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BAUXITE & ALUMINA CONF: All eyes on Alunorte, impending alumina price drop

MIAMI

Market participants expect alumina prices to plummet upon any future announcement that Hydro's alumina refinery, Alunorte, can return to full capacity, but agree the scheduled court date does not provide any further clarity.

Alunorte, the largest alumina refinery in the world, has been running at only 50% of its production capacity since March 2018 because of restrictions imposed by authorities in Brazil.

The situation had the attention of every delegate at Fastmarkets' 25th Bauxite and Alumina conference in Miami this week (March 25-27) with traders preparing for more extreme volatility in 2019.

"The past year there has been a cloud over the market and we are still in the unknown, nobody can predict the next move with Alunorte and it's a tough market," a trader said.

During the conference, Hydro announced that the federal court in Belém, in the northern Brazilian state of Pará, has scheduled a conciliatory hearing between Alunorte and the country's federal prosecutors' office (MPF) for April 4.

"The announcement [of a court hearing] gave some confidence that it will be a 'when' and not 'if' regarding Alunorte's return because people had started to get fed up. It feels like the final hurdle," a second trader said.

"It gives hope that it hasn't been completely sent to the back of the queue after the tailing dam problems," he added.

The court hearing is regarding embargoes on the refinery's production and the use of its waste material deposit No2 (DRS2).

Market participants agreed that as soon as there is a confirmed announcement that Alunorte will return to full capacity, alumina prices will plummet.

The curtailment to production at Hydro's alumina refinery helped to raise Fastmarkets' daily alumina index to a high of \$707.75 per tonne on April 24 last year, its highest since the index was launched in August 2010, and 71% higher than the level at the start of 2018.

The index stood at \$413.23 per tonne on March 27 – still holding at its highest since around mid-December 2018.

"As soon as we hear they can restart, the price is going to fall through the floor – we have to prepare for another volatile swing – above \$400 will not last," a consumer said.

"Just like on sentiment we rocketed to \$700 per tonne as a knee jerk reaction, we could see similar once Alunorte says it is back," he added.

Before the curtailment at Alunorte, alumina prices were trading around \$350 per tonne and traders agree prices will return to this level if the refinery gets the go-ahead to resume full capacity.

"Even before the units are back in the market, the price will fall – because people will just hold off, they aren't going to buy anything when in a few weeks' time there will be a choice of cargoes," a third trader said.

Hydro Brazil's executive vice president of bauxite and alumina, John Thuestad, told the conference that Alunorte is expected to operate at 75-80% of its capacity two months after the receipt of

Base metals	4	Non-ferrous scrap	21	Ferrous scrap	30
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approval from the Brazilian federal court in Belém.

Thuestad explained that Hydro has kept the plant operating all seven lines throughout the past year to make sure they are ready to get its capacity up quickly.

The ramp up of EGA's new alumina refinery in Abu Dhabi in the second half of the year is also expected to dampen prices, with more availability of material on the spot market.

The Al Taweelah refinery is expected to produce some 2 million tonnes per year of alumina, meeting around 40% of EGA's alumina needs once fully ramped up, according to the company's website, meaning the consumer will require significantly less alumina from the spot market.

"New capacity ramping up and Alunorte's return in a short time would be the perfect cocktail for a plunge in prices," a second consumer said

MARKET READY FOR ANOTHER LONG WAIT

But the timeframe for Alunorte's return remains a mystery and some traders were not confident the latest news provided any further clarity.

"The agreement schedules a timeline for the assessment to be concluded in April. It does not include a timeline for the decision to be made by the court," Hydro said in a press release on March 26.

"They're still dealing with the issues in Brumadinho – I honestly don't think giving Alunorte full capacity back is high on the list of priorities right now. These hearings can take forever," a producer said, referring to a tailing dam at Vale's Feijão mine in the city of Brumadinho which ruptured and flooded the nearby community and the Paraopeba river on January 25.

The tragedy led the Brazilian mining agency ANM to launch a new resolution on February 15 to ban all upstream tailing dams in the country. Some participants think this could push back the government's decision on Alunorte's restart.

"No-one can afford to assume this [the court date announcement] is good news – we can't change the way we are dealing with the market and we have to prepare for the volatility. We just have to act like they're not there until the units are back in the market from Alunorte," a fourth trader said.

ALICE MASON



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Assessed

28 Mar 19

22 Mar 19

22 Mar 19

22 Mar 19

22 Mar 19

28 Mar 19

22 Mar 19

15 Mar 19

15 Mar 19

22 Feb 19

Assessed

22 Mar 19

22 Mar 19

22 Mar 19

27 Mar 19

22 Mar 19

27 Mar 19

27 Mar 19

27 Mar 19

Base metals

Change [†] Assessed -2.07% ▼ 28 Mar 19
-2.07% ▼ 28 Mar 19
.00 0% 26 Mar 19
.00 -4.24% ▼ 28 Mar 19
.00 -8.33% ▼ 28 Mar 19
0.29% A 28 Mar 19
.00 1.69% ▲ 28 Mar 19
-1,000.00 -13.04% ▼ 27 Mar 19
5.00 0% 26 Mar 19
15.00 0% 26 Mar 19
5.00 -4.55% ▼ 26 Mar 19
195 0% 26 Mar 19
1.64% A 28 Mar 19
15.00 -0.9% ▼ 26 Mar 19
50.00 0% 26 Mar 19
0 -2.78% ▼ 28 Mar 19
00.00 0% 26 Mar 19
-1.25% ▼ 28 Mar 19
0 -0.12% ▼ 28 Mar 19
1

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Cobalt (high-grade) in-whs Rotterdam (\$/lb) London: Fastmarkets MB, 8 Bouverie Street, London, EC4Y 8AX, UK, Tel: +44 (0) 20 7827 9977

Cobalt (low-grade) in-whs Rotterdam (\$/lb)

Molybdic oxide, in-whs Rotterdam (\$/lb Mo)

Ferro-tungsten, basis 75% W, in-whs

FASTMARKETS' KEY PRICES: INDICES

Alumina index fob Australia (\$/t) Charge chrome index 50% Cr cif

Manganese ore index 44% Mn cif

Manganese ore index 37% Mn cif Tianjin China (\$/dmtu)

Manganese ore index 37% Mn fob Port

MB Index CFR Turkey HMS 1&2 (80:20)

HMS 1&2 ferrous scrap index (80:20)

Copper concentrate Asia-Pacific index TC import \$/dmt

Copper concentrate Asia-Pacific index RC import US cents/lb

Zinc concentrate spot treatment

Ferro-chrome, 6-8% C, basis 60% Cr. del European consumers (\$/lb Cr)

Silico-manganese, basis 65-75% Mn, 15-19% Si, del European consumers (€/t)

Ferro-silicon, basis 75% Si, del European consumers (€/t)

Ferro-titanium, 70% Ti, ddp (\$/kg)

European consumers (€/t) Ferro-molybdenum, basis 65-70% Mo. in-whs Rotterdam (\$/kg Mo)

Rotterdam (\$/kg W)

Ferro-manganese, basis 78% Mn, del

FASTMARKETS' KEY PRICES: ASSESSMENTS

charge (TC) cif Asia Pacific, \$/t

Shanghai (\$/lb Cr)

Tianiin (\$/dmtu)

Elizabeth (\$/dmtu)

(North Europe material)

fob Rotterdam (\$/t)

Price

415.36

0.87

6.36

5.56

6.22

318 09

300.40

69.00

6.90

Price

0.98-1.14

1,000-1,030

1,100-1,150

28.60-28.80

12.07-12.20

35.50-36.50

1 060 00-1 080 00 0%

5.10-5.50

215.00-250.00

Change[†]

2.92%

2.35%

-3.34%

1.65%

1.3%

-0.62%

0.57%

-7.13%

-7.13%

3 33%

Change¹

0%

0%

-2 6%

0%

-1.54%

-2.53%

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13.30-14.25 0% 27 Mar 19 13.50-14.50 0% 27 Mar 19 Fastmarkets MB is a part of Euromoney Global Limited: 8 Bouverie Street, London EC4Y 8AX

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FASTMARKETS' KEY ALUMINIUM PRICES				
	Price	Change [†]		Assessed
Alumina index fob Australia (\$/t)	415.36	2.92%	\blacktriangle	28 Mar 19
Group 1 pure 99% AI & litho scrap, del UK (£/t)	1,300-1,350	0%		27 Mar 19
Cast aluminium wheels, del UK (£/t)	1,150-1,180	0%		27 Mar 19
LME aluminium cash settlement (\$/t)	1,896.50	0.29%	A	28 Mar 19
Daily aluminium premium, duty-unpaid (in-whs Rotterdam) (\$/t)	85.00-95.00	1.69%	A	28 Mar 19
Weekly aluminium premium, duty-unpaid (cif Shanghai) (\$/t)	95.00-105.00	0%		26 Mar 19
Twice weekly aluminium premium (cif MJP) (\$/t)	100.00-115.00	0%		26 Mar 19
Weekly aluminium premium, duty-free (cif MKP) (\$/t)	95.00-115.00	-4.55%	•	26 Mar 19
Twice weekly aluminium premium, dlvd (US MW) (cents/lb)	105.10-105.35	-1.32%	•	27 Mar 19
Extrusion billet premium, 6063, duty-paid, in-whs Rotterdam (\$/t)	370-400	-2.53%	•	22 Mar 19
LM24 pressure diecasting ingot (del UK consumers) (£/t)	1,360-1,410	0%		27 Mar 19
LM6/LM25 gravity diecasting ingot (del UK consumers) (£/t)	1,680-1,720	0%		27 Mar 19
DIN226 pressure diecasting ingot (del European consumers) (€/t)	1,450-1,500	0.34%	A	22 Mar 19
Aluminium ingot ADC 12 spot (MJP) \$/tonne	1,670-1,680	0%		27 Mar 19

MIAMI

BAUXITE & ALUMINA CONF: Alumina could move into surplus after Alunorte ramp-up, Fastmarkets says

The alumina market could move into a surplus once Norsk Hydro's Alunorte refinery in Brazil increases its capacity and market tightness is alleviated, according to research by Fastmarkets analysts.

The refinery, in Brazil's northern state of Pará, has been operating at 50% of its annual capacity since March 2018 due to environmental issues, but could reach 75-80% of capacity within two months of receiving approval from the Federal Court of Belem for an increase in output.

A meeting between Hydro and the federal prosecutor's office (MPF) is scheduled for April 4, Norsk Hydro Brazil's executive vice president of bauxite and alumina told Fastmarkets during an interview at Fastmarkets' 25th bauxite and alumina conference in Miami on Wednesday March 27.

Global alumina production increased only slightly in 2018, but that will change this year, with output expected to show a significant increase, Alice Mason, Fastmarkets' market reporter for alumina and aluminium, told the conference.

Alumina prices were forecast to average around \$390 per tonne in 2019, according to Fastmarkets research.

Fastmarkets' benchmark daily Australia alumina index was most recently assessed at \$413.28 per tonne fob Australia on March 26. This was down from a peak of \$707.75 per tonne in April 2018, in the immediate aftermath of the reduction in output at Alunorte.

Until the restart, however, uncertainty is likely to cause extreme volatility in the fob Australia market, giving further opportunities for China to export alumina, Mason said.

Extreme tightness in the Atlantic and Pacific changed the dynamics of the alumina market in 2018, she added.

"China became an exporter of alumina to the market, and can

continue to be [an exporter] when required, because the infrastructure to do so is now in place," she said. "Traders and smelters offset high costs by buying Chinese alumina, aided by the fact that the quality of Chinese alumina passed various environmental and quality tests."

Alumina prices in China hit a peak of 3,250-3,350 yuan (\$484-499) per tonne in September 2018 due to the declining quality of domestic bauxite, and highlighted the need for high-grade supplies.

Prices in China then began to fall after the summer, with weaker demand from Chinese smelters because there continued to be ample inventories at Shanghai Futures Exchange (SHFE) warehouses, Mason said.

Chinese domestic alumina prices were down by 7.5% since the start of year and down by 22.7% from their recent peak in September 2018. Most recently, China's decision to cut VAT by 3% to 13% from April 1 put further downward pressure on alumina prices, she added

China's depletion of high-grade bauxite reserves and its plan to build new alumina refineries will perpetuate the country's high reliance on bauxite imports, Mason said.

Australia has always been a strong exporter to bauxite, but new production in Guinea meant that the west African country was the largest exporter to China in 2018.

ANDREA HOTTER

ΜΙΔΜ

BAUXITE & ALUMINA CONF: New alumina contract will address volatility, Al price disconnect, LME says

The new London Metal Exchange cash-settled alumina contract will help the exchange to retain its top spot as the global reference for the aluminium industry, according to LME business development analyst Antonio Masiero.

Speaking at the Fastmarkets Bauxite & Alumina Conference in Miami on Wednesday March 27, Masiero said that, while the market moves away from pricing alumina as a percentage of the LME price for aluminium, the new contract will help it to continue to provide options throughout the supply chain.

The new contract was launched on March 11 and is settled against Fastmarkets' benchmark daily fob Australia alumina index, in a basket alongside price assessor CRU's alumina index. Equal weighting is given to each index.

You can see the LME alumina contract specifications here.

"The LME is the reference globally for the aluminium industry, and we want to remain as such," Masiero said. "We know that the alumina market has been moving away from the aluminium reference point, so we want to provide the right hedging options."

Historically, the alumina market was priced as a percentage of the outright price of aluminium on the LME, but physical contracts have changed to being based on indices calculated by a price-reporting agency (PRA).

Some companies, however, remain bound to long-term LME-based contracts, which has resulted in them losing money.

Rio Tinto's most recent earnings report, published on February 17, said that it has legacy contracts which are fixed to the LME price until 2030, and these had a negative effect on its corporate results.

"Since 2010, a number of factors have pushed the industry away from pricing on a percentage of the LME price, including the increased cost of caustic soda and the changing dynamics of the LME and the alumina market," Masiero said.

"This has caused participants to move toward PRAs. It is a cycle - more participants report to PRAs, such as Fastmarkets, and





therefore the price gets better and more reflective, giving them more reason to move away from pricing on aluminium prices," he added.

This move meant that the market could not hedge it alumina exposure through LME aluminium contracts any more, Masiero explained.

The market was exposed to the huge volatility in the industry. In 2018, for example, the sector endured one of its most volatile years, with sanctions being applied to Russian aluminium producer UC Rusal by the United States, force majeure being declared by Norsk Hydro's Alunorte mine in Brazil, and workers' strikes at Alcoa-run assets in Western Australia.

At its height last year, the Fastmarkets fob Australia alumina index hit a record high of \$707.75 per tonne on April 24. It was most recently at \$413.23 per tonne on March 27.

Throughout 2018's rally in alumina prices, the LME aluminium price became disconnected from the market.

Instead of rising in line with the raw materials, the three-month price of aluminium remained flat, between \$2,000 and \$2,100 per tonne. On some occasions, alumina was trading at 30% of the outright aluminium price.

"So, we obviously need to address that volatility, and we have launched a contract," Masiero said.

"The underlying price is settled in a basket of Fastmarkets and CRU [assessments], with 50% weighting, and is settled monthly using the average of the PRA prices," he added. "We developed the price on the basis of feedback from the market."

The LME said there have been multiple bids and offers seen through the LME Select platform.

"It is a long process and we have only just begun, but we have confidence in the product," Masiero said.

"We saw with aluminium, which is by far our most traded contract, that it takes time to build liquidity," he concluded. "It is a long process but we are providing all the right options. Everyone knows how in touch we are with the aluminium industry."

ALICE MASON

MIAMI

BAUXITE & ALUMINA CONF: India will need 60 mln tpy bauxite by 2030, IBAAS says

India will need to produce or import of 60 million tonnes per year of bauxite by 2030 to meet its aluminium needs, an executive at the International Bauxite, Alumina and Alumininium Society (IBAAS) said during Fastmarkets' 25th Bauxite & Alumina conference in Miami on Wednesday March 27.

Domestic Indian production will be dependent on the availability of other raw materials such as caustic soda and energy, Ashok Nandi told conference delegates.

Current import needs are projected to be around 4 million tpy, with production forecast to be 24 million tpy and consumption of 28 million tpy, Nandi said.

India is making up the shortfall with imports from Guinea and Sierra Leone, he noted, although several Eastern Ghats bauxite deposits are yet to be developed and other large deposits are in the pipeline for development, depending regulatory approvals.

Recently, one new mine opened in the Indian state of Odisha and is supplying around 3 million tpy to Vedanta's Lanjigarh refinery in the same state, Nandi added.

According to Nandi, India's alumina production is currently 7.5

million tpy while its production of aluminium is 3.3 million tpy.

The approximate cost of alumina production using MRN bauxite from Brazil is \$298 a tonne, falling to \$270 for low-grade domestic Indian bauxite, \$257 for CBG bauxite from Guinea and as low as \$166 per tonne for bauxite from Utkal, India.

"India has to first provide bauxite to the starving, existing alumina refinery of Odisha requiring about 15 million tonnes annually and also a new plant in Andhra Pradesh," Nandi told delegates.

Anrak Aluminium Ltd, a joint venture of Penna Group and Ras Al Khaimah Investment Authority, is gearing up to start a 1.5 million tpy refinery in Makavaripalem, Andhra Pradesh.

Fastmarkets' benchmark daily alumina index fob Australia stands at \$413.28 per tonne on March 26, its highest since December 2018 on tight spot market supply.

ANDREA HOTTER

LONDON, MIAMI

PEOPLE MOVES: Robin Scheiner to head consolidated Glencore aluminium-alumina book; Streule departs

Robin Scheiner will lead a merged aluminium-alumina department at Glencore following the departure of David Streule, sources close to the matter told Fastmarkets.

"Change will take place in the coming weeks or months," a source close to the matter said, while two sources said Streule will be departing by the end of June.

Streule will leave Glencore after six years at the firm to study an MBA, sources said. He has been in charge of alumina and bauxite trading there since 2016.

Scheiner and Streule ran the Glencore division in tandem after Andrew Caplan stepped down as the sole head in 2016, with Scheiner focusing on refined aluminium and Streule on raw materials.

The moves will see the department revert to its old structure, with Scheiner the sole head of marketing and industrial, supported by senior traders, sources said.

Glencore trades throughout the aluminium supply chain, from alumina and P1020 aluminium to further downstream aluminium products, such as billets and primary foundry alloys.

The department has a global presence and sold 10.2 million tonnes of aluminium and alumina in 2018, according to its annual preliminary results.

PERRINE FAYE, ARCHIE HUNTER, JUSTIN YANG, ALICE MASON

SÃO PAULO

Vale's quality focus brings highest premium over LME nickel since 2002

Brazilian miner Vale sold its nickel products at a \$545 per tonne premium over the London Metal Exchange benchmark price in 2018, the company said in an earnings report published on Wednesday March 27.

The premium of 4.20% above LME prices was the highest achieved by the company since 2002, it said.

According to Vale, the average realized price in the year was \$13,667 per tonne, with the company focusing on the potential of its nickel assets. Sales volumes were 236,000 tonnes in 2018, down from 295,000 tonnes in the previous year, but net revenues totaled \$3.23 billion, higher than \$3.14 billion in 2017.

The miner secured the higher premiums because nickel intermediates made up fewer of its shipments during the year. Class I nickel and battery-grade class II nickel dominated the

company's sales.

Class I nickel shipments totaled 137,000 tonnes, down from 158,000 tonnes in 2017, but made up a higher percentage of total volumes, up year on year to 58.05% from 53.55%. Class II battery-grade volumes were 61,000 tonnes, compared with 74,000 tonnes in the previous year, with the percentage falling to 25.85% from 25.10%.

Fastmarkets' nickel briquettes premium indicator averaged \$260.28-288.68 per tonne, in-warehouse Rotterdam, during 2018. This was up compared with \$198.85-236.25 per tonne in 2017. Premiums were last assessed at \$250-280 per tonne on March 26, the highest level in 2019 to date.

LME three-month nickel contracts averaged \$13,176-13,189 per tonne in 2018, compared with \$10,457-10,467 per tonne in the previous year. The price was \$13,075-13,100 per tonne on March 27.

Copper sales volumes totaled 274,000 tonnes in 2018, down from 281,000 tonnes a year before. Revenues were \$1.54 billion, down compared with \$1.69 billion in 2017.

Vale's base metals division - which also includes gold, silver and cobalt products - recorded \$6.7 billion in net revenues last year, down from \$6.87 billion in 2017. But adjusted earnings before interest, taxes, depreciation and amortization (Ebitda) were \$2.54 billion, up from \$2.26 billion.

RENATO ROSTÁS

NEW YORK, LONDON, SHANGHAI

GLOBAL NICKEL WRAP: US spot market strong; European premiums flat

Improving end-user demand boosted the US premium for 4x4 nickel cut cathode in the week ended Tuesday March 26, but European market participants were bearish leading to a flat market, and China was quiet due to a closed import window.

- US cut cathode premium moves up again
- European traders deterred by LME nickel contango
- China's trade mostly domestic, partly to avail of recent tax cuts

US CATHODES EDGE UP, BRIQUETTES FIRM, ON SOLID DEMAND

The premium for cut cathodes moved up on the bottom end for the second week in a row, again rising by 2 cents per lb, on strengthening demand and continued cathode-cutting delays. Briquettes, which last week had also risen on the low end, this week stayed put.

Fastmarkets' assessment of the US nickel 4x4 cut cathode premium, delivered consumer works, was 39-45 cents per lb on Tuesday March 26, up from 37-45 cents per lb on March 19.

Fastmarkets assessed the US nickel briquette premium, delivered consumer works, at 25-28 cents per lb on Tuesday, unchanged week on week.

One distributor said he could not supply cut cathodes now if asked because there are none to be had in the US while cathodecutting remains delayed in Europe.

Meanwhile, others noted demand remains very strong from the aerospace and energy sectors that favor cut cathodes over briquettes.

Additionally, demand is picking up from major nickel consumer the stainless steel sector, although this consumer uses briquettes more than cut cathodes.

Several sources reported a big increase in briquette inquiries in the past few weeks, reflecting what many see as a second quarter that will be much stronger than the first.

"The spot market is starting to slowly creep up from the first

quarter, which was fairly stagnant," one source said.

A second supplier suggested that because the steel mills have raised their prices for April, they will make more steel and that means demand for nickel will increase.

And data from the American Iron and Steel Institute (AISI) shows that mills have been operating at a higher rate. US mills were operating at a capacity utilization rate of 83.1% in the week to March 25 and a rate of 81.6% for the year through March 23; those figures are up from 78.3% and 76.6%, respectively, in the same year-earlier periods, according to the AISI.

EUROPEAN NICKEL PREMIUMS STABLE WHILE MACRO UNCERTAINTY INHIBITS TRADE

European appetite for nickel remains off as the first quarter of 2019 draws to a close.

The consensus is that market participants are bearish from continued dampened nickel demand from European steel mills as the first financial quarter ends low.

Fastmarkets assessed the premiums for cut cathode on an in-warehouse Rotterdam basis at \$450-500 per tonne on Tuesday, while uncut cathode was at \$190-220 per tonne and briquette material was assessed at \$250-280 per tonne, all unchanged week on week.

Participants reported buyers are reticent given the ongoing macroeconomic uncertainty emanating from the United States and China, with both countries yet to agree a trade deal.

European steel mills were said to have been disinclined to purchase nickel at the relatively high prevailing three-month price on the London Metal Exchange, which has been around \$13,000 per tonne in March. This is despite healthy end-user demand for nickel-containing stainless steel products. The three-month price was \$10,525-10,530 per tonne at the start of the year

In the futures market, recent healthy contangoes in the nearby and cash/three-month nickel spreads, the latter at a \$97 per tonne contango, have not encouraging consumption, sources said.

"We expect fresh news in one or two weeks' time. We are moving into the next [financial] quarter with some stock overhang so we will start trying to build up our books again in April, when there is set to be more material in the spot market. We should have more precise information on the markets then," one European trader said.

The LME three-month nickel contract reflects this bearishness by continuing to trade below its \$13,000 psychological support level. It traded at \$12,947.50 per tonne on the midpoint on March 25, down \$67.50 per tonne from March 22's \$13,015 per tonne midpoint.

CHINESE TRADE QUIET WITH IMPORT WINDOW CLOSED

The arbitrage window for importing nickel from London to Shanghai remained closed in the week to Tuesday, with importers facing an arbitrage loss of around 2,000 yuan (\$298) for each tonne of nickel brought into the country as of March 26.

As a result of low demand, cif Shanghai nickel premiums were all unchanged week on week.

Meanwhile in the domestic market, the yuan-denominated premium for Nornickel full-plates was 2,500-2,700 yuan per tonne on Tuesday, unchanged from a week ago.

"Traders are focusing on domestic trades because they want to [benefit from] the 3 percentage point value-added tax (VAT) cut, and as for imports, there are very few bids and deals due to the closed import window and muted stainless steel demand in China," a Shanghai-based trader said.

"The bonded cargoes are not as popular as the seaborne cargoes due to the banks' preferred credit issuance on the latter. Offers, nowadays, are mainly for seaborne cargoes arriving in early April or continued >



later this month," a second Shanghai-based trader said.

Chinese Premier Li Keqiang said last Friday the VAT rate for the manufacturing sector will be cut to 13% from 16% at the beginning of April.

Shanghai-bonded nickel stocks increased by 1,500 tonnes month on month to 27,000-34,000 tonnes at the end of February. Slower consumption in February was attributed to the Chinese New Year holiday on February 4-19 and a closed import window throughout the month

VIOLET LI, ORLA O'SULLIVAN, AMY HINTON

NEW YORK

Aluminium trade groups call for Section 232 removal from USMCA parties

North American aluminium trade groups have called for President Donald Trump's administration to reinstate quota-free exemptions from the Section 232 aluminium tariffs for Canada and Mexico before the United States-Mexico-Canada Agreement (USMCA) is implemented.

The Aluminium Association, alongside the Aluminium Association of Canada and Mexican aluminium institute Imedal, released a joint letter to Trump, Canadian Prime Minister Justin Trudeau and Mexican President Andrés Manuel López Obrador on Tuesday March 26.

"The new USMCA cannot work as intended without reinstating exemptions for Canada and Mexico from the 232 tariffs," the groups wrote. "The Section 232 tariffs are limiting access for North American aluminium producers to reach their suppliers and customers – and in some cases, their own subsidiaries and facilities."

The trade associations also warned against applying any quotas to replace the 10% tariffs, indicating that quotas could be "potentially more damaging" than the tariffs in a period of "record demand," Aluminum Association senior director of public affairs Matt Meenan told Fastmarkets.

"A quota system would interfere [with] the continuous flow of products across our borders, because important value chains have been built," Imedal president Fernando Garcia told Fastmarkets, adding that semi-fabricated aluminium products may move freely across all three countries before reaching the final consumer.

If quotas were implemented, metal traders would be competing with mid- and downstream producers who need value-added primary aluminium with specific characteristics for their manufacturing processes, the letter noted. In a worst-case scenario, metal could get stuck on the wrong side of the border if the quota were reached.

"If there is a quota system for aluminium trade within North America, it will be difficult to ensure that downstream manufacturers of aluminium products will have access to the aluminium inputs they need," the trade groups wrote.

The Aluminum Association, which has previously called for exemptions to the Section 232 tariffs for Canada and Mexico, estimated that aluminium demand in the United States and Canada totaled roughly 28.24 billion lb in 2018, up 4% from 2017.

Tariffs may hinder USMCA ratification

The trilateral trade deal, which was signed by the leaders of Canada, Mexico and US in November last year, may not be ratified unless the tariffs against imported metals from Canada and Mexico are removed, several sources told Fastmarkets. The agreement ultimately requires approval from each countries' legislatures in

order to take effect.

The Aluminium Association of Canada is calling for the "total abolition" of the Section 232 system, which is costing the Canadian aluminium industry "\$60 million every month," according to the association's president and chief executive officer, Jean Simard.

This sentiment was echoed by Canadian Foreign Affairs Minister Chrystia Freeland, who met with US Trade Representative Robert Lighthizer on March 25. Following that meeting, Freeland indicated in media remarks that Canadian support for ratifying the USMCA may be withheld unless the Section 232 tariffs are lifted.

While the 232 tariffs and quotas were implemented against most countries and regions one year ago, Canada and Mexico - alongside the European Union - were granted temporary exemptions before getting hit with the full trade duties on June 1, 2018.

RIJUTA DEY BERA



	Price	Change [†]	Assessed
Molybdic oxide, in-whs Rotterdam (\$/lb Mo)	12.07-12.20	-2.53%	▼ 27 Mar 19
Molybdic oxide, USA (\$/lb Mo)	12.60-12.95	1.39%	▲ 21 Mar 19
Ferro-molybdenum, basis 65% min, in-whs Rotterdam (\$/kg Mo)	28.60-28.80	-1.54%	▼ 27 Mar 19
Tungsten, APT, in-whs Rotterdam (\$/mtu)	271.00-282.00	0%	22 Mar 19
Ferro-tungsten, basis 75% W, in-whs Rotterdam (\$/kg W)	35.50-36.50	0%	27 Mar 19
Ferro-vanadium, basis 78% min, free delivery duty paid consumer plant, 1st grade, Western Europe (\$/kg V)	55.50-58.00	-8.47%	▼ 27 Mar 19
US free market ferro-vanadium \$/lb in-warehouse Pittsburgh	36.00-37.00*	-5.19%	▼ 21 Mar 19
Vanadium pentoxide, min 98% V, (\$/lb V2O5)	13.25-14.50	-15.91%	▼ 22 Mar 19
FASTMARKETS' KEY BULK ALLOYS AND (ORE PRICES		
	Price	Change [†]	Assessed
Charge chrome 50% Cr index cif Shanghai (\$/lb Cr)	0.87	2.35%	▲ 22 Mar 19
Manganese ore index 44% Mn cif Tianjin (\$/dmtu)	6.36	-3.34%	▼ 22 Mar 19
Manganese ore index 37% Mn fob Port Elizabeth (\$/dmtu)	5.56	1.65%	▲ 22 Mar 19
Manganese ore index 37% Mn cif Tianjin China (\$/dmtu)	6.22	1.3%	▲ 22 Mar 19
Ferro-chrome, 6-8% C, basis 60% Cr, del European consumers (\$/lb Cr)	0.98-1.14	0%	22 Mar 19
South African UG2 chrome ore concs, index basis 42%	185-185	0.54%	▲ 22 Mar 19
Ferro-manganese, basis 78% Mn, del European consumers (€/t)	1,060-1,080	0%	22 Mar 19
Ferro-manganese, basis 78% Mn, in-whs Pittsburgh (\$/long ton)	1,350-1,380	2.44%	▲ 21 Mar 19
O::: b:- CF 7F0/ M-			
Silico-manganese, basis 65-75% Mn, 15-19% Si, del European consumers (€/t)	1,000-1,030	0%	22 Mar 19

LONDON

FOCUS: Vanadium market underestimates ferro-niobium switch; ferro-vanadium prices tumble 25% in March

Weaker-than-expected demand from steel mills following the introduction of new rebar standards in China and increased use of ferro-niobium there have hit the ferro-vanadium market with prices in Europe now trading at levels last seen in December 2017.

So far this month, the European ferro-vanadium price has fallen by more than 25%

Fastmarkets assessed the price for ferro-vanadium, 78% min, free delivered duty-paid, Europe, at \$55.50-58 per kg on Wednesday March 27. This was down by 4.6% from last Friday's assessment of \$57.50-61.50 per kg.

In China, the weekly export price for ferro-vanadium, min 78%, fob China, was last assessed on Thursday March 28 at \$58-62.50 per kg, from \$64-67 per kg previously. The market is now trading at its lowest level since February 2018 and is down more than 19% since the beginning of the month.

Prices have now fallen by more than 50% from the all-time high reached in mid-November last year of \$126-128 per kg in Europe and

\$130-140 per kg in China.

Ferro-vanadium prices in the Chinese and European markets both hit all-time highs last year in part due to an anticipated increase in demand arising from the implementation of new rebar manufacturing standards in China, which came into effect on November 1.

But prices began to drop sharply late last year when market participants realized that enforcement of the revised rebar policy was not as stringent as had been expected and still mills increased their use of ferro-niobium to minimize their more costly vanadium consumption.

Ferro-vanadium is primarily used to produce steel rebar, one of the most important materials for infrastructure and house building. But Chinese mills have shown more interest in buying ferro-niobium, according to market sources, because this alloy's prices are comparatively more stable and much cheaper than those for vanadium products and do not have a history of price volatility.

NEW REBAR STANDARDS

"It looks like ferro-vanadium producers in China underestimated ferro-niobium consumption," a ferro-vanadium trader in Europe said.

Ferro-niobium deals are typically agreed on a multi-year, fixed-price basis, rather than being tagged to third-party spot price assessments that fluctuate according to market fundamentals.

"Specifications relating to rebar don't usually specify anything chemically, but they do ask for a certain tensile [strength]," a rebar producer noted.

Rebar producers can achieve those standards by using either more ferro-vanadium or ferro-niobium, Fastmarkets understands.

As well, some rebar producers in China have been adding more silico-manganese in their production process to circumvent adding ferro-vanadium and to cut costs, market sources told Fastmarkets.

The central government has not sent inspection teams to supervise how domestic mills are carrying out their operations under the new rebar policy, according to China-based sources.

The policy requires Chinese steel mills to eliminate the original 335 megapascals (MPa)-tensile strength rebar and start producing 600MPa-tensile strength rebar, which has better earthquake resistance.

In doing so, the policy encourages domestic Chinese mills to utilize greater volumes of alloys to meet the revised strength requirements. The policy also seeks to restrict the production of rebar via the water-quenching process, which produces rebar that has lower durability because it rusts easily and therefore poses a risk to building safety.

The substitution of ferro-vanadium with ferro-niobium is product-dependent and can affect the quality of the steel, Fastmarkets understands. Ferro-niobium can work well in auto sheet applications and smaller rebars, while it does not work as well as ferro-vanadium in large structural beams because it can cause brittleness, according to market sources.

