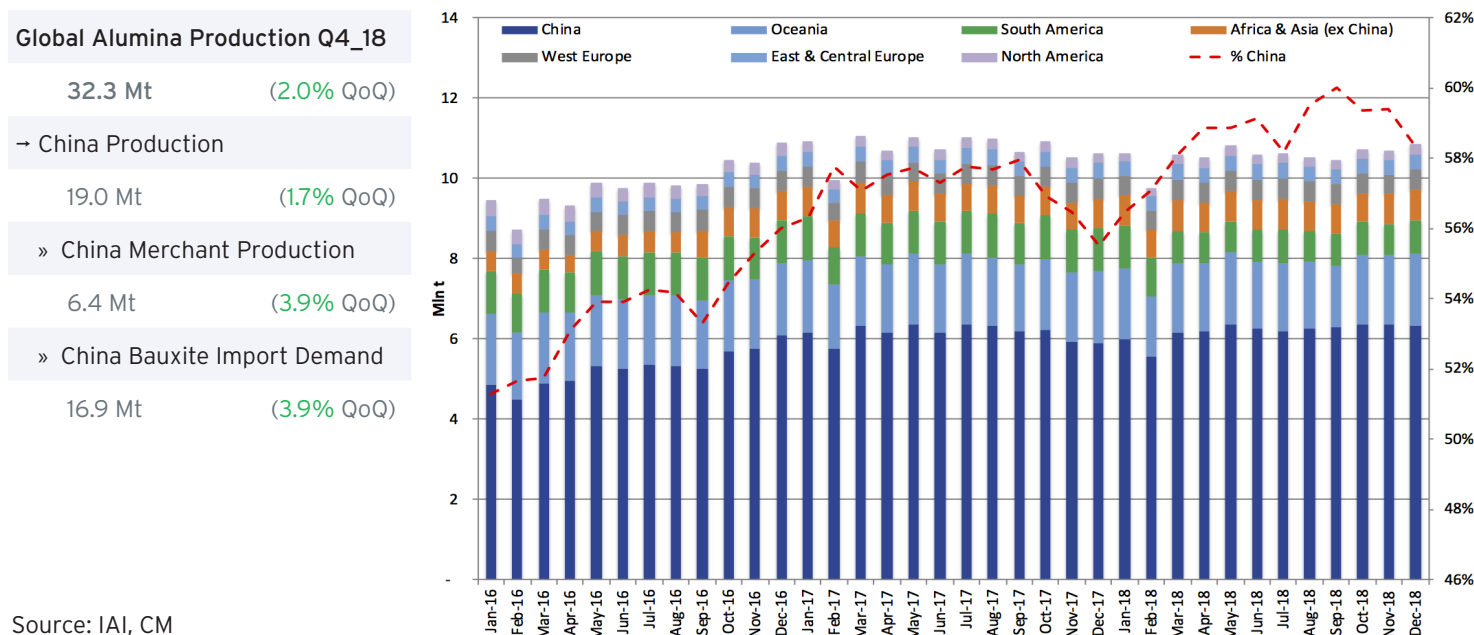
# GLOBAL BAUXITE MARKET QUARTERLY UPDATE

## 4 GLOBAL DEMAND

Global alumina production increased 2.0% QoQ to 32.3 Mt, with China again accounting for 59% of the total. China's alumina production was marginally higher, with production increases from Shandong and Shanxi partially offset by production decreases in other major provinces.

ROW alumina production was up 2.5% QoQ, with Asia and Africa up 2.2% QoQ to 2.3 Mt, and Oceania up 6.8% QoQ to 5.3 Mt.

