# **Fastmarkets** MB

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# Southern Peru least affected by Covid-19 among Peruvian miners, filings show

#### SÃO PAULO

Southern Peru Copper Corp (SPCC) was the Peruvian miner least affected by the Covid-19 pandemic among public companies on the Santiago Stock Exchange, several notifications filed to the country's securities authority, SMV, showed.

The SMV polled all listed companies during July and only SPCC said that it did not partially or completely halt operations due to the national emergency declared by the federal government in Peru. Large producers including Las Bambas and Antamina are not public and were not a part of this survey.

Peru faced a significant fall in mined production due to the pandemic, with the strongest impact being reported in April. The federal government declared a state of emergency in mid-March, and a gradual reopening of the mining industry began in May.

According to private mining association SNMPE, the country's copper output was 768,463 tonnes in January-May, down by 22.6% from 993,372 tonnes a year before, and zinc production totaled 398,771 tonnes in the same period, a 29.1% year-on-year decrease from 562,580 tonnes.

Lower mining supply from South America, one of the world's largest producing regions for both metals, was putting treatment and refining charges (TC/RC) under pressure since the pandemic hit the continent.

Fastmarkets' copper concentrates TC/RC index, cif Asia Pacific reached an all-time low of \$45.60 per tonne / 4.56 cents per lb on July 17. The index was first published on June 15, 2013.

Meanwhile, Fastmarkets' monthly zinc spot concentrate TC, cif China was at \$160-180 per tonne on June 26, a slight recovery from the 19-month bottom of \$155-170 per tonne on May 29 and compared with \$260-290 per tonne in June 2019.

Referring to its operations during the pandemic, SPPC said in a form to SMV on July 20: "The company had to redevelop some internal operational dynamics and limit on-site presence of people part of risk groups... Our mining operations were able to be developed continually, without stoppages."

As a result of continuous operations, SPCC reported a 13.4% year-on-year increase in net revenues during the first half of 2020, unlike other mining companies that saw a drop on the same basis of comparison. The company did not provide total figures.

SPCC produced 330,837 tonnes in copper content during 2019, according to data from Peru's mining and energy ministry Minem.

#### Larger impact on other mines

On the other hand, Brazilian miner Nexa Resources told the SMV on Wednesday its Peruvian Atacocha mine was running mostly at 88% capacity in open-pit operations, but underground work remained halted. The Cerro Lindo unit had fully reopened, and the company was seeking to stabilize its production during the second half of the year, it added.

Atacocha's total net revenues fell by 38% year on year in the first half of the year, and Cerro Lindo's revenues dropped by 9% on the continued >

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same basis of comparison. Nexa did not provide total numbers.

Nexa stopped mining operations in March and has been slowly restarting since June. On top of Atacocha and Cerro Lindo, the company owns the El Porvernir mine in Peru, and they jointly produced 43,150 tonnes of copper and 214,882 tonnes of zinc last year, according to Minem data.

Output from the Cajamarquilla smelter, which worked at half capacity during the Covid-19 restrictions, was 333,677 tonnes of zinc metal in 2019, Minem figures showed.

Additionally, Sociedad Minera Cerro Verde's filing with the SMV on Monday showed that it was operating at around 80% of its installed capacity. Freeport-McMoRan owns 53.6% of Cerro Verde, while Sumitomo Metal Mining Co holds 21%, Buenaventura has a 19.6% stake, and minority shareholders have 5.9% of shares.

"[Cerro Verde] is gradually returning to production levels seen before the national state of emergency, [and we] estimate around 20% [of capacity] remains to be resumed," the company said in its form to the SMV.

The company did not disclose revenue declines to the SMV on Monday.

However, Freeport's second-quarter earnings report published on Thursday showed copper sales from South America totaled 219 million lb (99,337 tonnes) in April-June, falling by 23.7% from 287 million lb (130,181 tonnes) a year before. Its average selling price was \$2.67 per lb in the quarter, from \$2.72 per lb during the same months in 2019.

In South America, the company also operates the Chilean El Albra copper mine, in which it holds a 51% stake.

Freeport declared *force majeure* on short-term shipments from Cerro Verde in late March, which were slowly resuming from May.

According to Minem data, Sociedad Minera Cerro Verde produced 494,284 tonnes in copper content during 2019.



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Industry-leading manufacturer of automotive frames implements DOD marking, controlled by MPERIA, for product identification

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Buenaventura scaled back mining operations to an essential minimum after the state of emergency was enforced, and they were since partially resumed, it told the SMV on Tuesday without disclosing particular capacity usage rates. Total revenues had fallen by 36% in the first half this year, it added.

Buenaventura produced 37,432 tonnes of zinc in 2019, data from Minem showed.

Volcan also reduced operations to a minimum but all of its units had reached full capacity by June 24, its filing with the SMV showed on Tuesday. Total revenues declined by 50% in the first half of 2020, it added.

The company's 2019 copper output was 5,436 tonnes, and its zinc production was 150,834 tonnes, according to Minem.

**RENATO ROSTÁS** 

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# <u>Resourcing the</u> <u>New Energy Economy</u>

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Find out now



#### FASTMARKETS' KEY PRICES

Daily base metal prices and premiums (\$/t.

	Price	Change <sup>†</sup>	Assessed
LME copper cash settlement	6,412.50	-0.65%	▼ 24 Jul 20
Weekly copper premium (cif			
Rotterdam)	40.00-50.00	0%	21 Jul 20
Daily copper premium (cif Shanghai)	75.00-90.00	-5.71%	▼ 24 Jul 20
Daily copper premium (in-whs	05 00 400 00	0.000/	
Shanghai)	85.00-100.00	-2.63%	▼ 24 Jul 20
LME aluminium cash settlement	1,654.50	2.26%	▲ 24 Jul 20
Daily aluminium premium DUP (in-whs Rotterdam)	85.00-90.00	2.94%	▲ 24 Jul 20
Twice weekly aluminium premium DP (in-whs Rotterdam)	100.00-120.00	0%	24 Jul 20
Weekly aluminium premium (cif Shanghai)	110.00-130.00	0%	30 Jun 20
Twice weekly aluminium premium (cif MJP)	65.00-75.00	0%	24 Jul 20
Weekly aluminium premium (cif MKP)	80.00-90.00	0%	21 Jul 20
Twice weekly aluminium premium (dlvd US MW)	0.135-0.145	-1.75%	▼ 28 Feb 20
LME zinc cash settlement	2,193.50	0.25%	▲ 24 Jul 20
Weekly zinc premium (fca duty-paid Rotterdam)	80.00-100.00	0%	21 Jul 20
Weekly zinc premium (in-whs Shanghai)	80.00-90.00	0%	21 Jul 20
LME nickel cash settlement	13,430.00	1.12%	▲ 24 Jul 20
Weekly nickel premium (cif Shanghai)	110.00-140.00	0%	21 Jul 20
LME lead cash settlement	1,808.00	-0.17%	▼ 24 Jul 20
LME tin cash settlement	17,695.00	1.7%	▲ 24 Jul 20

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279.49 0.63% Alumina index fob Australia (\$/t) 24 Jul 20 Charge chrome index 50% Cr cif -1.41% T 24 Jul 20 Shanghai (\$/lb Cr) 0.70 Manganese ore index 44% Mn cif Tianjin (\$/dmtu) 4.09 -1.45% V 24 Jul 20 Manganese ore index 37% Mn fob Port Elizabeth (\$/dmtu) -3.42% ▼ 24 Jul 20 3.11 Manganese ore index 37% Mn cif Tianjin China (\$/dmtu) 3.78 -2.33% T 24 Jul 20 MB Index CFR Turkey HMS 1&2 (80:20) 265 66 (North Europe material) 3.8% 24 Jul 20 HMS 1&2 ferrous scrap index (80:20) fob Rotterdam (\$/t) 248.78 4.44% 24 Jul 20 

Price

Change<sup>†</sup>

Assessed

Copper concentrate Asia-Pacific index TC import \$/dmt 46.20 1.32% 24 Jul 20 Copper concentrate Asia-Pacific index RC import US cents/lb 4.62 1.32% 24 Jul 20 Zinc concentrate spot treatment 160.00-180.00 26 Jun 20 4 62% charge (TC) cif Asia Pacific, \$/t FASTMARKETS' KEY PRICES: ASSESSMENTS Price Change Assessed Ferro-chrome, 6-8% C, basis 60% Cr, del European consumers (\$/lb Cr) 0.76-0.90 0% 24 Jul 20 Silico-manganese, basis 65-75% Mn, 15-19% Si, del European consumers (€/t) 850-890 0% 24 Jul 20 Ferro-silicon, basis 75% Si, del 24 101 20 860 000 ∩º/.

000-900	0%		24 JUI 20
3.70-4.10	-2.5%	▼	22 Jul 20
850.00-880.00	0%		24 Jul 20
17.70-18.00	-1.11%	▼	24 Jul 20
6.90-7.15	-1.4%	▼	24 Jul 20
24.30-25.80	-0.79%	•	24 Jul 20
13.75-14.05	0%		24 Jul 20
13.80-14.10	0%		24 Jul 20
	3.70-4.10           850.00-880.00           17.70-18.00           6.90-7.15           24.30-25.80           13.75-14.05	101 001         101           3.70-4.10         -2.5%           850.00-880.00         0%           17.70-18.00         -1.11%           6.90-7.15         -1.4%           24.30-25.80         -0.79%           13.75-14.05         0%	3.70-4.10       -2.5%       ▼         850.00-880.00       0%         17.70-18.00       -1.11%       ▼         6.90-7.15       -1.4%       ▼         24.30-25.80       -0.79%       ▼         13.75-14.05       0%       ▼

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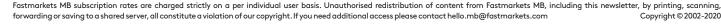
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#### FASTMARKETS' KEY ALUMINIUM PRICES

	Price	Change <sup>†</sup>		Assessed
Alumina index fob Australia (\$/t)	279.49	0.63%		24 Jul 20
Group 1 pure 99% AI & litho scrap, del UK (£/t)	1,110-1,150	0%	_	22 Jul 20
Cast aluminium wheels, del UK (£/t)	890-920	0%		22 Jul 20
LME aluminium cash settlement (\$/t)	1,654.50	2.26%		24 Jul 20
Daily aluminium premium, duty-unpaid (in-whs Rotterdam) (\$/t)	85.00-90.00	2.94%		24 Jul 20
Weekly aluminium premium, duty-unpaid (cif Shanghai) (\$/t)	110.00-130.00	0%		30 Jun 20
Twice weekly aluminium premium (cif MJP) (\$/t)	65.00-75.00	0%		24 Jul 20
Weekly aluminium premium, duty-free (cif MKP) (\$/t)	80.00-90.00	0%		21 Jul 20
Twice weekly aluminium premium, dlvd (US MW) (cents/lb)	85.67-86.67	3.74%		23 Jul 20
Extrusion billet premium, 6063, duty-paid, in-whs Rotterdam (\$/t)	200-220	0%		24 Jul 20
LM24 pressure diecasting ingot (del UK consumers) (£/t)	1,090-1,150	0%		22 Jul 20
LM6/LM25 gravity diecasting ingot (del UK consumers) (£/t)	1,390-1,430	0%		22 Jul 20
DIN226 pressure diecasting ingot (del European consumers) (€/t)	1,240-1,290	0.8%		24 Jul 20
Aluminium ingot ADC 12 spot (MJP) \$/tonne	1,570-1,580	3.28%		22 Jul 20

#### **NEW YORK**

#### Falling stocks during downturn a good omen for copper, Freeport CEO says

Low copper inventories are a "good omen" for copper because they position the metal for material gains when economic activity rebounds, the chief executive officer of miner Freeport-McMoRan has said.

Richard Adkerson said in a conference call on the US copper producer's second-quarter earnings on Thursday July 23 that mine and scrap supply constraints were in focus, and that stocks had actually declined despite the effects of the Covid-19 pandemic.

"Supplies of copper during the Covid-19 pandemic have been affected. Both mine supply and scrap availability are lower, and notably inventories have remained low and have actually moved even lower in recent months," he said.

"This is very notable because it's not typical of past commodity downturns," he added. "Typically in downturns, inventories rise, and then have to be worked off when recovery occurs. The currently low inventories are a good omen for copper because they position the metal for material gains when economic activity rebounds."

London Metal Exchange copper stocks started the year at 144,525 tonnes and trended higher until mid-May, when they peaked at 282,675 tonnes. They have declined since, and are now at year-todate lows around 144,000 tonnes.

Similarly, Shanghai bonded copper stocks began the year at 273,000 tonnes, peaked at 344,000 tonnes in March and have since fallen to 199,000 tonnes.

But Adkerson said that the company was not letting down its guard or taking any victory laps, and that it remained aware of the risks in the current uncertainties.

"We will continue to operate our business prudently until there's clarity. As economies around the world recover and improve, copper will be a major beneficiary," he said.

"Prices are still well below what is needed to incentivize

investment in new projects, which will result in a tight market as we go forward," he added.

Copper prices have recovered from 41-month lows of less than \$4,800 per tonne in March and were currently at year-to-date highs of more than \$6,500 per tonne.

Adkerson admitted that the price recovery came sooner than expected, noting that China's economy was recovering strongly and steadily from its first-quarter low, being led by its industrial sector, infrastructure spending and government stimulus actions.

Similarly, continuing monetary and fiscal stimulus in the rest of the world is helping to offset the negative economic downturn resulting from Covid-19, Adkerson said in the call.

"We're beginning to see a restart of global economies," he added. "We're also seeing some positive signs of the Western world beginning to improve."

#### ANDREA HOTTER

#### LONDON

#### Aurubis begins Copper Mark sustainability assessment process at Bulgaria smelter

European copper producer Aurubis has begun the process to gain the International Copper Alliance's (ICA) Copper Mark at its metal processing facility in Pirdop, Bulgaria, it said on Friday July 24.

Aurubis will sign a letter of commitment to the Copper Mark, whereby the plant will agree to subject itself to a six-month criteria self-assessment. Following this, an external assessment will commence after 12 months, before routine evaluations are undertaken every three years.

The Copper Mark is a voluntary initiative, aligned with 32 sustainability criteria as set out in the Risk Readiness Assessment outlined by the Responsible Mineral Initiative (RMI). These include safeguarding production in line with environmental sustainability, with the requisite assessments applied to areas such as compliance, child labor, environmental production and occupational health and safety.

"While we fulfil the international standards that apply to gold and silver for the responsible production of raw materials, so far nothing comparable has existed for copper production," Aurubis chief executive Roland Harings said in the press statement on Friday.

"Therefore, The Copper Mark closes an important gap, and we hope that our participation has a cascading effect on the industry," Harings added.

The initiative coincides with the London Metal Exchange's push for responsible sourcing, which gathered momentum at last year's annual LME Week and takes guidance from the Organisation for Economic Co-operation and Development (OECD).

The exchange has stated that full compliance from registered producers will be required by 2023, and just last month bolstered efforts to explore low-carbon initiatives in the push for green aluminium. The LME also recognizes the Copper Mark.

Aurubis' adoption of the Copper Mark assurance framework marks the third large global copper producer to conform to the standards since applications were opened to copper producers in March, signifying progress in responsible sourcing efforts despite supply chain setbacks due to the outbreak of Covid-19.

Fellow European producer KGHM, as well as Rio Tinto's US-based entity Kennecott Utah Copper and part-owned Mongolian mine Oyu Tolgoi have also filed letters of commitment.

#### HASSAN BUTT

continued >

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#### LONDON

### Rusal's Krasnoyarsk smelter transitions to EcoSoderberg process

Rusal's Krasnoyarsk aluminium smelter in Russia has completed its transition to a process known as EcoSoderberg as part of the company's modernization and environmental program, the aluminium producer said on Friday July 24.

The EcoSoderberg process significantly reduces emissions particularly for emissions of tarry materials - at its second-largest smelter, which has a nameplate capacity of 1.02 million tonnes, the company said.

The process was developed by Rusal's Engineering and Technology Centre.

EcoSoderberg will be rolled out across several Rusal smelters this year, Evgenii Nikitin, Rusal's chief executive officer said in a statement. The smelters include Bratsk, Irkutsk, Novokuznetsk and Volgograd.

"The introduction of the EcoSoderberg process is a key part of the company's modernization," Nikitin said.

Rusal's Krasnoyarsk smelter has been going through an environmental program that started in 2004. The 16-year program has led to the smelter's total emissions being cut by 38%. Rusal said the smelter's emissions are four-and-a-half times less than in 1980.

The implementation of the new process is part of Rusal's drive to reduce carbon emissions, not just by using clean energy sources, but through the entire aluminium smelting process and further up the supply chain.

Major aluminium producers have been looking at ways to reduce carbon emissions, especially further upstream in the smelting process.

Hydro announced on July 24 that is aims to replace a large part of its current fuel oil consumption at its Alunorte alumina refinery in Brazil with liquefied natural gas.

The movement to go green has gained traction recently following the rise of environmental legislation and policy globally, especially with the rise of environmental-based economic stimulus packages following the Covid-19 pandemic. JUSTIN YANG

#### shanghai Higher offers for Chinese nickel sulfate support price uptick

The nickel sulfate price in China rose by 1.1% week on week on Friday July 24, supported by firm producer offers and limited spot supply.

Fastmarkets assessed the nickel sulfate min 21%, max 22.5%, cobalt 10ppm max, exw China price at 23,200-23,500 yuan (\$3,306-3,349) per tonne on Friday, up from 23,000-23,2000 yuan per tonne a prior week.

Domestic nickel sulfate producers held their offers firms, citing low inventories, and this provided some support to the price, market sources told Fastmarkets.

"I am running out of stocks [because] sales are pretty brisk, especially when prices are at lows," a producer source said, not specifying the level.

"I'm looking for nickel sulfate right now, [and] can't get cheap cargoes, and prices are recovering from the previous low," a second buyer source told Fastmarkets. China's nickel sulfate price has been falling since mid-March, and fell to an intra-year low of 22,500-22,700 yuan per tonne on June 19 amid sluggish demand caused by the spread of the Covid-19 virus in the country from the beginning of this year, Fastmarkets learned.

A third producer source told Fastmarkets that demand is recovering in the Covid-19-hit market, albeit slowly.

"Demand is recovering, [and] it's good to see this, though the pace is not fast, [and] we see more recovery in the second half of this year," the third producer source noted.

There were different opinions in the market, however, that the nickel sulfate price may consolidate at current levels and lacks momentum to move higher.

"Honestly, I am not bullish on the nickel sulfate price because there is no notable demand growth, [the market] is just correcting from the low," a Shanghai-based nickel analyst said.

Nickel sulfate is used to manufacture nickel-cobalt-manganese (NCM) and nickel-cobalt-aluminium (NCA) for electric vehicles (EVs).

Elon Musk, chief executive officer of EV producer Tesla, urged for a ramp-up in global nickel mining during the company's presentation of second-quarter results on Wednesday.

China, a big EV market, produced 84,000 new energy vehicles (NEVs) in May 2020, including pure electric vehicles (PEVs) and plug-in hybrids - a 5% increase from April, but down by 25.8% year on year, according to the data from the China Association of Automobile Manufacturers (CAAM).

#### SALLY ZHANG

#### LONDON

### Hydro signs deal for possible use of natural gas at Alunorte refinery

Hydro aims to replace a large part of it current fuel oil consumption at the Alunorte alumina refinery in Brazil with more environmentally friendly natural gas.

The aluminium and alumina producer has signed a memorandum of understanding with Golar Power on July 22.

According to the agreement, the supply of liquefied natural gas (LNG) from Golar Power is expected to be available in Barcarena municipality in the state of Pará, Brazil in 2022.

Hydro aims to adapt the calcination process and part of the steam generation at Alunorte to use LNG instead of fuel oil.

Alunorte has the capacity to produce alumina at a rate of 6.3 million tonnes per year and is the world's largest alumina refinery outside China.

Golar Power aims to develop and enable the use of natural gas through an LNG regasification terminal, which will be located near the Alunorte refinery in Barcarena.

"Hydro is committed to drive sustainability and industry best practices. The LNG project will help make our operation more sustainable and will enable access to natural gas for other industries and consumers in the state of Pará," John Thuestad, the executive vice president for Hydro's bauxite and alumina business, said.

Alunorte will be the first significant gas consumer in Pará. The project is in line with Hydro's climate strategy and commitment to reduce its own greenhouse gas emissions by 30% by 2030.

The move comes at a time when more market participants are looking for ways to achieve a lower carbon-emitting supply chain, from mine to casthouse.

Hydro has two low-carbon aluminium brands.

Hydro 4.0 is aluminium produced using hydroelectric power and with a maximum carbon footprint of 4kg of carbon dioxide per kg of aluminium.

Hydro 75R is aluminium with at least 75% of post-consumer

continued >

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recycled content.

While there are a number of low-carbon aluminium brands in the market, many producers are still making changes upstream at alumina refineries and bauxite mines to make the supply chain "green".

For example, Alcoa notes that when taking upstream emissions from bauxite mining and alumina refining into consideration, its Ecolum brand guarantees less than four tonnes of total carbon dioxide equivalent for each tonne of aluminium.

#### ALICE MASON

#### SHANGHAI

#### AT A GLANCE: Teck lowers copper, zinc guidance after weak performance at Antamina, Red Dog

A summary of Teck's non-ferrous metals production results for the three months ended June 30, as well as its adjusted full-year production guidance, as stated in the company's latest quarterly report released on Wednesday July 22.

#### In brief

- Teck's production of copper, zinc and lead concentrates was down in the first six months of the year, reflecting coronavirus-related suspensions at the Antamina copper-zinc mine in Peru during the June quarter, as well as maintenance challenges and lower grades at the Red Dog zinc-lead mine in the US state of Alaska.
- Operations at Antamina were halted in April, for a period of 43 days, which resulted in year-on-year declines of 23.3% and 49.4% in copper and zinc concentrates production respectively at the facility during the second quarter. Over the same comparison, zinc and lead concentrates output at Red Dog fell by 47% and 26% respectively.
- Red Dog commenced its shipping season on July 13 following a delay due to equipment failure on one of its two barges. Shipping is currently being completed with one barge operational, and the company expects repairs to the other barge to be completed by the end of July; timing of customer deliveries will be affected but the company expects to ship all Red Dog production during the shipping season barring any unforeseen severe weather conditions.
- Construction activity at Teck's Quebrada Blanca Phase 2 (QB2) project in northern Chile is gradually ramping back up after operations were suspended in mid-March. There are currently 3,000 people on site, with this increasing to pre-suspension levels of 8,000 by the end of October, as conditions allow.