As well, the rolling process using ferro-niobium needs to be run at higher temperatures, which in effect reduces productivity by around 5%, market sources said.

FERRO-NIOBIUM DEMAND GROWS

The strength of the ferro-vanadium price in China in the second half of last year prompted a major influx of ferro-niobium to the country amid strong demand from the steel mills who are desperate to cut their production costs.

Chinese imports of ferro-niobium hit a multi-year high of 35,909 tonnes in 2018 – this was about 30% higher than the 2017 total, while shipments hit an all-time high for a single month of 7,010 tonnes in



January this year, according to official but unconfirmed data seen by Fastmarkets.

Although the price of ferro-vanadium has fallen sharply since November, it is still too expensive for steel consumers at current levels, the first ferro-vanadium trader said, compared with ferro-niobium which is now trading at around \$47-48 per kg level, in-warehouse Rotterdam basis, according to market sources.

"Seems like the current ferro-niobium price is the target for ferro-vanadium," a second ferro-vanadium trader said. "I don't see the bottom for ferro-vanadium prices yet, it still has some way to go."

"Steel mills have no interest in purchasing vanadium still. We need to see it moving down to levels similar with niobium for mills to start using vanadium again," a vanadium producer said.

But the increased interest in ferro-niobium from steel mills has caused the alloy's market in Asia to tighten with second-quarter prices being raised and most suppliers being sold out for prompt material, market sources said.

One ferro-niobium trader said there is about a one to two month wait for material now.

Underpinned by strong demand, ferro-niobium producers have increased their capacity. In January 2019, Companhia Brasileira de Metalurgia e Mineração (CBMM), the world's largest niobium producer, said it will boost its ferro-niobium capacity by 50% over the next two years.

The company expects to end 2020 with capacity of 150,000 tonnes per year.

According to its own calculations, the producer's proven reserves are enough to supply the market for almost 200 years at today's level of demand.

But although further volatility and downward shifts are likely in the vanadium market globally in the near term, prices are expected to regain momentum as the second quarter of 2019 progresses, according to Fastmarkets MB analyst Amy Bennett.

"The second quarter is typically characterized by peak steel production, and in turn, alloy consumption, and we believe Chinese economic stimulus efforts will also boost demand in the coming quarter," Bennett said. "Vanadium supply will remain tight in 2019, and although volatility will remain a feature of the market, prices will continue to trend well above long-term averages," she said.

"People know vanadium and how it works, so they will switch back to that when prices fall enough," the rebar producer said.

EWA MANTHEY

LONDON

Largo sets V2O5 production high in 2018, record revenues on strong prices

Largo Resources achieved new highs in 2018 for production and revenue at its Maracas Menchen mine in Brazil, with record output of vanadium pentoxide.

The Toronto-based vanadium producer showed total production of 9,830 tonnes of vanadium pentoxide (V2O5) in 2018 at the mine in the state of Bahia. This exceeded midpoint guidance of 9,650 tonnes by 2% and was a 6% increase over the total for 2017.

This made 2018 the strongest full year of production from the mine since operations commenced in 2014, the company said this week.

Largo also achieved a new quarterly production record in the fourth quarter of 2018, with 2,595 tonnes of V2O5 produced. This was up by 1% from the previous quarter and meant that growth was

up in every quarter of the year.

Since then, production in January 2019 totaled 816 tonnes of V2O5, and 735 tonnes in February.

Production in January was slightly affected by maintenance work in the fusion section of the plant and an unexpected power shut-down at the end of the month, the company said.

Production in February was affected by a number of similarly unexpected power outages and corrective maintenance on the fusion pan conveyor. Small kiln refractory replacements were completed during both months, to repair hot spots and maintain operational stability, the company added.

Global V2O5 recovery rates averaged 77.0% in 2018, representing an increase of 1.7% over the previous year. Recoveries of 75.3% in the fourth quarter of 2018 were down year on year from 79.4% in the fourth quarter of 2017 due to issues with kiln stability, the producer said.

Sales of V2O5 during October-December 2018 totaled 2,520 tonnes, including 360 tonnes of high-purity V2O5. Total high purity V2O5 sales in 2018 were 1,440 tonnes.

The expansion project to achieve V2O5 production at a rate of 1,000 tonnes per month was progressing as planned, with completion scheduled for the end of the second quarter of 2019, the producer said.

Largo expected the expansion ramp-up to be completed during the third quarter of 2019, and expected to reach the increased nameplate production rate of 1,000 tpm from the beginning of the fourth quarter of this year.

RECORD REVENUES

The company showed record revenues in 2018 of \$521.4 million, compared with \$167.7 million in 2017. This represented a 211% year on year increase and was the highest annual revenue recorded by the producer to date.

The significant increase in revenues over 2017 was primarily attributable to an increase in V2O5 prices and record production achieved in 2018, the company said.

"2018 was an outstanding year for Largo," chief executive officer Mark Smith said, "because it delivered extremely robust financial results with net income of \$316 million while also consecutively increasing quarterly production at the Maracás Menchen mine, allowing the company to exceed its production guidance midpoint by 2%"

Revenues in the fourth quarter of 2018 reached \$177.5 million, up by 262% from October-December 2017 and up by 19% from July-September last year.

The average price of V2O5 was approximately \$18.30 per lb in 2018, compared with \$6.52 per lb in 2017, the company said.

In January 2019, the average price of V2O5 was approximately \$16.28 per lb, significantly lower than the average of \$24.53 per lb in the last quarter of 2018. As a consequence, the company expected to see a "significant negative re-measurement of trade receivables" in its reported revenues for the first quarter of 2019, it said.

European V2O5 prices reached an all-time high of \$28.50-29.15 per lb on November 16 last year, amid global supply concerns, according to Fastmarkets' historical data.

But since then, prices have lost upward momentum. Fastmarkets last assessed V2O5 prices at \$13.25-14.50 per lb on March 22, a level last seen in January 2018.

EWA MANTHEY



LONDON, SINGAPORE, SHANGHAI

Chrome, manganese ore, alloys markets disagree on effect of Chinese VAT cut

China's intention to cut the rate of value-added tax to 13% has already been credited for an increase in imported ore prices and having a bearish effect on alloys, Fastmarkets heard on Wednesday March 27.

The rate of VAT in the east Asian country applicable to manufacturers will be lowered from April 1 by 3 percentage points, to 13%, with the intention of stimulating China's slowing economy.

The tax cut should have no noticeable effect on prices in any particular sector once it has been fully implemented, because it will apply equally throughout the supply chain, according to a ferrochrome supplier to China.

"The VAT cut means that everyone is paying less. It's a full circle and it should have no effect on prices, but it will free up cash-flow and increase liquidity. It's a stimulant," the source told Fastmarkets.

In the meantime, different parts of the market have said that the reform will support their industries.

There have been reports that buyers of ferro-chrome will reduce their price bids in response to the stimulus, while chrome and manganese ore suppliers have argued that their customers could absorb higher raw materials prices when their VAT rate is cut.

Some argued that various market participants were attempting to use the VAT cut to improve their own margins. "The mills will always try to pressure the ferro-chrome producers and push prices as low as they can," one said.

Meanwhile, some exporters into China argued that the imminent reduction in VAT has given ore consumers in China the capacity to pay higher prices.

"Based on the same ferro-chrome yuan price before the cut, smelters can pay a higher price for ore because their VAT number has come down," a supplier to China told Fastmarkets.

"It's already making a difference; for international dollar prices, it's positive," the source added.

One exporter of semi-carbonate manganese ore argued that end-users were already prepared to accept higher offer prices.

"The increase [in prices] has been driven by lower VAT rates, which has allowed buyers to pay higher prices," one producer said.

Fastmarkets' index for 37% manganese ore, cif Shanghai, rose by \$0.08 per dry metric tonne unit to \$6.22 per dmtu when it was calculated on March 22.

But VAT is not included in offer or sales prices for ore, so a lower VAT rate would not support higher ore prices, one trader said.

"It would be ridiculous for suppliers to raise their offer prices due to the Chinese VAT cut, because their offer prices don't include any domestic Chinese VAT," he said.

Instead, he argued that a lower VAT rate would be bearish for the manganese ores and alloys market, because ultimately the reduction would be passed on to steel consumers.

"The VAT cut is practised in the whole manganese supply chain in China, so when alloy refineries or steel mills sell finished products, they will also be forced to offer [at] lower [prices] due to the VAT cut," he said.

Rather than supporting higher ore prices, lower VAT could have bearish consequences, according to some market participants. It has led some alloy producers to reduce the volume of their inquiries for spot manganese ore.

"Spot trades have been poor this week because some buyers intended to hold back until April, when the VAT is cut," a trader said on March 22.

In chrome ore, the effect of the reduction on the price of material imported into China will be muted because of high stock levels and the availability of chrome domestically, according to some sources in China

Despite the release of higher tender prices for ferro-chrome in April by three major Chinese stainless steel mills on March 22, the chrome ore market in China remained muted ahead of the implementation of the VAT cut.

The increase in the tender price by 300 yuan (\$45) per tonne was less than some market participants had expected but it was believed to have included the effects of the lower VAT rate.

"The effect of the change in the Chinese VAT rate has already been fully factored into market expectations through the latest tender price increase, and any talk of the change in VAT having further consequences for market pricing is therefore baseless," a supplier source said.

But other parts of the market were waiting to see what effect the reform would have, and this was reported to have reduced the level of activity.

"Many participants are waiting and watching [to see] how the 13% tax policy will be implemented in April," a China-based source said, "but the market is likely to become active again in the middle of the month."

ALLOYS

The effect of lower VAT could be bearish on alloy prices in China rather than allowing room for higher ore prices, according to some sources.

"This is especially true for ferro-chrome prices, with rumors of a 0.03 per lb reduction in the ferro-chrome price relating to VAT," one trader of imported material said.

No bearish results from the VAT cut were evident when the imported charge chrome market in China was last calculated. Fastmarkets' index for charge chrome, cif Shanghai, rose by \$0.02 per lb to \$0.87 per lb on March 22.

The charge chrome index has risen by 7.4% or \$0.06 per lb since it was calculated at \$0.81 per lb on February 22.

Market fundamentals supported higher imported ferro-chrome prices and this was likely to continue, regardless of any bearish effect from VAT reforms, according to a ferro-chrome producer.

"The market is strengthening on concerns in China that there will be fundamental supply shortages over the coming months, due to electricity supply issues in South Africa and China," he said. "Prices are going up, and anyone who says they are going down because of the VAT cut is clutching at straws."

But China's domestic spot ferro-chrome prices has been slipping since the market was last assessed due to the coming VAT cut, market sources told Fastmarkets this week.

Fastmarkets' high-carbon ferro-chrome price assessment was stable week on week at 7,200-7,400 yuan (\$1,072-1,101) per tonne when it was assessed on March 22.

"I heard that the ex-works [ferro-chrome] price in northern China's Inner Mongolia [region] has dropped to around 7,000 yuan per tonne including VAT at 16% this week," a second Chinese source told Fastmarkets.

"Some traders with material on hand are eager to sell off their stocks before the [tax cut]," he added, "for fear of a steeper dip in the price after the 13% VAT rate comes into effect."

JANIE DAVIES, SUSAN ZOU, KAREN NG, JON STIBBS, AMY LV



LONDON, SHANGHAI

Trade log March 2019: Ferro-vanadium, V2O5

The latest ferro-vanadium and vanadium pentoxide (V2O5) transactions, bids, offers and assessments in Europe and China.

WEDNESDAY MARCH 27 FERRO-VANADIUM - \$55.5-58 PER KG

- 15 tonnes offered at \$55 per kg in Europe
- Offer at \$57 per kg in Europe
- Prices indicated at \$55-57 per kg in Europe
- Prices indicated at \$55-58 per kg in Europe
- 5 tonnes sold at \$58 per kg in Europe
- Prices indicated at \$55-58 per kg in Europe
- 10 tonnes sold at \$56.75 per kg in Europe
- Prices indicated at \$55-58 per kg in Europe
- 2 tonnes sold at \$56 per kg in Europe
- 4 tonnes sold at \$53.5 per kg in Europe
- 2 tonnes sold at \$55 per kg in Europe
- Material reportedly sold at \$54 per kg in Europe
- 1.5 tonnes sold at \$58 per kg in Europe
- Prices indicated at \$55 per kg in Europe
- Offer at \$59.8 per kg in Europe
- Prices indicated at \$55-58 per kg in Europe
- 5 tonnes reportedly sold at \$53 per kg in Europe
- 2 tonnes sold at \$54.5 per kg in Europe
- 2 tonnes sold at \$55.7 per kg in Europe
- 6 tonnes offered at \$54 per kg in Europe
- Prices indicated at \$54-56 per kg in Europe
- 5 tonnes sold at \$57.75 per kg in Europe
- 8 tonnes reportedly sold at \$54 per kg in Europe
- Prices indicated at \$54-58 per kg in Europe
- 5 tonnes sold at \$57 per kg in Europe
- 5 tonnes sold at \$55.5 per kg in Europe
- Prices indicated at \$55-57 per kg in Europe

FRIDAY MARCH 22 FERRO-VANADIUM - \$57.5-61.5 PER KG

- 10 tonnes sold at \$57.5 per kg in Europe
- Prices indicated at \$58-60 per kg in Europe
- 2 tonnes reportedly sold at \$59 per kg in Europe
- 10 tonnes offered at \$60 per kg in Europe
- Prices indicated at \$56-60 per kg in Europe
- Material reportedly sold below \$57 per kg in Europe
- Prices indicated at \$58-60 per kg in Europe
- Small quantities sold at \$58-62 per kg in Europe
- Prices indicated at \$58-61 per kg in Europe
- Prices indicated at \$57-60 per kg in Europe
- Offers at \$58.5-60 per kg in Europe
- Prices indicated at \$58-60 per kg in Europe
- Prices indicated at \$55-60 per kg in Europe
- 3 tonnes sold at \$55 per kg in Europe
- 3 tonnes sold at \$59 per kg in Europe
- Prices indicated at \$58-60 per kg in Europe
- 7 tonnes sold at \$63.5 per kg in Europe
- Prices indicated at \$58-63 per kg in Europe
- 5 tonnes sold at \$61.5 per kg in Europe
- Offer at \$61 per kg in Europe
- Bid at \$58.5 per kg in Europe

- Prices indicated at \$56-58 per kg in Europe
- 3 tonnes bought at \$57 per kg in Europe
- 3 tonnes sold at \$60 per kg in Europe
- Prices indicated at \$58-60 per kg in Europe
- Offers at \$58-58.05 per kg in Europe
- Bids at \$54-55 per kg in Europe

V2O5 - \$13.25-14.5 PER LB

- Prices indicated at \$13.5-15 per lb in Europe
- Offer at \$13.5 per lb in Europe
- 20 tonnes offered at \$13.5 per lb in Europe
- Prices indicated at \$11.5-13.5 per in Europe
- 20 tonnes bought at \$11.5 per lb in Europe
- 40 tonnes offered at \$13.25 per lb in Europe
- 40 tonnes offered at \$13.5 per lb in Europe
- Prices indicated at \$15-16 per lb in Europe
- Offers at \$15-16 per lb in Europe
- Prices indicated at \$13.5-14.5 per lb in Europe
- 20 tonnes sold at \$11.5 per lb in Europe

THURSDAY MARCH 21 FERRO-VANADIUM - \$64-67 PER KG

- Prices indicated at \$65 per kg fob China
- Offers at \$69 per kg fob China
- Prices indicated at \$65 per kg fob China
- Offers at \$66-67 per kg fob China
- Prices indicated at \$64-65 per kg fob China
- Offers at \$66.50 per kg fob China
- Prices indicated at \$60-65 per kg fob China
- Prices indicated at \$62 per kg fob China
- Offers at \$64 per kg fob China
- Prices indicated at \$64 per kg fob China
- Offers at \$64-67 per kg fob China
- Prices indicated at \$65 per kg fob China
- Offers at \$69 per kg fob China
- Prices indicated at \$69 per kg fob China

VANADIUM PENTOXIDE - \$14.00-15.00 PER LB

- Prices indicated at \$14 per lb fob China
- Prices indicated at \$15 per lb fob China
- Prices indicated at \$14 per lb fob China
- Prices indicated at \$13.50-15 per lb fob China
- Prices indicated at \$14 per lb fob China
- Prices indicated at \$13.50-14 per lb fob China
- Prices indicated at \$16 per lb fob China
- Prices indicated at \$14 per lb fob China
- Prices indicated at \$14 per lb fob China

WEDNESDAY MARCH 20 FERRO-VANADIUM - \$60-64 PER KG

- Prices indicated at \$59-62 per kg in Europe
- 2 tonnes sold at \$62 per kg in Europe
- Prices indicated at \$60-63 per kg in Europe
- Prices indicated at \$58-62 per kg in Europe
- Prices indicated at \$58.50-62.50 per kg in Europe
- Small quantities sold at \$62-63 per kg in Europe
- Offers at \$58-62 per kg in Europe
- Prices indicated at \$58-62 per kg in Europe
- 3 tonnes reportedly bought at \$59 per kg in Europe
- Offers at \$65-66 per kg in Europe
- Bids at \$62-63 per kg in Europe
- Offer at \$66 per kg in Europe
- Prices indicated at \$62-64 per kg in Europe



- Offers at \$63-65 per kg in Europe
- Material reportedly bought below \$57 per kg in Europe
- Prices indicated at \$59-62 per kg in Europe
- Prices indicated at \$61-69 per kg in Europe
- 5 tonnes sold at \$69.50 per kg in Europe
- Offers at \$62-63 per kg in Europe
- Offers at \$64.30-64.50 per kg in Europe
- Prices indicated at \$62-64 per kg in Europe

FRIDAY MARCH 15 FERRO-VANADIUM - \$66-71 PER KG

- Prices indicated at \$65-70 per kg in Europe
- Prices indicated at \$66-71 per kg in Europe
- Offers at \$66-71 per kg in Europe
- Prices indicated at \$66-70 per kg in Europe
- ullet 5 tonnes reportedly sold at \$65.80 per kg in Europe
- Offers at \$62-64 per kg in Europe
- Prices indicated at \$70 per kg in Europe
- Prices indicated at \$70 per kg in Europe
- Material reportedly sold at \$67-68 per kg in Europe
- Offer at \$62 per kg in Europe
- ullet Offer at \$64 per kg in Europe
- Offer at \$64 per kg in Europe
- 10 tonnes offered at \$65 per kg in Europe
- Prices indicated at \$63-65 per kg in Europe
- ullet 5 tonnes reportedly sold at \$65.80 per kg in Europe
- 7 tonnes sold at \$71 per kg in Europe
- 5 tonnes sold at \$70 per kg in Europe
- Prices indicated at \$65.80-71 per kg in Europe
- Small volumes reportedly sold at \$61-62 per kg in Europe

V2O5 - \$16-17 PER LB

- 20 tonnes bought at \$16 per lb in Europe
- 40 tonnes offered at \$16 per lb in Europe
- Offer at \$15.75 per lb in Europe
- Prices indicated at \$15.50-16 per lb in Europe
- Bid at \$14 per lb in Europe
- Prices indicated at \$16-17 per lb in Europe
- Prices indicated at \$17 per lb in Europe

THURSDAY MARCH 14 FERRO-VANADIUM - \$68-72 PER KG

- Offers at \$71 per kg fob China
- Prices indicated at \$70 per kg fob China
- Offers at \$72 per kg fob China
- Prices indicated at \$71 per kg fob China
- Prices indicated at \$68-69 per kg fob China
- Offers at \$71.50 per kg fob China
- Offers at \$70.50 per kg fob China
- Prices indicated at \$68.50 per kg fob China
- A small volume traded at \$70 per kg fob China
- Prices indicated at \$67-68 per kg fob China
- Offers at \$72 per kg fob China
- Prices indicated at \$72 per kg fob China

VANADIUM PENTOXIDE - \$15.50-16.50 PER LB

- Prices indicated at \$15.50 per lb fob China
- Prices indicated at \$15.50 per lb fob China
- Prices indicated at \$15.50 per lb fob China

- Prices indicated at \$15.50-16.50 per lb fob China
- Prices indicated at \$15.50 per lb fob China
- Prices indicated at \$15.50 per lb fob China
- Prices indicated at \$15.50 per lb fob China
 Prices indicated at \$15-15.50 per lb fob China
- Prices indicated at \$15.50 per lb fob China

WEDNESDAY MARCH 13 FERRO-VANADIUM - \$68.50-73 PER KG

- Prices indicated at \$67-68 per kg in Europe
- 5 tonnes offered at \$69.50 per kg in Europe
- 10 tonnes offered at \$69.50 per kg in Europe
- 5 tonnes reportedly sold at \$65 per kg in Europe
- Prices indicated at \$70-72 per kg in Europe
- 6 tonnes sold at \$71.50 per kg in Europe
- 1 tonne sold at \$75.50 per kg in Europe
- 500 kg sold at \$73.70 per kg in Europe
- 20 tonnes reportedly sold at \$68.50 per kg in Europe
- Prices indicated at \$68.50-71.50 per kg in Europe
- Prices indicated at \$70-72 per kg in Europe
- Offers at \$70-72 per kg in Europe
- Offer at \$68 per kg in Europe
- Prices indicated at \$68 per kg in Europe
- Prices indicated at \$65-66 per kg in Europe
- Offers at \$65-66 per kg in Europe
- 5 tonnes sold at \$74 per kg in Europe
- 5 tonnes sold at \$73 per kg in Europe

FRIDAY MARCH 8 FERRO-VANADIUM - \$71.50-76 PER KG

- 20 tonnes reportedly sold at \$71 per kg in Europe
- 40 tonnes offered at \$71.60 per kg in Europe
- 40 tonnes reportedly sold at \$71.50 per kg in Europe
- Material reportedly sold below \$70 per kg in Europe
- Offers at \$72-73 per kg in Europe
- 3 tonnes sold at \$76.50 per kg in Europe
- 5 tonnes sold at \$76 per kg in Europe
- 40 tonnes reportedly sold at \$71.50 per kg in Europe
- 40 tonnes reportedly sold below \$70 per kg in Europe
- 40 tonnes offered at \$73 per kg in Europe
- 5 tonnes sold at \$72.50 per kg in Europe
- Prices indicated at \$73-75 per kg in Europe
- Material reportedly sold at \$74 per kg in Europe
- Material reportedly sold below \$72 per kg in Europe
- Offer at \$72 per kg in Europe
- 5 tonnes sold at \$76 per kg in Europe
- 5 tonnes reportedly sold above \$76 per kg in Europe

V2O5 - \$16.80-17.75 PER LB

- Prices indicated at \$17-17.75 per lb in Europe
- Prices indicated at \$17-17.75 per lb in Europe
- Offer at \$16.50 per lb in Europe
- 20 tonnes sold at \$16.80 per lb in Europe
- 5 tonnes sold at \$17.75 per lb in Europe
- Prices indicated at \$17-17.75 per lb in Europe
- Prices indicated at \$17-17.75 per lb in Europe

THURSDAY MARCH 7 FERRO-VANADIUM - \$73-76 PER KG

- Offers at \$75 per kg fob China
- Prices indicated at \$75-76 per kg fob China
- Offers at \$73 per kg fob China
- Prices indicated at \$70-73 per kg fob China



- Offers at \$74 per kg fob China
- Prices indicated at \$74 per kg fob China
- Offers at \$76 per kg fob China
- Prices indicated at \$75-76 per kg fob China

VANADIUM PENTOXIDE - \$16-17.20 PER LB

- Prices indicated at \$15.50 per lb fob China
- Prices indicated at \$16-17.20 per lb fob China
- Prices indicated at \$16 per lb fob China
- Prices indicated at \$16-17.20 per lb fob China
- Prices indicated at \$15.50 per lb fob China
- Prices indicated at \$16 per lb fob China
- Prices indicated at \$15.50 per lb fob China
- Prices indicated at \$15.50 per lb fob China

WEDNESDAY MARCH 6 FERRO-VANADIUM - \$75-76 PER KG

- Prices indicated at \$75-76 per kg in Europe
- Offer at \$73 per kg in Europe
- Offer at \$74 per kg in Europe
- Prices indicated at \$74-75 per kg in Europe
- Prices indicated at \$75-76 per kg in Europe
- Prices indicated at \$75-76 per kg in Europe
- Prices indicated at \$75 per kg in Europe
- Prices indicated at \$75 per kg in Europe
- Offer at \$73.90 per kg in Europe
- Prices indicated at \$75-76 per kg in Europe
- Prices indicated at \$75-76 per kg in Europe

FRIDAY MARCH 1 FERRO-VANADIUM - \$75-76 PER KG

- Prices indicated at \$75.50-76 per kg in Europe
- Offer at \$76 per kg in Europe
- Prices indicated at \$75-76 per kg in Europe
- 5 tonnes bought at \$74.50 per kg in Europe
- Prices indicated at \$75.50-76 per kg in Europe
- Prices indicated at \$75.50-76.50 per kg in Europe
- Prices indicated at \$75.50-76 per kg in Europe
- Prices indicated at \$75-76 per kg in Europe
- Prices indicated at \$75.50-76 per kg in Europe
- 2 tonnes sold at \$76 per kg in Europe
- Prices indicated at \$75-76 per kg in Europe
- 5 tonnes sold at \$75 per kg in Europe

V2O5 - \$17-17.75 PER LB

- Prices indicated at \$17-17.50 per lb in Europe
- Prices indicated at \$17-17.50 per lb in Europe
- Prices indicated at \$16.75-17.25 per lb in Europe
- 20 tonnes offered at \$17 per lb in Europe
- Prices indicated at \$17-17.75 per lb in Europe
- Prices indicated at \$17.50-18 per lb in Europe
- Offer at \$18 per lb in Europe
- Prices indicated at \$17-17.75 per lb in Europe
- 20 tonnes offered at \$17.50 per lb in Europe
- 20 tonnes offered at \$18 per lb in Europe

EWA MANTHEY, AMY LV

LONDON, SHANGHAI

Trade log March 2019: Ferro-tungsten, APT

The latest ferro-tungsten and ammonium paratungstate (APT) transactions, bids, offers and assessments in Europe, Vietnam and China, with blue tungsten oxide (BTO) and yellow tungsten oxide (YTO) deals taken into consideration.

WEDNESDAY MARCH 27

APT

- Prices indicated at \$275 per mtu fob China
- 40 tonnes sold at \$275 per mtu fob China
- Prices indicated at \$270-275 per mtu fob China
- Offer at \$275 per mtu fob China
- Prices indicated at \$270-277 per mtu fob China
- Prices indicated at \$270-277 per mtu fob China
- Prices indicated at \$35.5-36.5 per kg in Europe
- Offers at \$35.5-36 per kg in Europe
- Material sold at \$36 per kg in Europe
- Prices indicated at \$35.5-36.5 per kg in Europe
- Material reportedly sold at \$36 per kg in Europe
- 5 tonnes sold at \$35.5 per kg in Europe
- Prices indicated at \$35.5-36.5 per kg in Europe
- Prices indicated at \$35.5-36.5 per kg in Europe
- Prices indicated at \$35.5-36.5 per kg in Europe
- 5 tonnes sold at \$36 per kg in Europe

FRIDAY MARCH 22

APT

- Prices indicated at \$271-282 per mtu in Europe
- Prices indicated at \$271-282 per mtu in Europe
- Prices indicated at \$271-282 per mtu in Europe
- Prices indicated at \$271-282 per mtu in Europe
- Prices indicated at \$271-282 per mtu in Europe
- Prices indicated at \$271-282 per mtu in Europe

FERRO-TUNGSTEN

- 24 tonnes offered at \$36.1 per kg in Europe
- 24 tonnes reportedly sold below \$36 per kg in Europe
- Prices indicated at \$36-37 per kg in Europe
- Prices indicated at \$35-36 per kg in Europe
- 3 tonnes sold at \$36 per kg in Europe
- Prices indicated at \$36-37 per kg in Europe

WEDNESDAY MARCH 20

APT

- Offer at \$276-277 per mtu fob China
- Material reported sold at \$275 per mtu fob China
- Prices indicted at \$270-277 per mtu fob China
- Offer at \$275 per mtu fob China
- Offer at \$275 per mtu fob China
- Offer at \$275-280 per mtu fob China
- 20 tonnes sold at \$270 per mtu fob China
- Offer at \$270-275 per mtu fob China

FERRO-TUNGSTEN

- Offer at \$35 per kg fob China
- 20 tonnes sold at \$34.7 per kg fob China
- Prices indicated at \$34.7-36.5 per kg fob China
- Prices indicated at \$35.5-36.5 per kg in Europe
- Offer at \$35.9 per kg in Europe
- Offer at \$36 per kg in Europe
- Prices indicated at \$35.5-36.5 per kg in Europe



- Offer at \$37 per kg in Europe
- Prices indicated at \$35.5-37 per kg in Europe
- Offers at \$35.5-37 per kg in Europe
- Prices indicated at \$35-35.5 per kg in Europe

FRIDAY MARCH 15

APT

- Prices indicated at \$271-282 per mtu in Europe
- Prices indicated at \$271-282 per mtu in Europe
- Prices indicated at \$271-282 per mtu in Europe
- Offer at \$276.50 per mtu in Europe
- 20 tonnes sold at \$272 per mtu in Europe
- Prices indicted at \$271-282 per mtu in Europe
- Prices indicated at \$271-282 per mtu in Europe

FERRO-TUNGSTEN

- 5 tonnes reported sold at \$36.75 per kg in Europe
- Prices indicated at \$35.50-36.50 per kg in Europe
- Prices indicated at \$36-37 per kg in Europe
- Offer at \$38 per kg in Europe
- Prices indicated at \$35-36 per kg in Europe
- Prices indicated at \$36.50-37.00 per kg in Europe
- Small quantities sold at \$37 per kg in Europe

WEDNESDAY MARCH 13

APT

- Offer at \$270 per mtu fob China
- Offer at \$270-275 per mtu fob China
- Offer at \$275-280 per mtu fob China
- Material reported sold at \$275 per mtu fob China
- Prices indicated at \$270-275 per mtu fob China
- Offer at \$271 per mtu fob China
- Material reported sold at \$265 per mtu fob China
- Material reported sold at \$268 per mtu fob China
- Offer at \$270 per mtu fob China

FERRO-TUNGSTEN

- 5 tonnes sold at \$36 per kg fob China
- Prices indicated at \$34.50-36.50 per kg fob China
- 10 tonnes reported sold at \$36 per kg in Europe
- Prices indicated at \$35-36 per kg in Europe
- Prices indicated at \$35.50-36.50 per kg in Europe
- 10 tonnes reported sold at \$36 per kg in Europe
- Material reported sold at \$36 per kg in Europe
- Prices indicated at \$35-36 per kg in Europe
- Small tonnages sold at \$37 per kg in Europe

FRIDAY MARCH 8

APT

- 20 tonnes bought at \$275 per mtu in Europe
- 20 tonnes bought at \$271 per mtu in Europe
- 20 tonnes bought at \$269 per mtu in Europe
- 20 tonnes bought at \$282.50 per mtu in Europe
 Prices indicated at \$271-282 per mtu in Europe
- Offer at \$270 per mtu in Europe
- Prices indicated at \$270-280 per mtu in Europe
- Prices indicated at \$272-282 per mtu in Europe
- Offer at \$285 per mtu in Europe
- 20 tonnes sold at \$275 per mtu in Europe

- 20 tonnes bought at \$271 per mtu in Europe
- 20 tonnes sold at \$274 per mtu in Europe
- Prices indicated at \$271-282 per mtu in Europe
- 40 tonnes sold at \$282.50 per mtu in Europe

FERRO-TUNGSTEN

- Small quantities sold at \$36.25 per kg in Europe
- Prices indicated at \$35-36 per kg in Europe
- Offer at \$37.5 per kg in Europe
- Prices indicated at \$36-37 per kg in Europe
- Prices indicated at \$35-36 per kg in Europe

WEDNESDAY MARCH 6

APT

- Offer at \$270-275 per mtu fob China
- Material reported sold at \$265-270 per mtu fob China
- Prices indicated at \$265-275 per mtu fob China
- 20 tonnes sold at \$268 per mtu fob China
- 20 tonnes sold at \$274 per mtu fob China
- 20 tonnes sold at \$275 per mtu fob China
- 20 tonnes sold at \$277 per mtu fob China
- Offer at \$275 per mtu fob China
- Offer at \$275-277 per mtu fob China

FERRO-TUNGSTEN

- Offer at \$35 per kg fob China
- 25 tonnes sold at \$34.60 per kg fob China
- 5 tonnes sold at \$36.50 per kg fob China
- Material reported sold at \$34.50 per kg fob China
- Material reported sold at \$35 per kg fob China
- Material reported sold at \$36 per kg in Europe
- Small quantities sold at \$36.90 per kg in Europe
- Offer at \$37.50 per kg in Europe (forward)
- Prices indicated at \$35-36 per kg in Europe
- 6 tonnes reported sold at \$34 per kg in Europe
- Offers at \$36.00-36.50 per kg in Europe
 Prices indicated at \$36-37 per kg in Europe
- Offer at \$37 per kg in Europe

FRIDAY MARCH 1

APT

- 60 tonnes sold at \$271 per mtu in Europe
- Offer at \$280 per mtu in Europe
- Prices indicated at \$275-280 per mtu in Europe
- Prices indicated at \$270-280 per mtu in Europe
- Offer at \$285 per mtu in Europe
- Material reported sold at \$275 per mtu in Europe
- Prices indicated at \$275-285 per mtu in Europe
- 20 tonnes sold at \$280 per mtu in Europe
- Prices indicated at \$275-285 per mtu in Europe
- Material reported sold at \$282 per mtu in Europe
- Prices indicated at \$275-285 per mtu in Europe
- Offer at \$285 per mtu in Europe
- Prices indicated at \$265-275 per mtu in Europe
- 20 tonnes reported sold at \$275 per mtu in Europe
- 20 tonnes sold at \$263 per mtu in Europe

FERRO-TUNGSTEN

- Offer at \$36 per kg in Europe
- Offer at \$36 per kg in Europe
- 5 tonnes sold at \$36.25 per kg in Europe
- Prices indicated at \$36 per kg in Europe
 Offer at \$35 per kg in Europe



- Offer at \$36 per kg in Europe
- Offer at \$36 per kg in Europe
- Prices indicated at \$34.50 per kg in Europe

EWA MANTHEY, HUAQING FU

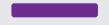


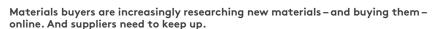






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Non-ferrous raw materials

SHANGHAI

CSPT slashes Q2 copper TC/RC purchase price floor by 21%

China's 10 biggest copper smelters have set a treatment and refining charges (TC/RCs) purchase price floor of \$73 per tonne/7.3 cents per lb for the second quarter of this year, sources close to the matter told Fastmarkets on Thursday March 28.