TABLE 9 & FIGURE 11 Global Alumina Production



Source: IAI, CM

TABLE 10 Bauxite Stock (Mt)      FIGURE 12 China Imported Bauxite Stocks

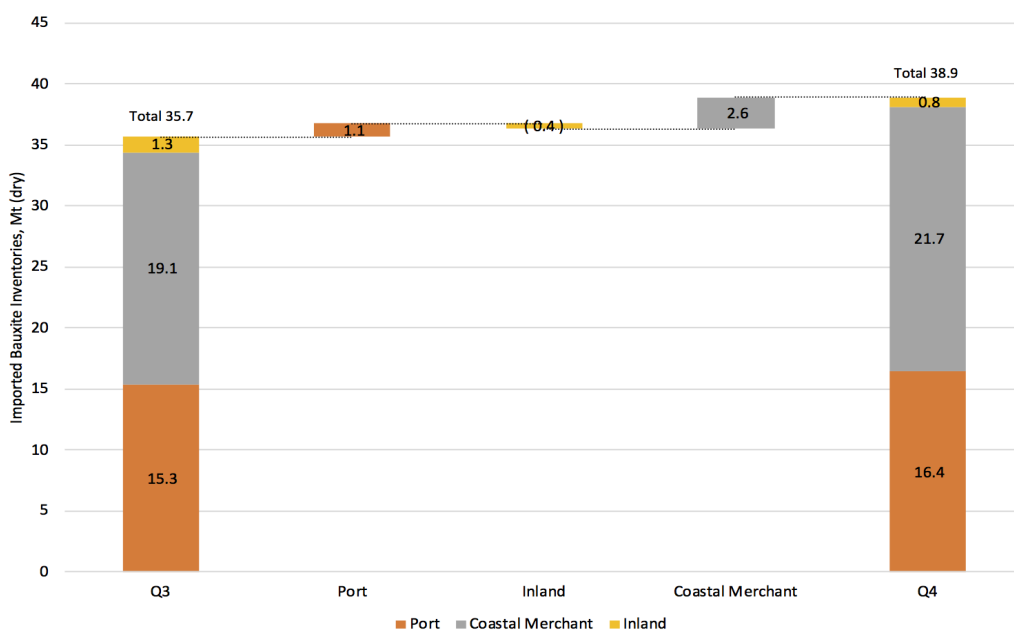
**Import Bauxite Stock (Dec. 18)**

38.9 Mt

**Weeks of Supply**

29

With strong imports from Guinea, Australia and Indonesia, total bauxite imports to China outstripped demand - leading to a 3.2Mt increase in stockpiles - up 9.0% to 38.9Mt or 29 weeks equivalent supply.



Source: CM

# GLOBAL BAUXITE MARKET QUARTERLY UPDATE

## 5 COSTS

FOB costs were again relatively flat QoQ, with only minor changes in diesel prices and foreign exchange rates impacting USD values.

Freight reduced over the quarter, particularly for capsized vessels, leading to lower CFR costs for Guinea material. Greater volumes of bauxite exiting Australia from Metro Mining's Bauxite Hills mine led to a slight increase in average Australian FOB costs due to its higher FOB mine costs.

Caustic prices in Shandong were unchanged which meant that CFR ViU costs again reflected only the changes to the raw CFR values.

Note: Despite the Solomon Islands low position on the ViU cost curve, due to impurity levels, its bauxite is considered only suitable as a blending addition within an overall refinery feed.

TABLE 11 & FIGURE 13 Global Seaborne Bauxite Costs (Country Average, CFR Shandong, US\$/dmt, non-ViU adjusted)