#### Key figures

Copper production

- Second quarter: 59,000 tonnes, down by 23.4% year on year from 77,000 tonnes
- First half: 129,000 tonnes, down by 12.2% year on year from 147,000 tonnes

#### Zinc concentrate production

- Second quarter: 94,000 tonnes, down by 48.9% year on year from 184,000 tonnes
- First half: 248,300 tonnes, down by 22.2% year on year from 319,000 tonnes

#### Refined zinc production

- Second quarter: 70,000 tonnes, down by 6.7% year on year from 75,000 tonnes
- First half: 148,700 tonnes, down by 0.2% year on year from 149,000 tonnes

#### Lead concentrate production

- Second quarter: 21,500 tonnes, down by 25.9% year on year from 29,000 tonnes
- First half: 44,800 tonnes, down by 6.5% year on year from 47,900 tonnes

#### Refined lead production

- Second quarter: 17,800 tonnes, up by 11.9% year on year from 15,900 tonnes
- First half: 36,900 tonnes, up by 5.7% year on year from 34,900 tonnes

#### Molybdenum concentrate production

- Second quarter: 2.6 million lbs, down by 23.6% year on year from 3.4 million lbs
- First half: 3.3 million lbs, down by 42.1% year on year from 5.7 million lbs

#### 2020 annual guidance

- Copper production
- Adjusted lower to 274,800-289,800 tonnes from 285,000-300,000 tonnes

#### Zinc concentrate production

• Adjusted lower to 563,300-593,300 tonnes from 600,000-640,000 tonnes

#### Refined zinc production

• Adjusted lower to 303,700-313,700 tonnes from 305,000-315,000 tonnes

#### Lead concentrate production

• Adjusted lower to 89,800-94,800 tonnes from 95,000-100,000 tonnes

#### Refined lead production

• Adjusted higher to 66,900-71,900 tonnes from 60,000-70,000 tonnes

#### Molybdenum concentrate production

• Adjusted lower to 5.5-6.3 million lbs from 6.5-7.5 million lbs **ANNA XU** 



#### **NEW YORK**

#### Metals & mining M&A to revive in H2 2020 after severe decline in first half

Companies with strong balance sheets and access to capital could drive a gradual pick-up in mergers and acquisitions (M&A) activity in the metals and mining sector in the months ahead, following a significant reduction in deal numbers due to the Covid-19 pandemic, according to consultancy firm PwC.

But uncertainties created by the continuing pandemic and a possible recession continued to weigh heavily on investors, which have already been facing challenges in 2020 from persistently softer demand, lower manufacturing levels, and changes in the commercial landscape resulting from trade negotiations and related tariffs, PwC said.

"The significant contraction in demand [in the first half of 2020], along with myriad other challenges caused by the pandemic, resulted in decreased deal value, volume and average deal size compared with the first half of 2019," PwC said.

"This [is] also highlighted by the decrease in deal volume from the first quarter to the second quarter of 2020," it added.

The total value of the deals in metals and mining in the first half of the year was \$5.9 billion, a decrease of 81% year-on-year, while deal volume in the same period fell by 12% to 271 deals, from 309 deals in the first half of 2019.

According to PwC, prospective corporate and private equity buyers alike have been forced to reevaluate their planned and in-progress deals due to the pandemic, with many adopting a wait-and-see approach.

"Faced with the immediate challenge of the pandemic, businesses focused on protecting worker safety, solving operational challenges and bolstering liquidity, often leaving M&A strategies and activity on the back-burner," PwC said.

But the consultancy noted that, in the second half of 2020 and beyond, corporations and private equity firms may refocus their M&A efforts in an attempt to seek value through acquisitions, or to streamline core operations through divestitures.

"As experienced in previous downturns, proactive and timely M&A [activity] may help entities to leapfrog their competition, take share and accelerate their recovery, because acquiring early in a downturn can lead to returns in excess of [those achieved by] peer groups," PwC said.

"Similarly," it added, "active and timely portfolio management and divestitures can help to free-up cash and capital, both to reinforce business and to allow future investment."

#### ANDREA HOTTER

#### NEW YORK

### Freeport expects higher Cerro Verde copper output in H2

The Cerro Verde copper mine in Peru operated at around 80% of its 2019 average levels in June but is expected to see operations increase in the second half, according to majority owner Freeport-McMoRan.

The US copper producer, which has a 53.56% stake in the mine, said that Cerro Verde's operating rates averaged 251,800 tonnes of ore per day in the second quarter, including an average of 316,800 tonnes per day in June.

This is roughly 80% of the 2019 annual average, but the company noted that it expects operations during the second half of 2020 to average around 350,000 tonnes of ore per day.

"Significant progress was achieved at Cerro Verde during the second quarter to restore operations following Covid-19 restrictions imposed by the Peruvian government in March," Freeport said.

"Strict health protocols have been implemented and a plan for Cerro Verde to restore operations was approved by the Peruvian government in the second quarter," the company added.

Freeport declared *force majeure* in March at the mine, which produces an average of 454,000 tonnes per year of copper in concentrate. The operation has since resumed shipments.

In South America, Freeport also operates the El Abra mine in Chile. The company reported consolidated second-quarter copper sales volumes of 219 million lb, or 99,336 tonnes, down from 287 million lb, or 130,181 tonnes, in the same period of 2019.

Sales from Freeport's South America mining operations are expected to be 950 million lb, or 430,913 tonnes, of copper in 2020, down from 1.2 billion lb, or 544,311 tonnes, in 2019.

ANDREA HOTTER



#### FASTMARKETS' KEY NOBLE ALLOYS AND ORE PRICES

	Price	Change <sup>†</sup>	Assessed
Molybdic oxide, in-whs Rotterdam (\$/Ib Mo)	6.90-7.15	-1.4%	▼ 24 Jul 20
Molybdic oxide, USA (\$/lb Mo)	7.00-7.20	-3.07%	▼ 23 Jul 20
Ferro-molybdenum, basis 65% min, in-whs Rotterdam (\$/kg Mo)	17.70-18.00	-1.11%	▼ 24 Jul 20
Tungsten, APT, in-whs Rotterdam (\$/mtu)	205.00-210.00	0%	24 Jul 20
Ferro-tungsten, basis 75% W, in-whs Rotterdam (\$/kg W)	24.30-25.80	-0.79%	▼ 24 Jul 20
Ferro-vanadium, basis 78% min, free delivery duty paid consumer plant, 1st grade, Western Europe (\$/kg V)	22.85-24.00	4.34%	▲ 24 Jul 20
US free market ferro-vanadium \$/lb in-warehouse Pittsburgh	9.30-9.60*	0%	23 Jul 20
Vanadium pentoxide, min 98% V, (\$/lb V2O5)	5.10-5.50	0%	24 Jul 20
FASTMARKETS' KEY BULK ALLOYS AND	OREPRICES		
	Price	Change <sup>†</sup>	Assessed
Charge chrome 50% Cr index cif Shanghai (\$/lb Cr)	0.70	-1.41%	▼ 24 Jul 20
Manganese ore index 44% Mn cif Tianjin (\$/dmtu)	4.09	-1.45%	▼ 24 Jul 20
Manganese ore index 37% Mn fob Port	2 11	3 / 20/	▼ 24 Jul 20

Manganese ore index 37% Mn fob Port Elizabeth (\$/dmtu)	3.11	-3.42%	24 Jul 20
Manganese ore index 37% Mn cif Tianjin China (\$/dmtu)	3.78	-2.33% ▼	24 Jul 20
Ferro-chrome, 6-8% C, basis 60% Cr, del European consumers (\$/lb Cr)	0.76-0.90	0%	24 Jul 20
South African UG2 chrome ore concs, index basis 42%	132-132	-1.49% 🔻	24 Jul 20
Ferro-manganese, basis 78% Mn, del European consumers (€/t)	850-880	0%	24 Jul 20
Ferro-manganese, basis 78% Mn, in-whs Pittsburgh (\$/long ton)	1,165-1,275	0%	23 Jul 20
Silico-manganese, basis 65-75% Mn, 15-19% Si, del European consumers (€/t)	850-890	0%	24 Jul 20
Ferro-silicon, basis 75% Si, del European consumers (€/t)	860-900	0%	24 Jul 20

#### **SHANGHAI**

# Downstream weakness, easing supply concerns pressure Chinese ferro-silicon market lower

The Chinese domestic ferro-silicon market dipped in the most recent trading session due to the continuing sluggish downstream magnesium market and easing supply concerns, with smelters ramping up their operations.

Fastmarkets' price assessment for ferro-silicon 75% Si min, in-whs China was 5,800-5,900 yuan (\$828-842) per tonne on Wednesday July 22, down by 100 yuan (1.7%) from 5,900-6,000 yuan per tonne in the previous week.

Persistently lackluster demand from the magnesium market, a major consumer for 75% grade ferro-silicon, has made the spot alloy price vulnerable to a backswing, according to several market participants.

Fastmarkets assessed the magnesium 99.9%, exw China price at 12,800-13,000 yuan per tonne on Friday July 24, unchanged from a week earlier and at its lowest since March 2016.

"As the [magnesium] market is staying at a bottom for now and perhaps the foreseeable future, producers will have to subdue their raw

material costs, meaning lower bids for ferro-silicon," a trader said.

In spite of weakness from the magnesium sector, the 75% ferro-silicon market had been supported by upward momentum in the 72% alloy market. That market has increased since May due to a supply shortage amid a wave of production cuts when the market tumbled to a multi-year low in April.

"Some ferro-silicon smelters had lowered their production when the price sank below production costs. The reduced supply, together with the gradual recovery of steel demand, has revived the 72-grade market. And as the futures market started its bullish run, many suppliers rushed to deliver their material to exchanges, leaving very limited material in the spot market," a producer said.

But the market momentum slowed down in recent weeks on easing supply concerns after some producers scaled up their operations, citing the attractive prices.

Sources told Fastmarkets China produced around 427,600 tonnes of ferro-silicon in June, which marks an increase of 4.8% from around 408,000 tonnes in May. And market participants said they expect to see a further rise in alloy output in July.

"Last week, a smelter in Ningxia province started one of its 33,000 [KiloVolt-Ampere] KVA ferro-silicon furnaces, and is planning to start two more furnaces in the coming weeks," one market source said.

Meanwhile, participants also told Fastmarkets a producer in Shanxi province has restarted its 12,500 KVA furnace to produce 75-grade ferro-silicon.

But another producer source said a sharp drop in prices is less likely to happen in the short term given suppliers' orders were mostly sold out for this month.

"Sentiment is softening but the prices are largely on hold, at least for this month, because most of our cargoes were booked for the entire month," a producer said.

#### Export market struggling

In the same week, the export market for ferro-silicon followed the domestic price lower.

Fastmarkets' assessment for ferro-silicon 75% Si min export, fob China was \$1,060-1,100 per tonne on Wednesday, down by 2.3% from \$1,090-1,120 per tonne in the preceding week.

Despite lowering their export offers, suppliers admitted it was difficult to secure any deals given the depressed demand from overseas countries as well as aggressive offers from international suppliers.

"We are offering at \$1,100 per tonne, and I can assure you lowering it by \$50 per tonne won't make any difference," a supplier said.

Buyers were bidding at \$960-980 per tonne cif destination countries, according to market participants. And given the gap between offer and bid prices some suppliers have shied away from the export market.

"The domestic prices are better than this [\$960-980 per tonne], so why export while we can sell higher in our own market?" a producer said.

SIYI LIU

#### LONDON, NEW YORK, SHANGHAI GLOBAL CHROME SNAPSHOT: Ore, alloy market sentiment weakens in China

Key data from the pricing sessions in Asia, Europe and the United States during the week ending Friday July 24.

GLOBAL FERRO-CHROME AND CHROME ORE PRICES					
	New price	Previous price	% Change		
Ferro-chrome high carbon 6-8.5% C, basis 60-70% Cr, max 1.5% Si, delivered Europe, \$/lb Cr	0.76 -0.90	0.76 -0.90	0.0		
Ferro-chrome high carbon 6-8% C, basis 60-65% Cr, max 2% Si, in-whs Pittsburgh, $\mbox{/lb}$	0.86 -0.95	0.86 -0.95	0.0		
Ferro-chrome 50% Cr import, cif main Chinese ports, \$/lb contained Cr	0.70	0.71	▼1.4		
Ferro-chrome high carbon 57-65% Cr, cif dup Japan, \$/lb	0.70 -0.73	0.70-0.75	▼1.4		
Ferro-chrome high carbon 57-65% Cr, cif dup South Korea, \$/lb	0.69 -0.72	0.69-0.73	▼0.7		
Ferro-chrome spot 6-8% C, basis 50% Cr, ddp China, yuan/tonne	5,800-6,200	5,900-6,300	▼1.6		
Ferro-chrome lumpy Cr benchmark indicator, charge basis 52% (and high carbon), Europe, \$/lb	1.15	1.15	0.0		
Chrome ore South Africa UG2 concentrates index basis 42%, cif China, \$/tonne	132	134	▼1.5		
Chrome ore Turkish lumpy 40-42%, cfr main Chinese ports, \$/tonne	190-200	190-205	▼1.3		
Source: Fastmarkets					

#### China

- The UG2 chrome ore market edged down to consolidate around the \$132 per tonne level where liquidity was reported in the previous week.
- The domestic spot ferro-chrome price edged downward due to bearish sentiment amid the recent slump in ore prices.
- The imported charge chrome market remained quiet in advance of the next domestic ferro-chrome tender announcement.

#### Europe

- The high carbon ferro-chrome market was stable with the summer lull and Covid-19 dampening activity.
- The low carbon ferro-chrome market (0.10% C) made a minor correction upward as some buyers returned to the market following the recent softening.

#### **United States**

• The high-carbon ferro-chrome market held flat once again, stunted by inactivity in the spot market over the slow summer period.

#### Japan & South Korea

• These markets are now assessed on a fortnightly basis. The table shows the latest prices from July 16 compared with the previous session. Fastmarkets will next assess these markets on July 30.

#### CHRIS KAVANAGH, JON STIBBS, SIYI LIU

#### LONDON, SHANGHAI

#### Trade log July 2020: Ferro-vanadium, V2O5

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

#### Thursday July 23 Ferro-vanadium - \$29.50-30.50 per kg

- Prices indicated at \$30-30.50 per kg fob China
- Prices indicated at \$30 per kg fob China
- Prices indicated at \$30-31 per kg fob China
- Prices indicated at \$31 per kg fob China
- Prices indicated at \$29.50-30.50 per kg fob China
- Prices indicated at \$30.50 per ka fob China
- Prices indicated at \$30-30.50 per kg fob China
- Prices indicated at \$29.50-30.50 per kg fob China
- Prices indicated at \$30.50 per kg fob China

#### V2O5-\$6.90-7 per lb

- Prices indicated at \$7 per lb fob China
- Prices indicated at \$6.90-7 per lb fob China
- Prices indicated at \$6.90-7 per lb fob China
- Prices indicated at \$6.90-7 per lb fob China
- Prices indicated at \$6.90-7 per lb fob China
- Prices indicated at \$6.90-7 per lb fob China
- Prices indicated at \$6.90-7 per lb fob China
- Prices indicated at \$6.90-7 per lb fob China
- Prices indicated at \$7 per lb fob China

#### Wednesday July 22

- Ferro-vanadium \$22.10-22.55 per kg
- 3 tonnes sold at \$22.5 per kg in Europe
- Prices indicated at \$22.2-22.7 per kg in Europe
- Prices indicated at \$22.2-22.7 per kg in Europe
- Offer at \$22.5 per kg in Europe
- 10 tonnes sold at \$22.2 per kg in Europe
- Prices indicated at \$22.2-22.7 per kg in Europe
- Prices indicated at \$22.2-22.7 per kg in Europe
- 5 tonnes sold at \$22.55 per kg in Europe
- Offer at \$23 per kg in Europe
- 10 tonne bid at \$22.5 per kg in Europe
- Prices indicated at \$22.2-22.5 per kg in Europe
- 5 tonnes sold at \$22.4 per kg in Europe
- Bid at \$22.3 per kg in Europe
- Offer at \$22.5 per kg in Europe
- Prices indicated at \$22.2-22.7 per kg in Europe
- Prices indicated at \$22-22.5 per kg in Europe
- 5 tonnes bought at \$22.1 per kg in Europe
- 5 tonnes sold at \$22.5 per kg in Europe
- Bids at \$22-22.2 per kg in Europe
- Offers at \$22.9-23 per kg in Europe
- Prices indicated at \$22.2-22.7 per kg in Europe

#### Friday July 17

- Ferro-vanadium \$22.20-22.70 per kg
- 2 tonnes sold at \$23.50 per kg in Europe
- Offer at \$24 per kg in Europe
- Bid at \$22.10 per kg in Europe
- Prices indicated at \$22.50 per kg in Europe
- 2 tonnes sold at \$22.50 per kg in Europe
- Prices indicated at \$22.20-22.50 per kg in Europe

continued >

- 5 tonnes sold at \$22.25 per kg in Europe
- 5 tonnes bought at \$21.80 per kg in Europe



- 7 tonnes sold at \$22.25 per kg in Europe
- 5 tonnes offered at \$22.70 per kg in Europe
- Offer at \$22.30 per kg in Europe

#### V2O5 - \$5.10-5.50 per lb

- Prices indicated at \$5-5.50 per lb in Europe
- Prices indicated at \$4 per lb in Europe
- 10 tonnes sold at \$5.65 per lb in Europe
- Prices indicated at \$5 per lb in Europe

#### Thursday July 16

#### Ferro-vanadium - \$29.50-30.50 per kg

- Prices indicated at \$30.50 per kg fob China
- Prices indicated at \$29.50-30.50 per kg fob China
- Prices indicated at \$29.50-30.50 per kg fob China
- Prices indicated at \$29.50-30.50 per kg fob China
- Prices indicated at \$30.50 per kg fob China
- Prices indicated at \$29.50-30.50 per kg fob China
- Prices indicated at \$30-30.50 per kg fob China
- Prices indicated at \$29.50-30.50 per kg fob China
- Prices indicated at \$29.50-30.50 per kg fob China
- Prices indicated at \$30 per kg fob China

#### V2O5-\$6.90-7 per lb

- Prices indicated at \$7 per lb fob China
- Prices indicated at \$6.90-7 per lb fob China
- Prices indicated at \$7 per lb fob China
- Prices indicated at \$6.90-7 per lb fob China
- Prices indicated at \$6.90-7 per lb fob China
- Prices indicated at \$6.90-7 per lb fob China
- Prices indicated at \$6.90-7 per lb fob China
- Prices indicated at \$6.90-7 per lb fob China
- Prices indicated at \$6.90-7 per lb fob China
- Prices indicated at \$7 per lb fob China

#### Wednesday July 15

#### Ferro-vanadium - \$22.20-23.25 per kg

- Prices indicated at \$22.75-23.25 per kg in Europe
- Prices indicated at \$23 per kg in Europe
- 6 tonnes offered at \$22.50-22.60 per kg in Europe
- Prices indicated at \$22.30-23 per kg in Europe
- 6 tonnes reportedly sold at \$22.50-22.60 per kg in Europe
- 7 tonnes reportedly sold at \$22.20 per kg in Europe
- 10 tonnes reportedly sold at \$22.55 per kg in Europe
- 10 tonnes offered at \$22.80 per kg in Europe
- Prices indicated at \$22-22.50 per kg in Europe
- 5 tonnes sold at \$23.25 per kg in Europe
- 5 tonnes sold at \$23.25 per kg in Europe
- 10 tonnes bought at \$22 per kg in Europe
- Offer at \$22.45-23 per kg in Europe
- Prices indicated at \$23 per kg in Europe

#### Friday July 10

#### Ferro-vanadium - \$22.50-23.50 per kg

- Prices indicated at \$22.70-23.50 per kg in Europe
- Prices indicated at \$22.70-23.50 per kg in Europe
- Prices indicated at \$22.70-23.50 per kg in Europe
- Bid at \$22.50 per kg in Europe
- 5 tonnes sold at \$22.90 per kg in Europe

- Prices indicated at \$22.70-23.50 per kg in Europe
- Prices indicated at \$23.30-23.50 per kg in Europe
- 3 tonnes sold at \$23.20 per kg in Europe
- 2 tonnes sold at \$23.60 per kg in Europe
- 10 tonnes sold at \$22.30 per kg in Europe
- Offer at \$22.50 per kg in Europe
- Prices indicated at \$22.70-23.50 per kg in Europe
- Prices indicated at \$22.70-23.50 per kg in Europe
- Prices indicated at \$22.70-23.50 per kg in Europe

#### V2O5 - \$5.10-5.50 per lb

- Prices indicated at \$5.10-5.50 per lb in Europe
- Bid at \$4.80 per lb in Europe
- Offer at \$5.80 per lb in Europe
- Prices indicated at \$5.10-5.50 per lb in Europe
- Prices indicated at \$5.70 per lb in Europe
- Offer at \$5.75 per lb in Europe
- Prices indicated at \$5.10-5.50 per lb in Europe
  - Fastmarkets' assessment of the V2O5, in-whs Rotterdam, price remained unchanged at \$5.10-5.50 per lb, in line with most of the assessments.
  - No new business was reported to Fastmarkets during the pricing week.

#### Thursday July 9

#### Ferro-vanadium - \$29.50-30.50 per kg

- Prices indicated at \$30.50 per kg fob China
- Prices indicated at \$30.50 per kg fob China
- Prices indicated at \$29.50-30.50 per kg fob China
- Prices indicated at \$30.50 per kg fob China
- Prices indicated at  $30\-30.50$  per kg fob China
- Prices indicated at \$30.50 per kg fob China
- Prices indicated at \$30.50 per kg fob China
- Prices indicated at \$29.50-30.50 per kg fob China
- Prices indicated at \$30.50 per kg fob China
- Prices indicated at \$29-30.50 per kg fob China
- Prices indicated at \$30-30.50 per kg fob China

#### V2O5–\$6.90-7 per lb

Wednesday July 8

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- Prices indicated at \$6.90-7 per lb fob China
- Prices indicated at \$7 per lb fob China
- Prices indicated at \$6.90 per lb fob China
- Prices indicated at \$7 per lb fob China
- Prices indicated at \$7 per lb fob China
- Prices indicated at \$6.90 per lb fob China
- Prices indicated at \$6.90-7 per lb fob China
- Prices indicated at \$6.90 per lb fob China
- Prices indicated at \$6.85-7 per lb fob China
- Prices indicated at \$7 per lb fob China

Ferro-vanadium - \$22.70-23.50 per kg

- Offers at \$22.60-22.70 per kg in Europe

- 2 tonnes sold at \$23 per kg in Europe

- 1 tonne sold at \$23 per kg in Europe

- Prices indicated at \$23-23.50 per kg in Europe

- Prices indicated at \$23-23.50 per kg in Europe

- Prices indicated at \$23-23.50 per kg in Europe

- Prices indicated at \$22.30-22.50 per kg in Europe

continued >

- 10 tonnes sold at \$22.20 per kg in Europe

- Offers at \$22.50-22.75 per kg in Europe

- 5 tonnes sold at \$23.65 per kg in Europe

- 7 tonnes sold at \$23.60 per kg in Europe



#### Friday July 3

#### Ferro-vanadium - \$23-23.50 per kg

- Prices indicated at \$23-23.50 per kg in Europe
- Prices indicated at \$23-23.50 per kg in Europe
- 10 tonnes sold at \$23.25 per kg in Europe
- Prices indicated at \$23-23.50 per kg in Europe
- Prices indicated at \$23-23.50 per kg in Europe
- 10 tonnes sold at \$22.40 per kg in Europe
- Prices indicated at \$23-24 per kg in Europe
- Prices indicated at \$23-23.50 per kg in Europe
- Prices indicated at \$22.80-23.30 per kg in Europe
- Material bought at \$23.10 per kg in Europe
- Offer at \$23.10 per kg in Europe
- Prices indicated at \$23-23.50 per kg in Europe
- 5 tonnes sold at \$23.70 per kg in Europe
- 5 tonnes sold at \$23.70 per kg in Europe

#### V2O5 - \$5.10-5.50 per lb

- Prices indicated at \$5.10-5.50 per lb in Europe
- Prices indicated at \$5.10-5.50 per lb in Europe
- Offer at \$5.80 per lb in Europe
- Prices indicated at \$5.50-6 per lb in Europe
- Bid at \$5.35 per lb in Europe
- Prices indicated at \$5.10-5.50 per lb in Europe
- Fastmarkets' assessment of the V2O5, in-whs Rotterdam, price remained unchanged at \$5.10-5.50 per lb, in line with most of the assessments.
- No new business was reported to Fastmarkets during the pricing week.