The latest price floor marks a 21% drop from the first quarter's level of \$92 per tonne/9.2 cents per lb and was set at the Copper Smelter Purchase Team's (CSPT) quarterly meeting in Shanghai on March 28.

The CSPT consists of Tongling Nonferrous Metals, Jiangxi Copper, Daye Nonferrous, China Gold, Baiyin Nonferrous, Gansu Jinchuan, Yunnan Copper, Zhongtiaoshan, Yantai Guorun and Zijin Mining.

"The level is roughly in line with the spot deals, and actually is close to some smelters' production costs, but an expected increase in refined copper production and expectations that increasing copper concentrate production will be difficult are weighing on TCs," a source at a China-based futures brokerage said.

"The production ramp-up in China comes after the 400,000-tonne-per-year Ningde smelter, a subsidiary of Aluminium Corp of China (Chinalco), was commissioned last June. The operation plans to produce 300,000-350,000 tonnes of copper in 2019," the above source added.

The smelter produced its first batch of copper in the middle of November 2018 and has already achieved its monthly production target for this month.

Ningde is fully reliant on imported copper concentrate and its feed comes from Chinalco's Toromocho copper mine in Peru.

Meanwhile, Fastmarkets has learned that another large copper project in China – Guangxi Nanguo's smelter with an annual capacity for 300,000 tonnes of refined copper – will be commissioned in early April.

"While on the other hand, copper grades are depleting at existing mines and supply disruptions from strikes and the effect of force majeure for such things as roadblocks at Las Bambas, floods and cyclones in Australia, make it hard to see supply [of copper concentrate] increasing in the short term," a second market source told Fastmarkets.

"Supply of copper concentrate will be tightly balanced or in a slight deficit in my opinion," the above source added.

Fastmarkets' spot copper concentrate TC index, on a Asia-Pacific basis, was calculated at \$69 per tonne/6.9 cents per lb on March 15, its lowest level since April 2018.

ANNA XU

LONDON

Zaniewicki takes reins as head of trading at MRI

Tristan Zaniewicki is the new head of trading at Switzerland-based metals trading firm MRI, sources told Fastmarkets on Wednesday March 27.

Zaniewicki joined MRI in 2004 having previously worked at Belgian merchant Sudamin.

Zinc and lead concentrates trader Bill Garner will succeed Zaniewicki in taking control of the zinc and lead concentrates trading book. Rohit Saxena remains in charge of copper and gold concentrates trading at MRI.

MRI head trader Martin Riesen left the company on Monday this week, along with copper trader Nicholas Maddocks. The reasons for this, and their next moves, were not known.

MRI, a significant trader of metal concentrates, was formerly known as Marc Rich & Co Investment and is headquartered in Zug.

The company did not comment when contacted by Fastmarkets.

ARCHIE HUNTER



Minor & precious metals

FASTMARKETS' KEY MINOR METAL PRICES	3			
	Price	Change [†]		Assessed
Antimony, ingots (regulus), in-whs Rotterdam (\$/t)	7,300-7,600	-1.32%	•	27 Mar 19
Antimony, MMTA standard grade II, in-whs Rotterdam (\$/t)	7,250-7,550	-0.67%	•	27 Mar 19
Bismuth, min 99.99% Bi, in-whs Rotterdam (\$/Ib)	3.30-3.80	-2.74%	•	27 Mar 19
Cobalt (standard-grade) in-whs Rotterdam (\$/lb)	13.30-14.25	0%		27 Mar 19
Cobalt (alloy-grade) in-whs Rotterdam (\$/lb)	13.50-14.50	0%		27 Mar 19
Cobalt sulfate, Co 20.5%, China ex-works (yuan/tonne)	45,000-47,000	-6.12%	•	27 Mar 19
Indium, min 99.99% In, in-whs Rotterdam (\$/kg)	200-220	0%		27 Mar 19
Manganese flake, in-whs Rotterdam (\$/tonne)	2,000-2,100	-1.2%	•	27 Mar 19
Selenium, min 99.5% Se, in-whs Rotterdam (\$/lb)	9.00-11.00	0%		27 Mar 19
Tellurium, min 99.9% Te, in-whs (\$/kg)	53.00-65.00	0%		27 Mar 19

SHANGHAI

China's flake graphite imports from Mozambique surge in Feb

Chinese imports of flake graphite from Mozambique surged in February, according to data obtained by Fastmarkets sources.

China imported a total of 14,735 tonnes of flake graphite last month, down by 12.4% from the 16,821 tonnes recorded in January. Yet February's volume was more than 27 times higher than the 528 tonnes recorded in the same month of 2018.

For January-February, Chinese flake graphite imports totaled 31,556 tonnes, significantly higher than the 3,640 tonnes that entered the country in the corresponding period of last year.

The sharp increase in volumes imported so far this year can largely be attributed to a surge in shipments from Mozambique, which at 13,544 tonnes for February accounted for 92% of total imported material that month.

In February 2018, Chinese imports of Mozambique-origin material totaled just 40 tonnes and accounted for 8% of total import volumes that month.

African flake graphite supply has risen sharply in recent months, particularly after a number of countries in southern Africa began production in early 2017, market participants told Fastmarkets.

Meanwhile, zero tariffs being applied to Africa-origin shipments of flake graphite as part of the Chinese government's policy to stimulate trade with the continent have also contributed to the sharp increase in volumes from the region.

In Mozambique, Syrah Resources has been increasing production at its Balama operation during the first quarter of this year. The graphite producer will increase output at Balama to the bottom end of its stated target range of 45,000-50,000 tonnes in the March quarter, the company said in an interim report on March 14.

Sentiment in China's flake graphite market has soured in recent weeks amid fears of oversupply as a result of the increased imports and after several Chinese graphite producers resumed their operations following winter.

As a result, prices have weakened; Fastmarkets assessed the price

of graphite flake, 94-97% C, -100 mesh, FCL, fob Qingdao, at \$630-770 per tonne on Thursday March 21, down by \$20 per tonne from \$650-790 per tonne in the prior week.

Market sources told Fastmarkets that the weak sentiment is likely to persist in the short term.

Chinese exports decline

Meanwhile, demand in the ex-China market has softened.

Chinese flake graphite exports totaled 21,833 tonnes in the first two months of this year, dropping by 8.6% from the 23,885 tonnes shipped in the corresponding period of 2018.

On a monthly basis, China exported 8,787 tonnes of flake graphite in February, down by 32.6% from the 13,046 tonnes shipped in the prior month. Last month's volume was also down from the 9,385 tonnes exported in the corresponding period of last year.

HUAQING FU

SHANGHAI

Trade log March 2019: Cobalt Sulfate

Trade \log for cobalt sulfate in China including transactions, bids and offers reported to Fastmarkets MB.

FASTMARKETS MB PRICES

The exchange rate according to Oanda.com on Wednesday March 27 was 45,000 yuan to \$6,692.

WEDNESDAY MARCH 27 NEW PRICE AT 45,000-47,000 YUAN PER TONNE (DISCOUNT AT \$0.11 PER LB TO LEVEL)

- Offer at about 50,000 yuan per tonne
- Small tonnages sold at about 45,000 yuan per tonne
- Price indicated at 46,000 yuan per tonne
- Offer at about 45,000 yuan per tonne
- Offer at about 47,000 yuan per tonne
- Large tonnages sold at about 42,000 yuan per tonne
- Price indicated at 44,000-45,000 yuan per tonne
- Deal heard at about 42,000 yuan per tonne
- Price indicated at 46,000-47,000 yuan per tonne

FRIDAY MARCH 22 NEW PRICE AT 47,000-49,000 YUAN PER TONNE (PREMIUM AT \$0.01-0.13 PER LB)

- Offer at about 45,000-47,000 yuan per tonne
- Price indicated at 50,000 yuan per tonne
- Small tonnages sold at about 48,000 yuan per tonne
- Small tonnages sold at about 47,000 yuan per tonne
- Deal heard at about 45,000 yuan per tonne
- Offer at about 48,000 yuan per tonne
- Offer heard at about 45,000 yuan per tonne
- Offer at about 50,000 yuan per tonne
- Offer for large tonnages at about 43,000 yuan per tonne
- Offer at about 48,000 yuan per tonne
- Offer heard at about 45,000 yuan per tonne
- Small tonnages sold at about 48,000 yuan per tonne
- Price indicated at 47,000 yuan per tonne

WEDNESDAY MARCH 20 NEW PRICE AT 48,000-50,000 YUAN PER TONNE (PREMIUM AT \$0.06-0.18 PER LB)

- Offer at about 48,000 yuan per tonne
- Price indicated at 48,000 yuan per tonne
- Price indicated at 50,000 yuan per tonne
- Offer at about 45,000 yuan per tonne



Minor & precious metals

- Price indicated at 47,500 yuan per tonne
- Offer at about 48,000 yuan per tonne
- Small tonnages sold at about 48,000 yuan per tonne
- Price indicated at 50,000 yuan per tonne
- Bid at about 45,000-47,000 yuan per tonne

FRIDAY MARCH 15 NEW PRICE AT 51,000-55,000 YUAN PER TONNE (PREMIUM AT \$0.11-0.34 PER LB)

- Price indicated at 54,000 yuan per tonne
- Offer at about 51,000-52,000 yuan per tonne
- Price indicated at 48,000-49,000 yuan per tonne
- Bid at about 50,000 yuan per tonne
- Deal heard at about 45,000 yuan per tonne
- Price indicated at 50,000 yuan per tonne
- Offer heard at about 47,000 yuan per tonne
- Offer at about 47,000-48,000 yuan per tonne
- Price indicated at 52,000 yuan per tonne

WEDNESDAY MARCH 13 NEW PRICE AT 53,000-56,000 YUAN PER TONNE (PREMIUM AT \$0.20-0.38 PER LB)

- Price indicated at 55,000 yuan per tonne
- Small tonnages sold at about 52,000-53,000 yuan per tonne
- Price indicated at 55,000-56,000 yuan per tonne
- Small tonnages sold at about 50,000 yuan per tonne
- Deal heard at about 48,000 yuan per tonne
- Deal heard at about 53,000 yuan per tonne
- Offer at about 53,000 yuan per tonne
- Offer at about 52,000 yuan per tonne
- Offer heard at about 48,000-52,000 yuan per tonne
- Small tonnages sold at about 50,000 yuan per tonne
- Small tonnages sold at about 52,000 yuan per tonne
- Price indicated at 56,000-57,000 yuan per tonne

FRIDAY MARCH 8 NEW PRICE AT 55,000-58,000 YUAN PER TONNE (PREMIUM AT \$0.18-0.35 PER LB)

- Offer at about 55,000 yuan per tonne
- Price indicated at 55,000 yuan per tonne
- Offer at about 55,000 yuan per tonne
- Deal heard at about 51,000 yuan per tonne
- Offer at about 55,000 yuan per tonne
- Bid at about 50,000 yuan per tonne
- Deal heard at about 55,000 yuan per tonne
- Offer at about 55,000 yuan per tonne
- Offer at about 56,000 yuan per tonne
- Bid at about 50,000 yuan per tonne
- Offer at about 57,000-58,000 yuan per tonne

WEDNESDAY MARCH 6 NEW PRICE AT 57,000-60,000 YUAN PER TONNE (PREMIUM AT \$0.26-0.43 PER LB)

- Offer at about 58,000-60,000 yuan per tonne
- Offer at about 58,000 yuan per tonne
- Price indicated at 55,000 yuan per tonne
- Offer at about 56,000-58,000 yuan per tonne

- Price indicated at 55,000-58,000 yuan per tonne
- Offer at about 56,000 yuan per tonne
- Deal heard at about 55,000 yuan per tonne
- Offer at about 57,000 yuan per tonne
- Offer at about 56,000 yuan per tonne
 Price indicated at 60,000 yuan per tonne

FRIDAY MARCH 1 NEW PRICE AT 60,000-64,000 YUAN PER TONNE (PREMIUM AT \$0.39-0.62 PER LB)

- Price indicated at 64,000 yuan per tonne
- Offer at about 62,000 yuan per tonne
- Deal heard at about 62,000 yuan per tonne
- Offer at about 60,000 yuan per tonne
- Deal heard at about 58,000 yuan per tonne
- Price indicated at 60,000-61,000 yuan per tonne
- Offer reported at about 55,000-58,000 yuan per tonne
- Offer at about 64,000-65,000 yuan per tonne
- Offer at about 58,000 yuan per tonne
- Offer reported at 64,000-65,000 yuan per tonne

SUSAN ZOU



Exchange news & prices

SINGAPORE

SHFE vs LME physical arbitrage 28/03: Copper, aluminium, zinc, nickel

Arbitrage for copper, aluminium, zinc and nickel imported into China on Thursday March 28*

COPPER

-\$139.98 (-944.04 yuan)

ALUMINIUM

-\$293.97 (-1,982.63 yuan)

ZINC

-\$148.71 (-1,002.96 yuan)

NICKEL

-\$356.58 (-2,404.90 yuan)

*Fastmarkets calculates the physical arbitrage for import into China daily by using SHFE front-month and LME three-month prices at 3pm Shanghai time, taking account of VAT and import duties (where applicable), physical premiums and exchange rates at the time of the comparison. On May 2, 2018, Fastmarkets adopted

China's latest announced VAT of 16% to its arbitrage calculation.

Also, on August 28, 2018, Fastmarkets amended its arbitrage calculation and will use the midpoint of the copper, aluminium, zinc and nickel premiums rather than the single number for its LME-SHFE arbitrage calculation.

KAREN NG



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Non-ferrous scrap & secondary

FASTMARKETS' KEY NON-FERROUS SCRAP PRICES					
	Price	Change [†]	Assessed		
Alumiminium scrap, group 1 pure 99% Al & litho, del UK (£/t)	1,300-1,350	0%	27 Mar 19		
Aluminium scrap, cast aluminium wheels, del UK (£/t)	1,150-1,180	0%	27 Mar 19		
Aluminium scrap, commercial pure cuttings, del UK (£/t)	970-1,000	0%	27 Mar 19		

NEW YORK

US lead-acid battery price hits 4-month high

Spent lead-acid battery prices have risen slightly in the United States, reaching a more than four-month high due to sustained domestic and offshore demand, along with tighter supply.

"Demand from the battery sector is off slightly from the mid-winter period but most plants seem to be operating at a good level," one US buyer source said. "[Flows of] scrap batteries have slowed a bit so prices are rising slightly."

Fastmarkets AMM's assessment of whole lead-acid batteries delivered to smelters rose by \$1 per hundredweight to \$33-35 per cwt on Tuesday March 26, the highest assessment since November 6 when prices reached the same level. Meanwhile, other lead scrap prices were unchanged from previous levels.

But the steadiness in the market could be short-lived due to upcoming outages in April, market sources said.

"Demand for lead is steady and a number of secondary smelter outages [due to planned maintenance] in April will keep the US secondary market snug," the buyer source said. "There's also pressure from export markets."

Suppliers shared similar views, noting that steady spot demand and limited availability in recent weeks has helped prices trend higher.

"The main feature of the last couple of weeks [has been] a little upward creep on that price," a US supplier source said.

Others attributed reduced availability to seasonally slower scrap flows but noted that flows should pick back up with warmer weather.

"It's a transitional season, some scrapyards might still be under snow or muddy," another domestic buyer said. "Inbound traffic is slower this year, so far."

The LME's three-month lead contract closed the official session at \$2,002 per tonne (90.8 cents per lb) on March 26, down by 4.3% from \$2,091 per tonne on March 12.

Meanwhile, market participants all agreed that zinc scrap prices were unchanged across the board due to volatility in the market.

"Zinc is still in demand, the supply is low constantly and [prices are] holding right now," a domestic seller source said.

Fastmarkets AMM's assessment for new zinc clippings held at \$80-82 per cwt on Tuesday, old clean zinc was steady at \$62-64 per cwt and galvanizers' dross was unchanged at \$75-77 per cwt.

"We have way too much material so we stepped out of the market for about a month," one US zinc scrap consumer said.

The LME's three-month zinc contract closed the official session at \$2,859 per tonne on Tuesday, up by 2.1% from \$2,800 per tonne two weeks earlier.

"We try not to move scrap pricing as a result of market

volatility," a second domestic zinc consumer said. "When we see a trend up or down we will move; currently [the] market does not warrant a move either way."

ELIZABETH RAMANAND



Carbon steel flat products

FASTMARKETS' KEY FLAT STEEL PRICES			
	Price	Change [†]	Assessed
HRC, EU imports (cfr main EU port, northern Europe) (\in /t)	480-490	0%	27 Mar 19
HRC, EU imports (cfr main EU port, southern Europe) (€/t)	450-480	-2.11% \	7 27 Mar 19
HRC, CIS exports (fob stowed main Black Sea port) (\$/t)	510-520	0%	25 Mar 19
HRC, UAE imports (cfr Jebel Ali) (\$/t)	550-560	0%	26 Mar 19
HRC, Turkish imports (cfr main Turkish port) (\$/t)	530-540	0%	22 Mar 19
HRC, Latin America exports (fob stowed main Latin American port) (\$/t)	550-555	-0.9%	7 22 Mar 19
HRC, commodity grade, US imports (cfr Gulf port) (\$/short ton)	660-690	-2.88%	2 0 Mar 19
HRC, US Midwest index (fob mill) (\$/short ton)	693-693	-0.2%	7 27 Mar 19
HRC, China export index (fob main China port) (\$/t)	530-530	-0.77%	2 8 Mar 19
HRC, South East Asia imports (cfr Vietnam) (\$/t)	540-550	-0.91%	2 5 Mar 19
HRC, Saudi Arabia imports (cfr main port) (\$/t)	550-560	-0.89%	7 26 Mar 19
CRC, EU imports (cfr main EU port, northern Europe) (\in /t)	560-580	0%	27 Mar 19
CRC, EU imports (cfr main EU port, southern Europe) (\in /t)	550-560	0%	27 Mar 19
CRC, CIS exports (fob stowed main Black Sea port) (\$/t)	555-560	0%	25 Mar 19
CRC, UAE imports (cfr main Jebel Ali) (\$/t)	610-620	0%	26 Mar 19
CRC, Turkish imports (cfr main Turkish port) (\$/t)	575-580	0%	22 Mar 19
CRC, Latin America exports (fob stowed main Latin American port) (\$/t)	590-600	0%	22 Mar 19
CRC, US imports (cfr Gulf) (\$/short ton)	760-800	-3.7%	7 20 Mar 19
CRC, US domestic (fob mill) (\$/short ton)	830-830	0%	21 Mar 19
CRC, China export (fob main China port) (\$/t)	565-575	0%	26 Mar 19

BURSA

UAE's United Iron & Steel starts CRC production

United Arab Emirates-based United Iron & Steel Co (UISC) has started producing its own cold-rolled coil at its plant in Abu Dhabi for processing into hot-dipped galvanized coil.

The new 250,000 tonnes-per-year CRC facility consists of an in-line push-pull pickling line, a single-stand cold-rolling mill and a continuous galvanizing line to process both hot- and cold-rolled coil, equipment supplier Danieli said on Friday, March 22 as CRC production began.

The push-pull pickling line processes HRC in thicknesses of 1.6-3.2mm, in widths up to 1,320mm.

The final cold rolled and hot-dipped galvanized strip ranges in thicknesses between 0.2mm and 2mm.

Coatings range from 50 grams per square meter to 275gsm.

A cut-to-length line and a cold-rolled slitting line complete the new plant, Danieli said.

UISC started producing HDG for the local and export markets in January 2018.

The CRC will be used in but will not increase the capacity of the 250,000-tpy HDG line.

The other CRC producers in the UAE include Al Ghurair Iron & Steel and Dana Steel.

Demand for flat steel is moderate in the UAE because of high stocks and the expectation that prices may fall.

Fastmarkets' weekly price assessment for CRC imported into the UAE was unchanged at \$610-620 per tonne cfr on Tuesday March 26.

SERIFE DURMUS

SHANGHAI

CHINA HRC: Buyers bide their time ahead of VAT cut

China's domestic hot-rolled coil prices were flat on Thursday March 28, with market participants taking a wait-and-see approach.

DOMESTIC

- Eastern China (Shanghai): 3,850-3,860 yuan (\$573-574) per tonne, unchanged
- Northern China (Tianjin): 3,790-3,800 yuan per tonne, unchanged A few buyers raised their procurement rates amid gains in the futures market in the earlier part of the day, sources said.

But others mostly suspended their purchasing plans ahead of a reduction in the country's value-added tax to be implemented next week.

The VAT cut is expected to push down HRC prices in April.

EXPORT

• MB fob China HRC Index: \$530.25 per tonne fob, down \$0.94 per tonne

Steel mills continued to offer HRC at \$530-535 per tonne fob during the day, the same as a day earlier.

Producers were not expected to give much discount because of the stable domestic market.

Buyers, among whom some had booked HRC at \$530-535 per tonne fob earlier this week, were bidding at \$520-525 per tonne fob.

As such, market participants estimated that \$530 per tonne fob was an achievable transaction price.

MARKET CHATTER

"Steel mills in Tangshan will raise their output with the lifting of continued >



Carbon steel flat products

winter production restrictions [at the end of this week], which will weigh on prices. But end-user demand for HRC has been stable recently, which could keep HRC prices from dropping sharply," a trader in Shanghai said.

SHANGHAI FUTURES EXCHANGE

The most-traded May HRC futures contract closed at 3,675 yuan per tonne on Thursday, unchanged from a day earlier.

JESSICA ZONG

LONDON

Flat Steel Products Trade Log, March 28, 2019

The latest bids, offers and deals in the global markets for hot-rolled coil, cold-rolled coil, hot-dipped galvanized coil, pre-painted galvanized iron, steel plate, steel sheet and other flat steel products.

LATEST TRANSACTIONS: HOT-ROLLED COIL

- East China, domestic, commercial-grade HRC (4.5-12mm), traded at 3,850-3,860 yuan (\$573-574) per tonne, including VAT.
- North China, domestic, commercial-grade HRC (4.5-12mm), traded at 3,790-3,800 yuan per tonne, including VAT.

DNEPR

EUROPE HRC: Domestic prices drop in south on poor demand

Domestic prices for hot-rolled coil (HRC) dropped in Southern Europe due to slow trading, sources told Fastmarkets.

Fastmarkets' weekly price assessment for domestic HRC in Southern Europe was €460-480 (\$520-542) per tonne ex-works on Wednesday March 27, down from €480-490 per tonne ex-works a week earlier.

Italian steelmakers were reported to offer HRC at €460-465 per tonne ex-works to bigger buyers, while smaller distributors were reported to receive prices of €465-475 per tonne ex-works.

The upper end of the assessment represented prices in Spain. The price started to fall in Italy after the country's electric arc furnace (EAF) operator Arvedi decreased its prices, according to market sources.

"Arvedi was hungry for new orders so it moved prices down to get deals in a slow market, dragging prices down," an Italian trader said.

Domestic prices have been under pressure because end users had not been ready to accept prices at previous levels, according to market sources.

"Prices for processed flat steel prices are under pressure in March as end users were seeking a price reduction. As a result, there hardly were any deals done [between distributors and Italian mills] this month, so steelmakers had to decrease prices to [boost] demand," an Italian distributor said.

Buyers will try to achieve further domestic price reductions, market sources told Fastmarkets. Some sources claimed they will target prices of €440-450 per tonne ex-works, but the majority of sources were skeptical that such low prices could be achieved as there is no pressure from import prices.

Fastmarkets' weekly price assessment for HRC imports into Southern Europe fell to \leq 450-480 per tonne cfr main ports on

Wednesday, widening downward from €460-480 per tonne cfr a week earlier.

Turkish mills have been offering material at \le 475-485 per tonne cfr Southern European ports, but the offers were reported to be "too high" compared with domestic prices and buyers quoted "workable" prices at \le 450-455 per tonne cfr.

Turkish mills, however, have not decreased their offers even though they were not attracting buyers' interest even before domestic prices moved down, according to market participants.

Some sources claim that with the current level of scrap and slab costs, Turkish mills would not be able to decrease their export HRC prices. But others said if Turkish steelmakers had pressure to sell they would have decreased prices for European buyers.

Fastmarkets' daily scrap indices were unchanged on Tuesday, with the daily index for Northern Europe-origin HMS 1&2 (80:20) staying at \$318.20 per tonne cfr and the daily index for US-origin HMS 1&2 (80:20) also flat at \$323.62 per tonne cfr.

And Fastmarkets' weekly price assessment for CIS export slab was \$490-500 per tonne fob Black Sea on Monday, down from \$495-505 per tonne fob Black Sea a week earlier.

CIS-origin export transaction prices for slab are expected to move down after the offer-bid gap further widened this week.

Stability of Turkish-origin HRC prices in the EU market could be explained by sales of the material to Far East markets heard at \$520-530 per tonne fob Turkish ports, which is equivalent to \$545-555 (€482-490) per tonne cfr Southern European ports, including freight costs to Southern Europe of about \$25 per tonne – level with current offers to the EU.

NORTHERN EUROPE

Unlike in the domestic Southern European HRC market, prices in Northern Europe have remained largely stable, but the market mood remains gloomy due to limited trading, according to market sources.

Fastmarkets' weekly price assessment for domestic HRC in Northern Europe ticked €10 lower on the top end of the range to €500-510 per tonne ex-works on Wednesday, compared with €500-520 per tonne ex-works a week earlier.

The assessment represents "workable" prices and offers heard in the market.

Market activity has been slow this month with pressure building from uncertainties related to demand from the automotive segment, according to market sources.

"There are a lot of rumors related to the outlook for the car market in Europe, as there is uncertainty related to new emission regulations and future of export of European cars to the US," a Northern European source said.

The number of new passenger car registrations in the EU decreased by 0.96% year on year in February 2019, to 1,114,692 units, making it the sixth consecutive month of decline.

In recent months, car production has been affected by the introduction of emissions testing under the new Worldwide Harmonized Light Vehicles Test Procedure (WLTP) on September 1 last year, in anticipation of which there was an exceptional surge in registrations over the summer of 2018.

The decline in demand for cars in Europe slowed slightly in February, with new passenger car registrations picking up in a few main car producing countries – Germany, France and the United Kingdom.

Meanwhile, some automakers are keeping a cautious eye on whether US imports of European cars could be affected by Section 232 tariffs in the future.

Despite the current demand outlook, Northern European steelmakers are unlikely to decrease prices in the short term as they still have sufficient order books and buyers are likely to resume



Carbon steel flat products

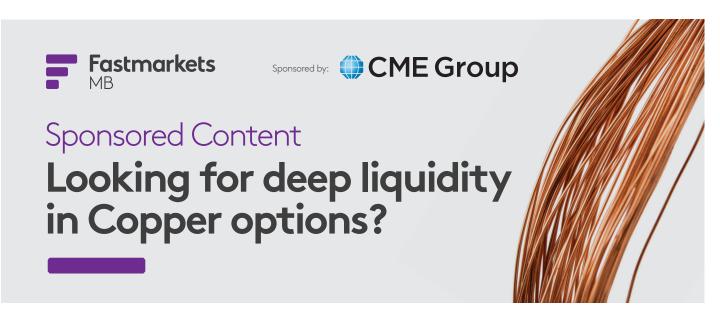
making deals after a slow March because they need to re-stock, according to market sources.

In addition, lack of competitive import offers have also been supporting domestic coil prices.

Fastmarkets' weekly price assessment for HRC imported into Northern Europe was stable over the week at €480-490 per tonne cfr main ports.

Official offers of HRC from Asia, Russia and Turkey have been heard at \leqslant 500 per tonne cfr Antwerp, Belgium. This was reported to be too high, so the assessment was based on bids and "workable" prices heard in the market.

MARIA TANATAR



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Carbon steel long products

FASTMARKETS' KEY LONG STEEL PRICES	5		
	Price	Change [†]	Assessed
Rebar, China export index (fob main China port) (\$/t)	531-531	0%	28 Mar 19
Rebar, EU import (cfr main EU port, northern Europe) (€/t)	500-505	0%	27 Mar 19
Rebar, EU import (cfr main EU port, southern Europe) (€/t)	470-500	0%	27 Mar 19
Rebar, CIS exports (fob stowed main Black Sea port) (\$/t)	480-485	1.05%	▲ 25 Mar 19
Rebar, Turkish exports (fob main Turkish port) (\$/t)	490-500	0%	28 Mar 19
Rebar, UAE imports (cfr Jebel Ali) (\$/t)	530-535	0%	26 Mar 19
Rebar, US imports (cfr Gulf) (\$/short ton)	670-690	3.03%	▲ 20 Mar 19
Rebar, US domestic (fob mill) (\$/short ton)	705-730	0%	20 Mar 19
Rebar, Latin America exports (fob stowed main Latin American port) (\$/t)	560-565	0%	08 Mar 19
Rebar, South East Asia imports (cfr Singapore) (\$/t)	495-510	-0.5%	▼ 25 Mar 19
Rebar, Southern Europe exports (fob main port) (€/t)	470-490	1.05%	▲ 27 Mar 19

LONDON

SOUTHERN EUROPE REBAR: Export sales punctuate quiet market

The price for rebar produced and delivered in Southern Europe remained flat on Wednesday March 27, while export prices narrowed higher on business toward the top of the range.

Fastmarkets' weekly price assessment for export rebar in Southern Europe narrowed upward to \le 470-490 (\$531-554) per tonne fob main ports on Wednesday from \le 460-490 per tonne previously, while the price assessment for domestic rebar in Southern Europe stayed at \le 515-520 per tonne delivered.

With little demand in the domestic market, sellers will be happy to see some business being concluded, but they remained unwilling to reduce prices at home while production costs stayed high.

Fastmarkets' Northern European ferrous scrap index for HMS 1&2 (80:20) material rose back above \$320 per tonne cfr Turkey last week, having started the month at \$303.21 per tonne. It was \$318.09 per tonne on March 27.

"Higher scrap prices in Turkey are giving fuel to producers [which are] trying to hold back from offering lower prices," a trader said.

Several rebar deals were reported for Italy-origin material being exported to Northern Africa, with sellers finding at least one outlet market into which they could sell material while their domestic market remained quiet.

JETHRO WOOKEY

LONDON

Long Steel Products Trade Log, March 28, 2019

The latest bids, offers and deals in the global markets for rebar, wire rod, steel beams and other long steel products.

LATEST TRANSACTIONS: REBAR

- East China, domestic, grade III 16-25mm rebar, traded at 3,830-3,870 yuan (\$570-576) per tonne, including value-added tax.
- North China, domestic, grade III 16-25mm rebar, traded at 3,830-3,880 yuan per tonne, including VAT.

SHANGHAI

CHINA REBAR: Higher output, lower inventories keep prices flat

China's domestic rebar market was flat on Thursday March 28, with mills' higher output discouraging buyers from placing bookings while lower inventory levels in the spot market kept sellers from lowering their prices.

DOMESTIC

- Eastern China (Shanghai): 3,830-3,870 yuan (\$570-576) per tonne, unchanged
- Northern China (Beijing): 3,830-3,880 yuan per tonne, unchanged A declining futures market and data showing an increase in steelmakers' rebar output led to a drop in trading activity during the day, sources said.

Rebar production rose 84,000 tonnes to 3.39 million tonnes over the week to Thursday, according to a local industry information provider.

Sellers kept prices flat, however, due to a drop in inventory levels. There were 8.72 million tonnes of rebar in the spot market on Thursday, down 447,000 tonnes from a week ago, according to the same information provider.

EXPORT

• MB fob China Rebar Index: \$530.50 per tonne, unchanged Rebar offers remained unchanged during the day, at \$530-535 per tonne fob.

The stable domestic prices led leading market participants to continue to expect mills to take orders at a minimum price of \$525-530 per tonne fob.

No bids were heard on Thursday.

Ukrainian rebar was heard to have been traded at \$505 per tonne cfr Singapore on a theoretical weight basis, which is equivalent to about \$500 per tonne fob China on an actual weight basis - much lower than prices for Chinese products.

MARKET CHATTER

"Re-rolling mills in Tangshan will increase production after March 31 (the last day of winter production restrictions), so they will have more demand for billet, which might push up prices for the semi-finished product further," a trader in the city said.

BILLET

As at 3pm, billet was being traded at 3,440 yuan per tonne including value-added tax in Tangshan, up 10 yuan per tonne from a day earlier.

SHANGHAI FUTURES EXCHANGE

The most-traded May rebar futures contract closed at 3,690 yuan per tonne on Thursday, down 21 yuan per tonne from a day earlier.

JESSICA ZONG



Carbon steel long products

LONDON

EUROPE WIRE ROD: Prices flat as market drifts on thin demand

The European price of mesh-quality wire rod stayed flat on Wednesday March 27, while producers remained confident that prices would improve soon on the basis of solid fundamentals.

Fastmarkets' weekly domestic price assessments for mesh-quality wire rod for both Northern and Southern Europe stayed at €535-550 (\$604-621) per tonne delivered on Wednesday, with another very quiet week being reported by market participants.

Consumer demand remained sluggish, with few deals reported, even for delivery as early as next month. But sellers were bullish that demand would soon improve and have been buoyed by recent growth in the European construction markets.

"Strong raw material prices are still pushing costs up, and producers want to protect their margins," a producer said. "Demand has not changed much. There's a pause now between March bookings and April bookings."

Any business that sources reported hearing in the market over the past week has been for very limited tonnages.

"There's nothing really going on," a trader said. "The few transactions you see are only for small volumes."