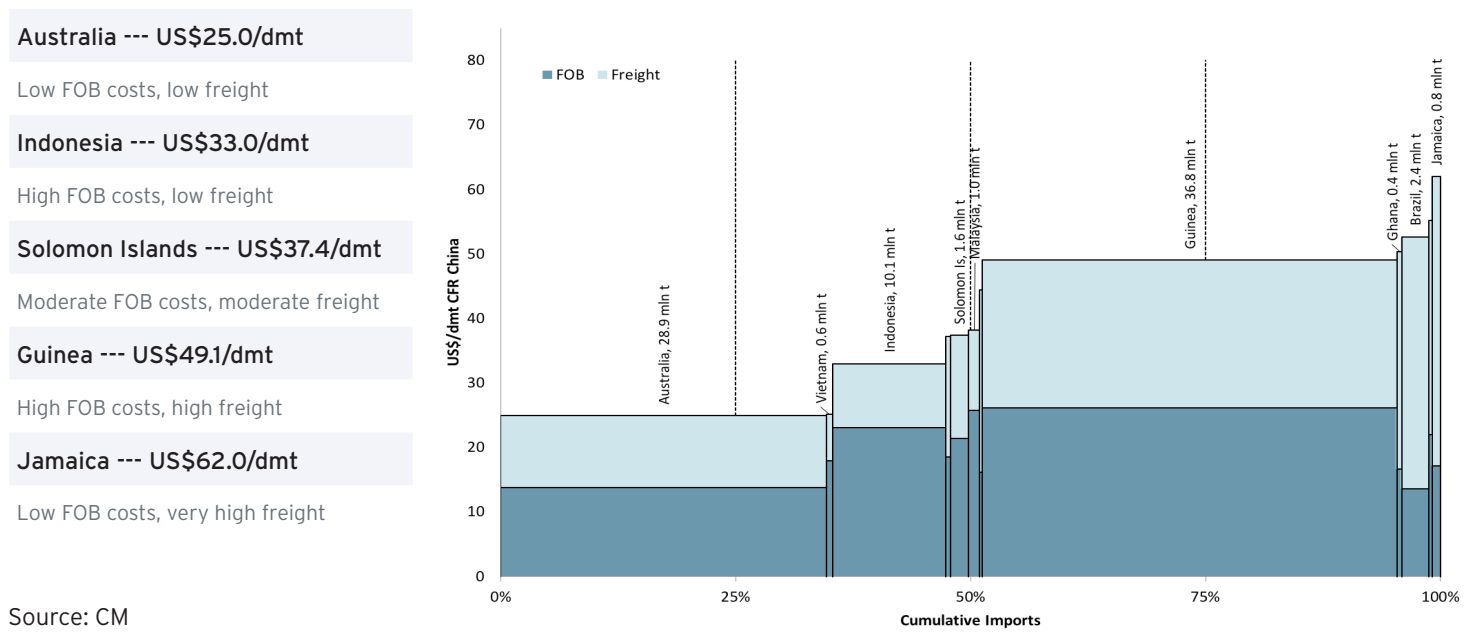
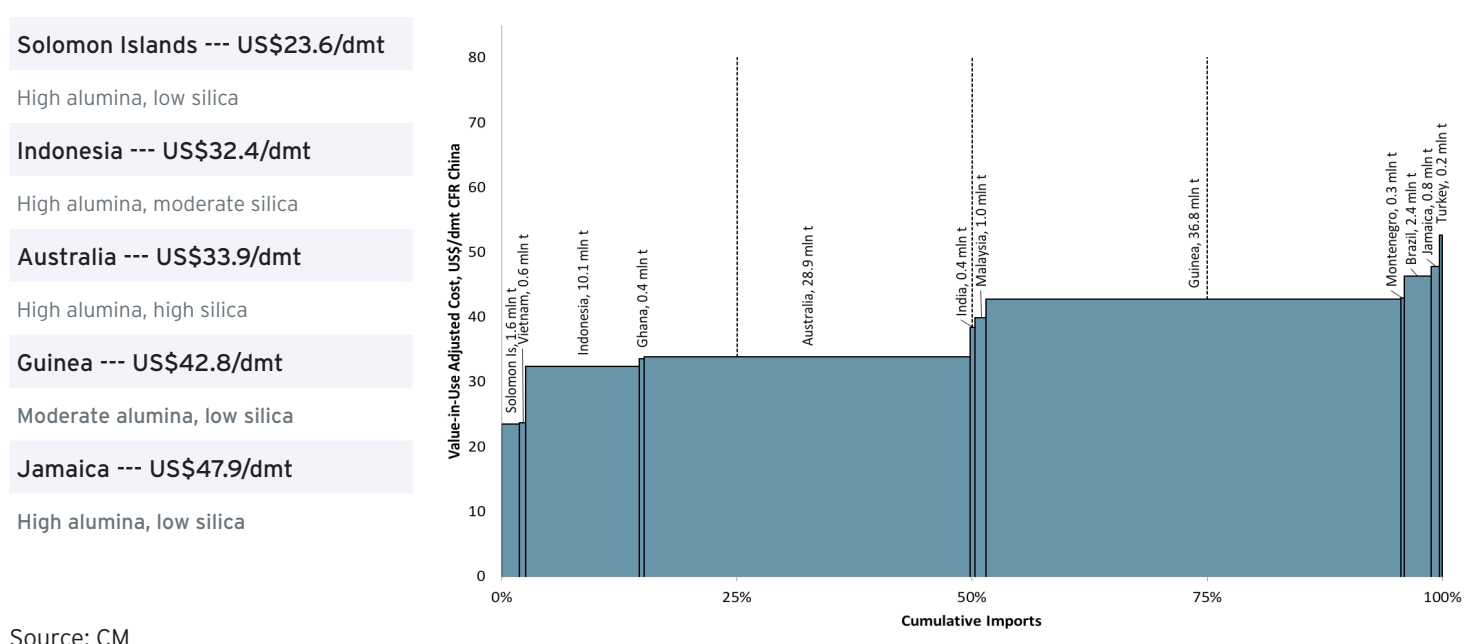