#### Thursday July 2

#### Ferro-vanadium - \$29-30 per kg

- Prices indicated at \$30 per kg fob China
- Prices indicated at \$29-30 per kg fob China
- Prices indicated at \$30 per kg fob China
- Prices indicated at \$29.50-30 per kg fob China
- Prices indicated at \$29-30 per kg fob China
- Prices indicated at \$29.50 per kg fob China
- Prices indicated at \$29.50 per kg fob China
- Prices indicated at \$30-30.50 per kg fob China
- Prices indicated at \$29.50-30 per kg fob China

#### V2O5-\$6.85-7 per lb

- Prices indicated at \$6.85-7 per lb fob China
- Prices indicated at \$6.90-7 per lb fob China
- Prices indicated at \$6.90-7 per lb fob China
- Prices indicated at \$6.90-7 per lb fob China
- Prices indicated at \$6.85-7 per lb fob China
- Prices indicated at \$6.85-7 per lb fob China
- Prices indicated at \$6.85-7 per lb fob China
- Prices indicated at \$6.85-7 per lb fob China
- Prices indicated at \$6.85-7 per lb fob China

#### Wednesday July 1

#### Ferro-vanadium - \$23-23.50 per kg

- 5 tonnes sold at \$23 per kg in Europe
- Bid for 5 tonnes at \$22 per kg in Europe
- Material reportedly sold at \$22.45 per kg in Europe
- Material reportedly sold at \$22.70-23 per kg in Europe

- Offer for 15 tonnes at about \$23.60 per kg in Europe
- Offer for 5 tonnes at \$23.25 per kg in Europe
- Prices indicated at \$23 per kg in Europe
- Prices indicated at \$23.05 per kg in Europe
- Prices indicated at \$23.05-23.50 per kg in Europe
- Prices indicated at \$23-24 per kg in Europe

CHARLOTTE RADFORD, EWA MANTHEY, AMY LV





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# Minor & precious metals

#### FASTMARKETS' KEY MINOR METAL PRICES

	Price	Change <sup>†</sup>		Assessed
Antimony, ingots (regulus), in-whs Rotterdam (\$/t)	5,150-5,400	-0.47%	▼	24 Jul 20
Antimony, MMTA standard grade II, in-whs Rotterdam (\$/t)	5,100-5,350	-0.29%	▼	24 Jul 20
Bismuth, min 99.99% Bi, in-whs Rotterdam (\$/lb)	2.55-2.70	0.96%		24 Jul 20
Cobalt (standard-grade) in-whs Rotterdam (\$/lb)	13.75-14.05	0%		24 Jul 20
Cobalt (alloy-grade) in-whs Rotterdam (\$/lb)	13.80-14.10	0%		24 Jul 20
Cobalt sulfate, Co 20.5%, China ex-works (yuan/tonne)	46,000-47,000	3.91%		24 Jul 20
Indium, min 99.99% In, in-whs Rotterdam (\$/kg)	140-170	0%		24 Jul 20
Manganese flake, in-whs Rotterdam (\$/tonne)	1,510-1,580	0%		24 Jul 20
Selenium, min 99.5% Se, in-whs Rotterdam (\$/lb)	6.30-7.60	-1.07%	▼	24 Jul 20
Tellurium, min 99.9% Te, in-whs (\$/kg)	47.00-60.00	0%		24 Jul 20

#### LONDON, BEIJING GLOBAL LITHIUM WRAP: Battery-grade lithium carbonate holds steady; Asian seaborne spot hydroxide soft

The Chinese spot market for battery-grade lithium carbonate held steady in the week to Thursday July 23 on improved downstream demand and firm industrial-grade carbonate prices.

- China's battery-grade lithium carbonate prices were stable on improved demand
- Industrial-grade lithium carbonate prices remained firm in China
- Prices were unchanged in China's lithium hydroxide market
- Asian battery-grade lithium hydroxide spot prices were soft with lower prices seen

Some producers were unwilling to sell at a lower level and intend to raise prices slightly.

Fastmarkets' weekly price assessment for lithium carbonate, 99.5% Li2CO3 min, battery grade, spot price range exw domestic China was 37,000-41,000 yuan per tonne (\$5,282-5,853) on Thursday, unchanged from the previous week.

"I heard talk that battery-grade lithium carbonate producers would like to increase prices, but it hasn't reflected on prices this week. I think it will be hard to increase prices in the current sufficient market. I will hold a watchful stance in the coming weeks," a buyer told Fastmarkets.

"According to our recent orders, downstream demand has showed some improvement with more orders placed. We haven't increased prices yet, but I think prices will not fall further at least," a producer said.

"Combined with several factors, including improved downstream buying and higher industrial-grade prices, we insist on higher offers above 40,000 yuan per tonne," a second producer said.

The lithium carbonate index, min 99.5% Li2O3, battery grade, exw China increased by 0.4% week on week to 38,413 yuan per tonne on Thursday July 23 from 38,262 yuan per tonne on July 16, driven by higher data points at the top end of the carbonate assessment range. Technical- and industrial-grade lithium carbonate from China's Qinghai region remained firm this week.

Fastmarkets assessed the Chinese technical- and industrialgrade lithium carbonate spot price at 31,000-34,000 yuan per tonne on Thursday July 23, unchanged from previous week.

China's battery-grade lithium hydroxide market showed no fluctuation in prices. Downstream buying was inactive, but most producers are insisting on current prices.

Fastmarkets' lithium hydroxide monohydrate, 56.5% LiOH.H2O min, battery grade, spot price range exw domestic China was at 45,000-51,000 yuan per tonne on Thursday July 23, unchanged from last week.

#### Asian seaborne lithium hydroxide prices soft

Seaborne cif China, Japan and Korea battery-grade lithium carbonate prices were unchanged this week, while battery-grade lithium hydroxide prices softened on lower prices seen in the spot market with some sellers eager to sell.

Fastmarkets assessed the lithium carbonate, 99.5% Li2CO3 min, battery grade, spot price at \$6.50-8 per kg on a cif China, Japan and Korea basis, unchanged from a week ago.

The seaborne battery-grade lithium hydroxide monohydrate, 56.5% LiOH.H2O min, battery grade, spot price was assessed at \$8.80-10 per kg on a cif China, Japan and Korea basis, down from \$9-10 per kg the previous week.

"We see some lower prices for battery-grade lithium hydroxide of below \$9 per kg from some suppliers for spot buying, but spot buying activity remains slow," a distributor said.

"Lower spot prices of below \$9 per kg for battery-grade hydroxide could be achievable, but contract prices are still higher than this level," a second buyer said.

### Europe, US hydroxide technical-grade market drifts lower on persistent weakness

The European and United States technical-grade lithium hydroxide price fell by 2.3% week on week on Thursday amid continued weak demand.

Fastmarkets assessed the price of lithium hydroxide monohydrate 56.5% LiOH.H2O min, technical and industrial grades, spot price ddp Europe and US at \$7.60-9 per kg on Thursday, down on the low end from \$8-9 per kg, where it held steady over the past fortnight.

Elsewhere, the carbonate technical- and industrial-grade spot markets in Europe and the US remained steady amid slack demand. In other related developments, battery start-up firm Britishvolt

#### **BATTERY-GRADE LITHIUM SPOT PRICES**

	New price	Previous price	% Change
Lithium carbonate 99.5% Li2CO3 min, battery grade, spot price range exw domestic China, yuan/tonne	37,000- 41,000	37,000- 41,000	0
Lithium hydroxide monohydrate 56.5% LiOH.H2O min, battery grade, spot price range exw domestic China, yuan/tonne	45,000- 51,000	45,000- 51,000	0
Lithium carbonate 99.5% Li2CO3 min, battery grade, spot prices cif China, Japan & Korea, \$/kg	6.50-8	6.50-8	0
Lithium hydroxide monohydrate 56.5% LiOH.H2O min, battery grade, spot price cif China, Japan & Korea, \$/kg	8.80-10	9-10	▼1.1
Lithium carbonate 99.5% Li2CO3 min, battery grade, spot price ddp Europe and US, \$/kg	8-9	8-9	0
Lithium hydroxide monohydrate 56.5% LiOH.H2O min, battery grade, spot price ddp Europe and US, \$/kg	9.75-11	9.75-11	0
Lithium carbonate index, min 99.5% Li2O3, battery grade, exw China, yuan/tonne	38,413	38,262	▲ 0.4
Spodumene 5-6% Li2O min, cif China, \$/tonne	400-430	400-450	₹2.4
Source: Fastmarkets			

continued >

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# Minor & precious metals

signed a memorandum of understanding (MoU) with the Welsh government to work on plans to develop a 30 GWh electric vehicle battery factory in Wales.

Fastmarkets' trade log for battery-grade lithium carbonate in China for June includes all trades, bids and offers reported to Fastmarkets.

All lithium carbonate, hydroxide and spodumene prices are available in our Battery Raw Materials Market Tracker.

#### CARRIE SHI, DALILA OUERGHI

#### LONDON

### PRICING NOTICE: Launch of tantalum concentrate price

Fastmarkets today launches a weekly tantalum concentrate price assessment, expanding its current price coverage of raw materials.

After undertaking an extensive consultation period that began on May 18, which was then extended by one month on June 16, Fastmarkets has launched a price assessment for tantalite, basis min 25% Ta2O5, cif China price.

The extended period of consultation with the market has confirmed an appetite for third-party price assessments for tantalum.

Tantalum prices had found support earlier in the year from supply tightness and concerns about obtaining material during the Covid-19-related lockdown in Rwanda. No tantalum mines were allowed to operate during the lockdown in the country, which accounts for the majority of global tantalum output.

Tantalum prices are now trading around their highest level since the beginning of the year.

Meanwhile, demand for tantalum is likely to continue to rise, with the electrification of homes and the increasing adoption of the Internet of Things (IoT) and 5G communications technologies.

Tantalum is mainly used in high-performance capacitors, superalloys, aerospace components, and military and consumer electronics.

The specifications for this assessment are as follows:

Assessment: Quality:	Tantalite, basis min 25% Ta2O5, cif China Lump 0-10mm grain concentrate; Ta2O5 25% min; Nb2O5 15% min; U3O8+ThO2 0.10% max
Quantity:	Minimum 10-tonne lots
Location:	cif main ports China
Unit:	USD per lb Ta2O5
Payment terms:	Provisional payment against scan copy of the full set of documents, balance upon finalization or DP or provisional payment after arrival at destination port, balance upon finalization; other payment terms normalized.
<b>Publication</b> :	Weekly; Fridays 2-3pm London time.

To provide feedback on this price or if you would like to provide price information by becoming a data submitter to this price, please contact Ewa Manthey by email at: pricing@fastmarkets.com. Please add the subject heading FAO: Ewa Manthey, re: Tantalum pricing.

#### **EWA MANTHEY**

#### SHANGHAI

# Cobalt tetroxide price rally outpaces that of sulfate; raw material supply tightness persists

Spot prices for cobalt tetroxide and sulfate in China continue to be underpinned by tight supply of raw materials, but the rally in prices for the former is outpacing that of the latter due to comparatively better demand.

Cobalt producers have attempted to raise their offer prices or have held back from sales since the start of July when they found it increasingly difficult to secure spot market supplies of cobalt hydroxide, the key raw material for produce cobalt salts, with feedstock suppliers either warning of limited spot availability or shying away from offering due to low benchmark metal prices.

Fastmarkets' cobalt hydroxide payable indicator, min 30% Co, cif China - the percentage payable of Fastmarkets' standardgrade cobalt price (low end) - rose to 70-71.5% on July 22. This is its highest level since Fastmarkets started to track spot payables in January 2019.

Because of this record level, the market witnessed the largest leap seen in cobalt tetroxide and sulfate spot prices for two months, with the upturn in the former easily outpacing the latter.

Fastmarkets' price assessment for cobalt tetroxide 72.6% Co min, delivered China, was at 175,000-185,000 yuan (\$24,984-26,411) per tonne on Wednesday July 22, up by 3,000-10,000 yuan per tonne (3.7%) from 172,000-175,000 yuan per tonne on July 17. The price of the battery raw material has risen by 5.9% since the beginning of this month.

Fastmarkets' price assessment for cobalt sulfate 20.5% Co basis, exw China, was at 45,000-46,000 yuan per tonne on Wednesday, up by 500-1,000 yuan per tonne (1.7%) from 44,500-45,000 yuan per tonne on July 17 and up by 3.4% since the start of the month.

The fact that cobalt hydroxide supply constraints are having a bigger impact on cobalt tetroxide prices rather than sulfate prices is mainly due to the greater demand for cobalt to be used in lithium cobalt oxide (LCO) batteries, which are widely used in consumer electronics, according to market participants.

Cobalt sulfate, meanwhile, is used to produce nickel-cobaltmanganese (NCM) lithium-ion batteries for electric vehicles (EVs).

"Consumption of LCO batteries has recovered more quickly than NCM lithium-ion batteries [since China went through the peak infection period for Covid-19] and more cobalt is needed per LCO battery unit," a producer source said.

The LCO cathode material comprises about 60% cobalt, while the cathode materials for the two mainstream NCM523 and NCM622 lithium-ion batteries only contains about 12% cobalt.

"Consumer electronics batteries require more cobalt, therefore, once there is a slight sign of supply tightness, downstream consumers start to stockpile," a second producer source said.

"As for consumers in the downstream NCM battery supply chain, they have restocked from time to time because current cobalt prices have languished at low levels, and the purchases are not necessarily driven by prompt demand," he added.

"If cobalt sulfate prices rise quickly, they would immediately step back to the sidelines and [use their stockpiles]," the second producer source concluded.

SUSAN ZOU



#### LONDON

### COBALT SNAPSHOT: Spot demand thin but sellers hold back from cutting offers

Key data from the pricing session in London on Thursday July 23.

COBALT, A (in-whs Rotterd	LLOY GRADE am, \$ per lb)			
	New price	Previous price	Change to midpoint of range	Midpoint % change
	13.80-14.10	13.80-14.10	0	0
COBALT, S (in-whs Rotterd	TANDARD GR am, \$ per lb)	ADE		
	New price	Previous price	Change to midpoint of range	Midpoint % change
	13.75-14.05	13.75-14.05	0	0

Source: Fastmarkets

#### **Key drivers**

- Cobalt prices stabilized after falls at the beginning of the month. Some market participants beleved the market to be close to the floor due to rising hydroxide payables and buying interest using July-quotation periods.
- Spot demand from end-users remained thin because many operations were taking their regular summer breaks, despite the earlier shutdowns caused by efforts to stem the spread of the Covid-19 pandemic, which has already affected consumption.

#### Key quotes

- "There are quite a few maintenance shutdowns and people are coming in [for cobalt] as and when they need it, and watching [their] cashflow. Certain alloys are not being produced, and the cobalt price is reflecting that" – *trader 1*
- "You can see that the hydroxide market is rising, so there's a bit of a reluctance to chase the metal market down, especially with prices being close to one-year lows" *trader 2*

CHARLOTTE RADFORD

#### LONDON

#### AT A GLANCE: Galaxy H1 sales exceed production, keeping miner on track to meet 2020 guidance

A summary of Australia-based lithium miner Galaxy Resources' results for the second quarter of 2020 as released on Thursday July 23.

#### In brief

- A total of 26,030 dry metric tonnes (dmt) of spodumene concentrate was shipped to two customers in June from the MT Cattlin operations in Western Australia, bringing total first-half shipments to 58,542 dmt this year.
- Final product inventory as of the end of the second quarter fell to 49,463 dmt, due to sales during the first half of the year exceeding production by over 13,000 dmt.
- The company is on track to meet its key operating parameter forecast for 2020 including total material mined of 1.6-1.8 million bank cubic meters.
- The company forecasts spodumene concentrate production for

the third quarter at 26,000-31,000 dmt.

- The development schedule of its Sal de Vida project in Argentina was affected by Covid-19 restrictions but remains on target for stage one production in 2022.
- Shipments are currently being made on a spot basis due to continued weak demand across the entire lithium value supply chain.

DALILA OUERGHI



# Exchange news & prices

#### SHANGHAI

### SHFE STOCKS REPORT 24/07: Lead inventories shed 12.6%; nickel up 2.7%

Lead stocks in Shanghai Futures Exchange-registered warehouses recorded the largest decrease in percentage terms in the base metals complex in the week to Friday July 24, losing 12.6 %, or 5,111 tonnes, to total 35,436 tonnes.

The largest drawdown came from the Zhejiang Tianchuan warehouse in Zhejiang province, with inventories of the heavy metal down by 3,289 tonnes at 19,299 tonnes compared with 22,588 tonnes a week prior.

"Supply in the market was less after some lead smelters put their plants on maintenance because July and August is the usual time for them to do so. On the other hand, demand was still pretty good," an analyst in Shanghai said.

The SHFE most-traded September lead price closed the week at 14,975 yuan (\$2,138) per tonne on July 24, up by 0.84% from 14,850 yuan per tonne at the close on July 23.

Nickel was the only metal to record an increase in SHFE-registered stocks over the past week. Exchange inventory edged up by 2.7%, or 859 tonnes, to 32,702 tonnes due to slowing domestic demand.

#### SHFE stocks changes

- SHFE copper stocks decreased by 0.6%, or 963 tonnes, to 157,684 tonnes.
- SHFE aluminium stocks fell by 4.6%, or 10,829 tonnes, to 222,498 tonnes.
- SHFE zinc stocks dropped by 4.8%, or 4,449 tonnes, to 89,188 tonnes.
- SHFE tin stocks edged down by 2.5%, or 75 tonnes, to 2,931 tonnes. HUILI



#### FASTMARKETS' KEY FLAT STEEL PRICES

	Price	Change <sup>†</sup>	Assessed
HRC, EU imports (cfr main EU port, northern Europe) (€/t)	410-415	0%	22 Jul 20
HRC, EU imports (cfr main EU port, southern Europe) (€/t)	390-400	0%	22 Jul 20
HRC, CIS exports (fob stowed main Black Sea port) (\$/t)	400-415	1.24%	▲ 20 Jul 20
HRC, UAE imports (cfr Jebel Ali) (\$/t)	460-480	5.86%	▲ 21 Jul 20
HRC, Turkish imports (cfr main Turkish port) (\$/t)	415-425	0%	24 Jul 20
HRC, Latin America exports (fob stowed main Latin American port) (\$/t)	445-460	0%	24 Jul 20
HRC, commodity grade, US imports (cfr Gulf port) (\$/short ton)	450-480	-3.12%	▼ 22 Jul 20
HRC, US Midwest index (fob mill) (\$/short ton)	439-439	-6.24%	▼ 23 Jul 20
HRC, China export index (fob main China port) (\$/t)	476-476	1.17%	▲ 24 Jul 20
HRC, South East Asia imports (cfr Vietnam) (\$/t)	450-455	2.49%	▲ 20 Jul 20
HRC, Saudi Arabia imports (cfr main port) (\$/t)	460-490	4.4%	▲ 21 Jul 20
CRC, EU imports (cfr main EU port, northern Europe) (€/t)	460-465	0%	22 Jul 20
CRC, EU imports (cfr main EU port, southern Europe) (€/t)	465-475	0%	22 Jul 20
CRC, CIS exports (fob stowed main Black Sea port) (\$/t)	465-475	2.17%	▲ 20 Jul 20
CRC, UAE imports (cfr main Jebel Ali) (\$/t)	530-535	1.91%	▲ 21 Jul 20
CRC, Turkish imports (cfr main Turkish port) (\$/t)	470-490	0%	24 Jul 20
CRC, Latin America exports (fob stowed main Latin American port) (\$/t)	490-500	0%	24 Jul 20
CRC, US imports (cfr Gulf) (\$/short ton)	650-680	2.31%	▲ 22 Jul 20
CRC, US domestic (fob mill) (\$/short ton)	650-650	-1.52%	▼ 23 Jul 20
CRC, China export (fob main China port) (\$/t)	505-515	1.49%	▲ 21 Jul 20

#### **NEW YORK**

### US galvanized steel price may lag HRC trend by 2021, market says

Prices for hot-dipped galvanized sheet are poised to underperform hot-rolled coil in the United States by 2021 because steelmakers are producing more galvanized material and will be in a heated contest for market share, some market participants and analysts said.

The downstream galvanized product carries a premium over - and is usually more profitable than - its HRC cousin. Mills have recognized an incentive to shift their sales volumes away from HRC in favor of the wider-margin, value-added tonnage.

In chasing the higher profits on cold-rolled and galvanized, the mills are likely to face fierce competition, especially if end-use markets experience prolonged weakness from a persistent Covid-19 pandemic, market participants said.

So far this summer, galvanized base prices have exceeded those for HRC by about \$8.50-9 per hundredweight (\$170-180 per short ton), with that spread widening to \$9.10 per cwt on Friday July 17. That spread was roughly \$5 per cwt in late February of last year.

Fastmarkets' weekly price assessment for steel hot-dipped galvanized (base) steel coil, fob mill US was at \$32 per cwt on July 16, down by 19% from this year's high of \$39.50 per cwt in mid-January and 9.9% from \$35.50 per cwt in mid-July 2019.

Fastmarkets' daily steel hot-rolled coil index, fob mill US was calculated at \$22.67 per cwt on Wednesday. The index has been below \$23 per cwt since July 17, the first time it has moved below that threshold since late April. The index's high thus far for 2020 was \$30.91 per cwt, achieved in mid-January, before losing about a quarter of its value within six months. In mid-July 2019 the price was hovering around \$28 per cwt.

From mid-January to July 16, both HRC and galvanized have lost exactly \$7.50 per cwt, according to Fastmarkets data.

Even though the two items are tracking together with such a tight correlation this year, a midwestern sheet consumer source said the spread between the galvanized base price and hot-rolled coil should not be as wide as it is today.

"You still have a disparity between hot-roll and galvanized," that midwestern buyer said. "\$180 a ton? That's still historically high. Galvanized has usually been 5 or 6 cents a lb above hot-roll," which translates to \$100-120 per ton (\$5-6 per cwt).

The ultimate fate of the galvanized price was probably sealed last year when Nucor Corp started a new line in Ghent, Kentucky, and added 500,000 tons per year of capacity, according to an East Coast sheet consumer source.

Nucor will do what it takes to ensure that those tons get sold before a competitors' volumes, and the Charlotte, North Carolinabased company can afford to sustain discounts to make that happen, this source said.

And Nucor is not the only one adding galvanized capacity, even as the Covid-19 pandemic reduces demand from manufacturers in most of the consuming sectors.

Steel Dynamics Inc and U.S. Steel Corp - the latter is set to acquire a 49.9% stake in Big River Steel, which has expansion plans on tap - have also been vying for more galvanized business and have sought to maximize production, according to KeyBanc Capital Markets analyst Philip Gibbs. The trio of steelmakers is adding capacity to the tune of 2 million tons over the next several quarters, or 5% of normalized consumption.

While hot-roll capacity has been idled in 2020, "there has been more galvanized capacity that has been phased in, or about to be phased in," Gibbs told Fastmarkets on July 17. "Both markets have excess supply issues."



End-market consumption of galvanized sheet has been far from normal since the Covid-19 public-health emergency started shutting down non-essential aspects of the economy in March. Notable bright spots have been seen in galvanized products used in construction, home improvement, recreational vehicles and in some heating, ventilating and air conditioning (HVAC) applications. Among the weaker segments have been durable goods for oil and gas production, mining and agriculture equipment.