JETHRO WOOKEY

LONDON

EUROPE SECTIONS: Prices inch up but market split on future direction

Domestic prices for hollow steel sections in Northern Europe narrowed this week, while market participants failed to agree on the likely future direction of prices, sources told Fastmarkets on Wednesday March 27.

Fastmarkets' domestic price assessment for commodity-size, grade-S235 square hollow sections made in Northern Europe narrowed by $\$ 5 per tonne at the low end of the range on Wednesday to $\$ 635-650 (\$717-734) per tonne delivered, compared with $\$ 630-650 per tonne delivered a week earlier.

"[A] price increase of maybe €10 per tonne maximum will come, but with a delay," a distributor said. "Demand is quite good [and that] is the biggest reason."

For many, market conditions were stable on the back of continuing good demand, while others were less positive due to a recent dip in feedstock hot-rolled coil prices, which could have a knock-on effect on sections.

Fastmarkets' weekly price assessment for domestic HRC in Northern Europe was €500-520 per tonne ex-works on March 27, down from €500-520 per tonne ex-works. HRC values in Northern Europe have been falling since February 30 when prices were €510-530 per tonne delivered.

Fastmarkets' weekly price assessment for domestic HRC in Southern Europe, also fell this week, to €460-480 per tonne delivered on March 27, down from €480-490 per tonne delivered, prices having reached a year-to-date peak of €485-510 per tonne ex-works on February 27.

"Prices this week are slightly lower but only by €5 per tonne after negotiation. Sections prices will probably not come down with the

coil price, [though, because] we did not see an increase when coil went up before. Demand is OK," a second distributor said.

One Northern European producer source said that prices were largely unchanged this week, adding that the market was quiet ahead of April bookings.

Fastmarkets' weekly domestic price assessment for commodity-size, grade-S235 square hollow sections made in Southern Europe was unchanged this week at \leqslant 630-650 per tonne delivered.

Despite the recent fall in HRC prices, some mills were still aiming to achieve higher sections prices.

"We have recovered €10 per tonne and we hope to gain €10 per tonne more [at the start] of April even if the HRC price does not increase as announced," a southern European producer source said.

"I do not [anticipate] a dip for HRC, but producers have reduced their requests and a roll-over is more what I expect," a Southern European producer source said.

Meanwhile, a trader said that while prices might change in Italy, there would be no movement in northern Europe.

"There is a lack of orders for the mills and an over capacity of material - there are high stocks," he said. "The coil mills don't have enough orders either.

"The offer prices may have gone up, but did anybody buy at these prices? Demand is not wild; it is not positive," he added. "Perhaps in the third quarter there will be good news from America or China."

CARRIE BONE

LONDON

EUROPE BEAMS: Price changes confined to lower ends of ranges

Steel H-beam prices in the Northern European market widened this week because of a slowdown in increases to feedstock costs and poorer market conditions, while Southern European prices narrowed, sources told Fastmarkets on Wednesday March 27.

The price changes were on the lower ends of the price range in both markets. Prices at the top ends of the ranges were unchanged.

Fastmarkets' weekly price assessment for domestic S235-grade, 200x200mm, category-2 H-beam in Northern Europe widened downward by €10 per tonne to €600-635 (\$678-717) per tonne delivered on March 27, from €610-635 per tonne delivered one week earlier.

Price increases had been proposed by producers when the price of scrap was gaining strength, and was up by almost \$20 per tonne. But this trend has now come to a halt, weakening the momentum of price increases in the beams market.

"The price [of beams] went down by more than €5 per tonne in Northern Europe," a trader said. "There was no increase in scrap prices for the producers. It seems a bit downward for the market."

Fastmarkets' index for Northern European HMS 1&2 (80:20) scrap, the feedstock for H-beams and a benchmark indicator for the global scrap market, climbed in the first week of this month but has been little changed since then.

The index was \$318.09 per tonne cfr on March 27, but prices have been rangebound since the index was \$317.43 per tonne cfr on March 8, although this was up from \$303.21 per tonne on February 28.

"The rolling schedules of mills are booked as expected," a second trader said, "so there is no reason to lower prices, but no reason for increases either."

One market source told Fastmarkets that prices had not changed this week, but the domestic market was soft. Northern European market participants were negative about the situation in Germany, where the economy showed no growth in the last quarter of 2018, bringing fears of a recession.

A producer source said that the market was quiet ahead of



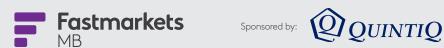
Carbon steel long products

bookings for April, but it was still hoping that the price would move past the top end of the range.

H-beam prices in the Southern European domestic market narrowed upward by €5 per tonne on Wednesday to €630-645 per tonne delivered, from €625-645 per tonne delivered one week before.

Market participants in Southern Europe did not express any similar concerns about economic conditions.

CARRIE BONE







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Carbon steel semifinished products

FASTMARKETS' KEY SEMI-FINISHED STEEL PRICES				
	Price	Change [†]	Assessed	
Slab, CIS exports (fob stowed main Black Sea port) (\$/t)	490-500	-1%	▼ 25 Mar 19	
Slab, Brazil export (fob main port) (\$/t)	510-550	1.92%	▲ 22 Mar 19	
Slab, South East/East Asia (cfr main port) (\$/t)	495-510	3.61%	▲ 25 Mar 19	
Billet, CIS exports index (fob Black Sea port) (\$/t)	454	-0.44%	▼ 28 Mar 19	
Billet, Turkish exports (fob main Turkish port) (\$/t)	465-480	-0.53%	▼ 28 Mar 19	
Billet, Turkish imports (cfr main Turkish port) (\$/t)	450-475	0.54%	▲ 28 Mar 19	
Billet, UAE imports (cfr Jebel Ali) (\$/t)	495-500	0%	26 Mar 19	
Billet, Latin American exports (fob stowed main Latin America port) (\$/t)	450-460	0%	22 Mar 19	
Billet, Indian exports (fob main India port) (\$/t)	450-455	0%	22 Mar 19	
Billet, South East Asia imports (cfr main port) (\$/t)	480-490	-1.02%	▼ 28 Mar 19	
Billet, Iran export (fob Iranian ports) (\$/t)	395-405	0%	27 Mar 19	
Billet, Egypt imports (cfr main port) (\$/t)	460-480	-1.57%	▼ 28 Mar 19	

BURSA

EGYPT STEEL BILLET, REBAR: Billet price down but domestic rebar stays firm

Steel billet import prices fell in Egypt in the week ended Thursday March 28, with demand remaining weak, but the domestic price for rebar held steady, Fastmarkets has heard.

Fastmarkets' weekly price assessment for steel billet imported into Egypt was \$460-480 per tonne cfr on Thursday, widening downward from \$475-480 per tonne cfr last week.

CIS-origin billet was offered to the country at \$480-485 per tonne cfr, but deals for volumes totaling more than 3,000 tonnes were heard at \$460-465 per tonne cfr.

REBAR

In the rebar sector, Egypt's two biggest producers, Ezz Steel and Beshay Steel, were offering material for domestic sales at Σ 11,600 (\$669) per tonne ex-works this week, including 14% VAT.

Prices from other producers in the country varied by as much as E£250 per tonne, mostly to the lower side.

Egyptian Steel was offering rebar at E£11,650, Misr Steel at E£11,425, AlJarhy Steel at E£11,475, El Marakby Steel at E£11,450, Ashry Steel at E£11,400, and Antar Steel at E£11,350. All these offer prices were on a per tonne ex-works basis including VAT at 14%.

Taking these prices into account, Fastmarkets' weekly price assessment for domestic rebar in Egypt was E£11,350-11,650 per tonne ex-works on March 28, unchanged week-on-week.

SERIFE DURMUS

LONDON

Semi-finished Steel Products Trade Log, March 28, 2019

The latest bids, offers and deals in the global markets for steel billet, slab and bloom

LATEST TRANSACTIONS: BILLET

• China, billet, domestic, traded at 3,440 yuan (\$512) per tonne, including value-added tax, at 3pm.



Stainless & special steels

FASTMARKETS' KEY STAINLESS STEEL	PRICES		
	Price	Change [†]	Assessed
Grade 304 HRC, Asia import (cif East Asian port) (\$/t)	1,920-2,000	0%	27 Mar 19
Grade 304 2mm CRC, 2B Asia import (cif East Asian port) (\$/t)	2,040-2,130	0%	27 Mar 19

SINGAPORE

China's stainless steel imports, exports almost halved amid anti-dumping probe

Chinese import and export volumes of flat-rolled stainless steel shrank by nearly 50% year on year in February, amid the country's ongoing anti-dumping investigation into stainless hot-rolled and semi-finished products.

Imports of stainless steel flat products into China totaled 85,788 tonnes in February, down by 68,630 tonnes or 44.4% from 154,418 tonnes in February 2018, according to Chinese customs data.

On a month-on-month basis, imports also dwindled by 17.8% from 104,331 tonnes in January.

Indonesia maintained its position as China's largest supplier of stainless flat products, although imports from Southeast Asian countries also fell sharply.

Volumes from Indonesia came in at 58,608 tonnes last month, a 51.8% decrease from 121,555 tonnes in February 2018.

Major Indonesian steelmaker Tsingshan Indonesia has been reducing its sales of stainless slab and hot-rolled coil and plate into China since the end of 2018, due to China's anti-dumping probe into those products originating from Indonesia, the European Union, Japan and South Korea, sources told Fastmarkets.

The investigation is expected to end by July 23, 2019, although the end-date might be extended to January 23, 2020.

On March 23, China also introduced a preliminary anti-dumping deposit related to the ongoing probe.

Importers now have to pay a deposit if they purchase stainless slab and hot-rolled products from the four exporting markets under investigation. For Indonesia-origin materials, the deposit has been set at 20.2%.

Meanwhile, the bulk of Indonesia's stainless steel supply has been diverted away from China, and to other Asian markets, particularly Taiwan, Fastmarkets understands.

By booking more low-priced cargoes from Indonesia, key buyers of China-origin materials such as Taiwan have in turn reduced their purchases of higher-priced Chinese materials, sources said.

As a result, China exported a total of 134,705 tonnes of stainless flats in February - a decrease of 108,332 tonnes, or 44.6%, from the 243,037 tonnes shipped in February 2018.

On a month-on-month basis, Chinese exports declined by 40.9% from 227,832 tonnes this January.

Of those volumes, China shipped just 31,196 tonnes to Taiwan in February, down 49.3% year on year from 61,563 tonnes.

Chinese exports to South Korea - another major buyer of Chinaorigin materials - totaled 29,926 tonnes in February, down 47.7% from 57,182 tonnes in February 2018.

East Asian import prices for stainless steel kept steady during the week to Wednesday March 27 amid sparse trading. Sellers, including mills in China, maintained their offer levels despite weak buying

interest, sources said.

Fastmarkets' weekly import price assessment for benchmark 304 stainless 2mm trimmed cold-rolled coil in East Asia was unchanged at \$2,040-2,130 per tonne cif on March 27.

Fastmarkets' weekly import price assessment for benchmark 304 stainless trimmed hot-rolled coil in the same region was \$1,920-2,000 per tonne cif on Wednesday, also unchanged week on week.

SHANGHAI

Soft demand weighs on China's stainless steel market

Persistently weak demand for stainless steel in China pushed down domestic prices for such products over the past week.

Fastmarkets MB's domestic price assessment for benchmark 304 stainless cold-rolled coil in the major market of Wuxi was 14,500-14,900 yuan (\$2,156-2,216) per tonne including value-added tax for the week ended Wednesday March 27, down 100-200 yuan per tonne from a week earlier.

End-user demand had not risen over the past week, while stockists also slowed down their procurement rates amid losses in the nickel market, sources said.

"My customers think stainless steel prices could drop further due to the lower nickel prices," a trader in Wuxi said.

The three-month nickel contract on the London Metal Exchange ended Wednesday's official trading session at \$13,075-13,100 per tonne, down \$155-175 per tonne from \$13,250-13,255 per tonne a week earlier.

The most-traded May nickel contract on the Shanghai Futures Exchange ended Wednesday's trading session at 100,930 yuan per tonne, down 1,750 yuan per tonne from 102,680 yuan per tonne a week earlier.

Sellers, on the other hand, are not expecting stainless steel prices to decline continually over the next month.

"Steelmakers will try to keep prices stable at least because they are making very little profit," an industry analyst in Shanghai said.

Mills raised their tender prices for high-carbon ferro-chrome - one of the raw materials to produce stainless steel - by 300 yuan per tonne for April in comparison with what they paid in March.

Nickel pig iron prices dropped slightly over the past week, but they are still on the higher end of the price range for the first quarter of this year, the analyst noted.

The spot prices for NPI (content 10-15%) was at 1,030-1,050 yuan per tonne on Tuesday, down 20 yuan per tonne from a week earlier. **JESSICA ZONG**



Ferrous scrap

FASTMARKETS' KEY FERROUS SCRAP P	RICES		
	Price	Change [†]	Assessed
MB Index CFR Turkey HMS 1&2 (80:20) (North Europe material)	318.09	-0.62%	▼ 28 Mar 19
MB Index CFR Turkey HMS 1&2 (80:20) (USA material)	323.52	-0.61%	▼ 28 Mar 19
MB Index Shredded India import cfr (\$/t)	335.75	0.14%	▲ 22 Mar 19
HMS 1&2 ferrous scrap index (80:20) fob Rotterdam (\$/t)	300.40	0.57%	▲ 22 Mar 19
HMS 1&2 (80:20) UK export fob main port (\$/t)	301-303	0%	22 Mar 19
HMS 1&2 (80:20) Taiwan import cfr (\$/t)	305-310	1.32%	▲ 22 Mar 19
US Index domestic Midwest No1 busheling (\$/gross ton)	372.32	5.75%	▲ 11 Mar 19
US Index domestic Midwest shredded (\$/gross ton)	340.21	6.15%	▲ 11 Mar 19
Vietnam ferrous scrap (\$/t)	340-350	-0.72%	▼ 22 Mar 19

PITTSBURGH

Turkey books more ferrous scrap from US at higher price

A fourth cargo of ferrous scrap originating from the United States was booked by Turkey on Tuesday March 26 at a slightly improved price, marking more than 130,000 tonnes of scrap headed offshore in the next 30 days.

An East Coast exporter sold a 15,000-tonne cargo of a 95:5 mix of No1 and No2 heavy melting scrap at \$328 per tonne cfr, 15,000 tonnes of shredded scrap at \$331 per tonne cfr and 3,000 tonnes of bonus-grade scrap at \$335 per tonne cfr. The price for the HMS component of the cargo is up by \$3-5 from other recent sales.

In all, 133,000 tonnes of ferrous scrap has been booked by Turkey since Friday March 22, including 85,000 tonnes of HMS, 37,000 tonnes of shredded scrap and 11,000 tonnes of bonus-grade scrap.

"The fact Turkey is even buying is good," an East Coast export source said, noting that Turkey is mainly selling rebar into its domestic market at around \$500 per tonne ex-works.

A second export source indicated that exporters won't be a factor in April's US domestic trade since they will be working to fill commitments to Turkey.

A third export source said the prices being paid by Turkey are sustainable with \$500-per-tonne rebar prices.

"The prices are adequate and generating positive cash flows with their [scrap-to-rebar] conversion costs, but they are not getting rich," the third source said, adding that he does not believe this is enough tonnage to prevent the US domestic market from falling in April.

With the new cargoes reported from the US East Coast, Fastmarkets AMM's weekly East Coast ferrous scrap export index for HMS increased to \$308.27 per tonne fob New York on March 27 from \$306 per tonne previously and the shredded index rose to \$314.40 per tonne fob New York from \$311 per tonne.

Prices for No1 heavy melt at East Coast docks are at \$275 per gross ton, with all docks buying at the same level.

On the West Coast, dock prices were unchanged despite the sale of an 80:20 mix of No1 and No2 heavy melting scrap to Bangladesh at \$346 per tonne last week.

Fastmarkets AMM's West Coast ferrous scrap export index for HMS increased to \$326 per tonne fob Los Angeles on Wednesday

from \$323 per tonne the previous week.

Additionally, numerous sources indicated that the containerized price for 80:20 HMS 1&2 to Taiwan improved by another \$5 to \$295 per tonne fas Los Angeles, or \$308 per tonne cfr.

LISA GORDON

MUGLA

DAILY SCRAP REPORT: Turkish mills resume scrap purchases at steady prices

The Turkish steel producers returned to the deep-sea scrap markets in the middle of this week and booked four cargoes, sources said on Wednesday March 27.

A steel mill in Northern Turkey booked a US cargo, comprising 15,000 tonnes of HMS 1&2 (95:5) at \$328 per tonne, 15,000 tonnes of shredded at \$331 per tonne and 3,000 tonnes of bonus at \$335 per tonne of

Another steel mill in the Marmara region booked a Baltic Sea cargo, comprising 10,000 tonnes of HMS 1&2 (80:20) at \$317.50 per tonne, 11,500 tonnes of shredded at \$322.50 per tonne and 10,000 tonnes of bonus at \$327.50 per tonne cfr.

A steel mill in the Iskenderun region also booked a Baltic Sea cargo, comprising 11,000 tonnes of HMS 1&2 (80:20) at \$320 per tonne, 11,000 tonnes of shredded at \$325 per tonne and 10,000 tonnes of bonus at \$330 per tonne cfr.

A fourth steel producer in Izmir region also booked a Baltic Sea cargo, comprising HMS 1&2 (80:20) at \$320 per tonne, shredded at \$325 per tonne and bonus at \$330 per tonne cfr. The cargo breakdown could not be discovered at the time of publication.

But despite these transactions, Fastmarkets' daily scrap indices remained largely stable on March 27.

The daily index for Northern Europe-origin HMS 1&2 (80:20) was calculated at \$318.09 per tonne cfr, down by \$0.11 per tonne day on day.

The daily index for US-origin HMS 1&2 (80:20) was \$323.52 per tonne cfr, down by \$0.10 per tonne day on day.

This put the premium for US material over Northern European HMS 1&2 (80:20) at \$5.43 per tonne cfr on March 27, compared with \$5.42 per tonne on March 26.

Market participants said that the mills resumed their deep-sea purchases because of low stock levels and improving demand for Turkish steel billets.

Fastmarkets was told that the country's steel producers have sold several billet cargoes recently to the Middle East-North Africa (Mena) region.

CEM TURKEN



Ferrous raw materials

FASTMARKETS KEY IRON ORE PRICES				
cfr main China port \$ per dry metric tonne				
	Price	Change [†]		Assessed
Iron ore index (62% fe)	84.68-84.68	0.22%		28 Mar 19
Iron ore pellet index cfr Qingdao (65% fe)	124.31-124.31	-2.18%	•	22 Mar 19

SINGAPORE

Vale adopts Fastmarkets MB 65% Fe Iron Ore for 2019 pellet contracts

Brazil's Vale has adopted the Fastmarkets MB 65% Fe Iron Ore Index as the reference for the pricing of contract cargoes of its blast furnace and direct-reduction pellets in 2019.

"The [Fastmarkets MB 65% Fe Iron Ore Index] is the new reference index and the premiums for blast furnace and direct-reduction pellets remained the same as [that in] 2018 - \$60 per tonne on average," the miner said on Thursday March 28.

Some 84% of Vale's sales in the fourth quarter of last year consisted of premium products such as iron ore pellets, Carajas and Brazilian Blend fines, pellet feed and low-alumina sinter feed. In the same period of 2017, these accounted for 70% of its sales.

Market sources told Fastmarkets earlier this month that they had signed term contracts for this year's pellet shipments using the Fastmarkets MB 65% Fe index as the basis for pricing. The move reflects a general shift among market participants toward price references that are more closely aligned with the category of the products in question.

Fastmarkets will start publishing an implied spot blast furnace pellet premium over the Fastmarkets MB 65% Fe Iron Ore Index alongside the existing implied premium over the Fastmarkets MB 62% Fe Iron Ore Index, in response to these market developments.

Vale produced 55.3 million tonnes of pellets last year, up about 10% from 2017. In the fourth quarter alone, the miner's pellet output rose 22.6% to 15.8 million tonne.

DEEPALI SHARMA

SINGAPORE

COKING COAL DAILY: Buyers await cues on the sidelines

Seaborne coking coal prices were stable on Thursday March 28, with market participants awaiting the outcome of a miner's tender for direction.

A cargo of second-tier hard coking coal was heard offered at \$186 per tonne cfr China. The was no word of the cargo being sold by 6pm, the data collection cut-off time for the Fastmarkets MB daily coking coal indices.

In the premium hard coking coal segment, a miner issued a tender during the day for an April-laycan cargo. Market participants were waiting for this tender to be concluded to get a sense of direction for prices.

The last transaction involving a cargo of premium low-vol materials was concluded at \$208 per tonne cfr China last week.

"The bigger Chinese steel mills are not buying spot cargoes because they expect prices to drop in the coming weeks amid rising domestic

supply and lower coke prices," a buyer source in China said.

A trader source in China said that end users were taking a wait-and-see approach amid expectations of lower prices. As such, "buying activity will be driven by traders in the short term," he said.

Meanwhile, Japanese trading firm Sojitz has officially completed the acquisition of the Gregory Crinum coking coal mine in Australia from the BHP Mitsubishi Alliance, it said on Wednesday.

Sojitz will restart operations at Gregory Crinum - a six-milliontonnes-per-year hard coking coal mine in Queensland's Bowen Basin - in the April-September period. It expects to make its first shipment of coal in the October-March period.

The site comprises the Crinum underground mine, Gregory open cut mine, undeveloped coal resources and on-site infrastructure including a coal-handling and preparation plant, maintenance workshops and administration facilities.

Gregory Crinum was placed under care and maintenance in January 2016.

The Dalian Commodity Exchange's most-traded May coking coal futures contract closed at 1,228.50 yuan per tonne on Thursday, down 1 yuan per tonne from a day earlier.

The most-traded May coke contract closed at 1,965 yuan per tonne, up 17 yuan per tonne for the day.

The Fastmarkets MB fob Australia Premium Hard Coking Coal Index rose \$0.50 per tonne to \$209.60 per tonne while the cfr China index unchanged, at \$206.02 per tonne.

The fob Australia hard coking coal index was steady at \$180.50 per tonne, while the cfr China equivalent fell \$1.01 per tonne to \$188.05 per tonne.

The low-vol pulverized coal injection (PCI) indices were both flat, at \$133.33 per tonne fob Australia and \$138.37 per tonne cfr China.

DEEPALI SHARMA

SHANGHAI, SINGAPORE

IRON ORE DAILY: Prices drop in wake of futures retreat

Physical iron ore prices weakened on Thursday March 28 following losses in the futures markets.

MB 62% FE IRON ORE INDEX:

\$84.68 per tonne cfr Qingdao, down \$0.43 per tonne.

MB 62% FE PILBARA BLEND FINES INDEX:

\$83.80 per tonne cfr Qingdao, down \$0.43 per tonne.

MB 62% FE IRON ORE INDEX-LOW ALUMINA:

\$86.93 per tonne cfr Qingdao, down \$0.17 per tonne.

MB 58% FE PREMIUM INDEX:

\$76.97 per tonne cfr Qingdao, down \$0.12 per tonne.

MB 65% FE IRON ORE INDEX:

\$96.40 per tonne cfr Qingdao, down \$0.10 per tonne.

MB 62% FE CHINA PORT PRICE INDEX:

623 yuan per wet metric tonne (implied 62% Fe China Port Price \$82.34 per dry tonne), down 3 yuan per wmt

KEY DRIVERS

China's steel and iron ore futures had trended up since Wednesday night, but they dropped on Thursday afternoon, with the benchmark May iron ore contract ending the day just over 1% down on Wednesday's settlement level.



Ferrous raw materials

Physical iron ore trading has remained lackluster during the day, both at Chinese ports and in the seaborne market. Port prices fell later in the day in line with the decline in futures.

A seaborne cargo of Iron Ore Carajas carried by a 400,000-dwt Valemax ship traded against Fastmarkets' MB 65% Fe Iron Ore Index at a premium of \$0.25 per tonne.

However, cargoes on such big vessels could not even find buyers at flat to the index in the secondary market, sources said.

China is set to cut its VAT rate from 16% to 13% from April 1 for industries including iron ore importing.

Some offers and transactions have already been made on a 13% VAT basis for spot iron ore at Chinese ports.

The tax decrease will lead to some adjustments in port prices, a trader in east China said.

Fastmarkets' daily MB 62% Fe Iron Ore Index fell \$0.43 per tonne on Thursday, while the daily MB 65% Fe Iron Ore Index dropped by \$0.10 per tonne. The price movements were based on the visible market activity detailed below, which was included in the index calculation according to the published methodology.

For the calculation of the MBIOI-62, judgment was applied to carry over data in today's indices due to low liquidity in the 24-hour pricing window, corresponding with published fallback measures.

No data was discarded in the calculation of these indices. Any data received under Data Submitter Agreements or subject to a confidentiality request will not be published.

QUOTE OF THE DAY

"For the benchmark 62% Fe product of Pilbara Blend fines, the tax cut by 3 percentage points could mean a price decrease of about 16 yuan (\$2.40) per tonne based on current market prices," a Chinese mill source told Fastmarkets.

TRADES/OFFERS HEARD IN THE MARKET

- Vale, Global Ore, 180,000 tonnes of 65% Fe Iron Ore Carajas, traded at the April average of the Fastmarkets MB 65% Fe Iron Ore Index at a premium of \$0.25 per tonne, bill of lading dated February 16.
- Vale, Global Ore, 80,000 tonnes of 65% Fe Iron Ore Carajas, offered at \$97 per tonne cfr China, bill of lading dated March 18.

PORT PRICES

Pilbara Blend fines continued to trade at around 615-622 yuan per wmt in Tangshan city and Shandong province during the day, sources told Fastmarkets.

The latest price range was equivalent to \$81.40-82.40 per tonne cfr China.

DALIAN COMMODITY EXCHANGE AFTERNOON CLOSE

The most-traded May iron ore futures contract closed at 607 yuan per tonne on Thursday, down by 6.50 yuan per tonne from Wednesday's closing price.

JULY ZHANG, ALEX THEO

LONDON

Steelmaking Raw Materials Trade Log, March 28, 2019

The latest bids, offers and deals in the global markets for iron ore, pig iron, direct-reduced iron and other steelmaking raw materials.

LATEST TRANSACTIONS: IRON ORE

• Vale, Global Ore, 180,000 tonnes of 65% Fe Iron Ore Carajas, traded at the April average of the Fastmarkets MB 65% Fe Iron Ore Index at a premium of \$0.25 per tonne, bill of lading dated February 16.

SÃO PAULO

Chile's CAP sees lower iron ore shipments, higher prices in 2018

Iron ore shipments from Chilean iron ore and steel producer Compañía de Acero del Pacífico (CAP) fell by 13.20% in 2018, compared with the previous year, due to logistics problems.

Shipments from CAP's 75%-owned mining subsidiary, Compañía Minera del Pacífico (CMP), reached 14 million tonnes last year, compared with 16.14 million tonnes in 2017, CAP said late last week.

The effect of the lower volumes was to offset an increase of 3.90% year-on-year in average iron ore prices, which were \$72.80 per tonne in 2018.

"The increase in prices is explained by a growth in the average premium of CMP's product mix, a result of the increase in average quality premiums," CAP said.

Fastmarkets' index of spot market iron ore prices, 62% Fe, averaged \$69.70 per tonne cfr Qingdao in 2018, down from \$71.39 per tonne cfr in 2017.

But the corresponding average index of iron ore grading 65% Fe rose to \$90.41 per tonne cfr Qingdao in 2018, from \$88 per tonne cfr in 2017.

The reduction in volumes was due to an accident in the company's Guacolda II iron ore port in November 2018. Also, the approval of tougher environmental requirements in Chile, in the first half of the year, affected CMP's movements of iron ore by rail.

As a result, the miners's earnings before interests, taxes, depreciation and amortization (Ebitda) came to \$401 million for the year, a drop of 17.20% from 2017.

A poorer performance by the iron ore division also offset an improvement in the company's steel business last year.

In the company's long steel producing division, Compañía de Acero Huachipato (CSH), sales reached 750,255 tonnes last year, up by 2.90% from 729,026 tonnes a year before. Average prices came to \$707 per tonne, compared with \$611 per tonne in 2017.

As a result, the steel division's Ebitda was \$34.02 million in 2018, up from \$4.37 million a year before.

CAP's overall revenues amounted to \$1.92 billion in 2018, down by 0.80% from \$1.93 billion a year earlier, while Ebitda decreased by 7.40% in the same comparison, to \$533.27 million, from \$575.96 million.

FELIPE PERONI



Prices

For the latest prices go to http://www.metalbulletin.com/My-price-book.html

NEW YORK FUTURES			
	Price	Change [†]	Assessed
Comex: Copper high grade cents/lb			
Settlement	285.80	-1.97%	▼ 27 Mar 19
Open interest	251,953	-0.7%	▼ 26 Mar 19
Stocks (short ton)	45,160	-6.25%	▼ 26 Mar 19
Comex: Gold \$/troy oz			
Settlement	1,309.90	0.72%	▲ 27 Mar 19
Open interest	509,575	-0.89%	▼ 26 Mar 19
Stocks (troy oz)	8,032,321	-0.06%	▼ 26 Mar 19
Nymex: Palladium \$/troy oz			
Settlement	1,441.90	-8.79%	▼ 27 Mar 19
Stocks (troy oz)	42,583	0%	26 Mar 19
Nymex: Platinum \$/troy oz			
Settlement	856.5	-0.36%	▼ 27 Mar 19
Stocks (troy oz)	172,485	-0.17%	▼ 26 Mar 19
Comex: Silver cents/troy oz			
Settlement	1,523.90	-0.04%	▼ 27 Mar 19
Open interest	192,676	1.88%	▲ 26 Mar 19
SHANGHAI FUTURES			
	Price	Change [†]	Assessed
Aluminium yuan/tonne	13,635	-0.87%	▼ 28 Mar 19
Copper yuan/tonne	48,250	2.0070	▼ 28 Mar 19
Nickel cathode yuan/tonne	100,000	1.0070	▼ 28 Mar 19
Tin ingot yuan/tonne	147,880	0.1070	▼ 28 Mar 19
Zinc yuan/tonne	22,675		▲ 28 Mar 19
Steel rebar month 1 yuan/tonne	3,721	2.0070	▼ 28 Mar 19
Steel rebar month 2 yuan/tonne	3,704	2.1070	▼ 28 Mar 19
Steel rebar month 3 yuan/tonne	3,616	-2.8%	▼ 28 Mar 19
Weekly stocks deliverable			
Aluminium (tonnes)	741,757	0.0.70	▲ 22 Mar 19
Copper (tonnes)	259,172	2.0070	▼ 22 Mar 19
Nickel cathode (tonnes)	11,897	2.0270	▼ 22 Mar 19
Tin ingot (tonnes)	8,418	0.0070	▲ 22 Mar 19
Zinc (tonnes)	115,974	0.070	▼ 22 Mar 19
Steel rebar (tonnes)	38,324	-1.52%	▼ 22 Mar 19

DAILY METAL AND STEEL

London forward LME settlement prices. All prices per tonne, unless otherwise stated, in LME warehouse, EU duty, if any paid for buyers account

	Price	Change [†]		Assessed
Aluminium high grade \$				
Cash official	1,895.5-1,896.5	0.28%		28 Mar 19
Cash unofficial	1,893-1,895	-1.61%	•	27 Mar 19
3 months official	1,911.5-1,912	-0.42%	•	28 Mar 19
3 months unofficial	1,911-1,913	-1.9%	▼	27 Mar 19
LME Tapo notional average price (NAP)	1,869.5	0.06%	A	27 Mar 19
LME stocks (tonnes)	1,134,950	-2.67%	•	27 Mar 19
Aluminium alloy (A380.1/DIN/D12S) \$				
LME cash official	1,405-1,415	-1.74%	\blacksquare	28 Mar 19
LME cash unofficial	1,400-1,410	-2.63%	•	27 Mar 19
LME 3 months official	1,430-1,440	-1.71%	▼	28 Mar 19
LME 3 months unofficial	1,425-1,435	-2.39%	•	27 Mar 19
LME stocks (tonnes)	9,060	0%		27 Mar 19