TABLE 12 & FIGURE 14 Global Seaborne Bauxite Costs (Country Average, CFR Shandong, US\$/dmt, ViU adjusted)



Note: Despite the Solomon Islands low position on the ViU cost curve, due to impurity levels its bauxite is only suitable as a blending addition to an overall refinery feed.



# GLOBAL BAUXITE MARKET QUARTERLY UPDATE

## 6 REGIONAL DEVELOPMENTS

### GUINEA

#### Ascending as mining projects consolidate and expand

- The granting of two more leases (previously part of the old BHP leases - Santou & Houda) has given SMB-WAP access to long-term, higher-grade tenements sufficient to last them many decades at current extraction rates. Further the signing of a concession for these tenements is tied to the construction of a new 135km rail line linking them to the existing Dapilon port and the construction of refinery near Dapilon. Separately, the already successful Henan-Chine (CHICO) mine, in partnership with others, refreshed and extended its agreement with the Government of Guinea (GoG) to expand its mine (from 5MTPY to 10MTPY), develop a multi-purpose railway, and build a 3 MTPY alumina refinery.
- Alufer's Bel Air mine has quickly reached operational status and, based on ship movements, is already at approximately name plate production (5.5MTPY) only months after commissioning. CBG has also completed its expansion (nameplate from 13.5MTPY to 18.5MTPY) and close behind is EGA's GAC 12MTPY project which has moved its first bauxite to the coast in preparation for exports - on track for mid 2019. Also in construction is Chalco Boffa and Eurasian Resources - both aiming to export from the Rio Pongo. With further projects, still in development (such as AMC, Dynamic, and TBEA) Guinea's bauxite mining and alumina refining trajectory is very positive. Further details are provided in the Project Updates below.

### BRAZIL

#### Alunorte One Step from Full Resumption

- January: After spending much of the last year with a cap at 50% capacity, for alleged environmental infringements, the production embargo on Hydro's Alunorte alumina refinery has been lifted by the Brazilian state of Para. However, full production resumption still requires a positive ruling from the federal court. Hydro, which has committed significant resources to improving bauxite residue deposit areas and waste water treatment, aims to achieve full production "within weeks" of a positive federal court ruling. However, it remains unclear when this will be achieved.