In the residential construction segment, galvanized steel is used in such components as appliances, roofing and garage door systems, Gibbs noted, plus material sold to the currently very busy "DIY" homeowners performing their own improvements.

HVAC production overall had been slow this year, with a relative low inventory count in the first quarter, Cowen & Co analyst Gautam Khanna said in a research report. But the segment's sales outlook might prove to be rosier than previously expected.

Khanna's report cited an "improved residential HVAC backdrop." This summer has been hot in some regions and there is a growing desire for retrofits to address "the broader HVAC theme of intensified air-filtration requirements for commercial buildings as a result of Covid-19," Khanna wrote in an email summary accompanying the report.

The East Coast sheet consumer has detected extra weakness in galvanized already, with base prices even dipping below \$30 per cwt if a buyer is interested in securing a volume above 1,000 tons. The extra capacity that has come online is the culprit, this source suspects.

"I guess it's because of the capabilities and people competing for market share," the East Coast consumer said. "It's more competitive."

Ultimately, sheet mills likely will allow the spread between galvanized and hot-roll grades to narrow, not because they would be happy selling galvanized goods cheaper but because they absolutely need to earn more for their hot-roll tons.

Fastmarkets' daily hot-rolled coil index recently settled in a range that is below the cash cost of production at many of the mill sites, Gibbs said. By choice or by attrition, the hot-rolled capacities will continue to adjust to a more sustainable level.

"The industry can live with these galvanized prices, but the industry certainly can't live with these hot-roll prices," Gibbs said. **DOM YANCHUNAS** 

#### LONDON

### EUROPE HRC: Domestic prices stabilize on seasonal market slowdown

Domestic prices for hot-rolled coil in Northern Europe were fairly stable day on day on Thursday July 23, due to the seasonal market slowdown, sources have told Fastmarkets.

Fastmarkets' daily steel hot-rolled coil index, domestic, exw Northern Europe, was calculated at  $\leq$ 407.69 (\$471.19) per tonne on Thursday, up by just  $\leq$ 0.01 per tonne from  $\leq$ 407.68 per tonne on July 22.

Thursday's index was based on deals heard at €405-410 per tonne ex-works and "workable" prices reported at €405-420 per tonne ex-works.

Official offers for HRC from the region's steelmakers have been heard at  ${\bf \&}430{-}450$  per tonne ex-works, but these were not

considered workable by buyers. Such high offers, however, indicated the intention of mills to increase prices, market sources said.

Thursday's index was up by  ${\in}2.36$  per tonne week on week and by  ${\in}19.69$  per tonne month on month.

Domestic prices in Italy, in the meantime, have been heard at €390-400 per tonne ex-works.

Market sources expected domestic European prices for HRC to stabilize at the current level because trading activity has been decreasing, following the traditional seasonal cycle. The second half of July and the month of August are usually slow in the EU steel market, due to scheduled maintenance at plants and the holiday season in the region.

Steelmakers could push for further price increases after buyers and sellers return to the market to secure orders in late August-September, according to market sources. The domestic HRC price will be supported by a combination of expected re-stocking by distributors and lower interest in imported HRC, due to tougher safeguard measures that came into force on July 1 this year.

#### MARIA TANATAR

#### CHICAGO US hot-rolled coil drops below \$22/cwt on price increase doubts

US hot-rolled coil prices have slipped below \$22 per hundredweight for the first time since late April, with some mills attempting to raise prices as others continue to cut deals in an effort to close out August order books, market participants said.

Fastmarkets daily steel hot-rolled coil index, fob mill US was calculated at \$21.95 per hundredweight (\$439 per ton) on Thursday July 23, down 3.2% from \$22.67 per cwt on July 22 and 6.2% from \$23.41 per cwt on July 16.

The index had not fallen below \$22 per cwt since it was calculated at \$21.89 per cwt - a more than four-year low - on April 30.

#### Heard in the market

Lead times are between two and six weeks, according to market participants and mill estimates. The lower end of that range is characteristic of lead times for southern electric-arc furnace (EAF) producers and the higher end is characteristic of lead times at integrated steelmakers.

Inputs were received in a range of approximately \$20-25 per cwt - a spread of roughly \$5 per cwt, or more than double that seen in recent pricing sessions. Spreads tend to widen when prices inflect up or down.

The index's outlier filter automatically discarded two inputs at the higher end of the range. While deals were recorded at both ends of the spectrum, those on the higher end were relatively small volumes (hundreds of tons) while those on the lower end were for larger volumes (close to or well over 1,000 tons).

The wide spread results from some mills raising prices while others are offering large discounts in a bid to close out August order books, sources said.

Integrated mills announced price increases of \$2 per cwt this week, resulting in new offers at or modestly above \$25 per cwt. And EAF producers with lead times into September are quietly quoting higher prices as well, they said.

But southern EAFs with shorter lead times - those in the two-tofour-week range - are offering prices around \$22-23 per cwt for standard spot tons (hundreds of tons) and below \$22 per cwt for larger orders (thousands of tons), sources said.

Market participants remain divided on the direction of prices and demand. Producer sources were generally optimistic about demand continued >

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and predicted that prices would move up once more mills closed out August order books - although some said spreads might remain compressed in the short-term.

Buyer sources continue to be generally more skeptical of any such firming in prices given the uncertain demand environment resulting from the Covid-19 pandemic. And many think supply might outstrip demand as integrated steelmakers restart blast furnaces, with EAF steelmakers continuing to operate at high capacity utilization rates.

#### Quote of the day

"Demand is up a little but not fully recovered, and the resurgence with Covid has people concerned," one midwestern steel consumer said. "In short, supply is increasing and demand is not staying up with it. Therefore, it is hard to build a case that will support the increase. The [mini-mills] are on the sideline at least for now, and if they don't follow suit, then the increase will not hold."

#### MICHAEL COWDEN

#### SHANGHAI

### CHINA HRC: Escalating US-China tensions spook ferrous market investors

China's hot-rolled coil prices fell on Friday July 24, with investors fretting over the worsening relations between China and the United States.

#### Domestic

- Eastern China (Shanghai): 3,930-3,950 yuan (\$561-564) per tonne, down 10-20 yuan per tonne
- Northern China (Tangshan) weekly assessment: 3,790-3,830 yuan per tonne, up 20-30 yuan per tonne

Trading across China was thin on Friday, with buyers in wait-and-see mode amid a slump in the futures market caused by the tit-for-tat measures by the US and China, after the US closed China's consulate in Houston, Texas, prompting China to close the US consulate in Chengdu, Sichuan, in retaliation.

Prices fell 10-20 yuan per tonne in Shanghai from Thursday, while ex-works prices in Tangshan fell to 3,790-3,800 yuan per tonne from around 3,820 yuan per tonne the day prior.

A Shanghai-based trader said most investors, especially those with long positions, were exiting their HRC futures positions and cashing out, because they believe commodity prices will continue to fall.

He said he expected prices to continue to fall next week amid the ongoing political tensions.

Downstream demand for HRC in China had already started to weaken earlier this week, he added.

Over the past week HRC prices in Shanghai gained 50-60 yuan per tonne because investors had ample liquidity to keep prices high. But sources believe prices will fall in the next few days.

#### Export

• Fastmarkets' steel hot-rolled coil index export, fob main port China: \$476.33 per tonne, down \$2.03 per tonne

Most major mills kept their offers at \$490-500 per tonne fob, unchanged from earlier this week, but traders believe mills will accept lower prices if buyers place orders. A Zhejiang-based trader said China's HRC export market was quiet on Friday, with most market participants taking a wait-and-see position amid domestic price drops.

He said the major mills will accept \$475 per tonne fob today, narrowing downward from \$475-480 per tonne fob earlier this week.

And he confirmed he had received a bid involving small tonnages of HRC from Pakistan earlier this week at \$505 per tonne cfr Pakistan, although the buyer withdrew the bid on Friday. The bid was equivalent to \$480-485 per tonne fob China.

A second Zhejiang-based trader said that Vietnam buyers had bought 30,000-60,000 tonnes of HRC of rerolling grade from a major Indian mill at \$475 per tonne cfr Vietnam earlier this week equivalent to \$465 per tonne fob China - but on Friday the Vietnamese importers turned quiet.

China's HRC import market was also inactive on Friday, with buyers anticipating further price falls.

#### Market chatter

"I heard Vietnam had already started to offer slab to China [at lower prices] on Friday. So not only China, but also market participants in other countries are expecting China's prices to continue to fall," the first Zhejiang-based trader said.

#### Shanghai Futures Exchange

The most-traded October HRC futures contract closed at 3, 767 yuan per tonne on Friday, down by 73 yuan per tonne from Thursday. MIRANDA SONG

#### **NEW YORK**

### US flat steel imports remain uncompetitive; prices mixed

While prices for certain flat steel imports into the United States have dropped again, moving in tandem with lower domestic pricing, other products have remained resilient on pricing because of improved steel demand in other parts of the world.

Fastmarkets received only a limited inputs for foreign flat-rolled products over the past two weeks, because sources said that the weak steel market in the US has kept most buyers away from any imports.

Sources projected that ferrous scrap prices in the US will continue to go lower in the coming months and drag flat-rolled prices down as well, since scrap is the primary feedstock for electric-arc furnace (EAF)-based flat-rolled steel producers.

At the same time, others said that countries that have been top suppliers to the US – such as South Korea – are less likely to match the cheap domestic prices given strong business in other regions – namely China.

Prices for hot band in the US have held below \$23 per hundredweight (\$460 per short ton) since Friday July 17, and lead times at some mills were reported as short as one week – indicating that US buyers have no reason to actively seek out foreign products, market participants said.

Fastmarkets' daily steel hot-rolled coil index, fob mill US was calculated at \$22.67 per cwt (\$453.40 per short ton) on Wednesday July 22, down by 3.7% from \$23.53 per cwt two weeks earlier on July 8.

Several US flat-rolled steel mills announced a \$2-per-cwt (\$40-per-ton) price rise this week, but the increases appeared to have little immediate impact – a reflection of how weak the sheet market has been domestically.

Barring any major disruptions in the domestic supply chain that would force buyers to source materials overseas, most market participants agreed that imports have remained uncompetitive continued >



and likely will remain so, given ample supply and short lead times at some mills.

#### Hot-rolled coil

Fastmarkets assessed the price for steel hot-rolled coil, import, cfr Houston at \$450-480 per ton (\$22.50-24 per cwt) on Wednesday, down from \$460-500 per ton two weeks ago.

Inputs received were representative of offers and deals from South Korea, Mexico and Argentina for unspecified or September arrival.

#### Cold-rolled and galvanized

Fastmarkets' price assessment for steel cold-rolled coil, import, cfr Houston rose to \$650-680 per ton (\$32.50-34 per cwt) on Wednesday, widening upward up from \$640-660 per ton previously.

Inputs were representative of offers from Europe and Southeast Asia for unknown delivery time.

The price assessment for foreign cold-rolled products went up as a result of the higher inputs received, but sources said there was little evidence that the market had strengthened.

At the same time, Fastmarkets assessed the price for steel hot-dipped galvanized 0.012-0.015 inch G30, cfr Houston at \$820-860 per ton (\$41-43 per cwt) on Wednesday, widening down from \$840-860 per ton previously.

One East Coast trader source said that light-gauged hot-dipped

galvanized products have remained the most attractive offshore products, pointing to surging import volumes in June.

The US imported 209,674 tonnes of hot-dipped galvanized sheet and strip in June, up by 68.7% from 124,305 tonnes in May, according to license data from the US Commerce Department's Enforcement and Compliance division, last updated on July 22.

#### Plate

Fastmarkets' price assessment for steel medium plate, import, cfr Houston was again unchanged at \$600-640 per ton (\$30-32 per cwt) on Wednesday because few inputs were received. *Michael Cowden in Chicago contributed to this report.* 

MUYAO SHEN



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# Carbon steel long products

#### FASTMARKETS' KEY LONG STEEL PRICES

	Price	Change <sup>†</sup>	Assessed
Rebar, China export index (fob main China port) (\$/t)	470-470	1.08%	▲ 24 Jul 20
Rebar, EU import (cfr main EU port, northern Europe) (€/t)	410-430	-0.59%	▼ 22 Jul 20
Rebar, EU import (cfr main EU port, southern Europe) (€/t)	410-420	-0.6%	▼ 22 Jul 20
Rebar, CIS exports (fob stowed main Black Sea port) (\$/t)	420-430	3.03%	▲ 20 Jul 20
Rebar, Turkish exports (fob main Turkish port) (\$/t)	415-425	0.6%	▲ 23 Jul 20
Rebar, UAE imports (cfr Jebel Ali) (\$/t)	455-460	0%	21 Jul 20
Rebar, US imports (cfr Gulf) (\$/short ton)	540-560	2.8%	▲ 22 Jul 20
Rebar, US domestic (fob mill) (\$/short ton)	560-560	0%	22 Jul 20
Rebar, South East Asia imports (cfr Singapore) (\$/t)	420-430	0%	20 Jul 20
Rebar, Southern Europe exports (fob main port) (€/t)	390-410	0%	22 Jul 20

#### DNEPR

#### ArcelorMittal Kryvyi Rih shows only minor steel output dips in H1 despite tough market

Ukrainian integrated steel producer ArcelorMittal Kryvyi Rih (AMKR) managed to show only a minor drop in its outputs of crude and finished steel in January-June 2020, despite the unfavorable conditions in the global steel markets due to the effects of Covid-19.

"In general, production of the main types of products was at 90-95% of the planned indicators. At the beginning of the second quarter, the level of production fell to 80%, but later we managed more than 90%," AMKR chief executive officer Mauro Longobardo said in a performance report released on Wednesday July 22.

Hot metal output at AMKR was 2.5 million tonnes in the first six months of 2020, down by 3.85% from 2.6 million tonnes in the corresponding period last year.

Crude steel output dropped by 7.69% or 200,000 tonnes to 2.4 million tonnes in the half-year, while rolled steel output slipped by 4.35% year-on-year to 2.2 million tonnes.

Billet and rebar were the most-traded products for AMKR, which focuses mainly on export markets, supplying around 80% of its products to foreign customers.

Fastmarkets' price assessment for steel reinforcing bar (rebar), export, fob Black Sea, CIS, averaged \$404.42 per tonne in the first half of 2020, against \$466.05 per tonne in the corresponding period last year.

In the most recent assessment on July 20, it was \$420-430 per tonne, up from \$410-415 per tonne a week before.

Fastmarkets' steel billet index, export, fob Black Sea, CIS, averaged \$371.43 per tonne in the first six months of 2026, compared with \$431.72 per tonne in the same period last year. On July 23, the index was \$385 per tonne, unchanged day on day. VLADA NOVOKRESHCHENOVA

#### BURSA

# EGYPT STEEL BILLET, REBAR: Imported billet prices increase with new offers, demand still weak

Steel billet Import prices increased in Egypt in the week to Thursday July 23 because of higher offers and despite weak demand, sources told Fastmarkets.

CIS-origin billet was offered this week at \$405-410 per tonne cfr, and buyers said that \$380 per tonne cfr was likely to be a workable price for the material. However, CIS sellers did not accept the low-priced bids.

Traders said it was impossible to import billet because of low rebar prices in the domestic market and the 16% safeguard duty on billet imports.

In addition, a sixth-month ban on construction activity was introduced on May 25, and while the ban does not include government-funded projects, these alone are not enough to support rebar local consumption.

In addition, Eid Al-Adha starts at the end of July - or at the beginning of August - so buyers are unwilling to book material before the holiday, sources said.

No billet deals were heard because of the weak rebar consumption.

Fastmarkets' weekly price assessment for steel billet, import, cfr main port Egypt, was \$380-400 per tonne on Thursday, widening upward from \$380-400 per tonne on July 16.

#### Domestic rebar

Egyptian rebar producers were offering rebar at E£9,200-9,700 (\$574-604) per tonne ex-works including 14% VAT this week, unchanged since early July.

Fastmarkets' weekly price assessment for steel reinforcing bar (rebar), domestic, exw Egypt, was E£9,200-9,680 per tonne ex-works on July 23, unchanged week-on-week.

SERIFE DURMUS

#### SHANGHAI

#### CHINA REBAR: Futures fall after Beijing orders US to close consulate in Chengdu

Rebar futures in China fell on Friday July 24 after Beijing ordered the United States to close its consulate in Chengdu, in the East Asian country's southwest, in response to the US-ordered closure of the Chinese consulate in Houston, but spot prices held steady amid stable trading activity.

#### Domestic

- Eastern China (Shanghai): 3,610-3,640 yuan (\$515-520) per tonne, unchanged
- Northern China (Beijing) weekly assessment: 3,640-3,680 yuan per tonne, down by 10-20 yuan per tonne

China's retaliation has raised concerns of more friction with the US, which led to rebar futures during the day.

But end-user demand in the spot rebar market was stable, which kept prices from mirroring movements in the futures market.

Eastern China's rebar prices ended this week 50 yuan per tonne higher on gains made several days ago.

#### Export

- Fastmarkets' steel reinforcing bar (rebar) index export, fob China main port: \$470 per tonne, unchanged
- China's rebar export market was stagnant this week.

continued >

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# Carbon steel long products

Chinese mills' workable prices were estimated at \$465-475 per tonne fob during the day, which are much higher than those from other suppliers.

For instance, Fastmarkets' weekly price assessment for steel reinforcing bar (rebar) export, fob main port Turkey was \$415-425 per tonne on Thursday, widening upward by \$5 per tonne from \$415-420 per tonne a week earlier.

#### Market chatter

"Trading houses stopped replenishing their inventories over the past two days after actively purchasing in the first half of this week to wait and see. The China-US tensions might continue to hinder restocking demand in the near term," a trader in Shanghai said.

#### Billet

As at 3pm, billet was being traded at 3,420 yuan per tonne including value-added tax in Tangshan, unchanged from a day earlier.

Billet imports were offered at \$425-435 per tonne cfr China, and market sources estimated workable prices at \$425-430 per tonne cfr.

High scrap prices are causing electric-arc furnace operators to lose money and cut production while re-rollers that consumes billet are still profiting. As such, demand for billet import remains strong, a trader in eastern China said.

#### Shanghai Futures Exchange

The most-traded October rebar futures contract closed at 3,747 yuan per tonne on Friday, down by 59 yuan per tonne from a day earlier.

JESSICA ZONG

#### NEW YORK US domestic rebar price flat, market sentiment stable

The price for steel reinforcing bar in the United States held firm week on week on steady demand from the construction end market, market participants said.

#### US market

Fastmarkets' price assessment for steel reinforcing bar (rebar), fob mill US held at \$28 per hundredweight (\$560 per short ton) on Wednesday July 22, unchanged after falling to this level on July 15.

"It seems to have stalled in that [\$28-per-cwt] spot," one distributor said of current spot prices.

Still, one consumer noted that demand from the non-building segment of the construction end market remains robust.

"It's still pretty good, we're still seeing a lot of opportunities to bid on things," this source said.

Indeed, total construction starts rose by 6% month on month in June, marking the "second consecutive monthly gain in construction starts following the Covid-19 induced declines in March and April," according to Dodge Data & Analytics' latest report on domestic construction activity.

"In June, nonresidential building starts gained 6%, and starts in the nonbuilding sector moved 27% higher," the report noted. "Residential starts, by contrast, fell 6% during the month."

Despite the increased activity, other sources cited concerns about

the Covid-19 pandemic, pointing to spiking cases in certain regions of the US in recent weeks.

"We're doing well, we're still shipping a tremendous amount," a buyer source said, although that source also noted weakness in regions facing rising novel coronavirus infections, such as Texas and Florida.

"We are still busy; however, some customers are seeing or predicting some slowdown in the future if Covid [continues to spread]," one trader source said.

#### Imports

Fastmarkets assessed the price for steel reinforcing bar (rebar), import, loaded truck Port of Houston for immediate delivery at \$540-560 per ton (\$27-28 per cwt) on July 22, widening upward from \$520-550 per ton one week earlier.

Imported stock material at the Port of Houston is currently being offered between \$27 per cwt and \$28 per cwt loaded truck, sources said.

As of July 22, the United States was licensed to import 110,612 tonnes of rebar from overseas producers this month, up by 44.4% from a total of 76,603 tonnes in June, according to the latest license data from the US Department of Commerce's Enforcement and Compliance division.

Thus far, the top rebar exporters to the US market for July are Turkey (57,888 tonnes), Mexico (14,718 tonnes) and Portugal (10,402 tonnes).

The volume of Turkish rebar is not surprising, as sources told Fastmarkets recently that strong domestic construction activity and a less hostile trade environment between the two countries has prompted Turkish exporters to increase shipments to the US market.

PATRICK FITZGERALD



# Carbon steel semifinished products

#### FASTMARKETS' KEY SEMI-FINISHED STEEL PRICES

	Price	Change <sup>†</sup>	Assessed
Slab, CIS exports (fob stowed main Black Sea port) (\$/t)	385-390	2.65%	▲ 20 Jul 20
Slab, Brazil export (fob main port) (\$/t)	380-390	1.99%	▲ 24 Jul 20
Slab, South East/East Asia (cfr main port) (\$/t)	400-410	0%	20 Jul 20
Slab, Iran export (fob Iranian port) (\$/t)	375-380	0%	22 Jul 20
Billet, CIS exports index (fob Black Sea port) (\$/t)	385	2.67%	▲ 24 Jul 20
Billet, Turkish exports (fob main Turkish port) (\$/t)	405-410	5.16%	▲ 23 Jul 20
Billet, Turkish imports (cfr main Turkish port) (\$/t)	395-405	3.9%	▲ 23 Jul 20
Billet, UAE imports (cfr Jebel Ali) (\$/t)	410-415	1.85%	▲ 21 Jul 20
Billet, Latin American exports (fob stowed main Latin America port)			
(\$/t)	365-370	0%	24 Jul 20
Billet, Indian exports (fob main India port) (\$/t)	395-400	0%	24 Jul 20
Billet, South East Asia imports (cfr main port) (\$/t)	420-420	3.07%	▲ 24 Jul 20
Billet, Iran export (fob Iranian ports) (\$/t)	380-385	2%	▲ 22 Jul 20
Billet, Egypt imports (cfr main port) (\$/t)	380-405	0.64%	▲ 23 Jul 20

#### SINGAPORE

#### Steel billet prices in Southeast Asia jump despite slower Chinese buying

Offer prices for steel billet imported into Southeast Asia have risen sharply over the past week despite more stable prices for cargoes sold into China, market participants told Fastmarkets on Friday July 24.

Chinese steel mills have continued to procure imports of billet over the past week but, unlike the preceding seven days, sales prices have stopped rising and have instead settled into a stable pattern.

China was providing an outlet for billet sellers at prices comfortably above those in Southeast Asia, where mills had been forced to raise their bid prices earlier in the week. But offer prices remained too high for most buyers in the region, which meant that no new deals were closed in Southeast Asia.

Fastmarkets' daily price assessment for steel billet, import, cfr Southeast Asia, which mainly looks at 120-150mm 5sp grade billet sold into the Philippines, was \$420 per tonne on July 24. This was unchanged day on day but up from \$405-410 per tonne cfr one week before.

Offers of 5sp-grade billet to the Philippines were heard at \$420-435 per tonne cfr on Friday from a range of origins. Japanese material was offered during the week at \$430 per tonne cfr, while billet from Russia's Far East province was offered at \$420-425 per tonne cfr.

Even induction furnace (IF) billet from Asia, which is considered of lower quality than blast furnace (BF) material, was offered into the market this week at \$420-425 per tonne cfr Manila, Fastmarkets heard. Some sellers have taken a wait-and-see approach to the market following large volumes of sales to China in recent weeks, according to market sources.