	Price	Change		Assessed
N. American special aluminium alloy				
LME cash official	1,475-1,476	-2.35%	•	28 Mar 19
LME cash unofficial	1,477-1,487	-3.58%	•	27 Mar 19
LME 3 months official	1,500-1,510	-3.83%	\blacksquare	28 Mar 19
LME 3 months unofficial	1,510-1,520	-3.5%	•	27 Mar 19
LME stocks (tonnes)	115,880	-1.51%	•	27 Mar 19
Copper grade A \$				
LME cash official	6,380-6,385	-2.09%	\blacksquare	28 Mar 19
LME cash unofficial	6,312.5-6,314.5	-2.53%	•	27 Mar 19
LME 3 months official	6,372-6,372.5	-1.98%	•	28 Mar 19
LME 3 months unofficial	6,312-6,314	-2.21%	•	27 Mar 19
LME Tapo notional average price (NAP)	6,452.71	-0.38%	•	27 Mar 19
LME stocks (tonnes)	169,950	-3.68%	•	27 Mar 19
Lead \$				
LME cash official	2,009.5-2,010	-1.25%	\blacksquare	28 Mar 19
LME cash unofficial	1,971.5-1,973.5	-1.74%	•	27 Mar 19
LME 3 months official	2,022-2,024	-1.51%	▼	28 Mar 19
LME 3 months unofficial	1,990-1,992	-2.02%	•	27 Mar 19
LME stocks (tonnes)	78,975	1.35%	<u> </u>	27 Mar 19
Nickel \$				
LME cash official	12,775-12,780	-2.78%	•	28 Mar 19
LME cash unofficial	12,844-12,869	-2.34%	V	27 Mar 19
LME 3 months official	12,875-12,900	-2.9%	V	28 Mar 19
LME 3 months unofficial	12,925-12,950	-2.45%	·	27 Mar 19
LME stocks (tonnes)	183,102	-2.15%	*	27 Mar 19
Tin\$	103,102	-2.1370		ZI Wai 13
LME cash official	21,425-21,450	-0.16%	•	28 Mar 19
LME cash unofficial		0.05%	<u> </u>	27 Mar 19
LME 3 months official	21,400-21,450	-0.15%	•	28 Mar 19
LME 3 months unofficial	21,350-21,360	0.12%	<u> </u>	27 Mar 19
	21,350-21,400	-13.04%	•	27 Mar 19
LME stocks (tonnes)	1,000	-13.04 %		ZI IVIAI 19
Zinc special high grade \$	0.040.0.40	4.000/		0014 40
LME cash official	2,948-2,949	1.63%	<u> </u>	28 Mar 19
LME cash unofficial	2,916-2,918	0.48%	<u> </u>	27 Mar 19
LME 3 months official	2,887-2,889	0.67%	_	28 Mar 19
LME 3 months unofficial	2,863-2,865	-0.07%		27 Mar 19
LME stocks (tonnes)	53,575	-7.35%	•	27 Mar 19
Cobalt min 99.3%				
LME cash official	29,000-30,000	0%		28 Mar 19
LME 3 months official	29,000-30,000	0%		28 Mar 19
LME stocks (tonnes)	965	-0.31%	•	27 Mar 19
Gold \$/troy oz				
London morning	1,318.25	1.17%	A	27 Mar 19
London afternoon	1,309.70	0.46%	A	27 Mar 19
Handy/Harman	1,309.70	0.46%	A	27 Mar 19
Silver per troy oz				
London spot pence	1,165	0.6%		27 Mar 19
London spot cents	1,540	0.52%	A	27 Mar 19
Handy/Harman	1,532.70	0.08%	A	27 Mar 19
Palladium \$/troy oz				
London morning	1,513	-5.38%	•	27 Mar 19
London afternoon	1,491	-6.93%	▼	27 Mar 19
Platinum \$/troy oz				
London morning	862	0.35%	A	27 Mar 19
London afternoon	861	0.23%	_	27 Mar 19
		0/0	_	

† week-on-week change continued >





	Price	Change		Assessed	MB BASE METAL PREMIUMS			
Kuala Lumpur tin market					All prices \$/tonne unless otherwise stated			
Tin \$/tonne	21,230	-0.33%	•	28 Mar 19	*MB Copyright			
ICDX						Price	Change [†]	Assessed
Tin PB300 settlement price \$/tonne	21,340	1.14%		28 Mar 19	Copper			
Tin PB300 volume, tonnes	73	-70.56%	•	28 Mar 19	Annual premium 8mm wire rod, cif Nhava Sheva, \$/tonne	130-175*	-12.86% ▼	07 Sep 18
RAND FIXING PRICES					Rotterdam, Grade A, cathode, cif, \$/tonne	38.0-50.0*	0%	26 Mar 19
Rand fixing prices per tonne for London Metal E	-				Germany, Grade A, cathode, delivered,	30.0-30.0	076	20 IVIAI 13
0	Price	Change [†]		Assessed	\$/tonne	85.0-95.0*	0%	26 Mar 19
Copper	93,425.32 27.749.59	0.88%	A	28 Mar 19 28 Mar 19	North European warrants, Grade A			
Lead	29,410.32	1.72%	_	28 Mar 19	cathode, in-warehouse, \$/tonne	15.0-20.0*	0%	27 Mar 19
Zinc	43,149.77	4.7%	_	28 Mar 19	South European warrants, Grade A cathode, in-warehouse, \$/tonne	15.0-20.0*	0%	27 Mar 19
Nickel	186,996.96	0.15%	_	28 Mar 19	Leghorn, copper low-high premium,			
Tin	313,856.40	2.89%	_	28 Mar 19	Grade A, cathode, cif, \$/tonne	50.0-65.0*	-4.17% ▼	26 Mar 19
	<u> </u>				Japan, copper, Grade A, cathode, cif, \$/tonne	70.0-75.0*	0%	26 Mar 19
EXCHANGE RATES					South Korea, copper low-high	10.0-13.0	076	20 10101 19
EXCHANGE NATED	Price	Change [†]		Assessed	premium, Grade A, cathode, cif, \$/tonne	55.0-75.0*	0%	26 Mar 19
LME settlement conversion rates	FIICE	Glialige		Assesseu	Southeast Asian warrants, Grade A cathode, in-warehouse, \$/tonne	15.0-20.0*	0%	27 Mar 19
\$/£	1.3121	-0.06%	•	28 Mar 19	East Asian warrants, Grade A			
\$/¥	110.5200	-0.03%	•	28 Mar 19	cathode, in-warehouse, \$ per tonne	15.0-20.0*	0%	27 Mar 19
\$/€	1.1222	-1.43%	•	28 Mar 19	Southeast Asia, Grade A cathode,	CF 0 7F 0*	0.40/	001440
Closing rates, midpoint					cif, \$ per tonne Shanghai, copper low-high premium,	65.0-75.0*	-2.1% ▼	26 Mar 19
\$/£	1.3191	0.02%	_	27 Mar 19	Grade A, cathode, in-warehouse, \$/tonne	45.0-65.0*	-8.33% ▼	28 Mar 19
\$/¥	110.3750	-0.95%		27 Mar 19	Shanghai, copper low-high premium,			
\$/€	1.1252	-0.88%	▼	27 Mar 19	Grade A, cathode, cif, \$/tonne	45.0-68.0*	-4.24% ▼	28 Mar 19
£/€ \$/CNY	1.1723 6.7215	0.9%	A	27 Mar 19 27 Mar 19	Shanghai, copper cif ER, premium, Grade A, cathode, \$/tonne	55.0-68.0*	-1.6% ▼	28 Mar 19
J/CIVI	0.7213	0.3376		ZI IVIAI 13	Shanghai, copper cif SX-EW, premium,	00.0 00.0		2011101110
DAGE METAL CARRIEDAGE					Grade A, cathode, \$/tonne	45.0-55.0*	-2.91% ▼	28 Mar 19
BASE METALS ARBITRAGE	Dutan	Obt		A	Shanghai, copper bonded in-warehouse, SX-EW, premium, Grade A, cathode, \$/tonne	45.0-50.0*	-9.52% ▼	28 Mar 19
Aluminium	Price	Change [†]		Assessed	Shanghai, copper bonded in-warehouse,	40.0-00.0	-3.32/0 ¥	20 IVIAI 13
Import arbitrage, \$/tonne	-293.97*	-1.7%	•	28 Mar 19	ER, premium, Grade A, cathode, \$/tonne	50.0-65.0*	-8% ▼	28 Mar 19
Import arbitrage, y/tonne	-1,982.63*	-0.95%	<u> </u>	28 Mar 19	Taiwan, Grade A cathode, cif, \$ per tonne	68.0-75.0*	-1.38% ▼	26 Mar 19
Import arbitrage, cfr Owensboro -	1,302.00	0.3070		ZOWAI 15	United States warrants, Grade A cathode,	5 0 45 Ot	00/	0714 40
origin LME Warehouses, Busan, \$/tonne	278.36*	-0.95%	▼	06 Mar 19	\$/tonne Copper Cathode, Grade 1 premium,	5.0-15.0*	0%	27 Mar 19
Import arbitrage, cfr Owensboro -	000 50*	0.40/		0014 40	Delivered Domestic US, US cents/pound	7.0-7.8*	1.72%	26 Mar 19
origin LME Warehouses, Johor, \$/tonne Import arbitrage, cfr Owensboro -	293.56*	2.1%		06 Mar 19	Copper Cathode, Grade 1 premium,			
origin LME Warehouses, Port Klang, \$/tonne	293.56*	2.1%	A	06 Mar 19	Delivered Domestic US, \$/tonne	154.3-170.9*	1.72%	26 Mar 19
Import arbitrage, cfr Owensboro -	070.00*	0.070/		0014 40	Aluminium Aluminium P1020A, in-warehouse			
origin LME Warehouses, Singapore, \$/tonne	278.96*	2.27%		06 Mar 19	Rotterdam duty-unpaid, spot low-high,			
Copper	400.00*	40.400/	_	00.1440	\$/tonne	85.0-95.0*	1.69%	28 Mar 19
Import arbitrage, \$/tonne	-139.98* -944.04*	-12.48% -11.82%	▼	28 Mar 19 28 Mar 19	Aluminium P1020A, cif main Korea	0E 11E*	-4.55% ▼	26 Mar 10
Import arbitrage, yuan/tonne	-944.04	-11.0270		20 Mai 19	ports, spot low-high, \$/tonne Aluminium P1020A, Southeast Asian	95-115*	-4.55% ▼	26 Mar 19
Nickel Import arbitrage, \$/tonne	-356.58*	30.27%	A	28 Mar 19	warrants, in-warehouse, \$/tonne	15.0-30.0*	50%	27 Mar 19
Import arbitrage, yuan/tonne	-2,404.90*	31.26%	_	28 Mar 19	Aluminium P1020A, East Asian			
Zinc	2,404.30	01.2070		ZOWAI 15	warrants, in-warehouse, \$/tonne	10.0-20.0*	0%	27 Mar 19
Import arbitrage, \$/tonne	-148.71*	-25.7%	•	28 Mar 19	Aluminium P1020A, cif Shanghai, spot low-high, \$/tonne	95.0-105.0*	0%	26 Mar 19
Import arbitrage, yuan/tonne	-1,002.96*	-25.13%	•	28 Mar 19	Aluminium P1020A, South Korea, fca, \$/tonne	115.0-135.0*	-3.85% ▼	26 Mar 19
					Aluminium P1020A, Shanghai,		2.3070	_3
					in-warehouse, \$/tonne	95.0-105.0*	0%	26 Mar 19
					Aluminium P1020A, Taiwan, cif, \$/tonne	100.0-110.0*	7.69%	26 Mar 19
					Aluminium P1020A, Italy, fca duty-paid, spot, \$/tonne	160.0-175.0*	0%	26 Mar 19
					AL			

Aluminium P1020A, Spain, fca

† week-on-week change

duty-paid, \$/tonne

160.0-170.0*

0%

26 Mar 19





	Price	Change	Assessed		Price	Change	Assessed
Aluminium P1020A, Turkey, cif				India, 99.97% purity, cif, \$/tonne	35.0-60.0*	0%	26 Mar 19
duty-unpaid, \$/tonne Aluminium ingot ADC 12 ex-works	80.0-90.0*	0%	26 Mar 19	India, 99.99% purity, cif, \$/tonne	125.0-140.0*	0%	26 Mar 19
China, duty-paid, yuan/tonne	14,100-14,300*	0%	27 Mar 19	South European warrants, 99.97% purity, in-warehouse, \$/tonne	10.0-15.0*	0%	27 Mar 19
Aluminium ingot ADC 12 spot, main Japanese ports, \$/tonne	1,670-1,680*	0%	27 Mar 19	US warrants, 99.97% purity, in-warehouse, \$/tonne	20.0-30.0*	0%	27 Mar 19
Aluminium P1020A, cif main Japanese ports, spot low-high, \$/tonne	100.0-115.0*	0%	26 Mar 19	US lead premium 99.97%, delivered domestic, cents/lb	9-11*	0%	26 Mar 19
Aluminium P1020A, cif main Japanese ports, quarterly, \$/tonne	105.0-105.0*	25%	25 Mar 19	US lead premium 99.99%, delivered domestic, cents/lb	11-13*	0%	26 Mar 19
Aluminium P1020A, in-warehouse Rotterdam duty-paid, spot \$/tonne	140.0-147.0*	0%	26 Mar 19	Nickel			
Aluminium 6063 extrusion billet, in-warehouse Rotterdam duty-paid, spot,		• • • • • • • • • • • • • • • • • • • •	2011101110	Shanghai, nickel low-high premium, 99.8% purity in-warehouse, \$/tonne	200.0-210.0*	0%	26 Mar 19
\$/tonne	370.0-400.0*	-2.53%	7 22 Mar 19	Shanghai, nickel low-high premium, 99.8% purity, full plate, cif, \$/tonne	180.0-200.0*	0%	26 Mar 19
Aluminium P1020A, free market delivered, cents per pound	105.10-105.35*	-1.32%	7 27 Mar 19	Shanghai, nickel premium, 99.80% purity, briquette, duty-free, cif, \$/tonne	240.0-270.0*	0%	26 Mar 19
Aluminium P1020A, duty paid premium, delivered Midwest, cents per pound	19.25-19.5*	0%	26 Mar 19	Southeast Asian warrants, min 99.80%			
Aluminium P1020A, cif Baltimore premium, US cents/lb	5.5-5.75*	0%	26 Mar 19	full plates, in-warehouse, \$/tonne Southeast Asian warrants, min 99.80%	100-170*	0%	27 Mar 19
Aluminium P1020A, US warrants, in-warehouse, \$/tonne	115.0-125.0*	0%	27 Mar 19	briquettes, in-warehouse, \$/tonne East Asian warrants, min 99.80% full	10-15*	0%	27 Mar 19
Aluminium P1020A, delivered Sao	110.0 120.0	070	Z7 Widi 13	plates, in-warehouse, \$/tonne	100-160*	0%	27 Mar 19
Paulo region, spot, \$/tonne Aluminium P1020A, cif Brazilian main	220.0-230.0*	-6.25%	7 26 Mar 19	East Asian warrants, min 99.80% briquettes, in-warehouse, \$/tonne	10-15*	0%	27 Mar 19
ports duty-unpaid, spot, \$/tonne Aluminium 6063 + 6060 extrusion	165.0-175.0*	-1.45%	7 26 Mar 19	North European warrants, min 99.80%, in-warehouse, \$/tonne	150-200*	0%	27 Mar 19
billet, cif Brazilian main ports, spot				uncut cathodes premium indicator	190.0-220.0*	0%	26 Mar 19
(premium over LME cash), \$/tonne	330.0-350.0*	0%	15 Mar 19	4x4 cathodes premium indicator	450.0-500.0*	0%	26 Mar 19
Aluminium billet, delivered duty-paid North Germany (Ruhr region) over				briquettes premium indicator	250.0-280.0*	0%	26 Mar 19
LME 30-day pay, \$/gross tonne Aluminium billet, delivered	410.0-440.0*	-2.3%	7 22 Mar 19	Nickel 4x4 cathode premium, delivered consumer works US, US cents per pound	39-45*	2.44%	▲ 26 Mar 19
duty-paid Italy (Brescia area) over LME 60-day pay, \$/gross tonne	410.0-440.0*	-2.3%	7 22 Mar 19	Nickel briquette premium, delivered consumer works US, US cents per pound	25-28*	0%	26 Mar 19
Aluminium billet, delivered duty-paid Spain				Tin			
over LME 60-day pay, \$/gross tonne Aluminium billet, cif Thailand duty-unpaid	420.0-450.0*	-5.43%	7 15 Mar 19	Rotterdam spot premium, 99.9% low lead ingots, in-warehouse \$/tonne	500-550*	0%	26 Mar 19
over LME cash pay, \$/gross tonne	190.0-210.0*	0%	15 Mar 19	Rotterdam spot premium 99.9% ingot, in-warehouse \$/tonne	420-460*	0%	26 Mar 19
Aluminium billet, cif Japan duty-unpaid over MJP and LME cash pay, \$/gross tonne	140.0-155.0*	0%	18 Jan 19	South East Asian warrants, min			
Aluminium billet, cif Turkey (Marmara region) duty-unpaid over LME cash pay, \$/gross tonne	270.0-300.0*	0%	15 Mar 19	99.85% ingots, in-warehouse \$/tonne Shanghai spot premium, 99.9% ingots,	15-30*	0%	27 Mar 19
Aluminium foundry alloy premium, delivered duty-paid, Germany, \$/tonne	350.0-370.0*	-5.26%	7 08 Mar 19	cif, \$/tonne Shanghai spot premium, 99.9% low	230-250*	0%	26 Mar 19
Aluminium foundry alloy premium,				lead ingots, cif, \$/tonne	320-350*	0%	26 Mar 19
delivered duty-paid, Eastern Europe, \$/tonne Aluminium foundry alloy premium,	360.0-380.0*	0%	08 Mar 19	Taiwan spot premium, 99.9% ingots, cif, \$/tonne	200-220*	0%	26 Mar 19
delivered duty-unpaid, US midwest, \$/tonne Aluminium foundry alloy premium,	14.0-17.0*	-6.06% T	7 08 Mar 19	Baltimore premium, 99.85% ASTM grade Aingots, in-warehouse \$/tonne	550-625*	0%	26 Mar 19
delivered duty-paid cif Turkey, \$/tonne Annual aluminium wheel alloy silicon	170.0-180.0*	0%	08 Mar 19	US midwest premium, 99.85% ASTM grade A ingots, delivered \$/tonne	618-693*	0%	26 Mar 19
7 ingot cif main Japanese ports				Zinc			
(Yokohama, Osaka, Nagoya) \$/tonne Annual aluminium wheel alloy silicon	120.0-140.0*	15.56%	11 Jan 19	North European warrants, min 99.995%		•••	
7 ingot cif main South Korean ports				SHG ingots, \$/tonne	15.0-20.0*	0%	27 Mar 19
(Busan, Gwangyang, Incheon) \$/tonne	95.0-125.0*	22.22%	11 Jan 19	MB EU: Special high grade, fca Rotterdam, \$/tonne	105.0-115.0*	-0.9%	▼ 26 Mar 19
Lead				Malaysia fca, 99.995%, \$/tonne	125.0-145.0*	0%	26 Mar 19
North European warrants, min 99.97% ingots, in-warehouse, \$/tonne	10.0-15.0*	0%	27 Mar 19	Southeast Asia cif, 99.995%, \$/tonne	155.0-170.0*	0%	26 Mar 19
Southeast Asian warrants, min 99.97%				Singapore, zinc premium, 99.995% purity, fca \$/tonne	125.0-145.0*	0%	26 Mar 19
ingots, in-warehouse, \$/tonne East Asian warrants, min 99.97%	15.0-25.0*	0%	27 Mar 19	Shanghai, zinc low-high premium, 99.995% purity, in-warehouse, \$/tonne	140.0-150.0*	0%	26 Mar 19
ingots, in-warehouse, \$/tonne	15.0-20.0*	0%	27 Mar 19	Shanghai 99.995% purity, cif \$/tonne	120.0-130.0*	0%	26 Mar 19
Southeast Asia, min 99.97% cif, \$/tonne	65.0-75.0*	0%	26 Mar 19	Taiwan 99.995% purity SHG ingots,	100 0 177	001	
Southeast Asia, 99.99% cif, \$/tonne	120.0-140.0*	0%	26 Mar 19	cif\$/tonne	160.0-170.0*	0%	26 Mar 19
Taiwan, 99.97% purity, cif, \$/tonne	40.0-90.0*	0%	26 Mar 19	India 99.995% purity, cif duty-unpaid \$/tonne	125.0-145.0*	0%	26 Mar 19
Taiwan, 99.99% purity, cif, \$/tonne	135.0-145.0*	0%	26 Mar 19				
				† week-on-week change		(continued >

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India 99.995% purity, cif duty-paid	Price	Change		Assessed
\$/tonne Antwerp 99.995% purity, duty-paid	235.0-255.0*	0%		26 Mar 19
fca \$/tonne	105.0-115.0*	-0.9%	▼	26 Mar 19
Italy 99.995% purity, duty-paid fca \$/tonne	145.0-155.0*	0%		26 Mar 19
Italy 99.995% purity, delivered duty-paid \$/tonne	185.0-195.0*	0%		26 Mar 19
US warrants 99.995% purity, in-warehouse \$/tonne	5.0-10.0*	0%		27 Mar 19
MB US: Special high grade, cents/lb	8.50-9.50*	0%		26 Mar 19
BASE METALS				
	Price	Change [†]		Assessed
Alumina MB Chinese free market, metallurgical	0.050.0.0.070.0*	4.400/	_	0014 40
grade, delivered duty-paid, yuan/tonne Alumina Index fob Australia	2,650.0-2,670.0* 415.36*	-1.12% 2.92%	_	28 Mar 19 28 Mar 19
Alumina Index fob Australia Alumina Index fob Brazil	7.73*	2.32/0	_	28 Mar 19
Alumina Index fob Brazil, inferred	1.13			20 IVIAI 19
Brazil price \$ per dry metric ton	423.09*			28 Mar 19
Aluminium Changhai handad aluminium ataaka tannaa	E 000 C 000*	20.620/		04.1440
Shanghai bonded aluminium stocks, tonnes	5,800-6,800*	32.63%	_	01 Mar 19
Bauxite	27*	1 220/	_	20 Mar 40
fob Kamsar, Guinea \$/tonne per dmtu	37* 37*	-1.33% 0%	▼	28 Mar 19 28 Mar 19
fob Trombetas, Brazil \$/tonne per dmtu	31	0 70		20 IVIAI 19
Copper & Brass				
Producer premium Aurubis European Grade A cathode				
ex-works \$/tonne	96.0	11.63%	A	01 Oct 18
Codelco: Contract Grade A cathode (average)	98.0	11.36%	A	26 Sep 18
South Africa: Palabora copper rod 7.90mm, Rand/tonne	99,917.760	5.62%	A	28 Feb 19
Blister copper 98-99% spot RC cif China \$ per tonne	170-180*	-1.41%	V	28 Feb 19
Blister copper 98-99% annual	170 100		•	
benchmark RC cif China \$ per tonne Copper concentrate Asia-Pacific	165-180*	0%		28 Feb 18
Index RC import, US cents/lb (twice monthly on 15th and last day of month)	6.90-6.90*	-7.13%	•	15 Mar 19
Copper concentrate Asia-Pacific				
Index TC import, \$/dmt (twice monthly on 15th and last day of month)	69-69*	-7.13%	•	15 Mar 19
Shanghai bonded copper stocks, tonnes	563,000-567,000*	5.17%	A	25 Mar 19
Nickel	,,.,.,	,,		
Nickel pig iron high grade NPI content 10-15% contract price delivered duty-paid China yuan per nickel unit price	1,020-1,040*	-2.6%	•	26 Mar 19
Nickel pig iron high grade NPI content 10-15% spot price China yuan per nickel unit price	1,030-1,050*	-1.89%	•	26 Mar 19
Shanghai bonded nickel stocks, tonnes	27,000-34,000*	5.17%	<u> </u>	01 Mar 19
Nickel ore				
Laterite ore with 1.5% nickel content cif China, \$/tonne	30-31*	0%		26 Mar 19
Nickel ore 1.8% basis cif China, 15-20% Fe, water content: 30-35%, Si:Mg ratio less than 2, lot size 50,000 tonnes, \$/tonne	51-53*	0%		26 Mar 19
Nickel sulfate min 21%, max: 22.5%; cobalt 10ppm max, China ex-works, yuan/tonne	24,800-25,300*	0%		26 Mar 19
Judintollilo	27,000-20,000	0 /0		20 Iviai 19

	Price	Change	Assessed
Lead			
Lead concentrate spot treatment charge (TC) high silver CIF China, \$/tonne	50-70*	60%	22 Feb 19
Lead concentrate spot treatment charge (TC) low silver CIF China, \$/tonne	20-30*	100%	22 Feb 19
Lead concentrate (TC) high silver, annual benchmark, \$/tonne	98*	0%	05 Apr 18
Lead concentrate (TC) low silver, annual benchmark, \$/tonne	99*	0%	15 Mar 18
Zinc			
UK: Special high grade, delivered monthly average price £/tonne	2,247*	3.31%	01 Mar 19
Zinc concentrate spot treatment charge (TC) CIF Asia-Pacific \$/tonne	215-250*	3.33%	22 Feb 19
Zinc concentrate spot treatment charge (TC) deliverd North China	0.500.7.000*	00/	00 5-40
yuan/tonne	6,500-7,000*	8%	22 Feb 19
Zinc concentrate spot treatment charge (TC) deliverd South China	C 000 C 200*	0.000/	00 5-40
yuan/tonne	6,000-6,300*	9.82%	22 Feb 19
Shanghai bonded zinc stocks, tonnes	79,000-86,000*	5.1%	01 Mar 19

†week-on-week change continued >





PRECIOUS METALS						Price	Change		Assessed
Iridium	Price	Change [†]		Assessed	Cobalt hydroxide payable indicator, min 30% Co, cif China, % payable of Fastmarkets'	C4 C7*	00/		15 Mar 10
MB free market: min 99.9%, \$/troy oz					standard-grade cobalt price (low-end) Cobalt tetroxide min 72.6% Co	64-67*	0%		15 Mar 19
in-warehouse	1,410-1,510*	0%		27 Mar 19	delivered China yuan/tonne	170,000-180,000*	-5.41%	\blacksquare	27 Mar 19
Johnson Matthey base price: (unfab) \$/troy oz (08 hrs)	1,480	0%		28 Mar 19	Cobalt sulfate, Co 20.5% min, China ex-works, yuan/tonne	45,000-47,000*	-6.12%	•	27 Mar 19
Englehard base price: \$/troy oz	1,485	0%		28 Mar 19	Cobalt sulfate, Co 20.5% min, China				
Palladium					ex-works, adjustment to low-grade cobalt low-end price at Co 20.5% basis, \$/lb	0-0*	145.83%	•	27 Mar 19
European free market: min 99.9%,	4 505 4 5504	0.000/	_	0711 10	Gallium	0-0	143.03 /0	_	ZI Wai 19
\$/troy oz in-warehouse	1,525-1,556*	-3.39% -10.06%	▼	27 Mar 19 28 Mar 19	MB free market \$/kg	153-173*	0%		27 Mar 19
Englehard base price: \$/troy oz Johnson Matthey base price: (unfab)	1,457	-10.00%		20 Mai 19	MB China domestic, min 99.99%,	100 170	070		Z7 Widi 13
\$/troy oz (08 hrs)	1,430	-11.4%	•	28 Mar 19	yuan/kg	1,000-1,020*	0%		27 Mar 19
Platinum					Germanium				
European free market: min 99.9%,					Germanium dioxide MB free market \$/kg	950-1,150*	0%		27 Mar 19
\$/troy oz in-warehouse	858-865*	0.7%	_	27 Mar 19	Germanium metal \$/kg Rotterdam	1,350-1,450*	0%		27 Mar 19
Englehard base price: \$/troy oz	860	-1.38%	•	28 Mar 19	Germanium metal MB China domestic, min 99.999%, yuan/kg	7,900-8,500*	0%		27 Mar 19
Johnson Matthey base price: (unfab) \$/troy oz (08 hrs)	865	-0.69%	•	28 Mar 19	Hafnium	7,300-0,300	070		Z7 IVIAI 13
Rhodium					Hafnium 1% Zr max, in-warehouse				
European free market: min 99.9%,					global locations, \$/kg	950-1,050*	0%		15 Mar 19
\$/troy oz in-warehouse	3,265-3,365*	1.07%	A	28 Mar 19	Indium				
Englehard base price: \$/troy oz	3,350	2.29%	A	28 Mar 19	MB free market \$/kg	200-220*	0%		27 Mar 19
Johnson Matthey base price: (unfab) \$/troy oz (08 hrs)	3,345	1.98%	A	28 Mar 19	MB China domestic, min 99.99% yuan/kg	1,250-1,290*	-0.78%	•	27 Mar 19
Ruthenium					Magnesium				
European free market: min 99.9%,	0.40.000*	00/		0714 40	European free market \$ per tonne	2,640-2,740*	-0.37%	\blacksquare	22 Mar 19
\$/troy oz in-warehouse	240-280* 275	0%		27 Mar 19 28 Mar 19	China free market min 99.8% Mg, fob				
Englehard base price: \$/troy oz Johnson Matthey base price: (unfab)					China main ports, \$ per tonne MB Chinese free market min 99% Mg,	2,600-2,630*	-2.24%	•	22 Mar 19
\$/troy oz (08 hrs)	270	0%		28 Mar 19	ex-works yuan/tonne Manganese flake	16,900-17,000*	-2.31%	•	22 Mar 19
MINOR METALS					MB free market 99.7%, \$/tonne	2,000-2,100*	-1.2%	•	27 Mar 19
	Price	Change [†]		Assessed	Mercury	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Antimony					MB free market \$ per flask	2,400-2,700*	0%		15 Mar 19
MB free market Regulus, min 99.65%,					Rhenium in-warehouse Rotterdam duty paid				
max Se 50 ppm, max 100 ppm Bi, \$/tonne in-warehouse Rotterdam	7,300-7,600*	-1.32%	•	27 Mar 19	Metal pellets, min 99.9% \$/lb	650-715*	-3.19%	\blacksquare	15 Mar 19
MMTA Standard Grade II, \$/tonne					APR catalytic grade \$/kg Re	1,300-1,580*	0%		15 Mar 19
in-warehouse Rotterdam	7,250-7,550*	-0.67%	•	27 Mar 19	Selenium				
MB Chinese free market MMTA Standard Grade II, delivered duty-paid yuan/tonne	44,000-45,000*	-2.2%	•	27 Mar 19	MB free market \$/Ib	9-11*	0%		27 Mar 19
Arsenic	44,000 40,000	2.270		27 19101 15	MB China domestic, min 99.9%,	400 400*	0%		00.1440
MB free market \$/lb	1.20-1.5*	0%		15 Mar 19	yuan/kg Silicon	160-190*	0%		22 Mar 19
Bismuth					Grade 441. min 99% Si in-warehouse				
MB free market \$/Ib	3.30-3.80*	-2.74%	•	27 Mar 19	Rotterdam, €/tonne	1,860-1,940*	0%		22 Mar 19
MB China domestic, min 99.99%,					Grade 553, min 98.5% Si in-warehouse				
yuan/tonne	46,500-48,500*	0%		22 Mar 19	Rotterdam, €/tonne	1,800-1,885*	0%		22 Mar 19
Cadmium					US free market cents/lb Export from mainland China min	111-116*	-2.16%	V	11 Mar 19
MB free market min 99.95% cents/lb	133-143*	0%		27 Mar 19	98.5%, \$/tonne fob	1,560-1,620*	0%		22 Mar 19
MB free market min 99.99% cents/lb	137-146*	0%		27 Mar 19	Tellurium				
Chromium MD from market alumning thermia min					MB free market 99.9-99.99%, \$/kg	53-65*	0%		27 Mar 19
MB free market alumino-thermic min 99% \$/tonne	8,550-9,200*	0%		22 Mar 19	MB China domestic, min 99.99%,				
Cobalt					yuan/kg	420-440*	0%		22 Mar 19
MB free market alloy-grade \$/lb	13.5-14.5*	0%		27 Mar 19	Titanium				
MB free market standard-grade \$/lb	13.30-14.25*	0%		27 Mar 19	MB free market ferro-titanium 70% (max 4.5% AI) \$/kg Ti d/d Europe	5.10-5.5*	0%		27 Mar 19
MB high-grade, weighted average of all confirmed international trades, \$/lb	14.19*	2.23%	A	27 Mar 19	Titanium ores \$/tonne	30 3.0	J / 0		2. mai 13
MB low-grade, weighted average of all confirmed international trades, \$/lb	13.94*	1.23%	A	27 Mar 19	Rutile conc min 95% Tio2 bagged, fob/Aus	1,045-1,350	0%		28 Mar 19
MB China domestic, min 99.8%	10.01	1.20/0		Z7 WIGHTS	Rutile bulk conc min 95% Tio2	1,000,1,400	00/		00 M40
yuan/tonne	245,000-285,000*	-2.75%	▼	27 Mar 19	fob/Aus	1,000-1,100 170-180	0%		28 Mar 19 28 Mar 19
Cobalt hydroxide index min 30% Co,	44.05*	001		00.5 1 13	Ilmenite concentrate, 47-49% Tio2 cif China	170-100	U /0		ZU IVIAI 19
cif China, \$/lb	11.05*	0%		28 Feb 19	† week-on-week change			cor	ntinued >