### USA, RUSSIA

#### Sanctions Lifted

- December 7: The U.S. Treasury Department delayed imposing sanctions on UC Rusal, its parent company En+ and Russian power producer EuroSibEnergy, for the fifth time, as it seeks to strike a deal that would allow the company to escape the penalties.
- December 19: US Treasury announces proposed sanctions will not proceed against UC Rusal, following the companies' agreement to significantly reduce Oleg Deripaska's ownership stake, subject to a 30-day review period in the US Congress.
- December 28: US Following the resignation of Matthias Warnig, Jean-Pierre Thomas was elected as UC Rusal's new board chairman, which will take effect on 1st January 2019. This is part of the company's restructuring agreement in exchange for a waiver from US sanctions.
- January 28: The US Government lifted sanctions on UC Rusal, En+ Group, and JSC EuroSibEnerg, imposed in April 2018. As a result, the LME announced that the ban on UC Rusal aluminium has also been lifted.

## GLOBAL BAUXITE MARKET QUARTERLY UPDATE

## 6 REGIONAL DEVELOPMENTS

**MALAYSIA**Ban Extended to End March 2019  
To Clear Stockpiles

- January: The on-going moratorium on bauxite mining in Pahang has been extended for the ninth time until end March 2019 to allow stockpile clearance. The ban will be extended until new Standard Operating Procedure (SOP) on mining, transport and stockpile managing are finalised. Stockpile removal at both Kuantan and Kemaman ports must be completed before SOP implementation. However, given a fading appetite in China for Malaysian material, the stockpiles are yet to clear.

**CHINA**Environmental Focus to Continue  
for at Least Three Years

- December: Starting in Jan 2019, China's Ministry of Ecology and Environment (MEE) will implement a three-year program to complete a second round of central-government-driven environmental inspections, followed by a review of the results in the fourth year. Its scope will expand beyond the current 31 provinces (regions and cities) of the first round to include all SOEs under the administration of the State Council.

**GHANA**Governmental Turmoil over Mining  
Sector Continues

- January: Two National Democratic Congress (NDC) members of Parliament in Ghana dragged 35 mining companies, including Newmont, AngloGold Ashanti, Golden Star Resources, Ghana Bauxite Company, to the Supreme Court for allegedly violating the constitution by engaging in illegal mining activities without ratified mining leases.

## 7 MAJOR PROJECTS UPDATE

## PROJECT UPDATES

Project Name	Country	Updates
Bauxite Hills	Australia	Metro Mining achieved its 2018 production target, with total exports of 2.037 Mt (wet) from its Bauxite Hills mine in North Queensland. Metro will recommence mining operations in April 2019 targeting 3.5 Mt (wet) for its second year of operation for which the company will switch to an owner-operator mining model following the termination of the mining services agreement with SAB mining. Additionally, Metro will also update its Definitive Feasibility Study ("DFS") for its proposed Stage II expansion to 6 MTPY (wet), currently scheduled to be completed during Q2 2019.
Amrun	Australia	The first shipment of 80 kt bauxite from Amrun bauxite mine was loaded onto the RTM Weipa, six weeks ahead of schedule, and is bound for Rio's Yarwun alumina refinery in Gladstone. The project is expected to reach full production capacity of 22.8 MTPY during 2019, gradually replacing production from the depleting East Weipa mine and increasing annual ore export capacity by around 10 Mt.
Alufer Bel Air	Guinea	The Bel Air bauxite mine held its official opening ceremony in Conakry. To date, more than 1 Mt of ore has been exported from the mine which is now approximately at its nameplate production rate of 5.5 MTPY. The company has also disclosed a recent extension of the existing offtake agreement with Chalco.
Chalco Boffa	Guinea	Since its beginning on 28th October 2018, development of the Chalco Boffa project in Guinea has been progressing smoothly, with the bauxite mine and port construction now in full swing. At present, in excess of 20 km of roads on the mine site have been cleared and are accessible by off-road vehicles. Subgrade compaction was scheduled for completion by end-December 2018. Two new floating crane assemblies have been ordered and will be used by a Chinese operator off the coast of Guinea, Africa. The company manufacturing the assemblies is port solution provider Konecranes. State owned shipping firm COSCO will operate the cranes to transload bauxite for Chalco, with the two companies' cooperation framework falling under China's 'Belt Road' initiative. A deal to order a fleet of at least six 210,000 dwt (capesize) vessels to be dedicated to bauxite run is likely to be concluded mid 2019.
CBG	Guinea	CBG has achieved first ore from its bauxite expansion project in Kamsar on budget and on schedule. The project is expanding bauxite production at the mine from nameplate 13.5 MTPY to 18.5 MTPY. More than 1,500 workers were on site during peak construction times, and nearly 75% of the workforce on site are Guinean workers.
GAC	Guinea	The first batch of bauxite has been loaded to be transported to GAC's port. First export is expected in second half of 2019 with 12MTPA capacity after full ramp up. Upon completion, six trains per day on the 90km railway from mine to port will be required to meet the production target. Capesize vessels will be loaded via trans-shipment from their own jetty.