Vietnamese billet offers were heard at a surprising price of \$430 per tonne fob on Monday, up from deal prices of \$426 per tonne cfr China in recent weeks. Moreover, one Far East Russian seller had ceased offering into the market over the past week, sources said.

In China, a mill was heard to have purchased 25,000 tonnes of Russia Far East billet at \$412 per tonne cfr, while another deal saw a Chinese consumer buying 30,000 tonnes of Indonesian BF material at \$426 per tonne cfr during the week.

Chinese buyers can pay more for billet from the Association of South East Asian Nations (Asean) because such material does not incur the 2% import duty collected on material from other origins.

#### All quiet on Asia's Southeastern front

The latest billet deals closed to the Philippines, earlier this month and in late June, were transacted at \$400-405 per tonne cfr for BF-grade material, but such prices were now only a memory for consumers.

Most buyers in Southeast Asia raised bid their prices for 5sp billet to \$410-415 per tonne cfr over the past week, from \$400-405 per tonne cfr previously, market sources said, but the gap between bids and offers remained and made new deals fairly unlikely.

"Buyers are still expecting \$410-415 per tonne cfr Manila, but this price is available nowhere in the market," a Singapore-based trader said.

"Offers are all over the place but I have not really heard anything on sales yet," an Indonesian trader said. "Indonesia and Thailand are still quiet. Both are struggling with sales of finished steel goods, let alone increasing their sales prices."

Inventories are full at mills in the Philippines, reducing demand for new bookings, a trader from the country said.

But ultimately, the strength of China means that anyone else looking to buy billet must do so at China's prices.

"I guess it is just a matter of time for customers to start paying higher prices - unless, of course, the markets correct or, worse, crash first," a second Philippines trader said.

"[Sellers] are aiming for higher prices," an East Asian trader told Fastmarkets, "but China is the best option for them." **LEE ALLEN** 

#### SHANGHAI

### World crude steel production down 7% year on year in June

World crude steel production for the 64 countries reporting to the World Steel Association (Worldsteel) fell 7% year on year in June 2020.

Global output was 148.30 million tonnes in June 2020 down from 159.54 million tonnes in the same month in 2019.

China contributed the most to global crude steel production both in June and in the first six months of 2020, producing a total of 91.58 million tonnes of crude steel in June 2020, up 4.5% from 87.67 million tonnes in June 2019.

Turkey and Ukraine also reported increases in crude steel output in June 2020 compared to the same month in 2019.

India, Japan, South Korea, Germany, Italy, France, Spain, the United States, and the Commonwealth of Independent States (CIS) all witnessed a decrease in crude steel production in June 2020 compared with June 2019.

The CIS produced 7.95 million tonnes of crude steel in June 2020, down 5.0% on June 2019, while India produced 6.9 million tonnes of crude steel in June, down 26.3% compared with June 2019.

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# Carbon steel semifinished products

In the first six months of 2020, world steel production was 873.13 million tonnes, down by 6% compared with the same period in 2019. with output down in all regions.

Europe took the biggest hit from the Covid-19 pandemic, with crude steel output down 16.4% year on year to 68.28 million tonnes in the first half of 2020.

And at 642.00 million tonnes in the first half of 2020, output in Asia was down by 6% in the same comparison.

North America's crude steel production in the first half of 2020, meanwhile, was 50.17 million tonnes, a decrease of 17.6% compared with the first half of 2019.

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# Ferrous scrap

#### FASTMARKETS' KEY FERROUS SCRAP PRICES

	Price	Changet	Assessed
MB Index CFR Turkey HMS 1&2 (80:20) (North Europe material)	265.66	3.8%	▲ 24 Jul 20
MB Index CFR Turkey HMS 1&2 (80:20) (USA material)	271.24	3.72%	▲ 24 Jul 20
MB Index Shredded India import cfr (\$/t)	285.96	1.6%	▲ 24 Jul 20
HMS 1&2 ferrous scrap index (80:20) fob Rotterdam (\$/t)	248.78	4.44%	▲ 24 Jul 20
HMS 1&2 (80:20) UK export fob main port (\$/t)	247-252	4.18%	▲ 24 Jul 20
HMS 1&2 (80:20) Taiwan import cfr (\$/t)	243-245	2.09%	▲ 24 Jul 20
US Index domestic Midwest No1 busheling (\$/gross ton)	278.02	-14.16%	▼ 10 Jul 20
US Index domestic Midwest shredded (\$/gross ton)	241.67	-6.31%	▼ 10 Jul 20
Vietnam ferrous scrap (\$/t)	270-275	3.81%	▲ 24 Jul 20

#### SINGAPORE

### BANGLADESH STEEL SCRAP: Import offers climb despite weak steel demand

Steelmakers in Bangladesh are faced with increasingly high offer prices for imported scrap despite dismal domestic steel demand, market sources told Fastmarkets on Thursday July 23.

Higher sales prices to Turkey and Taiwan have left US scrap exporters targeting higher bulk prices into Bangladesh.

Offer prices for US West Coast-origin cargoes of HMS 1&2 (80:20) rose to \$290-295 per tonne cfr on Thursday, from \$280 per tonne cfr last week.

At least one steel mill is in the market for a deep-sea bulk cargo and a bid was heard at \$285 per tonne cfr on Thursday, up from last week's bid level of below \$270 per tonne cfr.

Fastmarkets' price assessment for bulk cargoes of steel scrap, HMS 1&2 (80:20), deep-sea origin, import, cfr Bangladesh was \$280-290 per tonne on Thursday July 23, up from \$270-278 per tonne on July 16.

Two bulk cargoes of US West Coast-origin shredded scrap of 30,000 tonnes each were sold to a Bangladeshi steelmaker at \$270 per tonne cfr in the first week of July. These deals join a transaction for 32,000 tonnes of US-origin shredded scrap concluded at \$280-283 per tonne cfr Bangladesh, as reported by Fastmarkets last week.

The market was also ablaze with rumors of India paying \$270-275 per tonne cfr for shredded scrap in bulk from the US West Coast last week, but this was not confirmed at the time of publication.

#### Market flooded

"The Bangladesh market is down. Production is low and at a minimum, and mills don't need material, only what they already have," one Bangladesh steelmaker source told Fastmarkets.

"Government work and infrastructure projects are not going on," he said, predicting that such projects would likely restart en masse in late September and that decision would prompt a fresh wave of demand for import scrap.

"We don't need to buy until September, we have lots of material," he added.

"I doubt buyers will pay the current offer prices. The Bangladesh market is slow," one exporter source said.

The continued Bangladeshi Covid-19 crisis and a severe monsoon flood in the northeast of India and much of Bangladesh were blamed for squeezing steel demand this week.

"When it rains in Bangladesh, it pours," the exporter said. "There is a massive flood going on and the government is concentrating on Covid-19 and dealing with the flood rather than doing any building projects," he said.

The low demand situation has led to one Chittagong-based steelmaker "dumping" steel billet in the market at the same price as steel from Dhaka-based mills, he said.

The mill sold several thousand tonnes of billet at 39,000-40,000 Bangladeshi taka (\$452-464) per tonne into the Dhaka market, he said.

Chittagong-based mills - which are known as the "Big Four" in Bangladesh - usually command a premium over Dhaka mills due to their reputation for being of higher-quality, but this is mostly likely just because they are much larger steelmakers than their Dhaka counterparts, the exporter said.

But despite the low demand, sell-side market participants felt that prices would have to keep rising.

"Turkey is approaching \$270 per tonne cfr for HMS 1&2 (80:20), and bulk freights are higher, so Bangladesh [will be] probably closer to \$300 per tonne cfr," one US trading source said.

"There is no possibility that scrap prices will go down. In September and October, scrap supply shortages will raise prices," the exporter source said.

Wintry conditions will worsen the already-low availability of shredded scrap in areas like the United Kingdom, he added.

#### LEE ALLEN

#### SINGAPORE

### TAIWAN STEEL SCRAP: Buyers unsuccessful in halting price gains

Taiwanese buyers bid lower for imported containerized ferrous scrap over the past week, but were largely unsuccessful in halting price gains.

Fastmarkets' daily price assessment for containerized cargoes of steel scrap, HMS 1&2 (80:20), US material import, cfr main port Taiwan was \$243-245 per tonne on Friday July 24, unchanged from a day earlier but up by \$5 per tonne from \$238-240 per tonne cfr Taiwan a week earlier.

Spot prices for containerized cargoes of heavy melting scrap 1&2 (80:20) from the United States West Coast increased throughout the week even though buyers attempted to push down prices.

There were transactions done at \$242 per tonne and \$243 per tonne cfr Taiwan by Wednesday. Buyers then tried to reduce bids, hoping that prices had peaked.

But transactions were concluded at even higher levels on Thursday at \$245 per tonne cfr Taiwan.

While some larger buyers did not purchase at levels as high as that, they were unable to prevent the price increases despite keeping their bids low.

"There's no way anyone can buy cargoes at lower prices next week, it is likely that the price increases will continue," a Taiwanese trader told Fastmarkets on Thursday.

Offers were at \$245 per tonne cfr Taiwan for containerized HMS 1&2 (80:20) materials from the US. Materials from South and Central America were offered at \$230-240 per tonne cfr Taiwan.

Market sources in Taiwan also said they expect domestic prices to track the increase in import prices, especially with the current NT\$7,200 (\$245) per tonne domestic price lagging behind that in the import market.

Containerized shredded materials from the US West Coast was continued >

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# Ferrous scrap

sold at \$260 per tonne cfr Taiwan.

A H1&H2 (50:50) cargo was sold at \$257 per tonne cfr Taiwan on Tuesday, while a 3,000-tonne Japanese H1&H2 (50:50) cargo was sold at \$255 per tonne cfr Taiwan on Wednesday.

Offers were at \$255-260 per tonne cfr Taiwan.

PAUL LIM

#### SINGAPORE

### VIETNAM STEEL SCRAP: Offers for Japanese scrap surge amid global price rises

Offers for Japanese steel scrap in key Vietnam import markets surged this week together with price increases in other parts of the world.

"The sustained price increases in scrap are catching some people by surprise. I am actually getting a little worried about the prices," a Vietnamese buyer told Fastmarkets on Wednesday July 22.

There was a transaction at \$255 per tonne cfr southern Vietnam on Thursday July 23 for a 3,000-5,000 tonne cargo. Other market sources said there were negotiations for spot cargoes at about \$255-260 per tonne cfr southern Vietnam.

A bulk Japanese H2 cargo was sold at \$265 per tonne cfr northern Vietnam, sources said.

Sellers of Japanese scrap increased their offers to \$260-270 per tonne cfr Vietnam this week, up from \$250-255 per tonne cfr Vietnam last week.

Bids came in at \$250-255 per tonne cfr Vietnam.

Offers for high-grade Japanese HS were at \$290 per tonne cfr Vietnam.

Hong Kong-origin H1&H2 (50:50) scrap was on offer at \$260 per tonne cfr southern Vietnam, sources said.

Fastmarkets' weekly price assessment for steel scrap H2, Japan-origin import, cfr Vietnam was \$255-260 per tonne on Friday, up by \$5-10 per tonne from \$245-255 per tonne on July 17.

Bulk cargoes of HMS 1&2 (80:20) from the United States West Coast were offered at \$275 per tonne cfr Vietnam in the first half of the week. And bulk shredded scrap was offered at \$280 per tonne cfr Vietnam, while bulk plate & structural (P&S) scrap was offered at \$285 per tonne cfr Vietnam.

However, offers disappeared towards the end of the week.

"Sellers of deep sea bulk cargoes are aiming to offer at higher [prices] next week, instead of selling lower this week," a trader in east Asia told Fastmarkets on Friday July 24.

Fastmarkets' weekly price assessment for deep-sea bulk cargoes of steel scrap, HMS 1&2 (80:20), cfr Vietnam was \$270-275 per tonne on Friday, up \$10 per tonne week on week.

Bids for containerized cargoes of US HMS 1&2 (80:20) were at \$240 per tonne cfr southern Vietnam this week, sources told Fastmarkets, although there were no sellers willing to offload materials at that price.

Containerized US-origin busheling was offered at \$270 per tonne cfr southern Vietnam.

#### Other regions

Indonesia

- Price estimate at \$290 cfr containerized US' West Coast-origin busheling
- Bid at \$297 cfr bulk Japanese HS
- Price estimate at \$300 cfr bulk Japanese HS

#### PAUL LIM

#### NEW YORK

### US copper scrap discounts, brass scrap tags up

Demand for copper scrap material in the United States remained lackluster this week; the market is not short on copper scrap, sources said, noting that pressured overseas markets have weighed further on already weak domestic demand.

"There's severe pressure on the consumer market overseas," a consumer said. "Our end markets aren't valuable enough."

Fastmarkets' assessment of the discount for copper scrap No1, delivered to refiners increased by 2 cents to 15-17 cents per lb on Wednesday July 22 from 13-15 cents per lb previously. The discount for copper scrap No2 copper, delivered to refiners rose by 1 cent to 30-32 cents per lb from 29-31 cents per lb one week earlier.

"[It seems there's] very little interest in consuming copper at this time," a US seller said.

US exports of copper scrap edged up in May, to 64,829 tons from 58,828 tons in April; for the first five months of the year, however, volumes fell by 21.6% compared with January-May 2019.

In particular, shipments to China - traditionally the biggest importer of US copper scrap - fell sharply in the year to date as a result of Covid-19 restrictions and the Asian country's quota system.

For the January-May period, US copper scrap exports to China dropped by 31.4% year on year, while those to Malaysia and Canada fell by 36.1% and 23.7% respectively in the same comparison.

"There's a little widening of the [copper] spreads, and brass [prices] are going up. [lt's] what we were expecting due to demand," a trader said.

The discount for copper scrap light copper, delivered to brass ingot makers rose by 1 cent to 34-37 cents per lb, up from 33-36 cents per lb previously.

All other discounts remained unchanged.

Meanwhile, brass scrap prices continued to move upward this week, with US sources noting that support has come in part from high prices for red brass in the European market.

"Prices are going up because the refineries in Europe are paying a lot for red brass," the consumer source said.

Fastmarkets assessed the No1 comp solids buying price, delivered to brass ingot makers at \$1.95-1.99 per lb (up by 4 cents) and the comp borings, turnings buying price, delivered to brass ingot makers at \$1.90-1.93 per lb (up by 3 cents) on Wednesday.

Fastmarkets' assessment of the buying price for copper scrap radiators, delivered to brass ingot makers widened upward to \$1.66-1.70 per lb from \$1.63-1.66 per lb previously, while that for yellow brass solids, delivered to brass ingot makers rose to \$1.60-1.63 per lb from \$1.59-1.61 per lb one week earlier.

#### JENNY STEWART



# Ferrous raw materials

FASTMARKETS KEY IRON ORE PRICES				
cfr main China port \$ per dry metric tonne				
	Price	Change <sup>†</sup>		Assessed
Iron ore index (62% fe)	109.39-109.39	-0.83%	▼	24 Jul 20
Iron ore pellet index cfr Qingdao (65% fe)	125.67-125.67	-2.03%	•	24 Jul 20

#### SINGAPORE

# IRON ORE DAILY: Seaborne prices follow futures downturn amid rising China-US trade tensions

Seaborne iron ore prices fell on Friday July 24, following a downturn in the futures market amid growing concerns over escalating tensions between China and the United States.

#### Fastmarkets iron ore indices

62% Fe fines, cfr Qingdao:

\$109.39 per tonne, down \$0.73 per tonne.

#### 62% Fe low-alumina fines, cfr Qingdao:

\$111.56 per tonne, down \$1.24 per tonne.

#### 58% Fe fines high-grade premium, cfr Qingdao:

\$97.56 per tonne, down \$2.01 per tonne.

#### 65% Fe Brazil-origin fines, cfr Qingdao:

\$120.80 per tonne, down \$0.60 per tonne.

#### 62% Fe fines, fot Qingdao:

846 yuan per wet metric tonne (implied 62% Fe China Port Price: \$111.67 per dry tonne), down by 19 yuan per wmt.

#### **Key drivers**

The iron ore futures market lost ground at the close on Friday after a downturn throughout the whole trading session, with the Dalian Commodity Exchange's most-traded September futures contract down by 2.1%.

A similar fall took place in iron ore swaps in the Singapore Exchange, where the most-traded August, September and October contracts had all fallen by more than \$2 per tonne by 6pm.

Sources said the worsening US-China situation was likely to be the main reason for the depressed market sentiment.

"China has ordered the closure of the US consulate in Chengdu as a retaliatory measure [to the US closure of China's consulate in Houston, Texas, and] the potential for [an all-out] trade war is affecting market sentiment... resulting in a downtrend in both the seaborne and futures markets," a trading source in Shanghai said.

In addition to the worsening sentiment, China's tougher environmental controls and flooding in the country have also affected demand for iron ore, sources said.

"Tangshan's regional government has not removed the restrictions on sintering, which were reinforced on July 19," a trading source in southern China said. "And considering the floods in southern China are continuing, demand for iron ore - especially for iron ore fines - is likely to be weak in the short term."

#### Quote of the day

"There is still a lot of strength in iron ore [given] that mills are still producing high volumes of steel. For now, the drop in futures and swaps is just following the trend in the financial market, but it should shrug off the drop and eventually pick up again," a trading source in Singapore told Fastmarkets.

#### Trades/offers/bids heard in the market

- BHP, tender, 90,000 tonnes of 63% Newman Blend lump, traded at the August average of a 62% Fe index plus a lump premium of \$0.0400 per dry metric tonne unit (dmtu), laycan August 21-30.
- Beijing Iron Ore Trading Center (Corex), 170,000 tonnes of 62% Fe
  Pilbara Blend fines, traded at the August average of a 62% Fe index plus a premium of \$2 per tonne, laycan August 22-31.
- Corex, joint cargo, 140,000 tonnes of 62% Fe Pilbara Blend fines, traded at the August average of a 62% Fe index plus a premium of \$1.60 per tonne; and 50,000 tonnes of 62.3% Fe Pilbara Blend lump, traded at the August average of a 62% Fe index and its lump premium, plus a premium of \$0.10 per tonne, laycan August 12-21.
- Corex, joint cargo, 140,000 tonnes of 62% Fe Pilbara Blend fines, traded at the August average of a 62% Fe index plus a premium of \$1 per tonne; and 50,000 tonnes of 62.3% Fe Pilbara Blend lump, traded at the August average of a 62% Fe index and its lump premium, plus a premium of \$0.10 per tonne, laycan August 24-September 2.
- Corex, joint cargo, 110,000 tonnes of 60.5% Fe Jimblebar fines, traded at the September average of two 62% Fe indices at a premium of \$0.30 per tonne; and 80,000 tonnes of 61.5% Fe Yandi fines, traded at the September average of two 62% Fe indices plus a premium of \$0.30 per tonne, laycan September 26-October 5.
- Corex, 120,000 tonnes of 65% Fe Iron Ore Carajas fines, offered at \$121.30 per tonne cfr China, laycan July 21-30 (bid made at \$117 per tonne cfr).
- Corex, 170,000 tonnes of 62% Fe Pilbara Blend fines, offered at the August average of a 62% Fe index plus a premium of \$1.70 per tonne, laycan August 24-September 2.
- Corex, 170,000 tonnes of 62% Fe Pilbara Blend fines, offered at the July average of a 62% Fe index plus a premium of \$3 per tonne, laycan July 22-31.
- Corex, 70,000 tonnes of 63% Fe Newman Blend lump, offered at the August average of a 62% Fe index plus a lump premium of \$0.0600 per dmtu, laycan July 16-25.
- Corex, 50,000 tonnes of 63% Fe Pilbara Blend lump, offered at the August average of a 62% Fe index plus a lump premium of \$0.0600 per dmtu, laycan July 16-25.
- Corex, joint cargo, 70,000 tonnes of 60.5% Fe Jimblebar fines, offered at the August average of two 62% Fe indices at a premium of \$0.40 per tonne; and 90,000 tonnes of 60.8% Fe Mining Area C fines, offered at the August average of two 62% Fe indices plus a premium of \$0.40 per tonne, laycan August 26-September 4.
- Corex, joint cargo, 110,000 tonnes of 57% Fe Yandi fines, offered at the September average of two 62% Fe indices plus a premium of \$0.20 per tonne; and 80,000 tonnes of 62.3% Fe Newman Blend lump, offered at the September average of a 62% Fe index and its lump premium, plus a premium of \$0.20 per tonne, laycan September 6-15.
- BHP, Globalore, 90,000 tonnes of 58% Fe Yandi fines, offered at the September average of two 62% Fe indices plus a discount of \$2.15 per tonne, September delivery (bid made at the September average of two 62% Fe indices plus a discount of \$3 per tonne).

#### Port prices

Pilbara Blend fines were traded at 840-870 yuan per wmt in



## Ferrous raw materials

Shandong province and Tangshan and Tianjin city on Friday, compared with 840-855 yuan per wmt on Thursday.

The latest range is equivalent to about \$110.87-114.97 per tonne in the seaborne market.

#### Dalian Commodity Exchange

The most-traded September iron ore futures contract closed at 827.50 yuan per tonne on Friday, down by 18 yuan per tonne, or 2.1% from Thursday's close.

Alex Theo in Singapore contributed to this article. **ZIHAO YU** 

#### KIEV

### CIS PIG IRON: Market firm on Chinese demand as Turkish interest revives

The market for pig iron exports from the Commonwealth of Independent States (CIS) was firm during the week ended Thursday July 23, on continued demand in China and resumed interest in Turkey.

Fastmarkets' weekly price assessment for high-manganese pig iron, export, fob main port Black Sea, CIS, was \$319-324 per tonne on July 23, widening from \$320-323 per tonne a week before.

One sale of 60,000 tonnes of Ukraine-origin pig iron was heard to China at \$355 per tonne cfr. That would be equivalent to about \$324 per tonne fob Black Sea.

Another sale of 10,000 tonnes of pig iron from Ukraine was made to Turkey at \$331-332 per tonne cfr - about \$319-320 per tonne fob.

"Steel slab offer prices are high in Turkey and [hot-rolled coil] is going well - that is why some demand for pig iron has appeared in Turkey," one trader told Fastmarkets.

No demand was reported in Italy because traders "need to think more about what to do in the near future."

Offers of the CIS-origin pig iron were reported at \$335-340 per tonne cfr, close to \$320 per tonne fob, although the latest sale was made at \$328 per tonne cfr in early July.

Fastmarkets' weekly price assessment for pig iron, import, cfr Italy, was \$328-335 per tonne on Thursday, widening upward from \$328-330 per tonne a week earlier.

And Fastmarkets' price assessment for low-manganese pig iron, export, fob main port Baltic Sea, CIS, was \$310-315 per tonne on July 23, narrowing downward from \$310-317 per tonne a week before.

A week earlier, the top end of the range reflected approximate offers from Kosaya Gora, while this week it showed the maximum workable level estimated by other sources.

#### MARINA SHULGA

#### SHANGHAI

### COKING COAL DAILY: Seaborne prices relatively stable due to Chinese demand

Seaborne coking coal prices were relatively stable across the board on Friday July 24, with Chinese steel mills that still have import quotas preferring higher-quality material, sources told Fastmarkets.