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NOBLE ALLOYS & ORES					
	Price	Change [†]		Assessed	Chrome
Molybdenum molybdic oxide					Chrome of
Europe drummed molybdic oxide \$/lb Mo	12.07-12.20*	-2.53%	•	27 Mar 19	South Afr index bas
US canned molybdic oxide \$/lb Mo	12.60-12.95*	1.39%	A	21 Mar 19	Turkish lu
Ferro-molybdenum					Chrome (
Basis 65% min, in-warehouse Rotterdam \$/kg Mo	28.60-28.80*	-1.54%	•	27 Mar 19	ports of T Lianyung
US free market 65-70% Mo \$/lb n-warehouse Pittsburgh	13.40-13.80*	0.37%	•	21 Mar 19	Ferro-ma
Tungsten	10.10 10.00	0.0170	_	Z T Wai To	basis 78%
European free market APT \$/mtu	271-282*	0%		22 Mar 19	US free n
Export from mainland China APT Chinese No1 grade, min 88.5% W03, S/mtu fob	270-277*	0%		27 Mar 19	US free n
MB Chinese free market concentrate 65% Wo3 in-warehouse China yuan/tonne	97,000-99,000*	0%		27 Mar 19	MB Chine
Ferro-tungsten					max 7.0%
Basis 75% W min \$/kg W in-warehouse Rotterdam duty-unpaid	35.5-36.5*	0%		27 Mar 19	Mangan 44% Mni
Vanadium					metal cor
Ferro-vanadium basis 78% min, fob, China \$/kg V	58-62.5*	-8.02%	•	28 Mar 19	37% Mn i \$/dmtu of
Ferro-vanadium basis 78% min, free					37% Mn i metal cor
delivery duty paid consumer plant, 1st grade, Western Europe \$/kg V US free market ferro-vanadium \$/lb	55.5-58*	-8.47%	▼	27 Mar 19	base 37% 35-39%,
n-warehouse Pittsburgh	36-37*	-5.19%	▼	21 Mar 19	base 44% 42-48%,
Vanadium pentoxide 98% min, fob, China \$/lb V205	13-14*	-6.9%	•	28 Mar 19	Inventori Tianjin ar
Vanadium pentoxide min 98%, n-warehouse Rotterdam \$/Ib V205	13.25-14.5*	-15.91%	•	22 Mar 19	Ferro-ni
					China pre
BULKALLOYS					Ferro-si
BULKALLOYS	Price	Change [†]		Assessed	Lumpy ba
Ferro-chrome \$/lb Cr	Price	Change [†]		Assessed	Lumpy ba major Eu US free n
	Price 0.87*	Change [†]	•	Assessed 22 Mar 19	Lumpy be major Eu US free n Pittsburg
Ferro-chrome \$/lb Cr China import charge chrome 50% Cr ndex, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark		J	A		Lumpy ba major Eu US free n Pittsburg Export fro Si, 7.5%
Ferro-chrome \$/lb Cr China import charge chrome 50% Cr ndex, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark indicator, Lumpy Cr charge basis 52% (and high carbon), \$ per lb		J	A		US free n Pittsburg Export fro Si, 7.5%
Ferro-chrome \$/lb Cr China import charge chrome 50% Cr ndex, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark indicator, Lumpy Cr charge basis 52% (and high carbon), \$ per lb Spot 6-8% C basis 50% Cr delivered	0.87* 1.19*	2.35%	A	22 Mar 19 22 Mar 19	Lumpy by major Eu US free n Pittsburg Export fr Si, 7.5% MB Chine in-wareh
Ferro-chrome \$/lb Cr China import charge chrome 50% Cr ndex, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark indicator, Lumpy Cr charge basis 52% (and high carbon), \$ per lb Spot 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Contract 6-8% C basis 50% Cr	0.87* 1.19* 7,200-7,400*	2.35%	A	22 Mar 19 22 Mar 19 22 Mar 19	Lumpy be major Eu US free n Pittsburg Export frr Si, 7.5% MB Chin- in-wareh Lumpy be
Ferro-chrome \$/lb Cr China import charge chrome 50% Cr ndex, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark indicator, Lumpy Cr charge basis 52% (and high carbon), \$ per lb Spot 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Contract 6-8% C basis 50% Cr delivered duty paid China yuan/tonne	0.87* 1.19*	2.35%	A	22 Mar 19 22 Mar 19	Lumpy b: major Eu US free n Pittsburg Export fr Si, 7.5% MB Chin- in-wareh Silico-m Lumpy b: Si (scale destination
Ferro-chrome \$/lb Cr China import charge chrome 50% Cr ndex, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark indicator, Lumpy Cr charge basis 52% (and high carbon), \$ per lb Spot 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Contract 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Lumpy Cr charge basis 52% Cr (and high carbon) quarterly	0.87* 1.19* 7,200-7,400*	2.35%	A	22 Mar 19 22 Mar 19 22 Mar 19	Lumpy b: major Eu US free n Pittsburg Export frr Si, 7.5% MB Chin- in-wareh Silico-m Lumpy b: Si (scale destination
Ferro-chrome \$/lb Cr China import charge chrome 50% Cr ndex, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark indicator, Lumpy Cr charge basis 52% (and high carbon), \$ per lb Spot 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Contract 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Lumpy Cr charge basis 52% Cr (and	0.87* 1.19* 7,200-7,400* 6,950-7,300*	2.35% 1.71% 0% 4.4%	A	22 Mar 19 22 Mar 19 22 Mar 19 22 Mar 19	Lumpy be major Eu US free r Pittsburg Export frr Si, 7.5% MB Chinin-wareh Silico-m Lumpy be Si (scale destination US free r Pittsburg MB Chinin
Ferro-chrome \$/lb Cr China import charge chrome 50% Cr ndex, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark ndicator, Lumpy Cr charge basis 52% and high carbon), \$ per lb Spot 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Contract 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Lumpy Cr charge basis 52% Cr (and nigh carbon) quarterly ligh carbon 6-8.5% C basis 60-70% Cr max 1.5% Si, major European destinations	0.87* 1.19* 7,200-7,400* 6,950-7,300* 1.12*	2.35% 1.71% 0% 4.4% -9.68%	A	22 Mar 19 22 Mar 19 22 Mar 19 22 Mar 19 18 Dec 18	Lumpy be major Eu US free r Pittsburg Export frr Si, 7.5% MB Chin- in-wareh Silico-m Lumpy be Si (scale destination US free r Pittsburg MB Chin- max 17%
Ferro-chrome \$/lb Cr China import charge chrome 50% Cr ndex, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark Indicator, Lumpy Cr charge basis 52% (and high carbon), \$ per lb Spot 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Contract 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Lumpy Cr charge basis 52% Cr (and nigh carbon) quarterly High carbon 6-8.5% C basis 60-70% Cr	0.87* 1.19* 7,200-7,400* 6,950-7,300* 1.12* 0.98-1.14*	2.35% 1.71% 0% 4.4% -9.68%	A V	22 Mar 19 22 Mar 19 22 Mar 19 22 Mar 19 18 Dec 18 22 Mar 19	Lumpy be major Eu US free r Pittsburg Export frr Si, 7.5% MB Chin- in-wareh Silico-m Lumpy be Si (scale destination US free r Pittsburg MB Chin- max 17% China yu
Ferro-chrome \$/lb Cr China import charge chrome 50% Cr ndex, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark Indicator, Lumpy Cr charge basis 52% (and high carbon), \$ per lb Spot 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Contract 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Lumpy Cr charge basis 52% Cr (and nigh carbon) quarterly High carbon 6-8.5% C basis 60-70% Cr max 1.5% Si, major European destinations 0.10% C average 65-70% Cr European low carbon in-warehouse	0.87* 1.19* 7,200-7,400* 6,950-7,300* 1.12* 0.98-1.14* 1.98-2.14*	2.35% 1.71% 0% 4.4% -9.68% 0% 1.98%	A V	22 Mar 19 22 Mar 19 22 Mar 19 22 Mar 19 18 Dec 18 22 Mar 19 22 Mar 19	Lumpy be major Eu US free r Pittsburg Export frr Si, 7.5% MB Chin- in-wareh Silico-m Lumpy be Si (scale destination US free r Pittsburg MB Chin- max 17% China yu
Ferro-chrome \$/lb Cr China import charge chrome 50% Cr ndex, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark Indicator, Lumpy Cr charge basis 52% (and high carbon), \$ per lb Spot 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Contract 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Lumpy Cr charge basis 52% Cr (and nigh carbon) quarterly High carbon 6-8.5% C basis 60-70% Cr max 1.5% Si, major European destinations 0.10% C average 65-70% Cr European low carbon in-warehouse 0.06% C max - 65% Cr Low phosphorous Cr min 65% C max 7% Si max 1% p max 0.015% Ti max 0.05% Japan import 8-9% C, basis 60% Cr,	0.87* 1.19* 7,200-7,400* 6,950-7,300* 1.12* 0.98-1.14* 1.98-2.14* 2.04-2.12* 1.03-1.15*	2.35% 1.71% 0% 4.4% -9.68% 0% 1.98% 1.96% 6.86%	A V	22 Mar 19 22 Mar 19 22 Mar 19 22 Mar 19 18 Dec 18 22 Mar 19 22 Mar 19 22 Mar 19	Lumpy be major Eu US free n Pittsburg Export frr Si, 7.5% MB Chine in-wareh Lumpy be Si (scale destination US free n Pittsburg MB Chine max 17% China yu
Ferro-chrome \$/lb Cr China import charge chrome 50% Cr ndex, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark Indicator, Lumpy Cr charge basis 52% (and high carbon), \$ per lb Spot 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Contract 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Lumpy Cr charge basis 52% Cr (and nigh carbon) quarterly High carbon 6-8.5% C basis 60-70% Cr max 1.5% Si, major European destinations 0.10% C average 65-70% Cr European low carbon in-warehouse 0.06% C max - 65% Cr Low phosphorous Cr min 65% C max 7%	0.87* 1.19* 7,200-7,400* 6,950-7,300* 1.12* 0.98-1.14* 1.98-2.14* 2.04-2.12*	2.35% 1.71% 0% 4.4% -9.68% 0% 1.98% 1.96%	A V A A	22 Mar 19 22 Mar 19 22 Mar 19 22 Mar 19 18 Dec 18 22 Mar 19 22 Mar 19 22 Mar 19	Lumpy be major Eu US free n Pittsburg Export frr Si, 7.5% MB Chine in-wareh Lumpy be Si (scale destination US free n Pittsburg MB Chine max 17% China yu
Ferro-chrome \$/lb Cr China import charge chrome 50% Cr ndex, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark Indicator, Lumpy Cr charge basis 52% (and high carbon), \$ per lb Spot 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Contract 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Lumpy Cr charge basis 52% Cr (and nigh carbon) quarterly High carbon 6-8.5% C basis 60-70% Cr max 1.5% Si, major European destinations 0.10% C average 65-70% Cr European low carbon in-warehouse 0.06% C max -65% Cr Low phosphorous Cr min 65% C max 7% Si max 1% p max 0.015% Ti max 0.05% Japan import 8-9% C, basis 60% Cr, cif Japan, duty-unpaid \$/lb contained chrome South Korea import 8-9% C, basis 60% Cr, cif South Korea, duty-unpaid \$/lb contained chrome	0.87* 1.19* 7,200-7,400* 6,950-7,300* 1.12* 0.98-1.14* 1.98-2.14* 2.04-2.12* 1.03-1.15* 0.86-0.89*	2.35% 1.71% 0% 4.4% -9.68% 0% 1.98% 1.96% 6.86%	A V A A	22 Mar 19 22 Mar 19 22 Mar 19 22 Mar 19 18 Dec 18 22 Mar 19 22 Mar 19 22 Mar 19	Lumpy be major Eu US free n Pittsburg Export frr Si, 7.5% MB Chine in-wareh Lumpy be Si (scale destination US free n Pittsburg MB Chine max 17% China yu
Ferro-chrome \$/lb Cr China import charge chrome 50% Cr ndex, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark Indicator, Lumpy Cr charge basis 52% (and high carbon), \$ per lb Spot 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Contract 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Lumpy Cr charge basis 52% Cr (and high carbon) quarterly High carbon 6-8.5% C basis 60-70% Cr max 1.5% Si, major European destinations 0.10% C average 65-70% Cr European low carbon in-warehouse 0.06% C max - 65% Cr Low phosphorous Cr min 65% C max 7% Si max 1% p max 0.015% Ti max 0.05% Japan import 8-9% C, basis 60% Cr, cif Japan, duty-unpaid \$/lb contained chrome South Korea import 8-9% C, basis 60% Cr, cif South Korea, duty-unpaid \$/lb contained chrome US free market low carbon duty-paid fob Pitt	0.87* 1.19* 7,200-7,400* 6,950-7,300* 1.12* 0.98-1.14* 1.98-2.14* 2.04-2.12* 1.03-1.15* 0.86-0.89*	2.35% 1.71% 0% 4.4% -9.68% 0% 1.98% 1.96% 6.86% 1.16%	A V A A	22 Mar 19 22 Mar 19 22 Mar 19 22 Mar 19 18 Dec 18 22 Mar 19	Lumpy be major Eu US free n Pittsburg Export frr Si, 7.5% MB Chine in-wareh Lumpy be Si (scale destination US free n Pittsburg MB Chine max 17% China yu
Ferro-chrome \$/lb Cr China import charge chrome 50% Cr ndex, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark Indicator, Lumpy Cr charge basis 52% (and high carbon), \$ per lb Spot 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Contract 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Lumpy Cr charge basis 52% Cr (and nigh carbon) quarterly High carbon 6-8.5% C basis 60-70% Cr max 1.5% Si, major European destinations 0.10% C average 65-70% Cr European low carbon in-warehouse 0.06% C max -65% Cr Low phosphorous Cr min 65% C max 7% Si max 1% p max 0.015% Ti max 0.05% Japan import 8-9% C, basis 60% Cr, cif Japan, duty-unpaid \$/lb contained chrome South Korea import 8-9% C, basis 60% Cr, cif South Korea, duty-unpaid \$/lb contained chrome US free market low carbon duty-paid fob Pitt US free market low carbon duty-paid fob Pitt	0.87* 1.19* 7,200-7,400* 6,950-7,300* 1.12* 0.98-1.14* 1.98-2.14* 2.04-2.12* 1.03-1.15* 0.86-0.89* 0.85-0.87* isburgh	2.35% 1.71% 0% 4.4% -9.68% 0% 1.98% 1.96% 6.86% 1.16%	A V A A	22 Mar 19 22 Mar 19 22 Mar 19 22 Mar 19 18 Dec 18 22 Mar 19 22 Mar 19 22 Mar 19 22 Mar 19 28 Mar 19 28 Mar 19	Lumpy be major Eu US free n Pittsburg Export frr Si, 7.5% MB Chine in-wareh Lumpy be Si (scale destination US free n Pittsburg MB Chine max 17% China yu
Ferro-chrome \$/lb Cr China import charge chrome 50% Cr ndex, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark Indicator, Lumpy Cr charge basis 52% (and high carbon), \$ per lb Spot 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Contract 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Lumpy Cr charge basis 52% Cr (and high carbon) quarterly High carbon 6-8.5% C basis 60-70% Cr max 1.5% Si, major European destinations 0.10% C average 65-70% Cr European low carbon in-warehouse 0.06% C max - 65% Cr Low phosphorous Cr min 65% C max 7% Si max 1% p max 0.015% Ti max 0.05% Japan import 8-9% C, basis 60% Cr, cif Japan, duty-unpaid \$/lb contained chrome South Korea import 8-9% C, basis 60% Cr, cif South Korea, duty-unpaid \$/lb contained chrome US free market low carbon duty-paid fob Pitt US free market in-warehouse Pittsburgh 6-8% C basis 60-65% Cr max 2% Si	0.87* 1.19* 7,200-7,400* 6,950-7,300* 1.12* 0.98-1.14* 1.98-2.14* 2.04-2.12* 1.03-1.15* 0.86-0.89* 0.85-0.87* ssburgh 1.090-1.200*	2.35% 1.71% 0% 4.4% -9.68% 0% 1.96% 6.86% 1.16% 0%	A	22 Mar 19 22 Mar 19 22 Mar 19 22 Mar 19 18 Dec 18 22 Mar 19 22 Mar 19 22 Mar 19 22 Mar 19 28 Mar 19 28 Mar 19 21 Mar 19	Lumpy be major Eu US free n Pittsburg Export frr Si, 7.5% MB Chine in-wareh Lumpy be Si (scale destination US free n Pittsburg MB Chine max 17% China yu
Ferro-chrome \$/lb Cr China import charge chrome 50% Cr ndex, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark Indicator, Lumpy Cr charge basis 52% (and high carbon), \$ per lb Spot 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Contract 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Lumpy Cr charge basis 52% Cr (and nigh carbon) quarterly High carbon 6-8.5% C basis 60-70% Cr max 1.5% Si, major European destinations 0.10% C average 65-70% Cr European low carbon in-warehouse 0.06% C max -65% Cr Low phosphorous Cr min 65% C max 7% Si max 1% p max 0.015% Ti max 0.05% Japan import 8-9% C, basis 60% Cr, cif Japan, duty-unpaid \$/lb contained chrome South Korea import 8-9% C, basis 60% Cr, cif South Korea, duty-unpaid \$/lb contained chrome US free market low carbon duty-paid fob Pitt US free market low carbon duty-paid fob Pitt	0.87* 1.19* 7,200-7,400* 6,950-7,300* 1.12* 0.98-1.14* 1.98-2.14* 2.04-2.12* 1.03-1.15* 0.86-0.89* 0.85-0.87* isburgh	2.35% 1.71% 0% 4.4% -9.68% 0% 1.98% 1.96% 6.86% 1.16%	A V A A	22 Mar 19 22 Mar 19 22 Mar 19 22 Mar 19 18 Dec 18 22 Mar 19 22 Mar 19 22 Mar 19 22 Mar 19 28 Mar 19 28 Mar 19	Ferro-sil Lumpy ba major Eur US free m Pittsburg! Export fro Si, 7.5% 0 MB Chine in-wareho Silico-ma Lumpy ba Si (scale destination US free m Pittsburg! MB Chine max 17% China yua 65% min

	Price	Change	Assessed
Chrome ore \$/tonne			
Chrome ore cif main Chinese ports			
South African UG2 chrome ore concs,	405*	0.540/	A 00M40
index basis 42% Turkish lumpy 40-42% cfr main Chinese ports	185* 230-240*	0.54% 2.17%	▲ 22 Mar 19
Chrome Ore inventories at the main	230-240	2.17 /0	ZZ IVIdI 19
ports of Tianjin, Qinzhou, Lianyungang and Shanghai, million tonnes	2.60-2.62*	-0.19%	▼ 18 Mar 19
Ferro-manganese			
basis 78% Mn (scale pro rata)			
standard 7.5% C €/tonne	1,060-1,080*	0%	22 Mar 19
US free market 78% Mn standard 7.5% C \$/long ton in-warehouse Pittsburgh	1,350-1,380*	2.44%	▲ 21 Mar 19
US free market medium carbon duty-paid fob Pittsburgh, 80% min Mn 1.5% max C \$/lb	1.13-1.15*	0%	21 Mar 19
MB Chinese free market min 65% Mn max 7.0% C in-warehouse China yuan/tonne	6,900-7,100*	3.7%	▲ 22 Mar 19
Manganese ore			
44% Mn index, cif Tianjin \$/dmtu of metal contained	6.36*	-3.34%	▼ 22 Mar 19
37% Mn index, fob Port Elizabeth \$/dmtu of metal contained	5.56*	1.65%	▲ 22 Mar 19
37% Mn index, cif Tianjin \$/dmtu of metal contained	6.22*	1.3%	▲ 22 Mar 19
base 37% Mn port index, range 35-39%, fot Tianjin yuan/dmtu	50.5*	-0.39%	▼ 22 Mar 19
base 44% Mn port index, range 42-48%, fot Tianjin yuan/dmtu	56.80*	0.71%	▲ 22 Mar 19
Inventories at the main ports of Tianjin and Qinzhou, million tonnes	3.17-3.26*	1.9%	▲ 27 Mar 19
Ferro-nickel			
China premium, 26-32% nickel contained, cif China, \$/tonne	-250120*	0%	25 Feb 19
Ferro-silicon			
Lumpy basis 75% Si (scale pro rata), major European destinations, €/tonne	1,100-1,150*	-2.6%	▼ 22 Mar 19
US free market \$/lb in-warehouse Pittsburgh lumpy basis 75% Si - imported	0.98-1*	0%	21 Mar 19
Export from mainland China, min 75% Si, 7.5% C, \$/tonne, fob	1,160-1,200*	0.85%	▲ 22 Mar 19
MB Chinese free market min 75% Si, in-warehouse China, yuan/tonne	6,000-6,400*	0%	22 Mar 19
Silico-manganese			
Lumpy basis 65-75% Mn basis 15-19% Si (scale pro rata), major European destinations, €/tonne	1 000 1 020*	0%	22 Mar 19
US free market \$/lb in-warehouse Pittsburgh	1,000-1,030* 0.65-0.66*	3.15%	22 Mar 19
MB Chinese free market min 65% Mn max 17% Si in-warehouse duty-paid	0.00-0.00	J. 1J /0	21 IVIGI 19
China yuan/tonne	7,500-7,700*	1.33%	▲ 22 Mar 19
65% min Mn 16% min Si \$/tonne fob India	1,030-1,050*	0%	22 Mar 19

† week-on-week change





CARBON STEEL - EUROPE				CARBON STEEL - CIS				
	Price	Change [†]	Assessed		Price	Change [†]		Assessed
Northern Europe imports				CIS exports (Black Sea)				
Fastmarkets MB's assessment of cfr prices f	or imported, non-EU or	rigin, commercial-	quality carbon	Fastmarkets MB's assessment of CIS m		the CIS of co	mmerc	al-quality
steel, € per tonne cfr main EU port	E00 E0E*	00/	27 Mar 10	carbon steel, \$ per tonne fob stowed ma	•	0.440/	_	20 Mar 1
Rebar	500-505* 520-530*	0%	27 Mar 19 27 Mar 19	Slab	454* 490-500*	-0.44% -1%	*	28 Mar 19 25 Mar 19
Wire rod (mesh quality)		0%				1.05%		25 Mar 19
Plate (8-40mm) Hot rolled coil	550-560* 480-490*	0%	27 Mar 19 27 Mar 19	Rebar Wire rod (mesh)	480-485* 515-520*	1.97%		25 Mar 19
Cold rolled coil	560-580*	0%	27 Mar 19	, ,	600-625*	0.41%		25 Mar 19
	590-600*	0%	27 Mar 19	Heavy plate (10-50mm) Hot rolled coil	510-520*	0.41%	_	25 Mar 19
Hot-dip galvanized coil	330-000	0 /0	21 Wai 19	Cold rolled coil	555-560*	0%		25 Mar 19
Southern Europe imports					300-300	0 70		ZJ WIGH T
Fastmarkets MB's assessment of cfr prices f steel, € per tonne cfr main EU port	or importea, non-EU oi	rigin, commerciai-	quality carbon	Russia domestic	within Dunnin for name and	al avality aan	han ata	م ما الله الم
Rebar	470-500*	0%	27 Mar 19	Fastmarkets MB's assessment of prices tonne, carriage paid to (cpt) inc VAT	WITHIN RUSSIA TOF COMMERCIA	ai-quality cari	oon stee	ei, rubies pe
Wire rod (mesh quality)	520-530*	0%	27 Mar 19	Rebar	39,000-40,000*	1.94%	•	25 Mar 19
Plate (8-40mm)	530-550*	0%	27 Mar 19	Hot rolled sheet	43,900-44,000*	0%		25 Mar 19
Hot rolled coil	450-480*		7 27 Mar 19	Cold rolled sheet	49,300-50,000*	0%		25 Mar 19
Cold rolled coil	550-560*	0%	27 Mar 19	Plate	45,000-48,000*	3.56%	_	25 Mar 19
Hot-dip galvanized coil	590-600*	0%	27 Mar 19		10,000 10,000	0.0070		20
Southern Europe exports			27 11101 10	CARBON STEEL - MIDDLE EAST				
Fastmarkets MB's assessment of Southern L	Europo millo' prioco for	ovnort outoido Co	uthorn Europa of		Price	Change [†]		Assessed
commercial-quality carbon steel, € per tonne			unem Europe or	Turkish exports				
Rebar	470-490*		27 Mar 19	Fastmarkets MB's assessment of Turkis	h mills' prices for export of or	ommercial-au	ıəlity cə	rhan staal \$
Wire rod (mesh quality)	490-510*	0%	27 Mar 19	per tonne fob main Turkish port	irrilliis prices for export or co	линенска-чи	іаніу Са	i boli steel, q
Northern Europe domestic			27 11101 10	Billet	465-480*	-0.53%	•	28 Mar 19
•	oin the ELL (evaluating th	o IIV) for commo	oial quality	Rebar	490-500*	0%		28 Mar 19
Fastmarkets MB's assessment of prices with carbon steel of EU origin, € per tonne deliver		ie UK) ior commer	ciai-quality	Wire rod (mesh quality)	510-520*	0%		28 Mar 19
Rebar	540-550*	0%	27 Mar 19	Merchant bars	535-550*	0%		28 Mar 19
Wire rod (mesh quality)	535-550*	0%	27 Mar 19	Structural pipe	590-600*	-6.3%	•	13 Mar 19
Sections (medium)	635-650*		27 Mar 19	Hot rolled coil	520-525*	0%		22 Mar 19
Beams	600-635*		7 27 Mar 19	Hot dip galvanized	720-730*	-0.34%	•	22 Mar 19
Southern Europe domestic				Turkish domestic				
Fastmarkets MB's assessment of prices with	nin the ELL (excluding th	ne LIK) for commer	cial-quality	Fastmarkets MB's assessment of prices	within Turkey for commercia	al-quality cart	oon stee	el of Turkish
carbon steel of EU origin, € per tonne deliver		io Ory ior common	orar quanty	origin, \$ per tonne ex-works	, , , , , , , , , , , , , , , , , , , ,	4 9		
Rebar	515-520*	0%	27 Mar 19	Billet	460-470*	0%		28 Mar 19
Wire rod (mesh quality)	535-550*	0%	27 Mar 19	Hot rolled coil	530-535*	-0.93%	•	22 Mar 19
Sections (medium)	630-650*	0%	27 Mar 19	Cold rolled coil	610-620*	-1.6%	•	22 Mar 19
Beams	630-645*	0.39%	27 Mar 19	Hot dip galvanized	720-750*	-1.34%	•	22 Mar 19
Central Europe domestic € per tonne ex-v	vorks			Prepainted galvanized	800-840*	-1.2%	•	22 Mar 19
Hot rolled coil	480-500*	-1.01%	7 27 Mar 19	Fastmarkets MB's assessment of prices	within Turkey for commercia	al-quality cart	on stee	el of Turkish
Poland domestic zloty per tonne ex-works				origin, TRY per tonne ex-works 18% VAT	rincluded			
• •	2,220-2,320*	0.44%	22 Mar 19	Rebar	3,200-3,250*	-0.2%	\blacksquare	28 Mar 19
	2,220 2,020	0.4470	22 10101 13	Wire rod (mesh quality)	3,400-3,500*	0%		28 Mar 19
Rebar				T 11.11				
Northern Europe € per tonne ex-works	E70 E00*	1 600/	7 07 Mar 10	Turkish imports				
Northern Europe € per tonne ex-works Plate (8-40mm)	570-590*		27 Mar 19	·	for imported commercial-au	alitv carbon s	steel. \$ i	oer tonne cfr
Northern Europe € per tonne ex-works Plate (8-40mm) Hot rolled coil	500-510*	-0.98%	7 27 Mar 19	Fastmarkets MB's assessment of prices main Turkish port	for imported commercial-qu	ality carbon s	steel, \$ ¡	oer tonne cfr
Northern Europe € per tonne ex-works Plate (8-40mm) Hot rolled coil Cold rolled coil	500-510* 580-610*	-0.98% '	27 Mar 19 27 Mar 19	Fastmarkets MB's assessment of prices	for imported commercial-qu	ality carbon s	steel, \$ ¡	
Northern Europe € per tonne ex-works Plate (8-40mm) Hot rolled coil Cold rolled coil Hot-dip galvanized coil	500-510*	-0.98% '	7 27 Mar 19	Fastmarkets MB's assessment of prices main Turkish port		·		28 Mar 19
Northern Europe € per tonne ex-works Plate (8-40mm) Hot rolled coil Cold rolled coil Hot-dip galvanized coil Southern Europe € per tonne ex-works	500-510* 580-610* 600-610*	-0.98%	27 Mar 19 27 Mar 19 27 Mar 19	Fastmarkets MB's assessment of prices main Turkish port Billet	450-475*	0.54%		28 Mar 19
Northern Europe € per tonne ex-works Plate (8-40mm) Hot rolled coil Cold rolled coil Hot-dip galvanized coil Southern Europe € per tonne ex-works Plate (8-40mm)	500-510* 580-610* 600-610*	-0.98%	27 Mar 19 27 Mar 19 27 Mar 19 27 Mar 19	Fastmarkets MB's assessment of prices main Turkish port Billet Hot rolled coil Cold rolled coil	450-475* 530-540*	0.54%		28 Mar 19
Northern Europe € per tonne ex-works Plate (8-40mm) Hot rolled coil Cold rolled coil Hot-dip galvanized coil Southern Europe € per tonne ex-works Plate (8-40mm) Hot rolled coil	500-510* 580-610* 600-610* 555-570* 460-480*	-0.98% \ \ \ \ -0.83% \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	7 27 Mar 19 7 27 Mar 19 7 27 Mar 19 27 Mar 19 27 Mar 19	Fastmarkets MB's assessment of prices main Turkish port Billet Hot rolled coil Cold rolled coil UAE imports	450-475* 530-540* 575-580*	0.54% 0% 0%	A	28 Mar 19 22 Mar 19 22 Mar 19
Northern Europe € per tonne ex-works Plate (8-40mm) Hot rolled coil Cold rolled coil Hot-dip galvanized coil Southern Europe € per tonne ex-works Plate (8-40mm) Hot rolled coil Cold rolled coil	500-510* 580-610* 600-610* 555-570* 460-480* 530-560*	-0.98% \ \ \ \ -0.83% \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	7 27 Mar 19 7 27 Mar 19 7 27 Mar 19 27 Mar 19 7 27 Mar 19 7 27 Mar 19 7 27 Mar 19	Fastmarkets MB's assessment of prices main Turkish port Billet Hot rolled coil Cold rolled coil	450-475* 530-540* 575-580*	0.54% 0% 0%	A	28 Mar 19 22 Mar 19 22 Mar 19
Northern Europe € per tonne ex-works Plate (8-40mm) Hot rolled coil Cold rolled coil Hot-dip galvanized coil Southern Europe € per tonne ex-works Plate (8-40mm) Hot rolled coil	500-510* 580-610* 600-610* 555-570* 460-480*	-0.98% \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	7 27 Mar 19 7 27 Mar 19 7 27 Mar 19 27 Mar 19 27 Mar 19	Fastmarkets MB's assessment of prices main Turkish port Billet Hot rolled coil Cold rolled coil UAE imports Fastmarkets MB's assessment of prices Jebel Ali	450-475* 530-540* 575-580*	0.54% 0% 0% ality carbon s	A	28 Mar 19 22 Mar 19 22 Mar 19 Der tonne cfr
Northern Europe € per tonne ex-works Plate (8-40mm) Hot rolled coil Cold rolled coil Hot-dip galvanized coil Southern Europe € per tonne ex-works Plate (8-40mm) Hot rolled coil Cold rolled coil	500-510* 580-610* 600-610* 555-570* 460-480* 530-560*	-0.98% \ \ \ \ -0.83% \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	7 27 Mar 19 7 27 Mar 19 7 27 Mar 19 27 Mar 19 7 27 Mar 19 7 27 Mar 19 7 27 Mar 19	Fastmarkets MB's assessment of prices main Turkish port Billet Hot rolled coil Cold rolled coil UAE imports Fastmarkets MB's assessment of prices Jebel Ali Billet	450-475* 530-540* 575-580* for imported commercial-qu 495-500*	0.54% 0% 0% owality carbon s	A	28 Mar 19 22 Mar 19 22 Mar 19 Der tonne cfr 26 Mar 19
Northern Europe € per tonne ex-works Plate (8-40mm) Hot rolled coil Cold rolled coil Hot-dip galvanized coil Southern Europe € per tonne ex-works Plate (8-40mm) Hot rolled coil Cold rolled coil	500-510* 580-610* 600-610* 555-570* 460-480* 530-560*	-0.98% \ \ \ \ -0.83% \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	7 27 Mar 19 7 27 Mar 19 7 27 Mar 19 27 Mar 19 7 27 Mar 19 7 27 Mar 19 7 27 Mar 19	Fastmarkets MB's assessment of prices main Turkish port Billet Hot rolled coil Cold rolled coil UAE imports Fastmarkets MB's assessment of prices Jebel Ali Billet Rebar	450-475* 530-540* 575-580* for imported commercial-qu 495-500* 530-535*	0.54% 0% 0% owality carbon s 0% 0%	A	28 Mar 19 22 Mar 19 22 Mar 19 26 Mar 19 26 Mar 19
Northern Europe € per tonne ex-works Plate (8-40mm) Hot rolled coil Cold rolled coil Hot-dip galvanized coil Southern Europe € per tonne ex-works Plate (8-40mm) Hot rolled coil Cold rolled coil	500-510* 580-610* 600-610* 555-570* 460-480* 530-560*	-0.98% \ \ \ \ -0.83% \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	7 27 Mar 19 7 27 Mar 19 7 27 Mar 19 27 Mar 19 7 27 Mar 19 7 27 Mar 19 7 27 Mar 19	Fastmarkets MB's assessment of prices main Turkish port Billet Hot rolled coil Cold rolled coil UAE imports Fastmarkets MB's assessment of prices Jebel Ali Billet Rebar Hot rolled coil	450-475* 530-540* 575-580* For imported commercial-qu 495-500* 530-535* 550-560*	0.54% 0% 0% mality carbon s 0% 0% 0%	A	28 Mar 19 22 Mar 19 22 Mar 19 22 Mar 19 26 Mar 19 26 Mar 19
Northern Europe € per tonne ex-works Plate (8-40mm) Hot rolled coil Cold rolled coil Hot-dip galvanized coil Southern Europe € per tonne ex-works Plate (8-40mm) Hot rolled coil Cold rolled coil	500-510* 580-610* 600-610* 555-570* 460-480* 530-560*	-0.98% \ \ \ \ -0.83% \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	7 27 Mar 19 7 27 Mar 19 7 27 Mar 19 27 Mar 19 7 27 Mar 19 7 27 Mar 19 7 27 Mar 19	Fastmarkets MB's assessment of prices main Turkish port Billet Hot rolled coil Cold rolled coil UAE imports Fastmarkets MB's assessment of prices Jebel Ali Billet Rebar	450-475* 530-540* 575-580* for imported commercial-qu 495-500* 530-535*	0.54% 0% 0% owality carbon s 0% 0%	A	28 Mar 19 22 Mar 19 22 Mar 19

Hot rolled coil

† week-on-week change

Fastmarkets MB's assessment of prices for imported commercial-quality carbon steel, \$ per tonne cfr