# GLOBAL BAUXITE MARKET QUARTERLY UPDATE

## 7 MAJOR PROJECTS UPDATE

SMB-WAP	Guinea	SMB has been granted two further exploration permits east of the Sangaredi region. Both permits are part of the area previously held by BHP (previously known as Santou & Houda). Together, they are considered to be the 'high grade' areas of the region. A new rail link between this region and SMB's existing barge loading facility at Dapilon is scheduled to start construction this month, with an ultimate reported capacity of 60 MTPY (wet) an initial production of 20 MTYP (wet) is planned. The new permits and rail link are part of a three-part project development concerning mining, railway and alumina refining which has been agreed between SMB and the Government of Guinea and was further approved by vote at the plenary session of The National Assembly of Guinea.
Kimbo Project (Zibo Rundi)	Guinea	The agreement on Kimbo development signed on 17th December between the Government of Guinean and Zibo Rundi Aluminum Co., Ltd was reviewed and approved by the Guinean National Assembly. Investment is estimated at US\$358 million for the bauxite mine and US\$3 billion for the refinery. In accordance with the Master Plan for Mining Infrastructure, this project will require the construction of a paved road of 90 km, a railway line and a port at Kokaya on the Pongo River.
Henan Chine (CDM)	Guinea	CHICO (China Henan International Cooperation Group Co. Ltd.), Yidian Holding Group Co., Ltd. and Liaoning Zhongwang Group Co., Ltd. have signed an international mining development framework agreement, under which the three parties will work together on CHICO's bauxite project in Guinea (also known as Henan Chine) with increased investment in a bid to build an internationally integrated industrial chain which comprises a 10 MTPY bauxite mine, a multi-purpose railway and a 3 MTPY alumina refinery. The Government of Guinea then also signed a supplementary agreement for CHICO's project endorsing the changes. Currently, the project is producing ore steadily, with an estimated 6 Mt total output in 2018.
TBEA	Guinea	Xinjiang Joinworld Co., Ltd., a subsidiary of TBEA, announced plans to build a 1 MTPY alumina refinery in Guinea in a special economic zone in the vicinity of the near-coastal city of Boffa. Total investment has been stated as US\$831 million, with around one quarter being self-funded and the remainder to be raised through bank loans and leasing.
First Bauxite	Ghana	First Bauxite Corporation is targeting annual production of 320 kt of high-grade (refractory) bauxite once they hit full production in November.