#### Fastmarkets indices

**Premium hard coking coal, fob DBCT:** \$108.22 per tonne, down \$0.80 per tonne

Premium hard coking coal, cfr Jingtang:

\$119.39 per tonne, up \$0.70 per tonne

#### Hard coking coal, fob DBCT:

\$88.09 per tonne, unchanged

#### Hard coking coal, cfr Jingtang:

\$100.25 per tonne, down \$0.02 per tonne

An 85,000-tonne August-laycan cargo of premium low-volatility hard coking coal was heard traded at \$121 per tonne cfr China on Friday, although the seller can replace it with a similar brand at the same price or with another brand with slightly better quality at \$122 per tonne cfr China, sources told Fastmarkets.

"A steel mill in northeastern China bought the cargo of premium low-vol hard coking coal from a trader. The prices are in line with my estimates and quite stable now," a buyer source from China said. "If nothing drastic happens, premium hard coking coal prices should [be stable] for some time."

A trader source from the country implied that major Chinese steel mills had demand for premium low-vol hard coking coal.

"Some steel mills still have import quotas for seaborne material, and premium low-vol hard coking coal is their first choice," the source said. "Hard coking coal and pulverized coal injection (PCI) materials would be less considered due to China's tight import restrictions on seaborne coking coal."

A trader source from India sad that predicted that seaborne premium prices would be flat in general for the rest of this month, but said that "as long as China buys premium hard coking coal... its price will be supported."

A buyer source from India, meanwhile, said that on Wednesday a late-August laycan Panamax vessel of semi-soft coking coal material was sold to an Indian steel mill at \$82 per tonne cfr India. The particular brand was favored by steel mills there, the source added without naming the brand.

#### Dalian Commodity Exchange

The most-traded September coking coal contract closed at 1,237 yuan (\$176.60) per tonne on Friday, up by 8 yuan per tonne.

The most-traded September coke futures contract closed at 1,979 yuan per tonne, down by 35 yuan per tonne.

LI MIN

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- Trader's Edge covers a surge in Copper options trading, including how traders are watching for rising volume and narrowing bid/offer spreads.
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- Both futures and forwards offer a mechanism to manage risk and investment exposure in the commodity markets. The structure of these two types of markets is subtly different, and these

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# Prices

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

NEW YORK FUTURES			
	Price	Change <sup>†</sup>	Assessed
Comex: Copper high grade cents/lb			
Settlement	292.45	1.33%	▲ 23 Jul 20
Open interest	226,301	2.61%	▲ 22 Jul 20
Stocks (short ton)	89,173	0.81%	▲ 22 Jul 20
Comex: Gold \$/troy oz			
Settlement	1,889.10	5.03%	▲ 23 Jul 20
Open interest	609,737	5.34%	▲ 22 Jul 20
Stocks (troy oz)	34,892,452	2.46%	▲ 22 Jul 20
Nymex: Palladium \$/troy oz			
Settlement	2,239.80	10.6%	▲ 23 Jul 20
Stocks (troy oz)	46,531	0%	22 Jul 20
Nymex: Platinum \$/troy oz			
Settlement	955.10	15.24%	▲ 23 Jul 20
Stocks (troy oz)	376,812	14.13%	▲ 22 Jul 20
Comex: Silver cents/troy oz	,		
Settlement	2.294.5	17.68%	▲ 23 Jul 20
Open interest	184,943	3.59%	▲ 22 Jul 20
SHANGHAI FUTURES			
	Price	Change <sup>†</sup>	Assessed
Aluminium yuan/tonne	14,405		▲ 24 Jul 20
Copper yuan/tonne	51,230	-0.39%	▼ 24 Jul 20
Nickel cathode yuan/tonne	107,300		▲ 24 Jul 20
Tin ingot yuan/tonne	141,710	0.7%	▲ 24 Jul 20
Zinc yuan/tonne	17,915	0.22%	▲ 24 Jul 20
Steel rebar month 1 yuan/tonne	3,788	3.07%	▲ 24 Jul 20
Steel rebar month 2 yuan/tonne	3,766	1.54%	▲ 24 Jul 20
Steel rebar month 3 yuan/tonne	3,769	1.56%	▲ 24 Jul 20
Weekly stocks deliverable			
Aluminium (tonnes)	222,498	-4.64%	▼ 24 Jul 20
Copper (tonnes)	157,684	-0.61%	▼ 24 Jul 20
Nickel cathode (tonnes)	32,702	2.7%	▲ 24 Jul 20
Tin ingot (tonnes)	2,931	-2.5%	▼ 24 Jul 20
Zinc (tonnes)	89,188	-4.75%	▼ 24 Jul 20
Steel rebar (tonnes)	7,996	-46.02%	▼ 24 Jul 20

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

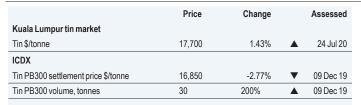
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	Price	Change		Assessed
Aluminium high grade \$				
Cash official	1,654.5-1,654.5	2.26%		24 Jul 20
Cash unofficial	1,657.5-1,657.5	1.5%		23 Jul 20
3 months official	1,692-1,692	2.27%		24 Jul 20
3 months unofficial	1,693-1,693	1.59%		23 Jul 20
LME Tapo notional average price (NAP)	1,627.29	0.31%		23 Jul 20
LME stocks (tonnes)	1,649,275	-0.91%	▼	23 Jul 20
Aluminium alloy (A380.1/DIN/D12S) \$				
LME cash official	1,315.5-1,315.5	5.24%		24 Jul 20
LME cash unofficial	1,305.5-1,305.5	3.61%		23 Jul 20
LME 3 months official	1,315-1,315	5.2%		24 Jul 20
LME 3 months unofficial	1,305-1,305	3.57%		23 Jul 20
LME stocks (tonnes)	5,740	-12.23%	▼	23 Jul 20

	Price	Change		Assessed
N. American special aluminium alloy				
LME cash official	1,272-1,272	-0.62%	▼	24 Jul 20
LME cash unofficial	1,274.5-1,274.5	-0.43%	▼	23 Jul 20
LME 3 months official	1,275-1,275	-0.51%	▼	24 Jul 20
LME 3 months unofficial	1,277-1,277	-0.35%	▼	23 Jul 20
LME stocks (tonnes)	29,140	-1.02%		23 Jul 20
Copper grade A \$				
LME cash official	6,412.5-6,412.5	-0.65%	▼	24 Jul 20
LME cash unofficial	6,514.5-6,514.5	1.52%		23 Jul 20
LME 3 months official	6,389.5-6,389.5	-0.89%		24 Jul 20
LME 3 months unofficial	6,491-6,491	1.11%	<b>A</b>	23 Jul 20
LME Tapo notional average price (NAP)	6,326.12	1.08%		23 Jul 20
LME stocks (tonnes)	141,725	-9.93%		23 Jul 20
Lead \$			_	
LME cash official	1,808-1,808	-0.17%	-	24 Jul 20
LME cash unofficial	1,813-1,813	-0.87%		23 Jul 20
LME 3 months official	1,826-1,826	-0.41%	-	24 Jul 20
LME 3 months unofficial	1,833.5-1,833.5	-0.62%	•	23 Jul 20
LME stocks (tonnes)	107,600	70.73%		23 Jul 20
Nickel \$				
LME cash official	13,430-13,430	1.12%	<u> </u>	24 Jul 20
LME cash unofficial	13,500-13,500	0.93%	<b>A</b>	23 Jul 20
LME 3 months official	13,465-13,465	1.09%	<u> </u>	24 Jul 20
LME 3 months unofficial	13,541-13,541	0.94%		23 Jul 20
LME stocks (tonnes)	234,636	-0.04%	•	23 Jul 20
Tin\$				
LME cash official	17,695-17,695	1.7%	<u> </u>	24 Jul 20
LME cash unofficial	17,809-17,809	2.26%	<u> </u>	23 Jul 20
LME 3 months official	17,624-17,624	1.64%	<u> </u>	24 Jul 20
LME 3 months unofficial	17,755-17,755	2.33%		23 Jul 20
LME stocks (tonnes)	3,950	3%		23 Jul 20
Zinc special high grade \$ LME cash official	0 100 5 0 100 5	0.05%		24 1-1-20
LME cash unofficial	2,193.5-2,193.5	0.25%		24 Jul 20 23 Jul 20
LME 3 months official	2,227.5-2,227.5	0.91%		23 Jul 20 24 Jul 20
LME 3 months unofficial	2,202-2,202	0.79%	-	24 Jul 20 23 Jul 20
LME stocks (tonnes)	154,500	26.23%		23 Jul 20
Cobalt min 99.3%	154,500	20.2370	-	23 Jui 20
LME cash official	29 500 29 500	0%		24 Jul 20
LME 3 months official	28,500-28,500 28,500-28,500	0%		24 Jul 20 24 Jul 20
LME stocks (tonnes)	602	0%		24 Jul 20 23 Jul 20
Gold \$/troy oz	002	0 70		23 Jui 20
London morning	1 000 25	1 210/		22 101 20
London afternoon	1,882.35	4.31% 3.91%		23 Jul 20 23 Jul 20
Handy/Harman	1,878.30	3.91%		23 Jul 20
	1,070.00	0.0170	-	20 Jul 20
Silver per troy oz	1 700	17 100/		22 101 20
London spot pence	1,799 2,286	17.12%		23 Jul 20
Handy/Harman	2,280	18.78% 18.47%		23 Jul 20 23 Jul 20
· · · ·	2,200.40	10.77 /0		20 001 20
Palladium \$/troy oz London morning	2,156	9.11%		23 101 20
London morning London afternoon	2,130	6.73%		23 Jul 20 23 Jul 20
	2,120	0.10/0		20 001 20
Platinum \$/troy oz London morning	928	12 210/		23 101 20
London morning	928	12.21%		23 Jul 20 23 Jul 20
	300	10.22%		20 JUI 20

† week-on-week change



#### RAND FIXING PRICES

Rand fixing prices per tonne for London Metal Exchange trade

Price	Change <sup>†</sup>		Assessed
107,197.12	-0.72%	▼	24 Jul 20
27,658.11	2.18%		24 Jul 20
30,224.16	-0.24%	▼	24 Jul 20
36,668.52	0.18%		24 Jul 20
224,507.97	1.05%		24 Jul 20
295,805.55	1.62%		24 Jul 20
	107,197.12 27,658.11 30,224.16 36,668.52 224,507.97	107,197.12         -0.72%           27,658.11         2.18%           30,224.16         -0.24%           36,668.52         0.18%           224,507.97         1.05%	107,197.12     -0.72%     ▼       27,658.11     2.18%     ▲       30,224.16     -0.24%     ▼       36,668.52     0.18%     ▲       224,507.97     1.05%     ▲

EXCHANGE RATES

	Price	Change <sup>†</sup>	Assessed
LME settlement conversion rates			
\$/£	1.2754	1.65%	▲ 24 Jul 20
\$/¥	106.2200	-0.93%	▼ 24 Jul 20
\$/€	1.1601	1.57%	▲ 24 Jul 20
Closing rates, midpoint			
\$/£	1.2745	1.14%	▲ 23 Jul 20
\$Â¥	106.9950	-0.12%	▼ 23 Jul 20
\$/€	1.1595	1.43%	▲ 23 Jul 20
£/€	1.0991	-0.29%	▼ 23 Jul 20
\$/CNY	6.9961	-0.03%	▼ 23 Jul 20

#### BASE METALS ARBITRAGE

	Price	Change <sup>†</sup>	Assessed
Aluminium			
Import arbitrage, \$/tonne	-7.76*	-150.19%	▼ 24 Jul 20
Import arbitrage, yuan/tonne	-54.59*	-150.35%	▼ 24 Jul 20
Copper			
Import arbitrage, \$/tonne	-43.52*	-18.73%	▼ 24 Jul 20
Import arbitrage, yuan/tonne	-306.09*	-18.51%	▼ 24 Jul 20
Nickel			
Import arbitrage, \$/tonne	-414.52*	-9.74%	▼ 24 Jul 20
Import arbitrage, yuan/tonne	-2,915.51*	-9.48%	▼ 24 Jul 20
Zinc			
Import arbitrage, \$/tonne	-72.70*	-14.32%	▼ 24 Jul 20
Import arbitrage, yuan/tonne	-511.33*	-14.07%	▼ 24 Jul 20

#### MB BASE METAL PREMIUMS

All prices \$/tonne unless otherwise stated

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	Price	Change <sup>†</sup>	Assessed
Copper			
Annual premium 8mm wire rod, cif Nhava Sheva, \$/tonne	130-175*	-12.86%	▼ 07 Sep 18
Europe, EQ Grade, cathode, cif, \$/tonne	25.0-35.0*	0%	14 Jul 20
Rotterdam, Grade A, cathode, cif, \$/tonne	40.0-50.0*	0%	21 Jul 20
Germany, Grade A, cathode, delivered, \$/tonne	80.0-90.0*	0%	14 Jul 20
North European warrants, Grade A cathode, in-warehouse, \$/tonne	10.0-15.0*	0%	22 Jul 20
South European warrants, Grade A cathode, in-warehouse, \$/tonne	10.0-15.0*	0%	22 Jul 20
Leghorn, copper low-high premium, Grade A, cathode, cif, \$/tonne	45.0-55.0*	0%	14 Jul 20
Japan, copper, Grade A, cathode, cif, \$/tonne	75.0-80.0*	21.09%	▲ 30 Jun 20
South Korea, copper low-high premium, Grade A, cathode, cif, \$/tonne	75.0-80.0*	0%	21 Jul 20
Southeast Asian warrants, Grade A cathode, in-warehouse, \$/tonne	15.0-25.0*	0%	22 Jul 20
East Asian warrants, Grade A cathode, in-warehouse, \$ per tonne	15.0-25.0*	0%	22 Jul 20
Southeast Asia, Grade A cathode, cif, \$ per tonne	70.0-80.0*	0%	21 Jul 20
Shanghai, EQ Grade, cathode, cif, \$/tonne	30.0-40.0*	16.67%	▲ 14 Jul 20
Shanghai, copper low-high premium, Grade A, cathode, in-warehouse, \$/tonne	85.0-100.0*	-2.63%	▼ 24 Jul 20
Shanghai, copper low-high premium, Grade A, cathode, cif, \$/tonne	75.0-90.0*	-5.71%	▼ 24 Jul 20
Shanghai, copper cif ER, premium, Grade A, cathode, \$/tonne	85.0-90.0*	-2.78%	▼ 24 Jul 20
Shanghai, copper cif SX-EW, premium, Grade A, cathode, \$/tonne	75.0-80.0*	-6.06%	▼ 24 Jul 20
Shanghai, copper bonded in-warehouse, SX-EW, premium, Grade A, cathode, \$/tonne	85.0-90.0*	0%	24 Jul 20
Shanghai, copper bonded in-warehouse, ER, premium, Grade A, cathode, \$/tonne	95.0-100.0*	-4.88%	▼ 24 Jul 20
Taiwan, Grade A cathode, cif, \$ per tonne	75.0-78.0*	2%	
United States warrants, Grade A cathode, \$/tonne	5.0-15.0*	0%	22 Jul 20
Copper Cathode, Grade 1 premium, Delivered Domestic US, US cents/pound	6.0-7.0*	0%	21 Jul 20
Copper Cathode, Grade 1 premium,	132.3-154.3*	0%	21 Jul 20
Delivered Domestic US, \$/tonne Aluminium	132.3-134.3	0%	2 I JUI 20
Aluminium P1020A, in-warehouse Rotterdam duty-unpaid, spot low-high,	05 0 00 00	0.0404	
\$/tonne Aluminium P1020A, cif main Korea	85.0-90.0*	2.94%	▲ 24 Jul 20
ports, spot low-high, \$/tonne Aluminium P1020A. Southeast Asian	80-90*	0%	21 Jul 20
warrants, in-warehouse, \$/tonne	10.0-20.0*	0%	22 Jul 20
Aluminium P1020A, East Asian warrants, in-warehouse, \$/tonne	10.0-20.0*	0%	22 Jul 20
Aluminium P1020A, cif Shanghai, spot low-high, \$/tonne	110.0-130.0*	0%	30 Jun 20
Aluminium P1020A, South Korea, fca, \$/tonne	95.0-105.0*	0%	21 Jul 20
Aluminium P1020A, Shanghai, in-warehouse, \$/tonne	120.0-140.0*	0%	30 Jun 20
Aluminium P1020A, Taiwan, cif, \$/tonne	90.0-100.0*	0%	14 Jul 20
Aluminium P1020A, Italy, fca	140.0-150.0*	0%	21 Jul 20
duty-paid, spot, \$/tonne Aluminium P1020A, Spain, fca duty-paid, \$/tonne	140.0-150.0*	-3.33%	▼ 14 Jul 20
† week-on-week change			continued >

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	Price	Change	Assessed
Aluminium P1020A, Turkey, cif duty-unpaid, \$/tonne	100.0-110.0*	0%	14 Jul 20
Aluminium ingot ADC 12 ex-works China, duty-paid, yuan/tonne	13,200-13,800*	-0.37%	7 22 Jul 20
Aluminium ingot ADC 12 spot, main Japanese ports, \$/tonne	1,570-1,580*	3.28%	. 22 Jul 20
Aluminium P1020A, cif main Japanese ports, spot low-high, \$/tonne	65.0-75.0*	0%	24 Jul 20
Aluminium P1020A, cif main Japanese ports, quarterly, \$/tonne	75.0-79.0*	-6.1%	′ 15 Jul 20
Aluminium P1020A, in-warehouse Rotterdam duty-paid, spot \$/tonne	100.0-120.0*	0%	24 Jul 20
Aluminium 6063 extrusion billet, in-warehouse Rotterdam duty-paid, spot, \$/tonne	200.0-220.0*	0%	24 Jul 20
Aluminium P1020A, free market delivered, cents per pound	85.67-86.67*	3.74%	. 23 Jul 20
Aluminium P1020A, duty paid premium, delivered Midwest, cents per pound	10.5-11.5*	15.79%	. 24 Jul 20
Aluminium P1020A, cif Baltimore premium, US cents/lb	4.75-5.25*	0%	21 Jul 20
Aluminium P1020A, US warrants, in-warehouse, \$/tonne	115.0-125.0*	0%	22 Jul 20
Aluminium P1020A, delivered Sao Paulo region, spot, \$/tonne	220.0-250.0*	0%	14 Jul 20
Aluminium P1020A, cif Brazilian main ports duty-unpaid, spot, \$/tonne	150.0-160.0*	6.9%	. 14 Jul 20
Aluminium 6063 + 6060 extrusion billet, cif Brazilian main ports, spot (premium over LME cash), \$/tonne	220.0-240.0*	-4.17%	′ 17 Jul 20
Aluminium billet, delivered duty-paid North Germany (Ruhr region) over LME 30-day pay, \$/gross tonne	240.0-260.0*	0%	24 Jul 20
Aluminium billet, delivered duty-paid Italy (Brescia area) over LME 60-day pay, \$/gross tonne	240.0-270.0*	0%	24 Jul 20
Aluminium billet, delivered duty-paid Spain over LME 60-day pay, \$/gross tonne	230.0-250.0*	0%	17 Jul 20
Aluminium billet, cif Thailand duty-unpaid over LME cash pay, \$/gross tonne	140.0-160.0*	-6.25%	7 03 Jul 20
Aluminium billet, cif Japan duty-unpaid over MJP and LME cash pay, \$/gross tonne	110.0-130.0*	-11.11%	20 Jul 20
Aluminium billet, cif Turkey (Marmara region) duty-unpaid over LME cash pay, \$/gross tonne	200.0-220.0*	0%	17 Jul 20
Aluminium primary foundry alloy silicon 7 ingot, delivered duty-paid Germany, \$/tonne	270.0-290.0*	0%	10 Jul 20
Aluminium primary foundry alloy silicon 7 ingot, delivered duty-paid Eastern Europe, \$/tonne	270.0-290.0*	0%	10 Jul 20
Aluminium primary foundry alloy silicon 7 ingot/T-bar premium, delivered			
duty-paid P1020A Midwest US, US cents/lb Aluminium primary foundry alloy	6.0-9.0*	7.14%	. 10 Jul 20
silicon 7 ingot, cif delivered duty-unpaid over P1020A Turkey, \$/tonne	150.0-160.0*	0%	10 Jul 20
Aluminium annual primary foundry alloy silicon 7 ingot, cif main			
Japanese ports, \$/tonne Aluminium annual primary foundry	120.0-140.0*	0%	24 Jan 20
alloy silicon 7 ingot, cif main South Korean ports, \$/tonne	90.0-120.0*	-4.55%	' 24 Jan 20
Lead			
North European warrants, min 99.97% ingots, in-warehouse, \$/tonne	10.0-15.0*	0%	22 Jul 20
Southeast Asian warrants, min 99.97% ingots, in-warehouse, \$/tonne	10.0-20.0*	0%	22 Jul 20
East Asian warrants, min 99.97% ingots, in-warehouse, \$/tonne	10.0-20.0*	0%	22 Jul 20
Southeast Asia, min 99.97% cif, \$/tonne	50.0-70.0*	0%	21 Jul 20
	120.0-140.0*	0%	21 Jul 20
Southeast Asia, 99.99% cif. \$/tonne			
Southeast Asia, 99.99% cif, \$/tonne Taiwan, 99.97% purity, cif, \$/tonne	70.0-90.0*	0%	14 Jul 20