550-560*

-0.89%

26 Mar 19





	Price	Change	Assessed		Price	Change		Assessed
UAE domestic				Wire rod (low carbon)	744-762*	0%		19 Mar 1
Fastmarkets MB's assessment of prices	within UAE for commercia	l-quality carbor	steel of UAE origin,	Medium sections	740-800*	-3.75%	•	28 Feb 1
dirhams per tonne ex-works	0.000.0.007*	00/	0014 40	Medium plate	820-860*	0.6%		20 Mar 1
Rebar	2,000-2,007*	0%	26 Mar 19	Hot rolled coil (commodity)	660-690*	-2.88%		20 Mar 1
Iran exports				Cold rolled coil	760-800*	-3.7%	•	20 Mar 1
Fastmarkets MB's assessment of prices		s for commerci	al-quality carbon	Hot dipped galvanized 0.012-0.015, G30	980-1,040*	0%		20 Mar 19
steel to overseas buyers, \$ per tonne fob	•	00/	0711 10	ERW linepipe (X42)	1,130-1,200*	1.3%		26 Mar 19
Billet	395-405*	0%	27 Mar 19	OCTG API5CT - casing J55	1,030-1,100*	-0.7%	•	26 Mar 19
Slab	380-400*	0%	27 Mar 19	US domestic				
Egyptian domestic				Fastmarket AMM's assessment of prices with		ercial-quality ca	arbon st	eel of US or
Fastmarkets MB's assessment of prices	within Egypt for commerci	al-quality carbo	n steel of Egyptian	Canadian origin, \$ per short ton, delivery term				
origin, E£ per tonne ex-works				Rebar (fob mill)	705-730*	0%		20 Mar 1
Rebar	11,350-11,650*	0%	28 Mar 19	Plate (fob mill)	920-920*	-3.16%	•	22 Mar 19
Egyptian import				Hot rolled sheet Midwest index (fob mill)	693-693*	-0.2%	•	27 Mar 19
Fastmarkets MB's assessment of prices	for imported commercial-	uality carbon s	teel, \$ per tonne cfr	Cold rolled sheet (fob mill)	830-830*	0%		21 Mar 19
main port				Hot-dip galvanized (base) Midwest	040 040*	00/		04.M46
Billet	460-480*	-1.57%	▼ 28 Mar 19	(fob mill)	840-840*	0%		21 Mar 19
				OCTG API5CT - casing J55 (fob mill)	1,200-1,235*	-0.41%	•	26 Mar 19
CARBON STEEL - LATIN AMERICA				Fastmarket AMM's assessment of prices with		ercial-quality ca	arbon st	eel of US or
	Price	Change [†]	Assessed	Canadian origin, \$ per hundredweight, delive	-	00/		00 = 1.44
Latin American exports				Merchant bar 3 x 3 1/4 angle (fob mill)	37.5-37.5*	0%		22 Feb 19
Fastmarkets MB's assessment of Latin A	American mills' prices for ex	oort outside La	ntin America of	CARBON STEEL - ASIA				
commercial-quality carbon steel, \$ per to		•			Price	Change [†]		Assessed
Billet	450-460*	0%	22 Mar 19	China exports	1 1100	onungo		710000000
Slab, Brazil	510-550*	1.92%	▲ 22 Mar 19	·	::::::::::::::::::::::::::::::::::::::			
Wire rod mesh quality	560-580*	0%	22 Mar 19	Fastmarkets MB's assessment of Chinese management for the per tonne fob main China port	ilis prices for export of	commerciai-q	uality ca	arbon steel, S
Heavy plate over 10mm	600-610*	0%	22 Mar 19	Rebar index	531-531*	0%		28 Mar 19
Hot rolled coil (dry)	550-555*	-0.9%	▼ 22 Mar 19		530-540*	0%		
Cold rolled coil	590-600*	0%	22 Mar 19	Wire rod (mesh quality)	545-550*	0%		26 Mar 19 26 Mar 19
Galvanized coil	800-810*	0%	22 Mar 19	Heavy plate Hot rolled coil index	530-530*	-0.77%	_	28 Mar 19
South America imports			22					
				Cold rolled soil				
·		!-!!!bb.		Cold rolled coil	565-575*	0%		
Fastmarkets MB's assessment of cfr price	ces for imported, commerc	al-quality carbo	on steel,	Galvanized coil 1mm	565-575* 615-630*	0%	A	
Fastmarkets MB's assessment of cfr pric \$ per tonne cfr main ports				Galvanized coil 1mm Eastern China domestic	615-630*	0.4%		26 Mar 19
Fastmarkets MB's assessment of cfr pric \$ per tonne cfr main ports Plate	560-580*	2.7%	▲ 22 Mar 19	Galvanized coil 1mm Eastern China domestic Fastmarkets MB's assessment of prices in ea	615-630*	0.4%		26 Mar 19
Fastmarkets MB's assessment of cfr pric \$ per tonne cfr main ports Plate Hot rolled coil	560-580* 565-575*	2.7%	▲ 22 Mar 19 22 Mar 19	Galvanized coil 1mm Eastern China domestic Fastmarkets MB's assessment of prices in each chinese origin, yuan per tonne ex-warehouse	615-630* sstern China for comm	0.4% nercial-quality		26 Mar 19
Fastmarkets MB's assessment of cfr pric \$ per tonne cfr main ports Plate Hot rolled coil Cold rolled coil	560-580* 565-575* 600-615*	2.7% 0% 1.25%	▲ 22 Mar 19 22 Mar 19 ▲ 22 Mar 19	Galvanized coil 1mm Eastern China domestic Fastmarkets MB's assessment of prices in ea Chinese origin, yuan per tonne ex-warehouse Rebar	615-630* sstern China for comm 3,830-3,870*	0.4% nercial-quality of 1.41%	carbon s	26 Mar 19 steel of 28 Mar 19
Fastmarkets MB's assessment of cfr pric \$ per tonne cfr main ports Plate Hot rolled coil Cold rolled coil Galvanized coil	560-580* 565-575* 600-615* 660-680*	2.7%	▲ 22 Mar 19 22 Mar 19	Galvanized coil 1mm Eastern China domestic Fastmarkets MB's assessment of prices in ea Chinese origin, yuan per tonne ex-warehouse Rebar Wire rod (mesh)	615-630* stem China for comm 3,830-3,870* 3,880-3,920*	0.4% nercial-quality of -1.41% 1.17%	carbon s	26 Mar 19 steel of 28 Mar 19 22 Mar 19
Fastmarkets MB's assessment of cfr pric \$ per tonne cfr main ports Plate Hot rolled coil Cold rolled coil Galvanized coil Argentina domestic \$ per tonne ex-wo	560-580* 565-575* 600-615* 660-680*	2.7% 0% 1.25% 3.08%	▲ 22 Mar 19 22 Mar 19 4 22 Mar 19 ▲ 22 Mar 19 4 22 Mar 19	Galvanized coil 1mm Eastern China domestic Fastmarkets MB's assessment of prices in ea Chinese origin, yuan per tonne ex-warehouse Rebar Wire rod (mesh) Sections	615-630* stem China for comm 3,830-3,870* 3,880-3,920* 3,900-3,950*	0.4% nercial-quality -1.41% 1.17% 2.08%	carbon s	26 Mar 19 steel of 28 Mar 19 22 Mar 19 22 Mar 19
Fastmarkets MB's assessment of cfr pric \$ per tonne cfr main ports Plate Hot rolled coil Cold rolled coil Galvanized coil Argentina domestic \$ per tonne ex-wo Fastmarkets MB's assessment of prices	560-580* 565-575* 600-615* 660-680*	2.7% 0% 1.25% 3.08%	▲ 22 Mar 19 22 Mar 19 4 22 Mar 19 ▲ 22 Mar 19 4 22 Mar 19	Galvanized coil 1mm Eastern China domestic Fastmarkets MB's assessment of prices in ea Chinese origin, yuan per tonne ex-warehouse Rebar Wire rod (mesh) Sections Plate	615-630* stem China for comm 3,830-3,870* 3,880-3,920* 3,900-3,950* 3,960-4,050*	0.4% nercial-quality of 1.41% 1.17% 2.08% 1.91%	carbon s	28 Mar 19 22 Mar 19 22 Mar 19 22 Mar 19
Fastmarkets MB's assessment of cfr pric \$ per tonne cfr main ports Plate Hot rolled coil Cold rolled coil Galvanized coil Argentina domestic \$ per tonne ex-wo Fastmarkets MB's assessment of prices tonne	560-580* 565-575* 600-615* 660-680*	2.7% 0% 1.25% 3.08% ercial-quality ca	▲ 22 Mar 19 22 Mar 19 ▲ 22 Mar 19 ▲ 22 Mar 19 ▲ 22 Mar 19 arbon steel, \$ per	Galvanized coil 1mm Eastern China domestic Fastmarkets MB's assessment of prices in ea Chinese origin, yuan per tonne ex-warehouse Rebar Wire rod (mesh) Sections Plate Hot rolled coil (min 2mm)	3,830-3,870* 3,880-3,920* 3,900-3,950* 3,960-4,050* 3,850-3,860*	0.4% nercial-quality of 1.41% 1.17% 2.08% 1.91% -0.64%	carbon s	26 Mar 19 steel of 28 Mar 19 22 Mar 19 22 Mar 19 28 Mar 19
Fastmarkets MB's assessment of cfr pric \$ per tonne cfr main ports Plate Hot rolled coil Cold rolled coil Galvanized coil Argentina domestic \$ per tonne ex-wo Fastmarkets MB's assessment of prices tonne Hot rolled coil	560-580* 565-575* 600-615* 660-680* orks within Argentina for comm 750-755*	2.7% 0% 1.25% 3.08% ercial-quality co	▲ 22 Mar 19 22 Mar 19 ▲ 22 Mar 19 ▲ 22 Mar 19 ▲ 22 Mar 19 arbon steel, \$per 08 Mar 19	Galvanized coil 1mm Eastern China domestic Fastmarkets MB's assessment of prices in ea Chinese origin, yuan per tonne ex-warehouse Rebar Wire rod (mesh) Sections Plate Hot rolled coil (min 2mm) Cold rolled coil (0.5 - 2 mm)	3,830-3,870* 3,830-3,920* 3,900-3,950* 3,960-4,050* 3,850-3,860* 4,340-4,390*	0.4% nercial-quality of 1.41% 1.17% 2.08% 1.91% -0.64% 1.28%	carbon s	26 Mar 19 28 Mar 19 22 Mar 19 22 Mar 19 22 Mar 19 28 Mar 19 28 Mar 19
Fastmarkets MB's assessment of cfr pric \$ per tonne cfr main ports Plate Hot rolled coil Cold rolled coil Galvanized coil Argentina domestic \$ per tonne ex-wo Fastmarkets MB's assessment of prices tonne Hot rolled coil Cold rolled coil	560-580* 565-575* 600-615* 660-680*	2.7% 0% 1.25% 3.08% ercial-quality control of the control of t	22 Mar 19 20 Mar 19 08 Mar 19	Galvanized coil 1mm Eastern China domestic Fastmarkets MB's assessment of prices in ea Chinese origin, yuan per tonne ex-warehouse Rebar Wire rod (mesh) Sections Plate Hot rolled coil (min 2mm)	3,830-3,870* 3,880-3,920* 3,900-3,950* 3,960-4,050* 3,850-3,860*	0.4% nercial-quality of 1.41% 1.17% 2.08% 1.91% -0.64%	carbon s	26 Mar 19 28 Mar 19 22 Mar 19 22 Mar 19 22 Mar 19 28 Mar 19 28 Mar 19
Fastmarkets MB's assessment of cfr prices \$ per tonne cfr main ports Plate Hot rolled coil Cold rolled coil Galvanized coil Argentina domestic \$ per tonne ex-wo Fastmarkets MB's assessment of prices tonne Hot rolled coil Cold rolled coil Galvanized coil	560-580* 565-575* 600-615* 660-680* orks within Argentina for comm 750-755* 850-860* 1,090-1,170*	2.7% 0% 1.25% 3.08% ercial-quality control of the control of t	▲ 22 Mar 19 22 Mar 19 ▲ 22 Mar 19 ▲ 22 Mar 19 ▲ 22 Mar 19 arbon steel, \$per 08 Mar 19 08 Mar 19 08 Mar 19	Galvanized coil 1mm Eastern China domestic Fastmarkets MB's assessment of prices in ea Chinese origin, yuan per tonne ex-warehouse Rebar Wire rod (mesh) Sections Plate Hot rolled coil (min 2mm) Cold rolled coil (0.5 - 2 mm)	3,830-3,870* 3,830-3,920* 3,900-3,950* 3,960-4,050* 3,850-3,860* 4,340-4,390*	0.4% nercial-quality of 1.41% 1.17% 2.08% 1.91% -0.64% 1.28%	carbon s	26 Mar 19 28 Mar 19 22 Mar 19 22 Mar 19 22 Mar 19 28 Mar 19 28 Mar 19
Fastmarkets MB's assessment of cfr pric \$ per tonne cfr main ports Plate Hot rolled coil Cold rolled coil Argentina domestic \$ per tonne ex-wc Fastmarkets MB's assessment of prices tonne Hot rolled coil Cold rolled coil Galvanized coil Rebar	560-580* 565-575* 600-615* 660-680*	2.7% 0% 1.25% 3.08% ercial-quality control of the control of t	22 Mar 19 20 Mar 19 08 Mar 19	Galvanized coil 1mm Eastern China domestic Fastmarkets MB's assessment of prices in ea Chinese origin, yuan per tonne ex-warehouse Rebar Wire rod (mesh) Sections Plate Hot rolled coil (min 2mm) Cold rolled coil (0.5 - 2 mm) Hot-dip galvanized coil	3,830-3,870* 3,880-3,920* 3,900-3,950* 3,960-4,050* 3,850-3,860* 4,340-4,390* 4,600-4,730*	0.4% -1.41% -1.17% -2.08% -0.64% -1.28% -1.08%	carbon s	26 Mar 19 28 Mar 19 22 Mar 19 22 Mar 19 22 Mar 19 28 Mar 19 28 Mar 19 28 Mar 19
Fastmarkets MB's assessment of cfr prices \$ per tonne cfr main ports Plate Hot rolled coil Cold rolled coil Galvanized coil Argentina domestic \$ per tonne ex-wo Fastmarkets MB's assessment of prices tonne Hot rolled coil Cold rolled coil Galvanized coil	560-580* 565-575* 600-615* 660-680* orks within Argentina for comm 750-755* 850-860* 1,090-1,170*	2.7% 0% 1.25% 3.08% ercial-quality control of the control of t	▲ 22 Mar 19 22 Mar 19 ▲ 22 Mar 19 ▲ 22 Mar 19 ▲ 22 Mar 19 arbon steel, \$per 08 Mar 19 08 Mar 19 08 Mar 19	Galvanized coil 1mm Eastern China domestic Fastmarkets MB's assessment of prices in each chinese origin, yuan per tonne ex-warehouse Rebar Wire rod (mesh) Sections Plate Hot rolled coil (min 2mm) Cold rolled coil (0.5 - 2 mm) Hot-dip galvanized coil Northern China domestic	3,830-3,870* 3,880-3,920* 3,900-3,950* 3,850-3,860* 4,340-4,390* 4,600-4,730*	0.4% -1.41% -1.17% -2.08% -0.64% -1.28% -1.08%	carbon s	26 Mar 19 28 Mar 19 22 Mar 19 22 Mar 19 22 Mar 19 28 Mar 19 28 Mar 19 28 Mar 19
Fastmarkets MB's assessment of cfr pric \$ per tonne cfr main ports Plate Hot rolled coil Galvanized coil Argentina domestic \$ per tonne ex-wo Fastmarkets MB's assessment of prices tonne Hot rolled coil Cold rolled coil Galvanized coil Rebar Brazil domestic Fastmarkets MB's assessment of prices	560-580* 565-575* 600-615* 660-680* orks within Argentina for comm 750-755* 850-860* 1,090-1,170* 850-860*	2.7% 0% 1.25% 3.08% ercial-quality control of the control of t	▲ 22 Mar 19 22 Mar 19 ▲ 22 Mar 19 ▲ 22 Mar 19 ▲ 22 Mar 19 arbon steel, \$ per 08 Mar 19 08 Mar 19 08 Mar 19	Galvanized coil 1mm Eastern China domestic Fastmarkets MB's assessment of prices in each chinese origin, yuan per tonne ex-warehouse Rebar Wire rod (mesh) Sections Plate Hot rolled coil (min 2mm) Cold rolled coil (0.5 - 2 mm) Hot-dip galvanized coil Northern China domestic Fastmarkets MB's assessment of prices in no	3,830-3,870* 3,880-3,920* 3,900-3,950* 3,850-3,860* 4,340-4,390* 4,600-4,730*	0.4% -1.41% -1.17% -2.08% -0.64% -1.28% -1.08%	carbon s	26 Mar 19 28 Mar 19 22 Mar 19 22 Mar 19 22 Mar 19 28 Mar 19 28 Mar 19 28 Mar 19 32 Mar 19 33 Steel of
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Fastmarkets MB's assessment of cfr pric \$ per tonne cfr main ports Plate Hot rolled coil Galvanized coil Argentina domestic \$ per tonne ex-wo Fastmarkets MB's assessment of prices tonne Hot rolled coil Cold rolled coil Galvanized coil Rebar Brazil domestic Fastmarkets MB's assessment of prices	560-580* 565-575* 600-615* 660-680* orks within Argentina for comm 750-755* 850-860* 1,090-1,170* 850-860*	2.7% 0% 1.25% 3.08% ercial-quality ca 0% 0% 0% 0% 0% -4.39%	▲ 22 Mar 19 22 Mar 19 22 Mar 19 ▲ 22 Mar 19 ▲ 22 Mar 19 arbon steel, \$ per 08 Mar 19	Galvanized coil 1mm Eastern China domestic Fastmarkets MB's assessment of prices in each chinese origin, yuan per tonne ex-warehouse Rebar Wire rod (mesh) Sections Plate Hot rolled coil (min 2mm) Cold rolled coil (0.5 - 2 mm) Hot-dip galvanized coil Northern China domestic Fastmarkets MB's assessment of prices in not Chinese origin (Tangshan), yuan per tonne ex Billet	3,830-3,870* 3,880-3,920* 3,900-3,950* 3,850-3,860* 4,340-4,390* 4,600-4,730* wither China for coming control of the coming coming control of the coming control of the coming coming control of the coming control of the coming coming control of the coming coming control of the control of the coming control	0.4% -1.41% -1.17% -2.08% -1.91% -0.64% -1.28% -1.08% mercial-quality -1.43%	carbon s	26 Mar 19 28 Mar 19 22 Mar 19 22 Mar 19 22 Mar 19 28 Mar 19 22 Mar 19 22 Mar 19 34 Mar 19
Fastmarkets MB's assessment of cfr pric \$ per tonne cfr main ports Plate Hot rolled coil Galvanized coil Argentina domestic \$ per tonne ex-wo Fastmarkets MB's assessment of prices tonne Hot rolled coil Cold rolled coil Galvanized coil Rebar Brazil domestic Fastmarkets MB's assessment of prices tonne ex-works	560-580* 565-575* 600-615* 660-680* orks within Argentina for comm 750-755* 850-860* 1,090-1,170* 850-860* within Brazil for commercial 2,425-2,470* 2,655-2,745*	2.7% 0% 1.25% 3.08% ercial-quality call 0% 0% 0% 0% 0% -4.39% -3.49%	▲ 22 Mar 19 22 Mar 19 22 Mar 19 ▲ 22 Mar 19 ▲ 22 Mar 19 arbon steel, \$ per 08 Mar 19 01 Mar 19 ▼ 01 Mar 19	Galvanized coil 1mm Eastern China domestic Fastmarkets MB's assessment of prices in each chinese origin, yuan per tonne ex-warehouse Rebar Wire rod (mesh) Sections Plate Hot rolled coil (min 2mm) Cold rolled coil (0.5 - 2 mm) Hot-dip galvanized coil Northern China domestic Fastmarkets MB's assessment of prices in not Chinese origin (Tangshan), yuan per tonne exibilet Fastmarkets MB's assessment of prices in not chinese origin (Tangshan), yuan per tonne exibilet	3,830-3,870* 3,880-3,920* 3,900-3,950* 3,850-3,860* 4,340-4,390* 4,600-4,730* wither China for coming control of the coming coming control of the coming control of the coming coming control of the coming control of the coming coming control of the coming coming control of the control of the coming control	0.4% -1.41% -1.17% -2.08% -1.91% -0.64% -1.28% -1.08% mercial-quality -1.43%	carbon s	26 Mar 19 28 Mar 19 22 Mar 19 34 Mar 19 35 Mar 19 36 Mar 19 36 Mar 19 36 Mar 19 37 Mar 19 38 Mar 19
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Fastmarkets MB's assessment of cfr pric \$ per tonne cfr main ports Plate Hot rolled coil Cold rolled coil Argentina domestic \$ per tonne ex-wc Fastmarkets MB's assessment of prices tonne Hot rolled coil Cold rolled coil Galvanized coil Rebar Brazil domestic Fastmarkets MB's assessment of prices tonne ex-works Hot rolled coil Cold rolled coil Cold rolled coil Fastmarkets MB's assessment of prices tonne ex-works Hot rolled coil Hot dip galvanized coil Fastmarkets MB's assessment of prices tonne delivered Rebar	560-580* 565-575* 600-615* 660-680* orks within Argentina for comm 750-755* 850-860* 1,090-1,170* 850-860* within Brazil for commercial 2,425-2,470* 2,655-2,745* 3,250-3,310* within Brazil for commercial	2.7% 0% 1.25% 3.08% ercial-quality ca 0% 0% 0% 0% 0	▲ 22 Mar 19 22 Mar 19 22 Mar 19 ▲ 22 Mar 19 ▲ 22 Mar 19	Galvanized coil 1mm Eastern China domestic Fastmarkets MB's assessment of prices in each Chinese origin, yuan per tonne ex-warehouse Rebar Wire rod (mesh) Sections Plate Hot rolled coil (min 2mm) Cold rolled coil (0.5 - 2 mm) Hot-dip galvanized coil Northern China domestic Fastmarkets MB's assessment of prices in not Chinese origin (Tangshan), yuan per tonne exilialet Fastmarkets MB's assessment of prices in not Chinese origin, yuan per tonne ex-warehouse Hot rolled coil Rebar Southern China domestic Fastmarkets MB's assessment of prices in so Chinese origin, yuan per tonne ex-warehouse Rebar	stern China for common 3,830-3,870* 3,880-3,920* 3,900-3,950* 3,960-4,050* 3,850-3,860* 4,340-4,390* 4,600-4,730* withern China for common 6,000 and 6,000	0.4% nercial-quality (1.17% 2.08% 1.91% -0.64% 1.28% 1.08% mercial-quality 1.59% 1.98% mercial-quality 1.59% 1.98%	A carbon	26 Mar 19 28 Mar 19 22 Mar 19 28 Mar 19
Fastmarkets MB's assessment of cfr pric \$ per tonne cfr main ports Plate Hot rolled coil Galvanized coil Argentina domestic \$ per tonne ex-wo Fastmarkets MB's assessment of prices tonne Hot rolled coil Galvanized coil Galvanized coil Rebar Brazil domestic Fastmarkets MB's assessment of prices tonne ex-works Hot rolled coil Cold rolled coil Cold rolled coil Fastmarkets MB's assessment of prices tonne ex-works Hot rolled coil Hot dip galvanized coil Fastmarkets MB's assessment of prices tonne delivered Rebar CARBON STEEL - NAFTA	560-580* 565-575* 600-615* 660-680* orks within Argentina for comm 750-755* 850-860* 1,090-1,170* 850-860* within Brazil for commercial 2,425-2,470* 2,655-2,745* 3,250-3,310* within Brazil for commercial 2,550-2,620*	2.7% 0% 1.25% 3.08% ercial-quality carbo 0% 0% 0% -4.39% -3.49% 0% al-quality carbo -4.61%	▲ 22 Mar 19 22 Mar 19 22 Mar 19 ▲ 22 Mar 19 ▲ 22 Mar 19 arbon steel, \$ per 08 Mar 19 08 Mar 19 08 Mar 19 08 Mar 19 01 Mar 19 10 1 Mar 19 01 Mar 19	Galvanized coil 1mm Eastern China domestic Fastmarkets MB's assessment of prices in each Chinese origin, yuan per tonne ex-warehouse Rebar Wire rod (mesh) Sections Plate Hot rolled coil (min 2mm) Cold rolled coil (0.5 - 2 mm) Hot-dip galvanized coil Northern China domestic Fastmarkets MB's assessment of prices in not Chinese origin (Tangshan), yuan per tonne exilialet Fastmarkets MB's assessment of prices in not Chinese origin, yuan per tonne ex-warehouse Hot rolled coil Rebar Southern China domestic Fastmarkets MB's assessment of prices in so Chinese origin, yuan per tonne ex-warehouse Rebar Wire rod (mesh)	stern China for common 3,830-3,870* 3,880-3,920* 3,900-3,950* 3,960-4,050* 4,340-4,390* 4,600-4,730* withern China for common 6,000 and	0.4% nercial-quality of 1.17% 2.08% 1.91% -0.64% 1.08% 1.08% mercial-quality 1.59% 1.98% mercial-quality 0% 0%	A carbon	26 Mar 19 28 Mar 19 22 Mar 19
Fastmarkets MB's assessment of cfr pric \$ per tonne cfr main ports Plate Hot rolled coil Galvanized coil Argentina domestic \$ per tonne ex-wo Fastmarkets MB's assessment of prices tonne Hot rolled coil Galvanized coil Galvanized coil Rebar Brazil domestic Fastmarkets MB's assessment of prices tonne ex-works Hot rolled coil Cold rolled coil Cold rolled coil Fastmarkets MB's assessment of prices tonne ex-works Hot rolled coil Hot dip galvanized coil Fastmarkets MB's assessment of prices tonne delivered Rebar CARBON STEEL - NAFTA	560-580* 565-575* 600-615* 660-680* orks within Argentina for comm 750-755* 850-860* 1,090-1,170* 850-860* within Brazil for commercia 2,425-2,470* 2,655-2,745* 3,250-3,310* within Brazil for commercia 2,550-2,620*	2.7% 0% 1.25% 3.08% ercial-quality carbo 0% 0% 0% -4.39% -3.49% 0% al-quality carbo -4.61% Change†	▲ 22 Mar 19 22 Mar 19 22 Mar 19 ▲ 22 Mar 19 ▲ 22 Mar 19 arbon steel, \$per 08 Mar 19 08 Mar 19 08 Mar 19 08 Mar 19 01 Mar 19 ▼ 01 Mar 19	Galvanized coil 1mm Eastern China domestic Fastmarkets MB's assessment of prices in each Chinese origin, yuan per tonne ex-warehouse Rebar Wire rod (mesh) Sections Plate Hot rolled coil (min 2mm) Cold rolled coil (0.5 - 2 mm) Hot-dip galvanized coil Northern China domestic Fastmarkets MB's assessment of prices in not Chinese origin (Tangshan), yuan per tonne exbillet Fastmarkets MB's assessment of prices in not Chinese origin, yuan per tonne ex-warehouse Hot rolled coil Rebar Southern China domestic Fastmarkets MB's assessment of prices in so Chinese origin, yuan per tonne ex-warehouse Rebar Wire rod (mesh) Sections	stern China for common 3,830-3,870* 3,880-3,920* 3,900-3,950* 3,960-4,050* 3,850-3,860* 4,340-4,390* 4,600-4,730* orthem China for common extrem China for common 3,810-3,850* 3,840-3,890* uthem China for common 9 4,220-4,260* 4,150-4,180* 4,000-4,030*	0.4% nercial-quality (1.17%) 2.08% 1.91% -0.64% 1.28% 1.08% mercial-quality 1.59% 1.98% mercial-quality 0% 0% 0%	A Carbon	26 Mar 19 28 Mar 19 22 Mar 19 28 Mar 19 22 Mar 19 28 Mar 19 38 Steel of 28 Mar 19 38 Steel of
Fastmarkets MB's assessment of cfr pric \$ per tonne cfr main ports Plate Hot rolled coil Galvanized coil Argentina domestic \$ per tonne ex-wo Fastmarkets MB's assessment of prices tonne Hot rolled coil Galvanized coil Galvanized coil Rebar Brazil domestic Fastmarkets MB's assessment of prices tonne ex-works Hot rolled coil Cold rolled coil Cold rolled coil Fastmarkets MB's assessment of prices tonne ex-works Hot rolled coil Hot dip galvanized coil Fastmarkets MB's assessment of prices tonne delivered Rebar CARBON STEEL - NAFTA	560-580* 565-575* 600-615* 660-680* orks within Argentina for comm 750-755* 850-860* 1,090-1,170* 850-860* within Brazil for commercia 2,425-2,470* 2,655-2,745* 3,250-3,310* within Brazil for commercia 2,550-2,620*	2.7% 0% 1.25% 3.08% ercial-quality carbo 0% 0% 0% -4.39% -3.49% 0% al-quality carbo -4.61% Change†	▲ 22 Mar 19 22 Mar 19 22 Mar 19 ▲ 22 Mar 19 ▲ 22 Mar 19 arbon steel, \$per 08 Mar 19 08 Mar 19 08 Mar 19 08 Mar 19 01 Mar 19 ▼ 01 Mar 19	Galvanized coil 1mm Eastern China domestic Fastmarkets MB's assessment of prices in each Chinese origin, yuan per tonne ex-warehouse Rebar Wire rod (mesh) Sections Plate Hot rolled coil (min 2mm) Cold rolled coil (0.5 - 2 mm) Hot-dip galvanized coil Northern China domestic Fastmarkets MB's assessment of prices in not Chinese origin (Tangshan), yuan per tonne exbillet Fastmarkets MB's assessment of prices in not Chinese origin, yuan per tonne ex-warehouse Hot rolled coil Rebar Southern China domestic Fastmarkets MB's assessment of prices in so Chinese origin, yuan per tonne ex-warehouse Rebar Wire rod (mesh) Sections Plate	stern China for common 3,830-3,870* 3,880-3,920* 3,900-3,950* 3,960-4,050* 3,850-3,860* 4,340-4,390* 4,600-4,730* withem China for common 3,810-3,850* 3,840-3,890* utthem China for common 4,220-4,260* 4,150-4,180* 4,000-4,030* 4,000-4,090*	0.4% nercial-quality (1.17%) 2.08% 1.91% -0.64% 1.28% 1.08% mercial-quality 1.59% 1.98% mercial-quality 0% 0% 0% 0% 0.5%	A carbon	26 Mar 19 28 Mar 19 22 Mar 19
Fastmarkets MB's assessment of cfr pric \$ per tonne cfr main ports Plate Hot rolled coil Galvanized coil Argentina domestic \$ per tonne ex-wo Fastmarkets MB's assessment of prices tonne Hot rolled coil Galvanized coil Galvanized coil Galvanized coil Rebar Brazil domestic Fastmarkets MB's assessment of prices tonne ex-works Hot rolled coil Cold rolled coil Hot dip galvanized coil Fastmarkets MB's assessment of prices tonne delivered Rebar CARBON STEEL - NAFTA US imports Fastmarkets MB's assessment of prices	560-580* 565-575* 600-615* 660-680* orks within Argentina for comm 750-755* 850-860* 1,090-1,170* 850-860* within Brazil for commercia 2,425-2,470* 2,655-2,745* 3,250-3,310* within Brazil for commercia 2,550-2,620*	2.7% 0% 1.25% 3.08% ercial-quality carbo 0% 0% 0% -4.39% -3.49% 0% al-quality carbo -4.61% Change†	▲ 22 Mar 19 22 Mar 19 22 Mar 19 ▲ 22 Mar 19 ▲ 22 Mar 19 arbon steel, \$per 08 Mar 19 08 Mar 19 08 Mar 19 08 Mar 19 01 Mar 19 ▼ 01 Mar 19	Galvanized coil 1mm Eastern China domestic Fastmarkets MB's assessment of prices in each Chinese origin, yuan per tonne ex-warehouse Rebar Wire rod (mesh) Sections Plate Hot rolled coil (min 2mm) Cold rolled coil (0.5 - 2 mm) Hot-dip galvanized coil Northern China domestic Fastmarkets MB's assessment of prices in not Chinese origin (Tangshan), yuan per tonne ex-warehouse Hot rolled coil Rebar Southern China domestic Fastmarkets MB's assessment of prices in not Chinese origin, yuan per tonne ex-warehouse Hot rolled coil Rebar Southern China domestic Fastmarkets MB's assessment of prices in so Chinese origin, yuan per tonne ex-warehouse Rebar Wire rod (mesh) Sections Plate Hot rolled coil (min 2mm)	stern China for common 3,830-3,870* 3,880-3,920* 3,900-3,950* 3,960-4,050* 3,850-3,860* 4,340-4,390* 4,600-4,730* orthem China for common strength of the common str	0.4% nercial-quality (A A Carbon	26 Mar 19 28 Mar 19 22 Mar 19





continued >

Southeast Asia imports	Price	Change		Assessed	IIS domestic	Price	Change		Assessed
Southeast Asia imports Fastmarkets MB's assessment of prices in Sout.	heast Asia for comm	nercial-quality	carbon	steel \$ per	US domestic Fastmarkets AMM's appraisal of prices within th	e USA for comme	ercial-quality stai	nless st	eel of US or
tonne cfr	490 400*	1.000/	_	20 Mar 10	Canadian origin, \$ per hundredweight, fob	100 100*	2 940/		11 Mor 11
Billet	480-490*	-1.02%	—	28 Mar 19	Grade 346 coiled plate	109-109*	3.81%		11 Mar 1
Slab (Asia/East Asia)	495-510*	3.61%		25 Mar 19	Grade 316 coiled plate	156-156*	3.31%	<u> </u>	11 Mar 19
Hot rolled coil (Vietnam)	540-550*	-0.91%	▼	25 Mar 19	Grade 316L cold rolled sheet	122-122*	0%		25 Mar 19
Rebar (Singapore)	495-510*	-0.5%	•	25 Mar 19	Grade 316L cold rolled sheet	165-165*	0%		25 Mar 19
Wire rod (low carbon)	540-550*	0%		25 Mar 19	Raw materials index				
Indian exports					EU domestic stainless steel \$ per tonne	4.040.07*	4.000/		0511 46
Fastmarkets MB's assessment of Indian mills' pr	rices for export of co	mmercial-qu	ality carl	bon steel, \$	304 Europe raw materials index	1,312.97*	1.99%		25 Mar 19
per tonne fob main India port	450 455*	00/		0014 40					
Billet	450-455*	0%		22 Mar 19					
Plate (12-40mm)	545-550*	0%		22 Mar 19					
Hot rolled coil (commodity)	545-550*	0%		22 Mar 19	IRON ORE				
Hot-dip galvanized coil	720-725*	-0.34%	•	22 Mar 19		Price	Change [†]		Assessed
Indian imports					65% Fe Brazilian Index CFR Qingdao				
Fastmarkets MB's assessment of prices for impe	orted, non-EU origin	, commercial	-quality	carbon steel,	(MBIOI-65-BZ-Index) \$/tonne	96.40*	1.05%	A	28 Mar 19
\$ per tonne cfr main India port					Lump premium CFR Qingdao	25.5*	4.050/	_	00.1440
Plate (20-60mm)	560-565*	0%		22 Mar 19	(MBIOI-LP Index) cents per dmtu	35.5*	-4.05%	<u> </u>	28 Mar 19
Hot rolled coil (commodity)	560-565*	1.81%		22 Mar 19	Iron ore index (62% Fe)	84.68*	0.22%		28 Mar 19
Hot rolled coil (CR grade)	565-570*	8.61%	A	22 Mar 19	Iron ore index (62% LA)	86.93*	0.33%		28 Mar 19
Cold rolled coil	595-600*	0%		22 Mar 19	58% Fe Iron Ore Index (MBIOI-58) CFR Qingdao on a 58% fe basis Daily Price				
Indian domestic					\$/dry metric tonne	70.97*	1.92%	A	28 Mar 19
Fastmarkets MB's assessment of prices within la	ndia for commercial	-quality carbo	n steel,	rupees per	High grade Premium (MBIOI-58P) CFR				
tonne ex-works					Qingdao on a 58% basis low alumina,				
Billet	31,300-31,500*	0%		22 Mar 19	low phosphorous Daily Price \$/dry metric tonne	6*	9.09%	•	28 Mar 19
Heavy plate	42,500-43,000*	0%		22 Mar 19	Iron Ore Implied 58% Fe high	0	3.0370		ZO IVIAI 13
Hot rolled coil	41,500-42,000*	0%		22 Mar 19	specification price	76.97*	2.45%		28 Mar 19
Cold rolled coil	47,500-48,000*	0%		22 Mar 19	Iron Ore product differential - PBF				
DRI	19,600-19,800*	-1.01%	▼	22 Mar 19	delivered Qingdao, China CFR \$/tonne	-0.88*	0%		28 Mar 19
Hot-dip galvanized coil	51,000-51,500*	0%		22 Mar 19	Iron ore 62% Fe Pilbara Blend Fines				
Rebar	35,500-35,700*	-0.56%	•	22 Mar 19	(MBIOI-PBF) \$/tonne	83.80*	0.23%	_	28 Mar 19
					Iron Ore 62% Fe China port price index	623*	-0.32%		28 Mar 19
					Implied 62% Fe China Port Price \$ per tonne	82.34*	-0.66%	_	28 Mar 19
					Iron ore pellet index cfr Qingdao (65% Fe)	124.31*	-2.18%	•	22 Mar 19
STAINLESS STEEL					Iron ore concentrate index cfr	97.63*	-2.9%	•	22 Mar 19
	Price	Change [†]		Assessed	Qingdao (66% Fe)	91.03	-2.970	•	ZZ IVIdI 18
Asia import					Iron ore implied pellet premium CFR Qingdao US\$/tonne	38.26*	-7.94%	•	22 Mar 19
\$/tonne cif East Asian port					Iron ore DR-grade pellet premium				
Grade 304 2mm CR coil 2B	2,040-2,130*	0%		27 Mar 19	index Middle East reference, \$/dmt	76*	0%		28 Feb 19
Grade 304 hot rolled coil	1,920-2,000*	0%		27 Mar 19	Metal Bulletin Indicator for US\$/%				
China domestic					Al MBIOI Al-VIU cfr Qingdao	-4.62*	-3.35%	•	25 Mar 19
yuan/tonne, in-warehouse					Metal Bulletin Indicator for US\$/%	4 44*	0.000/	_	05 M40
Grade 304 2mm CR coil	14,500-14,900*	-1.01%	•	27 Mar 19	Fe in iron ore fines cfr Qingdao	1.41*	-2.08%		25 Mar 19
Grade 430 2mm CR coil	8,250-8,300*	0%		27 Mar 19	Iron Ore Fines 65% Fe, % Fe value in use cfr Qingdao \$/dry metric tonne	1.69*	-1.74%	•	25 Mar 19
EU domestic					Metal Bulletin Indicator for US\$/%				20
2mm 304 cold rolled stainless sheet, €/tonne					Si MBIOI Si-VIU cfr Qingdao	-1.23*	-13.38%	\blacksquare	25 Mar 19
N.Europe Base price	925-985*	0%		22 Mar 19	Iron Ore Fines 62% Fe, 0.01%				
Alloy surcharge	1,308-1,351*	0%		22 Mar 19	Phosphorous value in use MBIOI Phos-VIU cfr	0.70*	40.400/		05 M 40
N.Europe transaction	2,100-2,200*	1.18%	A	22 Mar 19	Qingdao US cent per dry metric tonne	-0.76*	13.43%		25 Mar 19
2mm 316 cold rolled stainless sheet, €/tonne									
Base price	1,270-1,320*	0%		22 Mar 19					
Alloy surcharge	1,995-2,051*	0%		22 Mar 19					
304 stainless steel bright bar, €/tonne	,,								
Base price	1,000-1,050*	0%		22 Mar 19					
Alloy surcharge	1,620-1,669*	0%		22 Mar 19					
, and , determined	1,020 1,000	J /0		LL Mai 13					