# GLOBAL BAUXITE MARKET QUARTERLY UPDATE

## APPENDIX A ADDITIONAL DATA

TABLE A1 Global Bauxite Production (Mt)

(Source: CM Analysis, Company Reports)

	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
China	10.93	10.34	10.11	10.37	9.76	10.75	10.99	11.35	11.20	11.10	11.24	11.24	11.15	11.24	11.12
Australia	8.10	7.84	8.10	7.71	6.97	7.71	7.71	8.09	7.92	7.96	7.95	7.72	7.98	7.74	7.98
Guinea	3.05	4.10	4.45	5.14	4.62	5.08	4.55	4.82	4.80	4.48	4.97	3.87	4.10	4.43	5.03
Brazil	2.96	2.86	2.96	2.52	2.29	2.52	2.11	2.18	2.11	2.00	2.00	1.94	2.44	2.36	2.44
India	1.27	1.14	1.33	1.34	1.19	1.30	1.20	1.25	1.41	1.47	1.35	1.24	1.25	1.29	1.27
Russia	0.45	0.43	0.45	0.45	0.41	0.45	0.49	0.51	0.49	0.52	0.52	0.50	0.51	0.50	0.51
Jamaica	0.92	0.90	0.92	0.91	0.84	0.91	0.95	0.98	0.95	0.94	0.94	0.91	1.19	1.15	1.19
Malaysia	0.09	0.10	-	-	0.03	0.02	-	-	0.04	0.05	0.11	0.05	0.05	0.04	0.12
Other	1.42	1.37	1.42	1.42	1.33	1.42	2.06	2.13	2.06	2.10	2.10	2.03	2.40	2.33	2.40
<b>Total</b>	<b>29.18</b>	<b>29.08</b>	<b>29.72</b>	<b>29.86</b>	<b>27.44</b>	<b>30.17</b>	<b>30.06</b>	<b>31.30</b>	<b>30.97</b>	<b>30.62</b>	<b>31.18</b>	<b>29.51</b>	<b>31.08</b>	<b>31.07</b>	<b>32.06</b>

TABLE A2 China Bauxite Imports by Source (Mt)

(Source: China Customs, CM Group)

	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18
Australia	1.86	1.96	2.90	2.43	1.92	2.70	2.03	2.62	2.29	2.61	2.59	3.11	2.68	2.91	1.69
Brazil	0.31	0.30	0.15	0.10	0.10	0.19	-	-	0.15	0.14	-	0.29	0.15	0.15	0.31
Guinea	1.65	2.79	3.05	3.52	3.42	3.63	3.05	3.26	3.29	2.96	3.45	2.40	2.55	2.92	3.80
Malaysia	0.09	0.10	-	-	0.03	0.02	-	-	0.04	0.05	0.11	0.05	0.05	0.04	0.17
India	0.10	-	0.07	-	-	-	-	-	0.21	0.17	0.11	0.06	-	0.06	0.04
Other	0.45	0.70	1.00	0.98	0.62	0.73	1.16	1.41	0.94	0.94	0.86	1.00	0.70	1.58	1.23
<b>Total</b>	<b>4.46</b>	<b>5.86</b>	<b>7.16</b>	<b>7.04</b>	<b>6.10</b>	<b>7.27</b>	<b>6.23</b>	<b>7.29</b>	<b>6.92</b>	<b>6.87</b>	<b>7.12</b>	<b>6.90</b>	<b>6.12</b>	<b>7.65</b>	<b>7.24</b>

TABLE A3 Annualised Chinese Alumina Production from Imported Bauxite (Mt)

(Source: China Customs, CM Group)

	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
LT Bauxite	17.35	17.79	17.45	17.44	17.65	17.54	17.73	17.37	17.57	17.22	17.16	17.56	17.61	17.79	17.83
HT bauxite	6.88	6.92	7.12	7.09	7.18	7.11	7.20	7.10	7.18	6.67	7.14	7.72	7.83	7.91	7.34
<b>Total</b>	<b>24.23</b>	<b>24.71</b>	<b>24.57</b>	<b>24.53</b>	<b>24.84</b>	<b>24.65</b>	<b>24.93</b>	<b>24.47</b>	<b>24.74</b>	<b>23.89</b>	<b>24.30</b>	<b>25.28</b>	<b>25.44</b>	<b>25.70</b>	<b>25.17</b>

# GLOBAL BAUXITE MARKET QUARTERLY UPDATE

## APPENDIX B

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