India 99.97% purity, cif. Shonne 50.0-100.0° 0% 21.Jul 20 India 99.99% purity, cif. Shonne 100.0-15.0° 0% 22.Jul 20 US warrants, 99.97% purity, Invarehouse, Shonne 20.0-30.0° 0% 22.Jul 20 US warrants, 99.97%, delivered domestic, centsib 10.0-15.0° 0% 22.Jul 20 US lead premium 99.97%, delivered domestic, centsib 10.0-12° 0% 21.Jul 20 Nickel Shanghai, nickel low-high pemium, 99.8% purity, invarehouse, Shonne 100.0-140.0° 0% 21.Jul 20 Shanghai, nickel low-high pemium, 99.8% purity, invarehouse, Shonne 100.0-140.0° 0% 21.Jul 20 Shanghai, nickel low-high pemium, 99.8% purity, invarehouse, Shonne 100.0-140.0° 0% 22.Jul 20 Shanghai, nickel low-high pemium, 99.8% purity, invarehouse, Shonne 100.0-140.0° 0% 22.Jul 20 Shanghai, nickel low-high pemium, 99.8% purity, invarehouse, Shonne 100.0-140° 0% 22.Jul 20 Shanghai, nickel pemium, 99.80% purity, briquette, sin, shonne 100.140° 0% 22.Jul 20 Southeast Asian warrants, min 99.80% Inplates, in-warehouse, Shonne 100.140° 0% 22.Jul 20 Southeast Asian warrants, min 99.80% Inplates, in-warehouse, Shonne 100.140° 0% 22.Jul 20 Last Asian warrants, min 99.80% Inplates, in-warehouse, Shonne 100.140° 0% 22.Jul 20 Last Asian warrants, min 99.80% Inplates, in-warehouse, Shonne 100.140° 0% 22.Jul 20 North European warrants, min 99.80% Inplates, in-warehouse, Shonne 20.50° 0% 22.Jul 20 Incut cathodes premium indicator 20.0-80.0° 0% 21.Jul 20 Nickel Avia attobes perform 133.38° 0% There is a stass and there is perform 33.38° 0% Inplates in-warehouse, Shonne 20.50° 0% 22.Jul 20 Nickel Avia attobes perform 33.38° 0% Inplates in-warehouse Shonne 400.475° 0% 14.Jul 20 Nickel Avia attobes perform 39.80% Inplates in-warehouse Shonne 400.475° 0% 14.Jul 20 Shanghai spot premium, 99.9% low Ead ingsts, in-warehouse Shonne 400.40° 0% 14.Jul 20 Shanghai spot premium, 99.9% low Ead ingsts, in-warehouse Shonne 40.040° 0% 14.Jul 20 Shanghai spot premium, 99.9% low Ead ingsts, fixene 400.50° 0% 22.Jul 20 Shanghai spot premium, 99.9% low Ead ingsts, fixene 4		Price	Change	Assessed
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purity, in-warehouse, \$fonne         10.0-15.0*         0%         22 Jul 20           US warents, 99.97%, purity, in-warehouse, \$fonne         20.0-30.0*         0%         22 Jul 20           US lead premium 99.97%, delivered domestic, cents/lb         10-12*         0%         21 Jul 20           US lead premium 99.99%, delivered domestic, cents/lb         10.0-140.0*         0%         21 Jul 20           Nickel         Shanghai, nickel low-high premium, 99.8% purity lin-warehouse, \$fonne         110.0-140.0*         0%         21 Jul 20           Shanghai, nickel premium, 99.80% full plate, dr, \$fonne         100.140.0*         0%         22 Jul 20           Southeast Asian warrants, min 99.80% full plate, dr, \$fonne         100.140*         0%         22 Jul 20           Southeast Asian warrants, min 99.80% full plates, in-warehouse, \$fonne         10.15*         0%         22 Jul 20           East Asian warrants, min 99.80% full plates, in-warehouse, \$fonne         10.15*         0%         22 Jul 20           Nichel Vac atmothes premium indicator         60.0-100.0*         0%         21 Jul 20           Nickel Vac atmode premium, delivered consumer works US, US cents per pound         15-18*         0%         21 Jul 20           Nickel Vac atmode premium, delivered consumer works US, US cents per pound         15-18*         0%         21 Jul 20		160.0-170.0*	0%	21 Jul 20
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domestic, cents/lb 8.5-9.5' 5.88% ▲ 21 Jul 20 US lead premium 99.99%, delivered domestic, cents/lb 10-12' 0% 21 Jul 20 Nickel Shanghai, nickel low-high premium, 99.8% purity: nurvenhouse, Stonne 110.0-140.0* 0% 21 Jul 20 Shanghai, nickel premium, 99.9% 99.8% purity: nurvenhouse, Stonne 110.0-140.0* 0% 21 Jul 20 Shanghai, nickel premium, 99.80% Ful plates, in-warehouse, Stonne 100-140' 0% 22 Jul 20 Southeast Asian warrants, min 99.80% Ful plates, in-warehouse, Stonne 100-140' 0% 22 Jul 20 East Asian warrants, min 99.80% Ful plates, in-warehouse, Stonne 100-140' 0% 22 Jul 20 East Asian warrants, min 99.80% Ful plates, in-warehouse, Stonne 100-140' 0% 22 Jul 20 East Asian warrants, min 99.80% Ful plates, in-warehouse, Stonne 100-140' 0% 22 Jul 20 North European warrants, min 99.80% Ful quettes, in-warehouse, Stonne 100-140' 0% 22 Jul 20 North European warrants, min 99.80% In-warehouse, Stonne 100-15' 0% 22 Jul 20 North European warrants, min 99.80% In-warehouse, Stonne 60.0-100.0' 0% 21 Jul 20 Nickel 4x4 cathodes premium indicator 210.0-250.0' 0% 21 Jul 20 Nickel 4x4 cathodes premium indicator 20.0-80.0' 0% 21 Jul 20 Nickel 4x4 cathodes premium indicator 20.0-80.0' 0% 21 Jul 20 Nickel 4x4 cathodes premium indicator 20.0-80.0' 0% 14 Jul 20 Nickel 4x4 cathodes premium, delivered consumer works US, US cents per pound 35-18' 0% 21 Jul 20 Nickel 5% consts, invertence Stonne 60-100' 0% 22 Jul 20 Shanghai spot premium, 99.9% input, in-warehouse Stonne 60-100' 0% 14 Jul 20 Shanghai spot premium, 99.9% input, in-warehouse Stonne 60-100' 0% 14 Jul 20 Shanghai spot premium, 99.9% input, in-warehouse Stonne 60-100' 0% 14 Jul 20 Shanghai spot premium, 99.9% input, in-warehouse Stonne 60-100' 0% 14 Jul 20 Shanghai spot premium, 99.9% input, in-warehouse Stonne 60-100' 0% 14 Jul 20 Shanghai spot premium, 99.9% input, in-warehouse Stonne 60-100' 0% 14 Jul 20 Shanghai spot premium, 99.9% input, in-warehouse Stonne 60-100' 0% 14 Jul 20 Shanghai spot premium, 99.9% input, in-warehouse S		20.0-30.0*	0%	22 Jul 20
domestic, cents/lb         10-12*         0%         21 Jul 20           Nickel         Shanghai, nickel low-high premium, 99.8% purity, invarehouse, \$honne         110.0-140.0*         0%         21 Jul 20           Shanghai, nickel low-high premium, 99.80%         purity, briquette, duty-free, cf, \$ftonne         110.0-150.0*         0%         30 Jun 20           Southeast Asian warrants, min 99.80%         100-140.0*         0%         22 Jul 20           Southeast Asian warrants, min 99.80%         100-140*         0%         22 Jul 20           Southeast Asian warrants, min 99.80%         100-140*         0%         22 Jul 20           East Asian warrants, min 99.80%         100-140*         0%         22 Jul 20           Injuettes, in-warehouse, \$ftonne         100-140*         0%         22 Jul 20           Insatts, in-warehouse, \$ftonne         10-15*         0%         22 Jul 20           Incut cathodes premium indicator         60-0100*         0%         21 Jul 20           Nickel K44 cathode premium, delivered         consumer works US, US cents per pound         15-18*         0%         21 Jul 20           Nickel K44 cathode premium, 99.9% ingot, in-warehouse \$ftonne         400-475*         0%         14 Jul 20           South East Asian warrants, min         99.9% iow         eadi ngots, in-warehouse \$f	•	8.5-9.5*	5.88%	▲ 21 Jul 20
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99.8% purtly in-warehouse, \$htonne 110.0-140.0* 0% 21 Jul 20 Shanghai, nickel low-high premium, 998.8% purtly. Injelae, cif, \$htonne 110.0-140.0* 0% 21 Jul 20 Shanghai, nickel premium, 99.80% purtly. Injuete, cif, \$htonne 110.0-150.0* 0% 30 Jun 20 Southeast Asian warrants, min 99.80% Injuetes, in-warehouse, \$htonne 100-140* 0% 22 Jul 20 Southeast Asian warrants, min 99.80% Diquetes, in-warehouse, \$htonne 100-140* 0% 22 Jul 20 East Asian warrants, min 99.80% Diquetes, in-warehouse, \$htonne 100-140* 0% 22 Jul 20 East Asian warrants, min 99.80% Diquetes, in-warehouse, \$htonne 100-140* 0% 22 Jul 20 North European warrants, min 99.80%, in-warehouse, \$htonne 20-50° 0% 22 Jul 20 North European warrants, min 99.80%, in-warehouse, \$htonne 20-50° 0% 22 Jul 20 North European warrants, min 99.80%, in-warehouse, \$htonne 20-50° 0% 21 Jul 20 At 4 cathodes premium indicator 210.0-250.0° 0% 21 Jul 20 Nickel spremium indicator 210.0-250.0° 0% 21 Jul 20 Nickel spremium, delivered consumer works US, US cents per pound 33-38* 0% 21 Jul 20 Nickel spremium, 99.9% low lead ingots, in-warehouse \$htonne 325-400* 0% 14 Jul 20 Shanghai spot premium, 99.9% low lead ingots, in-warehouse \$htonne 326-300* 0% 14 Jul 20 Shanghai spot premium, 99.9% low lead ingots, in-warehouse \$htonne 300-500* 0% 14 Jul 20 Shanghai spot premium, 99.9% low lead ingots, in-warehouse \$htonne 300-500* 0% 14 Jul 20 Shanghai spot premium, 99.9% low lead ingots, in-warehouse \$htonne 300-100.0° 0% 14 Jul 20 Shanghai spot premium, 99.9% low lead ingots, in-warehouse \$htonne 400-500* 0% 14 Jul 20 Shanghai spot premium, 99.9% low lead ingots, in-warehouse \$htonne 400-500* 0% 14 Jul 20 Shanghai spot premium, 99.9% low lead ingots, in-warehouse \$htonne 400-500* 0% 14 Jul 20 Shanghai spot premium, 99.9% low lead ingots, in-wa	Nickel			
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purity, briquette, duty-free, cif, \$thonne         110.0-150.0°         0%         30 Jun 20           Southeast Asian warrants, min 99.80%, briquettes, in-warehouse, \$thonne         100-140°         0%         22 Jul 20           Southeast Asian warrants, min 99.80%, briquettes, in-warehouse, \$thonne         10-15°         0%         22 Jul 20           East Asian warrants, min 99.80%, briquettes, in-warehouse, \$thonne         10-15°         0%         22 Jul 20           North European warrants, min 99.80%, in-warehouse, \$thonne         10-15°         0%         22 Jul 20           North European warrants, min 99.80%, in-warehouse, \$thonne         20-50°         0%         21 Jul 20           North European warrants, min 99.80%, in-warehouse, \$thonne         20.0-80.0°         0%         21 Jul 20           Nickel Avic Athode premium indicator         20.0-80.0°         0%         21 Jul 20           Nickel Avic Athode premium, delivered consumer works US, US cents per pound         33-38*         0%         21 Jul 20           Nickel Avic Athode premium, delivered consumer works US, US cents per pound         32-400°         -3.33%         14 Jul 20           South East Asian warrants, min 99.8% ingots, in-warehouse \$thonne         60-100°         0%         22 Jul 20           Shanghai spot premium, 99.9% ingots, cif, \$tonne         280-300°         0%         14 Jul 20		110.0-140.0*	0%	21 Jul 20
Southeast Asian warrants, min 99.80%         100-140°         0%         22 Jul 20           Southeast Asian warrants, min 99.80%         100-140°         0%         22 Jul 20           East Asian warrants, min 99.80%         100-140°         0%         22 Jul 20           East Asian warrants, min 99.80%         100-140°         0%         22 Jul 20           East Asian warrants, min 99.80%         100-140°         0%         22 Jul 20           North European warrants, min 99.80%         00-140°         0%         22 Jul 20           Uncut cathodes premium indicator         60.0-100.0°         42 Jul 20         11 Jul 20           Nickel Ax4 cathode premium, delivered         20-50°         0%         21 Jul 20           Nickel briquette, premium, delivered         20-80.0°         0%         21 Jul 20           Nickel briquette premium, delivered         20-80.0°         0%         21 Jul 20           Nickel briquette premium, 99.9% low         184         20-80.0°         21 Jul 20           Nickel briquette, in-warehouse \$/tonne         400-475°         0%         21 Jul 20           Storth East Asian warants, min         99.9% low         184         14 Jul 20           Baltimore premium, 99.9% ingot, in-warehouse \$/tonne         20-100°         0%         14 Jul 20		440.0.450.0*	00/	20 km 00
full plates, in-warehouse, \$thonne         100-140*         0%         22 Jul 20           Southeast Asian warrants, min 99.80%         briquettes, in-warehouse, \$thonne         10-15*         0%         22 Jul 20           East Asian warrants, min 99.80%         briquettes, in-warehouse, \$thonne         100-140*         0%         22 Jul 20           East Asian warrants, min 99.80%, brinne         10-15*         0%         22 Jul 20           North European warrants, min 99.80%, invarehouse, \$thonne         20-50*         0%         21 Jul 20           North European warrants, min 99.80%, invarehouse, \$thonne         20.0-80.0*         0%         21 Jul 20           Nickel Ava Cathodes premium indicator         20.0-80.0*         0%         21 Jul 20           Nickel Ava Cathodes premium, delivered         consumer works US, US cents per pound         33-38*         0%         21 Jul 20           Nickel briquette premium, delivered         consumer works US, US cents per pound         15-18*         0%         21 Jul 20           South East Asian warrants, min         99.9% low         Iead ingots, in-warehouse \$thonne         60-100*         0%         22 Jul 20           Shanghai spot premium, 99.9% ingots, ci, \$thonne         280-300*         0%         14 Jul 20           Shanghai spot premium, 99.9% ingots, ci, \$thonne         360-400*		110.0-150.0"	0%	30 JUN 20
briquettes, in-warehouse, \$/tonne 10-15* 0% 22 Jul 20 East Asian warrants, min 99.80% full plates, in-warehouse, \$/tonne 10-140* 0% 22 Jul 20 East Asian warrants, min 99.80% briquettes, in-warehouse, \$/tonne 10-15* 0% 22 Jul 20 North European warrants, min 99.80% in-warehouse, \$/tonne 20-50* 0% 22 Jul 20 uncut cathodes premium indicator 60.0-100.0* 0% 21 Jul 20 briquettes premium indicator 210.0-250.0* 0% 21 Jul 20 briquettes premium indicator 20.0-80.0* 0% 21 Jul 20 Nickel 4x4 cathode premium, delivered consumer works US, US cents per pound 33-38* 0% 21 Jul 20 Nickel briquette premium, delivered consumer works US, US cents per pound 15-18* 0% 21 Jul 20 Tin Rotterdam spot premium, 99.9% low lead ingots, in-warehouse \$/tonne 400-475* 0% 14 Jul 20 South East Asian warrants, min 99.8% longets, in-warehouse \$/tonne 20-500* 0% 22 Jul 20 Shanghai spot premium, 99.9% ingot, in-warehouse \$/tonne 20-100* 0% 22 Jul 20 Shanghai spot premium, 99.9% ingot, if, \$tonne 280-300* 0% 14 Jul 20 Shanghai spot premium, 99.9% ingots, if, \$tonne 280-300* 0% 14 Jul 20 Shanghai spot premium, 99.9% ingots, if, \$tonne 280-300* 0% 14 Jul 20 Shanghai spot premium, 99.9% ingots, if, \$tonne 280-300* 0% 14 Jul 20 Shanghai spot premium, 99.9% ingots, if, \$tonne 280-300* 0% 14 Jul 20 Shanghai spot premium, 99.9% ingots, if, \$tonne 280-300* 0% 14 Jul 20 Shanghai spot premium, 99.8% ASTM grade A ingots, in-warehouse \$/tonne 400-500* 0% 14 Jul 20 Baltimore premium, 99.8% ASTM grade A ingots, fin-warehouse \$/tonne 400-500* 0% 14 Jul 20 Shanghai, in-warehouse \$/tonne 400-500* 0% 14 Jul 20 Shanghai, in-warehouse \$/tonne 50.0-110.0* 0% 22 Jul 20 Malaysia fca, 99.995%, \$/tonne 90.0-100.0* 0% 21 Jul 20 Malaysia fca, 99.995%, \$/tonne 90.0-100.0* 0% 21 Jul 20 Malaysia fca, 99.995%, \$/tonne 90.0-100.0* 0% 21 Jul 20 Shanghai, inc low-high premium, 99.995% purity, in-warehouse, \$/tonne 80.0-90.0* 0% 21 Jul 20 Shanghai 99.995% purity, SHG ingots, cif \$/tonne 90.0-100.0* 0% 21 Jul 20 Shanghai 99.995% purity, SHG i	full plates, in-warehouse, \$/tonne	100-140*	0%	22 Jul 20
plates, in-warehouse, \$/tonne 100-140° 0% 22 Jul 20 East Asian warrants, min 99.80%, briquettes, in-warehouse, \$/tonne 10-15° 0% 22 Jul 20 North European warrants, min 99.80%, in-warehouse, \$/tonne 20-50° 0% 21 Jul 20 uncut cathodes premium indicator 20.0-250.0° 0% 21 Jul 20 Ax4 cathodes premium indicator 20.0-80.0° 0% 21 Jul 20 Nickel 4x4 cathode premium, delivered consumer works US, US cents per pound 33-38° 0% 21 Jul 20 Nickel tax4 cathode premium, delivered consumer works US, US cents per pound 15-18° 0% 21 Jul 20 Nickel briquette premium, delivered consumer works US, US cents per pound 15-18° 0% 21 Jul 20 Nickel briquette premium, 99.9% low lead ingots, in-warehouse \$/tonne 400-475° 0% 14 Jul 20 South East Asian warrants, min 99.85% ingots, ci, \$/tonne 360-400° 0% 22 Jul 20 Shanghai spot premium, 99.9% ingots, ci, \$/tonne 360-400° 0% 14 Jul 20 Shanghai spot premium, 99.9% ingots, ci, \$/tonne 360-400° 0% 14 Jul 20 Shanghai spot premium, 99.9% ingots, ci, \$/tonne 360-400° 0% 14 Jul 20 Shanghai spot premium, 99.9% ingots, ci, \$/tonne 360-400° 0% 14 Jul 20 Shanghai spot premium, 99.9% ingots, ci, \$/tonne 360-400° 0% 14 Jul 20 Shanghai spot premium, 99.9% ingots, ci, \$/tonne 400-500° 0% 14 Jul 20 Shanghai spot premium, 99.9% ingots, ci, \$/tonne 400-500° 0% 14 Jul 20 Shanghai spot premium, 99.9% ingots, ci, \$/tonne 400-500° 0% 14 Jul 20 Shanghai spot premium, 99.9% ingots, ci, \$/tonne 400-500° 0% 14 Jul 20 Shanghai spot premium, 99.9% ingots, ci, \$/tonne 400-500° 0% 14 Jul 20 Shanghai spot premium, 99.9% ingots, ci, \$/tonne 400-500° 0% 14 Jul 20 Shanghai spot premium, 99.9% ingots, ci, \$/tonne 90.0-100.0° 0% 22 Jul 20 Malaysia fca, 99.995%, \$/tonne 90.0-100.0° 0% 21 Jul 20 Shanghai cin. warehouse, \$/tonne 90.0-100.0° 0% 21 Jul 20 Shanghai cin. warehouse, \$/tonne 90.0-100.0° 0% 21 Jul 20 Shanghai sinc low-high premium, 99.995% purity, in-warehouse, \$/tonne 80.0-100.0° 0% 21 Jul 20 Shanghai 99.995% purity, of \$/tonne 70.0-80.0° 0% 21 Jul 20 Shanghai 99.995% purity, o	briquettes, in-warehouse, \$/tonne	10-15*	0%	22 Jul 20
East Asian warrants, min 99.80%         10-15*         0%         22 Jul 20           North European warrants, min 99.80%,         in-warehouse, \$/tonne         20-50*         0%         22 Jul 20           North European warrants, min 99.80%,         in-warehouse, \$/tonne         20-50*         0%         21 Jul 20           At4 cathodes premium indicator         210.0-250.0*         0%         21 Jul 20           Nickel spremium indicator         20.0-80.0*         0%         21 Jul 20           Nickel dx4 cathode premium, delivered         consumer works US, US cents per pound         33-38*         0%         21 Jul 20           Nickel briquette premium, delivered         consumer works US, US cents per pound         15-18*         0%         21 Jul 20           Tin         Rotterdam spot premium 99.9% low         lead ingots, in-warehouse \$/tonne         325-400*         -3.33%         ▼         14 Jul 20           South East Asian warrants, min         99.85% ingots, in-warehouse \$/tonne         60-100*         0%         22 Jul 20           Shanghai spot premium, 99.9% low         lead ingots, in-warehouse \$/tonne         280-300*         0%         14 Jul 20           Shanghai spot premium, 99.9% low         lead ingots, if, \$/tonne         280-300*         0%         14 Jul 20           Baltimore premium, 99.9% logots,		100-140*	0%	22 Jul 20
North European warrants, min 99.80%,         20-50*         0%         22 Jul 20           uncut cathodes premium indicator         60.0-100.0*         0%         21 Jul 20           4x4 cathodes premium indicator         21.0.250.0*         0%         21 Jul 20           briquettes premium indicator         20.0-80.0*         0%         21 Jul 20           Nickel 4x4 cathode premium, delivered         consumer works US, US cents per pound         15-18*         0%         21 Jul 20           Nickel briquette premium, delivered         consumer works US, US cents per pound         15-18*         0%         21 Jul 20           Nickel briquette premium, 99.9% low         lead ingots, in-warehouse \$/tonne         400-475*         0%         14 Jul 20           South East Asian warrants, min         99.8% ingots, in-warehouse \$/tonne         60-100*         0%         22 Jul 20           Shanghai spot premium, 99.9% ingots, cit \$/tonne         280-300*         0%         14 Jul 20           Shanghai spot premium, 99.9% ingots, cit \$/tonne         280-300*         0%         14 Jul 20           Shanghai spot premium, 99.9% ingots, cit \$/tonne         280-300*         0%         14 Jul 20           Shanghai spot premium, 99.8% ingots, in-warehouse \$/tonne         400-500*         0%         14 Jul 20           Shitimore premium, 99.8%	East Asian warrants, min 99.80%			
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Nickel 4x4 cathode premium, delivered       33-38*       0%       21 Jul 20         Nickel briquette premium, delivered       consumer works US, US cents per pound       15-18*       0%       21 Jul 20         Tin       Rotterdam spot premium, 99.9% low       lead ingots, in-warehouse \$/tonne       400-475*       0%       14 Jul 20         Rotterdam spot premium 99.9% ingot, in-warehouse \$/tonne       325-400*       -3.33%       ▼       14 Jul 20         South East Asian warrants, min       99.85% ingots, in-warehouse \$/tonne       60-100*       0%       22 Jul 20         Shanghai spot premium, 99.9% ingots, cif, \$/tonne       280-300*       0%       14 Jul 20         Taiwan spot premium, 99.9% ingots, cif, \$/tonne       280-300*       0%       14 Jul 20         Taiwan spot premium, 99.9% ingots, cif, \$/tonne       280-300*       0%       14 Jul 20         Baltimore premium, 99.9% ingots, cif, \$/tonne       280-300*       0%       14 Jul 20         Taiwan spot premium, 99.9% ingots, cif, \$/tonne       400-500*       0%       14 Jul 20         Baltimore premium, 99.85% ASTM       grade A ingots, delivered \$/tonne       400-500*       0%       14 Jul 20         Stort European warrants, min 99.995%       StHG ingots, \$/tonne       10.0-25.0*       0%       22 Jul 20         MB EU: Special high gra				
Nickel briquette premium, delivered         consumer works US, US cents per pound       15-18*       0%       21 Jul 20         Tin         Rotterdam spot premium, 99.9% low       lead ingots, in-warehouse \$/tonne       400-475*       0%       14 Jul 20         Rotterdam spot premium 99.9% ingot,       in-warehouse \$/tonne       325-400*       -3.33%       ▼       14 Jul 20         South East Asian warrants, min       99.85% ingots, in-warehouse \$/tonne       60-100*       0%       22 Jul 20         Shanghai spot premium, 99.9% ingots,       cf, \$/tonne       280-300*       0%       14 Jul 20         Shanghai spot premium, 99.9% low       lead ingots, cf, \$/tonne       280-300*       0%       14 Jul 20         Shanghai spot premium, 99.9% low       lead ingots, cf, \$/tonne       280-300*       0%       14 Jul 20         Shanghai spot premium, 99.9% low       lead ingots, cf, \$/tonne       280-300*       0%       14 Jul 20         Baltimore premium, 99.85% ASTM grade       Aingots, in-warehouse \$/tonne       400-500*       0%       14 Jul 20         Zinc       US       US       modes, f(anne       10.0-25.0*       0%       22 Jul 20         MB EU: Special high grade, fca       Rotterdam, \$/tonne       80.0-100.0*       0%       14 Jul 20         <				
consumer works US, US cents per pound         15-18*         0%         21 Jul 20           Tin         Rotterdam spot premium, 99.9% low lead ingots, in-warehouse \$/tonne         400-475*         0%         14 Jul 20           Rotterdam spot premium 99.9% ingot, in-warehouse \$/tonne         325-400*         -3.33%         ▼         14 Jul 20           South East Asian warrants, min         99.85% ingots, in-warehouse \$/tonne         60-100*         0%         22 Jul 20           Shanghai spot premium, 99.9% ingots, cif, \$/tonne         280-300*         0%         14 Jul 20           Shanghai spot premium, 99.9% low lead ingots, cif, \$/tonne         360-400*         0%         14 Jul 20           Shanghai spot premium, 99.9% low lead ingots, cif, \$/tonne         280-300*         0%         14 Jul 20           Shanghai spot premium, 99.9% low lead ingots, in-warehouse \$/tonne         400-500*         0%         14 Jul 20           Baltimore premium, 99.85% ASTM grade         Aingots, in-warehouse \$/tonne         400-500*         0%         14 Jul 20           US midwest premium, 99.85% ASTM grade         Aingots, s/tonne         50.0-100.0*         0%         14 Jul 20           US midwest premium, 99.85% ASTM         grade A ingots, \$/tonne         80.0-100.0*         0%         14 Jul 20           SHG ingots, \$/tonne         80.0-100.0* <td< td=""><td></td><td>33-38*</td><td>0%</td><td>21 Jul 20</td></td<>		33-38*	0%	21 Jul 20
Rotterdam spot premium, 99.9% low         400-475*         0%         14 Jul 20           Rotterdam spot premium 99.9% ingot, in-warehouse \$/tonne         325-400*         -3.33%         ▼         14 Jul 20           South East Asian warrants, min 99.85% ingots, in-warehouse \$/tonne         60-100*         0%         22 Jul 20           Shanghai spot premium, 99.9% ingots, cif, \$/tonne         280-300*         0%         14 Jul 20           Shanghai spot premium, 99.9% low lead ingots, cif, \$/tonne         360-400*         0%         14 Jul 20           Taiwan spot premium, 99.9% ingots, cif, \$/tonne         280-300*         0%         14 Jul 20           Baltimore premium, 99.9% ingots, cif, \$/tonne         280-300*         0%         14 Jul 20           Baltimore premium, 99.9% ingots, cif, \$/tonne         280-300*         0%         14 Jul 20           Baltimore premium, 99.85% ASTM grade         400-500*         0%         14 Jul 20           Southeast premium, 99.85% ASTM         30.0-100.0*         0%         14 Jul 20           Zinc         North European warrants, min 99.995%         SHG ingots, \$/tonne         90.0-100.0*         0%         21 Jul 20           Malaysia fca, 99.995%, \$/tonne         90.0-100.0*         0%         14 Jul 20         Southeast Asia cif, 99.995%, \$/tonne         90.0-100.0*         0%         <		15-18*	0%	21 Jul 20
in-warehouse \$/tonne       325-400*       -3.33%       ▼       14 Jul 20         South East Asian warrants, min       99.85% ingots, in-warehouse \$/tonne       60-100*       0%       22 Jul 20         Shanghai spot premium, 99.9% ingots, cif, \$/tonne       280-300*       0%       14 Jul 20         Shanghai spot premium, 99.9% low       lead ingots, cif, \$/tonne       360-400*       0%       14 Jul 20         Taiwan spot premium, 99.9% low       lead ingots, cif, \$/tonne       280-300*       0%       14 Jul 20         Baltimore premium, 99.9% low       lead ingots, in-warehouse \$/tonne       400-500*       0%       14 Jul 20         Baltimore premium, 99.85% ASTM grade       Aingots, in-warehouse \$/tonne       400-500*       0%       14 Jul 20         US midwest premium, 99.85% ASTM       grade A ingots, delivered \$/tonne       450-540*       0%       14 Jul 20         Zinc       North European warrants, min 99.995%       SHG ingots, \$/tonne       10.0-25.0*       0%       22 Jul 20         MB EU: Special high grade, fca       Rotterdam, \$/tonne       80.0-100.0*       0%       14 Jul 20         Southeast Asia cif, 99.995%, \$/tonne       90.0-100.0*       0%       14 Jul 20       Singapore, zinc premium, 99.995%         Purity, fca \$/tonne       90.0-100.0*       0%       14 Jul 20 <td>Rotterdam spot premium, 99.9% low</td> <td>400-475*</td> <td>0%</td> <td>14 Jul 20</td>	Rotterdam spot premium, 99.9% low	400-475*	0%	14 Jul 20
99.85% ingots, in-warehouse \$/tonne         60-100*         0%         22 Jul 20           Shanghai spot premium, 99.9% ingots, cif, \$/tonne         280-300*         0%         14 Jul 20           Shanghai spot premium, 99.9% low lead ingots, cif, \$/tonne         360-400*         0%         14 Jul 20           Taiwan spot premium, 99.9% ingots, cif, \$/tonne         280-300*         0%         14 Jul 20           Baltimore premium, 99.85% ASTM grade A ingots, in-warehouse \$/tonne         400-500*         0%         14 Jul 20           US midwest premium, 99.85% ASTM grade A ingots, delivered \$/tonne         450-540*         0%         14 Jul 20           Zinc		325-400*	-3.33%	▼ 14 Jul 20
Shanghai spot premium, 99.9% ingots, cif, \$/tonne         280-300*         0%         14 Jul 20           Shanghai spot premium, 99.9% low lead ingots, cif, \$/tonne         360-400*         0%         14 Jul 20           Taiwan spot premium, 99.9% logots, cif, \$/tonne         280-300*         0%         14 Jul 20           Baltimore premium, 99.95% ASTM grade A ingots, in-warehouse \$/tonne         400-500*         0%         14 Jul 20           US midwest premium, 99.85% ASTM grade A ingots, delivered \$/tonne         450-540*         0%         14 Jul 20           Zinc         North European warrants, min 99.995% SHG ingots, \$/tonne         10.0-25.0*         0%         22 Jul 20           MB EU: Special high grade, fca Rotterdam, \$/tonne         80.0-100.0*         0%         14 Jul 20           Southeast Asia cif, 99.995%, \$/tonne         90.0-100.0*         0%         14 Jul 20           Singapore, zinc premium, 99.995% purity, fca \$/tonne         90.0-100.0*         0%         14 Jul 20           Shanghai, zinc low-high premium, 99.995% purity, in-warehouse, \$/tonne         80.0-90.0*         0%         14 Jul 20           Shanghai 99.995% purity, cif \$/tonne         70.0-80.0*         0%         21 Jul 20           Shanghai, zinc low-high premium, 99.995% purity, cif \$/tonne         70.0-80.0*         0%         21 Jul 20           Shanghai 99.995% pu		C0 400*	00/	00 1-100
Shanghai spot premium, 99.9% low         360-400*         0%         14 Jul 20           Taiwan spot premium, 99.9% ingots,         cif, \$/tonne         280-300*         0%         14 Jul 20           Baltimore premium, 99.85% ASTM grade         280-300*         0%         14 Jul 20           Baltimore premium, 99.85% ASTM grade         400-500*         0%         14 Jul 20           US midwest premium, 99.85% ASTM         grade A ingots, delivered \$/tonne         450-540*         0%         14 Jul 20           Zinc         North European warrants, min 99.995%         SHG ingots, \$/tonne         10.0-25.0*         0%         22 Jul 20           MB EU: Special high grade, fca         Rotterdam, \$/tonne         80.0-100.0*         0%         21 Jul 20           Malaysia fca, 99.995%, \$/tonne         90.0-100.0*         0%         14 Jul 20           Southeast Asia cif, 99.995%, \$/tonne         95.0-115.0*         0%         14 Jul 20           Singapore, zinc premium, 99.995%         90.0-100.0*         0%         14 Jul 20           Singapore, zinc premium, 99.995%         90.0-100.0*         0%         14 Jul 20           Shanghai, zinc low-high premium,         99.995% purity, in-warehouse, \$/tonne         80.0-90.0*         0%         21 Jul 20           Shanghai 99.995% purity, cif \$/tonne         70	Shanghai spot premium, 99.9% ingots,			
Taiwan spot premium, 99.9% ingots,         280-300*         0%         14 Jul 20           Baltimore premium, 99.85% ASTM grade         400-500*         0%         14 Jul 20           US midwest premium, 99.85% ASTM         grade A ingots, in-warehouse \$/tonne         450-540*         0%         14 Jul 20           US midwest premium, 99.85% ASTM         grade A ingots, delivered \$/tonne         450-540*         0%         14 Jul 20           Zinc         North European warrants, min 99.995%         SHG ingots, \$/tonne         10.0-25.0*         0%         22 Jul 20           MB EU: Special high grade, fca         Rotterdam, \$/tonne         80.0-100.0*         0%         21 Jul 20           Malaysia fca, 99.995%, \$/tonne         90.0-100.0*         0%         14 Jul 20           Southeast Asia cif, 99.995%, \$/tonne         90.0-100.0*         0%         14 Jul 20           Singapore, zinc premium, 99.995%         purity, fca \$/tonne         90.0-100.0*         0%         14 Jul 20           Shanghai, zinc low-high premium,         99.995% purity, in-warehouse, \$/tonne         80.0-90.0*         0%         21 Jul 20           Shanghai 99.995% purity, cif \$/tonne         70.0-80.0*         0%         21 Jul 20           Shanghai 99.995% purity, cif \$/tonne         70.0-80.0*         0%         21 Jul 20	Shanghai spot premium, 99.9% low			
cif, \$/tonne         280-300*         0%         14 Jul 20           Baltimore premium, 99.85% ASTM grade         400-500*         0%         14 Jul 20           US midwest premium, 99.85% ASTM grade A ingots, in-warehouse \$/tonne         450-540*         0%         14 Jul 20           US midwest premium, 99.85% ASTM grade A ingots, delivered \$/tonne         450-540*         0%         14 Jul 20           Zinc         North European warrants, min 99.995%         SHG ingots, \$/tonne         10.0-25.0*         0%         22 Jul 20           MB EU: Special high grade, fca         Rotterdam, \$/tonne         80.0-100.0*         0%         21 Jul 20           Malaysia fca, 99.995%, \$/tonne         90.0-100.0*         0%         14 Jul 20           Southeast Asia cif, 99.995%, \$/tonne         95.0-115.0*         0%         14 Jul 20           Singapore, zinc premium, 99.995%         90.0-100.0*         0%         14 Jul 20           Shanghai, zinc low-high premium,         99.0-90.0*         0%         21 Jul 20           Shanghai, zinc low-high premium,         99.995% purity, in-warehouse, \$/tonne         80.0-90.0*         0%         21 Jul 20           Shanghai 99.995% purity, cif \$/tonne         70.0-80.0*         0%         21 Jul 20           Shanghai 99.995% purity, SHG ingots,         cif \$/tonne         90.0-	0,,,,	300-400	0%	14 JUI 20
Aingots, in-warehouse \$/tonne         400-500*         0%         14 Jul 20           US midwest premium, 99.85% ASTM grade A ingots, delivered \$/tonne         450-540*         0%         14 Jul 20           Zinc         North European warrants, min 99.995% SHG ingots, \$/tonne         10.0-25.0*         0%         22 Jul 20           MB EU: Special high grade, fca Rotterdam, \$/tonne         80.0-100.0*         0%         21 Jul 20           Malaysia fca, 99.995%, \$/tonne         90.0-100.0*         0%         14 Jul 20           Southeast Asia cif, 99.995%, \$/tonne         95.0-115.0*         0%         14 Jul 20           Singapore, zinc premium, 99.995% purity, fca \$/tonne         90.0-100.0*         0%         14 Jul 20           Shanghai, zinc low-high premium, 99.995% purity, in-warehouse, \$/tonne         80.0-90.0*         0%         21 Jul 20           Shanghai 99.995% purity, cif \$/tonne         70.0-80.0*         0%         21 Jul 20           Shanghai 99.995% purity, cif \$/tonne         70.0-80.0*         0%         21 Jul 20           Taiwan 99.995% purity, SHG ingots, cif \$/tonne         90.0-110.0*         0%         14 Jul 20           Antwerp 99.995% purity, duty-paid         14 Jul 20         14 Jul 20         14 Jul 20	cif, \$/tonne	280-300*	0%	14 Jul 20
grade A ingots, delivered \$/tonne         450-540*         0%         14 Jul 20           Zinc         North European warrants, min 99.995%         SHG ingots, \$/tonne         10.0-25.0*         0%         22 Jul 20           MB EU: Special high grade, fca         Rotterdam, \$/tonne         80.0-100.0*         0%         21 Jul 20           Malaysia fca, 99.995%, \$/tonne         90.0-100.0*         0%         14 Jul 20           Southeast Asia cif, 99.995%, \$/tonne         95.0-115.0*         0%         14 Jul 20           Singapore, zinc premium, 99.995%	A ingots, in-warehouse \$/tonne	400-500*	0%	14 Jul 20
North European warrants, min 99.995%         10.0-25.0*         0%         22 Jul 20           MB EU: Special high grade, fca         Rotterdam, \$/tonne         80.0-100.0*         0%         21 Jul 20           Malaysia fca, 99.995%, \$/tonne         90.0-100.0*         0%         14 Jul 20           Southeast Asia cif, 99.995%, \$/tonne         95.0-115.0*         0%         14 Jul 20           Singapore, zinc premium, 99.995%         purity, fca \$/tonne         90.0-100.0*         0%         14 Jul 20           Shanghai, zinc low-high premium,         99.0-100.0*         0%         14 Jul 20           Shanghai, zinc low-high premium,         99.995% purity, in-warehouse, \$/tonne         80.0-90.0*         0%         21 Jul 20           Shanghai 99.995% purity, cif \$/tonne         70.0-80.0*         0%         21 Jul 20         Shanghai 99.995% purity, cif \$/tonne         70.0-80.0*         0%         21 Jul 20           Shanghai 99.995% purity, SHG ingots, cif \$/tonne         90.0-110.0*         0%         14 Jul 20           Antwerp 99.995% purity, duty-paid         90.0-110.0*         0%         14 Jul 20		450-540*	0%	14 Jul 20
SHG ingots, \$/tonne         10.0-25.0*         0%         22 Jul 20           MB EU: Special high grade, fca         Rotterdam, \$/tonne         80.0-100.0*         0%         21 Jul 20           Malaysia fca, 99.995%, \$/tonne         90.0-100.0*         0%         14 Jul 20           Southeast Asia cif, 99.995%, \$/tonne         95.0-115.0*         0%         14 Jul 20           Singapore, zinc premium, 99.995%         90.0-100.0*         0%         14 Jul 20           Shanghai, zinc low-high premium,         90.0-100.0*         0%         14 Jul 20           Shanghai, zinc low-high premium,         99.995% purity, in-warehouse, \$/tonne         80.0-90.0*         0%         21 Jul 20           Shanghai 99.995% purity, cif \$/tonne         70.0-80.0*         0%         21 Jul 20           Shanghai 99.995% purity, SHG ingots,         cif \$/tonne         90.0-110.0*         0%         14 Jul 20           Antwerp 99.995% purity, duty-paid         90.0-110.0*         0%         14 Jul 20         14 Jul 20				
Rotterdam, \$/tonne         80.0-100.0*         0%         21 Jul 20           Malaysia fca, 99.995%, \$/tonne         90.0-100.0*         0%         14 Jul 20           Southeast Asia cif, 99.995%, \$/tonne         95.0-115.0*         0%         14 Jul 20           Singapore, zinc premium, 99.995%		10.0-25.0*	0%	22 Jul 20
Malaysia fca, 99.995%, \$/tonne         90.0-100.0*         0%         14 Jul 20           Southeast Asia cif, 99.995%, \$/tonne         95.0-115.0*         0%         14 Jul 20           Singapore, zinc premium, 99.995%         90.0-100.0*         0%         14 Jul 20           Shanghai, zinc low-high premium,         90.0-100.0*         0%         14 Jul 20           Shanghai, zinc low-high premium,         99.995% purity, in-warehouse, \$/tonne         80.0-90.0*         0%         21 Jul 20           Shanghai 99.995% purity, cif \$/tonne         70.0-80.0*         0%         21 Jul 20           Taiwan 99.995% purity SHG ingots,         cif \$/tonne         90.0-110.0*         0%         14 Jul 20           Antwerp 99.995% purity, duty-paid         90.0-110.0*         0%         14 Jul 20		80.0.100.0*	0%	21 101 20
Southeast Asia cif, 99.995%, \$/tonne         95.0-115.0*         0%         14 Jul 20           Singapore, zinc premium, 99.995%         purity, fca \$/tonne         90.0-100.0*         0%         14 Jul 20           Shanghai, zinc low-high premium,         99.0-100.0*         0%         14 Jul 20           Shanghai, zinc low-high premium,         99.995% purity, in-warehouse, \$/tonne         80.0-90.0*         0%         21 Jul 20           Shanghai 99.995% purity, cif \$/tonne         70.0-80.0*         0%         21 Jul 20           Taiwan 99.995% purity SHG ingots,         cif \$/tonne         90.0-110.0*         0%         14 Jul 20           Antwerp 99.995% purity, duty-paid             14 Jul 20				
Singapore, zinc premium, 99.995%         90.0-100.0*         0%         14 Jul 20           Shanghai, zinc low-high premium,         99.995% purity, in-warehouse, \$/tonne         80.0-90.0*         0%         21 Jul 20           Shanghai 99.995% purity, in-warehouse, \$/tonne         70.0-80.0*         0%         21 Jul 20           Shanghai 99.995% purity, cif \$/tonne         70.0-80.0*         0%         21 Jul 20           Taiwan 99.995% purity SHG ingots,         cif \$/tonne         90.0-110.0*         0%         14 Jul 20           Antwerp 99.995% purity, duty-paid         90.0-110.0*         0%         14 Jul 20				
purity, fca \$/tonne         90.0-100.0*         0%         14 Jul 20           Shanghai, zinc low-high premium,         99.995% purity, in-warehouse, \$/tonne         80.0-90.0*         0%         21 Jul 20           Shanghai 99.995% purity, cif \$/tonne         70.0-80.0*         0%         21 Jul 20           Taiwan 99.995% purity SHG ingots,         cif \$/tonne         90.0-110.0*         0%         14 Jul 20           Antwerp 99.995% purity, duty-paid         20.0-110.0*         0%         14 Jul 20			- /0	
99.995% purity, in-warehouse, \$/tonne         80.0-90.0*         0%         21 Jul 20           Shanghai 99.995% purity, cif \$/tonne         70.0-80.0*         0%         21 Jul 20           Taiwan 99.995% purity SHG ingots, cif \$/tonne         90.0-110.0*         0%         14 Jul 20           Antwerp 99.995% purity, duty-paid         90.0-110.0*         0%         14 Jul 20	purity, fca \$/tonne	90.0-100.0*	0%	14 Jul 20
Taiwan 99.995% purity SHG ingots,         90.0-110.0*         0%         14 Jul 20           Antwerp 99.995% purity, duty-paid         0         0         14 Jul 20		80.0-90.0*	0%	21 Jul 20
cif\$/tonne 90.0-110.0* 0% 14 Jul 20 Antwerp 99.995% purity, duty-paid	Shanghai 99.995% purity, cif \$/tonne	70.0-80.0*	0%	21 Jul 20
		90.0-110.0*	0%	14 Jul 20
		80.0-100.0*	0%	21 Jul 20
	† week-on-week change			continued >