† week-on-week change





COKING COAL						Price	Change		Assessed
\$ per metric tonne					Cif Europe stainless € per tonne		J		
g por metric torino	Price	Change [†]		Assessed	18/8 solids	1,040-1,080*	2.91%	A	22 Mar 1
Premium hard coking coal index cfr China	206.02*	-2.04%	•	28 Mar 19	18/8 turnings	935-970*	2.7%	A	22 Mar 1
Hard coking coal index cfr China	188.05*	-2.85%	*	28 Mar 19	316 solids	1,520-1,590*	0%		22 Mar 19
Premium hard coking coal index fob Australia	209.60*	-1.73%	<u> </u>	28 Mar 19	316 turnings	1,370-1,430*	0%		22 Mar 19
Hard coking coal index fob Australia	180.5*	-2.73%	<u> </u>	28 Mar 19	Rotterdam export				
China hard coking coal Shanxi spot	100.0	2.1070		2018101 13	Fastmarkets MB's assessment \$/tonnne fob F	Rotterdam			
market domestic delivered yuan/tonne	1,450-1,850*	0.92%		22 Mar 19	MB index fob Rotterdam HMS 1&2 (80:20)	300.40*	0.57%	•	22 Mar 19
65% CSR coke \$/tonne fob China	310-320*	-4.55%	•	26 Mar 19	HMS 1&2 (75:25 mix)	290-292*	-2.51%	•	22 Mar 19
Low Vol PCI Index \$ per dry metric tonne cfr Jingtang	138.37*	0%		28 Mar 19	Shredded	300-302*	-2.43%	•	22 Mar 19
Low Vol PCI Index \$ per dry metric					Turkish import				
tonne fob DBCT	133.33*	4.03%	_	28 Mar 19	Fastmarkets MB's assessment \$/tonne cfr ma MB index cfr Turkey HMS 1&2 (80:20) (North Europe material)	in Turkish ports 318.09*	-0.62%	•	28 Mar 19
FERROUS SCRAP					MB index cfr Turkey HMS 1&2 (80:20)				
LINGGOODIA	Delas	Channat		Ad	(United States material)	323.52*	-0.61%		28 Mar 19
	Price	Change [†]		Assessed	HMS 1&2 (75:25 mix)	309-311*	-2.36%	▼	22 Mar 19
UK ferrous scrap domestic					Shredded	329-331*	1.07%	_	22 Mar 19
The following is Fastmarket MB's evaluation of U within the month listed. Prices may vary according					Turkish domestic				
conjunction with editorial comment on the Ferro	0 0	suriauori, ariu s	siloulu	be reau iii	Fastmarkets MB's assessment delivered				
£/tonne					Melting scrap from shipbreaking (\$/tonne)	320-330*	-0.76%	•	25 Mar 19
Cut grades					Auto bundle scrap (Turkish lira/tonne)	1,700-1,870*	1.42%	_	25 Mar 19
OA plate and structural	160-185*	0%		14 Mar 19	USA export				
1&2 old steel	140-165*	0%		14 Mar 19	Fastmarket AMM ferrous scrap export index \$	tonne East Coast fol	New York		
12A/C new production heavy and		0,0			HMS 1&2 (80:20)	308.27*	0.74%	A	27 Mar 1
shovellable steel	185-210*	0%		14 Mar 19	Shredded	314.40*	1.09%	A	27 Mar 19
12D new production heavy and					USA domestic				
shovellable steel	190-215*	0%		14 Mar 19	Fastmarkets AMM Midwest index \$/gross ton	delivered mill			
Bales and cuttings					No1 heavy melting scrap	314.10*	6.8%		11 Mar 19
4A new steel bales	190-215*	0%		14 Mar 19	No1 busheling	372.32*	5.75%	A	11 Mar 19
4C new steel bales	180-205*	0%		14 Mar 19	Shredded	340.21*	6.15%	A	11 Mar 19
8A new loose light cuttings	175-205*	0%		14 Mar 19	China domestic				
8B new loose light cuttings	160-190*	0%		14 Mar 19	yuan/tonne delivered mill				
Turnings	100 110+	00/		4414 40	Heavy scrap	2,620-2,750*	0%		22 Mar 19
UK inter-merchant 7B heavy steel turnings	120-140*	0%		14 Mar 19	Taiwan import				
Castiron	440.405*	00/		4414 40	\$/tonne cfr main port				
9A/10 heavy and light cast iron	140-165*	0%		14 Mar 19	HMS 1&2 (80:20 mix) (USA material)	305-310*	1.32%	•	22 Mar 19
9B/C cylinder block scrap	160-185*	0%		14 Mar 19 14 Mar 19	Vietnam import				
11A cast iron borings	85-105*	0 70		14 1/101 19	\$/tonne cfr southern Vietnam				
Prices relate to new UK scrap specifications					HMS 1&2	340-350*	-0.72%	•	22 Mar 19
Please see metalbulletin.com for full explanation	n of price changes				Germany domestic	0.10.000	0.1270	•	ZZ War To
UK intermerchant weekly price					•	· PDCV			
£/tonne					€/tonne composite sales price ex-yard, source	250.30	2 5/10/		01 Feb 19
5C loose old light	90-110*	0%		22 Mar 19	No E2/8 (new steel scrap)	224.30	7.22%		01 Feb 19
UK ferrous scrap export					No E1 (old steel scrap) No E3 (old thick steel scrap)	249.30	4.75%		01 Feb 19
Fastmarkets MB's assessment \$ fob main UK po	ort				No E40 (shredded steel scrap)	251.30	4.75%		01 Feb 19
HMS 1&2 (80:20 mix)	301-303*	0%		22 Mar 19	No E5 (steel turnings)	197	3.14%		01 Feb 19
Shredded	306-308*	0%		22 Mar 19			0.1470	_	0110010
Indian imports					Fastmarkets MB's assessment €/tonne delive		00/		15 Mor 10
Fastmarkets MB's assessment \$/tonnne cfr Nha	ava Sheva				Grade E40 (shredded steel scrap)	270-290	-0.88%	▼	15 Mar 19
MB index cfr India shredded	335.75*	0.14%	A	22 Mar 19	No E8 (thin new production steel scrap)	270-290 265-285	-0.88%	•	15 Mar 19 15 Mar 19
HMS 1&2 (80:20 mix)	295-315*	0%		22 Mar 19	No E3 (old thick scrap)	203-200	U 70		13 IVIAI 18
Alloy steel scrap domestic					Italy domestic Fastmarkets MB's assessment €/tonne delive	red at mill			
UK wholesale merchants' stainless (£/tonne)					No E3 (old thick scrap)	270-285	-0.89%	•	15 Mar 19
18/8 solids	850-900*	1.74%	A	22 Mar 19	No E8 (thin new production steel)	285-295	1.75%	•	15 Mar 19
18/8 turnings	725-765*	1.71%	A	22 Mar 19	No E40 (shredded steel scrap)	290-295	0%		15 Mar 19
316 solids	1,250-1,320*	2.39%	A	22 Mar 19	110 E-10 (Sill Guden Steel Strap)	200-200	J /0		i Jiviai 18
		0.240/	_ A	22 Mar 10					
316 turnings	1,065-1,120*	2.34%		22 Mar 19					
316 turnings 12-13% Cr solids	1,065-1,120* 190-220*	0%	_	22 Mar 19					





, ,					
SCRAP SUBSTITUTES					UK NON-FERROUS SCRAP
	Price	Change [†]		Assessed	
EU imports \$/tonne					Aluminium - actual price
Pig iron imports cif Italy	360-370*	0%		28 Mar 19	£pertonne
Hot-briquetted iron cfr Italian	200 240*	0%		20 Mar 10	Group 1 pure 99% & Litho
ports	290-310*	0%		28 Mar 19	Commercial pure cuttings
Brazil exports \$/tonne, delivery terms as s		00/		0014 40	Clean HE9 extrusions
Hot briquetted iron Venezuela	225-225* 335-340*	-0.15%	•	22 Mar 19 22 Mar 19	Loose old rolled cuttings
Pig iron fob Vitorio/Rio Brazil	357-362*	0%	•	22 Mar 19	Baled old rolled
Pig iron fob Ponta da Maderia Brazil	337-302	0 70		ZZ IVIAI 19	Commercial cast
US imports \$/tonne cfr Gulf of Mexico	265 270*	0%		22 Mar 10	Cast wheels
Pig iron	365-370*	U%		22 Mar 19	Commercial turnings
CIS exports \$/tonne fob main port	200 200*	00/		00.1440	Group 7 turnings
Pig iron Baltic Sea	390-390*	0%		28 Mar 19	Fastmarkets MB and LME aluminium scr
Pig iron Black Sea	340-350*	0%		28 Mar 19	£pertonne
					Group 1 pure 99% & Litho
					Commercial pure cuttings
					Clean HE9 extrusions
NON-FERROUS SCRAP EUROPE					Loose old rolled cuttings
	Price	Change [†]		Assessed	Baled old rolled
Aluminium					Commercial cast
European free market Fastmarkets MB as	sessment €/tonne				Cast wheels
Floated frag	1,050-1,095*	0%		22 Mar 19	Commercial turnings
Cast	960-980*	0%		22 Mar 19	Group 7 turnings
Mixed turnings 6%	810-850*	0%		22 Mar 19	Titanium
France per 1000kg					\$/Ib cif
Pure cuttings	1,450-1,500	-2.32%		26 Mar 19	Turnings, unprocessed type 90/6/4 (O.5% Sn max)
Old rolled	570-600	0%		26 Mar 19	Turnings, unprocessed 90/6/4 (over
Commercial cast	580-640	0%		26 Mar 19	0.5% max 2% Sn)
Source: Lettre d'Information Metaux					Copper scrap discount
Italy per 1000kg					cents/lb
Pure cuttings	1,065-1,095	0%		22 Mar 19	No 2 copper (birch/cliff) imported
Old mixed scrap	1,485-1,520	-1.31%	V	22 Mar 19	into China 94-96% cif China
Commercial cast	900-955	1.09%		22 Mar 19	
Source: Assomet					
Copper					
France per 1000kg					
Electro cuttings	5,100-5,130	-0.49%	_	26 Mar 19	
No 1 bright wire	4,900-4,950	-0.81%		26 Mar 19	
Mixed (96%)	4,650-4,680	-2.3%		26 Mar 19	
Brass plate cuttings 70/30	3,750-3,800	-1.31%	<u> </u>	26 Mar 19	
Brass turnings	3,200-3,250	-1.53%	*	26 Mar 19 26 Mar 19	
Mixed brass	3,050-3,100	-1.28%	T	20 Mai 19	
Source: Lettre d'Information Metaux					
Italy per 1000kg	E 20E E 46E	0.020/	_	22 Mar 10	
Electrolytic dd EN 12861-S-Cu-2 Enamelled wire EN 12861-S-Cu-3	5,305-5,465	-0.83% -0.85%	*	22 Mar 19 22 Mar 19	
	5,183-5,345	-0.00%	V	22 Mai 19	
New from tubes, strips etc EN 12861-S-Cu-4	5,207-5,435	-0.84%	•	22 Mar 19	
Old from tubes, strips etc	, ,				
12861-S-Cu-7	5,035-5,205	-0.87%	▼	22 Mar 19	
	1 225 1 240	-0.35%	•	22 Mar 19	
	4,225-4,340				
EN12861-S-Cu-Zn-1-A-Cu 63.5% Mixed from valves/taps EN		0.440/	_	00.14. 40	
EN12861-S-Cu-Zn-1-A-Cu 63.5% Mixed from valves/taps EN 12861-S-Cu-Zn-6 Several 95% m/m 12861-S-Cu-Zn-7	3,460-3,790 3,510-3,590	-0.41% -0.42%	*	22 Mar 19 22 Mar 19	

UK NON-FERROUS SCRAP			
	Price	Change [†]	Assessed
Aluminium - actual price			
£pertonne			
Group 1 pure 99% & Litho	1,300-1,350*	0%	27 Mar 19
Commercial pure cuttings	970-1,000*	0%	27 Mar 19
Clean HE9 extrusions	1,300-1,350*	0%	27 Mar 19
Loose old rolled cuttings	690-720*	0%	27 Mar 19
Baled old rolled	740-770*	0%	27 Mar 19
Commercial cast	780-820*	0%	27 Mar 19
Cast wheels	1,150-1,180*	0%	27 Mar 19
Commercial turnings	565-605*	0%	27 Mar 19
Group 7 turnings	460-490*	0%	27 Mar 19
Fastmarkets MB and LME aluminium scrap	discounts		
£pertonne			
Group 1 pure 99% & Litho	69-119*	-8.74%	▼ 27 Mar 19
Commercial pure cuttings	419-449*	-2.03%	▼ 27 Mar 19
Clean HE9 extrusions	69-119*	-8.74%	▼ 27 Mar 19
Loose old rolled cuttings	421-451*	-4.18%	▼ 27 Mar 19
Baled old rolled	371-401*	-4.69%	▼ 27 Mar 19
Commercial cast	321-361*	-5.28%	▼ 27 Mar 19
Cast wheels	-399*	380%	▲ 27 Mar 19
Commercial turnings	536-576*	-3.3%	▼ 27 Mar 19
Group 7 turnings	651-681*	-2.77%	▼ 27 Mar 19
Titanium			
\$/Ib cif			
Turnings, unprocessed type 90/6/4			
(O.5% Sn max)	1.05-1.15*	0%	27 Mar 19
Turnings, unprocessed 90/6/4 (over 0.5% max 2% Sn)	0.95-1*	0%	27 Mar 19
Copper scrap discount			
cents/lb			
No 2 copper (birch/cliff) imported			
into China 94-96% cif China	32-38*	12.9%	▲ 25 Mar 19

†week-on-week change continued >



Friday 29 March 2019 | Number 9605.5



NON-FERROUS FOUNDRY INGOTS			
	Price	Change [†]	Assessed
Aluminium UK £/tonne			
Fastmarkets MB free market			
LM24 pressure diecasting ingot	1,360-1,410*	0%	27 Mar 19
LM6/LM25 gravity diecasting ingot	1,680-1,720*	0%	27 Mar 19
NB: prices expressed delivered consumer	works, LM series as	s specified in BS1	
Aluminium Europe	-		
Fastmarkets MB free market			
Duty paid delivered works pressure			
diecasting ingot price (DIN226/A380)			
-€/tonne	1,450-1,500*	0.34%	▲ 22 Mar 19
Aluminum US \$/lb delivered Midwest			
A380.1 alloy	0.83-0.85*	0%	25 Mar 19
AFFIMET €/tonne			
AS12	3,499	0%	01 Mar 19
AS12 UN	2,565	-3.02%	▼ 01 Mar 19
AS9 U3	1,940	-3.96%	▼ 01 Mar 19
AS5 U3	2,290	-3.38%	▼ 01 Mar 19
Reflects generally larger traded lots			
VDM €/1000 kg delivered			
DIN 226	2,160-2,260	0%	13 Mar 19
DIN 231	2,240-2,340	0%	13 Mar 19
DIN 311	2,220-2,320	0%	13 Mar 19
Aluminium bronze £/tonne UK			
AB1 ex-works	5,050	-1.94%	▼ 26 Mar 19
AB2 ex-works	5,100		▼ 26 Mar 19
Source: C.F. Booth Ltd	0,100	1.0270	201110110
Brass UK £/tonne			
SCB3 ex-works	4,170	-1.18%	▼ 26 Mar 19
High tensile HTB1 ex-works	4,170		▼ 26 Mar 19
Source: C.F. Booth Ltd	4,300	-1.50/0	▼ 20 Wai 19
Gunmetal UK £/tonne	4.070	0.40/	- 00M10
LG2 85/5/5/5 ex-works	4,870		▼ 26 Mar 19 ▼ 26 Mar 19
LG4 87/7/3/3 ex-works	5,590		
G1 1.15 PB ex-works	6,250	-1.57%	▼ 26 Mar 19
Source: C.F. Booth Ltd			
Phosphor bronze UK £/tonne			
PB1 ex-works	6,890	-1.43%	▼ 26 Mar 19
Source: C.F. Booth Ltd			
Phosphor copper £/tonne			
10% P ex-works	6,100		▼ 26 Mar 19
15% P ex-works	6,150	-1.6%	▼ 26 Mar 19
Source: C.F. Booth Ltd			
Zinc alloys UK £/tonne			
Brock Metal Co contract alloy price (delive	ered UK)		
Brock Metal ZL3	2,697	0.56%	▲ 01 Mar 19
Brock Metal ZL5	2,724	0.52%	▲ 01 Mar 19



Monthly averages: February

DACE METAL C			
BASE METALS			
		Low	High
Aluminium			
Aluminium P1020A, in-warehouse F premium, duty unpaid, spot \$/tonne	Rotterdam	75.5	83.15
Aluminium P1020A, in-warehouse F duty paid, spot \$/tonne	Rotterdam	125	135.63
Alumina			
Index fob Australia		379.01	
Copper			
US High-grade cathode premium inc \$/tonne	dicator,	154.32	165.35
Nickel			
Free market in warehouse premium			
Europe \$/tonne	Uncut cathodes	180	225
,	4x4 cathodes	450	500
	Briquettes	240	280
Tin	2444.000	2.0	200
European free market		420	460
Spot Premium 99.9%, \$/tonne		420	460
Kuala Lumpur (ex-smelter), \$/tonne		21,255.88	
MINOR METALS Antimony MB free market Regulus 99.65%, may Sp 5000m in warehouse \$1000	na .	7 800	8 000
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/ton	ne	7,800 7,700	8,000 7,900
Antimony MB free market Regulus 99.65%,	ne	7,800 7,700	8,000 7,900
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/ton MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne			
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/toni MMTA Standard grade II, \$/tonne Bismuth		7,700	7,900
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/toni MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne in warehouse, \$/lb		7,700	7,900
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/toni MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne in warehouse, \$/lb Cadmium MB free market	lots,	7,700	7,900
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/tone MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne in warehouse, \$/lb Cadmium MB free market min 99.95%, in warehouse, cents/lb	lots,	7,700	7,900 4.18
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/tone MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne in warehouse, \$/lb Cadmium MB free market min 99.95%, in warehouse, cents/lb min 99.99%, in warehouse cents/lb	lots,	7,700 3.69 131.5	7,900 4.18 140.25
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/tone MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne in warehouse, \$/lb Cadmium MB free market min 99.95%, in warehouse, cents/lb	lots,	7,700 3.69 131.5	7,900 4.18 140.25
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/toni MMTA Standard grade II,\$/tonne Bismuth MB free market min. 99.99%, tonne in warehouse,\$/lb Cadmium MB free market min 99.95%, in warehouse, cents/lb min 99.99%, in warehouse cents/lb Cobalt MB free market	lots,	7,700 3.69 131.5	7,900 4.18 140.25
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/toni MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne in warehouse, \$/lb Cadmium MB free market min 99.95%, in warehouse, cents/lb min 99.99%, in warehouse cents/lb Cobalt MB free market Alloy Grade, in warehouse, \$/lb	lots,	7,700 3.69 131.5 135	7,900 4.18 140.25 142.63
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/toni MMTA Standard grade II,\$/tonne Bismuth MB free market min. 99.99%, tonne in warehouse,\$/lb Cadmium MB free market min 99.95%, in warehouse, cents/lb min 99.99%, in warehouse cents/lb Cobalt MB free market	lots,	7,700 3.69 131.5 135	7,900 4.18 140.25 142.63
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/toni MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne in warehouse, \$/lb Cadmium MB free market min 99.95%, in warehouse, cents/lb min 99.99%, in warehouse cents/lb Cobalt MB free market Alloy Grade, in warehouse, \$/lb Standard Grade, in warehouse, \$/lb	lots,	7,700 3.69 131.5 135	7,900 4.18 140.25 142.63
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/toni MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne in warehouse, \$/lb Cadmium MB free market min 99.95%, in warehouse, cents/lb min 99.99%, in warehouse cents/lb Cobalt MB free market Alloy Grade, in warehouse, \$/lb Standard Grade, in warehouse, \$/lb	lots,	7,700 3.69 131.5 135	7,900 4.18 140.25 142.63
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/tone MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne in warehouse, \$/lb Cadmium MB free market min 99.95%, in warehouse, cents/lb min 99.99%, in warehouse cents/lb Cobalt MB free market Alloy Grade, in warehouse, \$/lb Standard Grade, in warehouse, \$/lb Gallium MB free market	lots,	7,700 3.69 131.5 135	7,900 4.18 140.25 142.63 18.43 18.84
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse, \$/toni MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne in warehouse, \$/lb Cadmium MB free market min 99.95%, in warehouse, cents/lb min 99.99%, in warehouse cents/lb Cobalt MB free market Alloy Grade, in warehouse, \$/lb Standard Grade, in warehouse, \$/lb Gallium MB free market	lots,	7,700 3.69 131.5 135	7,900 4.18 140.25 142.63 18.43 18.84
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/ton MMTA Standard grade II,\$/tonne Bismuth MB free market min. 99.99%, tonne in warehouse,\$/lb Cadmium MB free market min 99.95%, in warehouse, cents/lb min 99.99%, in warehouse cents/lb Cobalt MB free market Alloy Grade, in warehouse,\$/lb Standard Grade, in warehouse,\$/lb Gallium MB free market MB free market MB free market MB free market	lots,	7,700 3.69 131.5 135 16.61 16.97	7,900 4.18 140.25 142.63 18.43 18.84
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse, \$/ton MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne in warehouse, \$/lb Cadmium MB free market min 99.95%, in warehouse, cents/lb min 99.95%, in warehouse cents/lb min 99.99%, in warehouse cents/lb min 99.99%, in warehouse, \$/lb Cobalt MB free market Alloy Grade, in warehouse, \$/lb Standard Grade, in warehouse, \$/lb Gallium MB free market	lots,	7,700 3.69 131.5 135 16.61 16.97	7,900 4.18 140.25 142.63 18.43 18.84 188.13 1,150
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/toni MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne in warehouse, \$/lb Cadmium MB free market min 99.95%, in warehouse, cents/lb min 99.99%, in warehouse cents/lb Cobalt MB free market Alloy Grade, in warehouse, \$/lb Standard Grade, in warehouse, \$/lb Gallium MB free market min 99.99%	lots,	7,700 3.69 131.5 135 16.61 16.97	7,900 4.18 140.25 142.63 18.43 18.84 188.13 1,150
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/toni MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne in warehouse, \$/lb Cadmium MB free market min 99.95%, in warehouse, cents/lb min 99.99%, in warehouse cents/lb Cobalt MB free market Alloy Grade, in warehouse, \$/lb Standard Grade, in warehouse, \$/lb Gallium MB free market MB free market, \$/kg Germanium Dioxide MB free market min 99.99% Metal, Rotterdam, \$/kg Indium MB free market ingots, min 99.97%, in warehouse, \$/kg	lots,	7,700 3.69 131.5 135 16.61 16.97 163.13 950 1,350	7,900 4.18 140.25 142.63 18.43 18.84 188.13 1,150 1,450
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/toni MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne in warehouse, \$/lb Cadmium MB free market min 99.95%, in warehouse, cents/lb min 99.99%, in warehouse cents/lb Cobalt MB free market Alloy Grade, in warehouse, \$/lb Standard Grade, in warehouse, \$/lb Gallium MB free market MB free market, \$/kg Germanium Dioxide MB free market min 99.99% Metal, Rotterdam, \$/kg Indium MB free market ingots, min 99.97%,	lots,	7,700 3.69 131.5 135 16.61 16.97 163.13 950 1,350	7,900 4.18 140.25 142.63 18.43 18.84 188.13 1,150 1,450

Manageme		Low	High
Mercury MB free market min 99.99%,			
in warehouse, \$/flask		2,400	2,700
Selenium			
MB free market min 99.5%			
in warehouse, \$/lb		8.58	10.48
Silicon			
Grade 441, min 99% Si in-warehouse Rotterdam, €/tonne)	1,860	1,940
Titanium			
Ferro-Titanium, 70% (max 4.5% AI),			
d/d Europe, \$/kg		4.36	4.80
ORES & ALLOYS			
0.120 07.120.10		Low	High
Molybdenum			··· g ··
Free market in warehouse Europe			
drummed molybdicoxide \$/lb Mo		11.61	11.85
US canned molybdic oxide \$/lb Mo		11.74	11.95
Ferro-molybdenum			
basis 65% min, in-warehouse Rotterdam, \$/kg Mo		27.63	28.09
Tungsten		27.00	20.00
European free market APT, \$/mtu		261.25	271.25
Ferro-tungsten			
basis 75% W min, \$/kg		31.19	32.59
Vanadium			
min 98%, in-warehouse Rotterdam,			
V2O5, \$/lb		16.88	17.56
Ferro-vanadium			
basis 78% min, free delivery duty paid consumer plant, 1st grade West	ern		
Europe, \$/kg V		76.20	78.03
US Free market 70-80%, \$/lb		39.63	41.5
PRECIOUS METALS			
Gold			
London \$/troy oz	Morning	1,319.76	
	Afternoon	1,320.07	
London £/troy oz	Morning	1,015.04	
Φ#	Afternoon	1,015	
\$/troy oz	Handy/Harman	1,320.07	
Palladium Morning \$/troy oz		1,439.75	
Afternoon \$/troy oz		1,443.15	
Platinum: per troy oz		1,110.10	
Morning \$/troy oz		817.40	
Afternoon \$/troy oz		818.15	
Rhodium			
European free market min 99.9%		0.550.05	0.050.05
in-warehouse, \$/troy oz		2,556.25	2,656.25
Silver London			
spot pence/troy oz		1,215.5	
spot cents/troy oz		1,580.63	
Handy/Harman cents/troy oz		1,581.46	
† week-on-week change			continued >
			co.itiiiaca /





	Low	High
Aluminium		
LM24, £/tonne	1,410	1,473.75
LM6/LM25, £/tonne	1,705	1,782.5
Aluminium Europe €/tonne	1,517.5	1,575
Phosphor Bronze		
PB1 ex-works, £/tonne	6,947.5	
Zinc Alloy		
ZL3, £/tonne	2,682	
EXCHANGE RATES (CLOSING RATES)		
\$/£	1.30	
\$/yen	110.44	
\$/€	1.13	

LONDON METAL EXCHANGE

High, low and average February (20 days)
LME averages are mean of buyers and sellers except for settlement and 3 months sellers.

settlement and 3 months sellers.			
	Jan-Feb 2019		February
	Low	High	average
	\$	\$	\$
Aluminium (\$)			
Cash	1,775.25	1,898.25	1,859.23
3 months	1,813.5	1,922.75	1,884.59
Settlement	1,775.5	1,898.5	1,859.55
3 months seller	1,814	1,923	1,885.05
Copper Grade A (\$)			
Cash	5,810.75	6,545.5	6,277.76
3 months	5,836	6,495.25	6,274.03
Settlement	5,811	6,546	6,278.20
3 months seller	5,837	6,495.5	6,274.73
Copper Grade A (£)			
Settlement	4,508.36	5,000.76	4,826.81
3 months seller	4,506.43	4,952.08	4,802.23
Lead (\$)			
Cash	1,934	2,153.5	2,061.45
3 months	1,949	2,162.75	2,074.04
Settlement	1,934.5	2,154	2,062.08
3 months seller	1,950	2,163	2,074.68
Lead (£)			
Settlement	1,509.14	1,619.91	1,585.47
3 months seller	1,513.07	1,619.25	1,587.89
Nickel (\$)			
Cash	10,437.5	13,035	12,646.5
3 months	10,527.5	13,137.5	12,728.5
Settlement	10,440	13,040	12,649.75
3 months seller	10,530	13,140	12,734
Tin (\$)			
Cash	19,495	21,912.5	21,256.75
3 months	19,472.5	21,700	21,156.5
Settlement	19,500	21,925	21,268
3 months seller	19,475	21,725	21,172

	Jan-Feb 2019 Low	High	February average
	\$	\$	\$
Zinc (\$)			
Cash	2,461	2,793.5	2,702.34
3 months	2,395.5	2,773.25	2,689.66
Settlement	2,462	2,794	2,702.85
3 months seller	2,396	2,773.5	2,690.18
Cobalt (\$)			
Cash	30,000	46,000	31,500
3 months	30,000	50,000	31,500
Settlement	31,000	47,000	32,400
3 months seller	31,000	51,000	32,400
Molybdenum (\$)			
Cash	25,000	25,000	25,000
3 months	25,000	25,000	25,000
Settlement	26,000	26,000	26,000
3 months seller	26,000	26,000	26,000
Aluminium Alloy (\$)			
Cash	1,377.5	1,517.5	1,475.18
3 months	1,412.5	1,525	1,499.13
Settlement	1,385	1,520	1,480.20
3 months seller	1,420	1,530	1,505.5
Nasaa (\$)			
Cash	1,327.5	1,530	1,470.31
3 months	1,375	1,555	1,497.38
Settlement	1,330	1,535	1,473.28
3 months seller	1,380	1,560	1,502.75

LME SETTLEMENT CONVERSION RATES	
\$/£	1.30
\$/yen	110.38
\$/€	1.14