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	Price	Change	Assessed
Italy 99.995% purity, duty-paid fca \$/tonne	145.0-155.0*	0%	21 Jul 20
Italy 99.995% purity, delivered duty-paid \$/tonne	170.0-190.0*	0%	21 Jul 20
US warrants 99.995% purity, in-warehouse \$/tonne	5.0-10.0*	0%	22 Jul 20
MB US: Special high grade, cents/lb	80-8.50*	0%	21 Jul 20

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	Price	Change <sup>†</sup>		Assessed
Alumina				
MB Chinese free market, metallurgical				
grade, delivered duty-paid, yuan/tonne	2,400.0-2,450.0*	-1.42%		23 Jul 20
Alumina Index fob Australia	279.49*	0.63%		24 Jul 20
Alumina Index fob Brazil	-6.83*			16 Jul 20
Alumina Index fob Brazil, inferred Brazil price \$ per dry metric ton	272.66*			24 Jul 20
Aluminium				
Shanghai bonded aluminium stocks, tonnes	2,000-3,000*	-60%	▼	30 Jun 20
Bauxite				
fob Kamsar, Guinea \$/dmtu	32*	0%		16 Jul 20
fob Trombetas, Brazil \$/dmtu	34*	0%		16 Jul 20
Copper & Brass				
Producer premium				
Aurubis European Grade A cathode ex-works \$/tonne	96.0	11.63%		01 Oct 18
Codelco: Contract Grade A cathode				
(average)	98.0	11.36%		26 Sep 18
South Africa: Palabora copper rod 7.90mm, Rand/tonne	113,198.280	3.71%		30 Jun 20
Blister copper 98-99% spot RC cif China \$ per tonne	110-132*	0.83%		30 Jun 20
Blister copper 98-99% annual benchmark RC cif China \$ per tonne	125-133*	-21.82%	▼	30 Dec 19
Copper concentrate Asia-Pacific Index RC import, US cents/lb	4.62*	1.32%		24 Jul 20
Copper concentrate Asia-Pacific Index TC import, \$/tonne	46.20*	1.32%		24 Jul 20
Shanghai bonded copper stocks, tonnes	199,000-213,000	* -2.83%	•	13 Jul 20
Nickel				
Nickel pig iron high grade NPI content				
10-15% contract price delivered duty-paid				
China yuan per nickel unit price	970-980*	0%		24 Jul 20
Nickel pig iron high grade NPI content 10-15% spot price China yuan per				
nickel unit price	970-980*	0%		24 Jul 20
Shanghai bonded nickel stocks, tonnes	12,600-21,600*	6.88%		30 Jun 20
Nickel ore				
Laterite ore with 1.5% nickel content cif China, \$/tonne	48-49*	2.11%		24 Jul 20
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	71-72*	0%		24 Jul 20
Nickel sulfate min 21%, max: 22.5%;				
cobalt 10ppm max, China ex-works, yuan/tonne	23,200-23,500*	1.08%		24 Jul 20

	Price	Change	Assessed
Lead			
Lead concentrate spot treatment charge (TC) high silver CIF China, \$/tonne	135-145*	-6.67% ▼	26 Jun 20
Lead concentrate spot treatment charge (TC) low silver CIF China, \$/tonne	130-140*	-3.23%	26 Jun 20
Lead concentrate (TC) high silver, annual benchmark, \$/tonne	98*	0%	03 Jun 19
Lead concentrate (TC) low silver, annual benchmark, \$/tonne	99*	0%	15 Mar 18
Zinc			
UK: Special high grade, delivered monthly average price £/tonne	1,817*	1.4%	01 Jul 20
Zinc concentrate spot treatment charge (TC) CIF Asia-Pacific \$/tonne	160-180*	4.62%	26 Jun 20
Zinc concentrate spot treatment charge (TC) deliverd North China yuan/tonne	5,200-5,400*	0.95%	26 Jun 20
Zinc concentrate spot treatment charge (TC) deliverd South China yuan/tonne	4.900-5.100*	-1.96%	26 Jun 20
Shanghai bonded zinc stocks, tonnes	61.000-68.000*	-1.90% ▼ 12.17% ▲	30 Jun 20
onangnai bonded zine slocks, lonnes	01,000-00,000	12.17/0	30 301 20

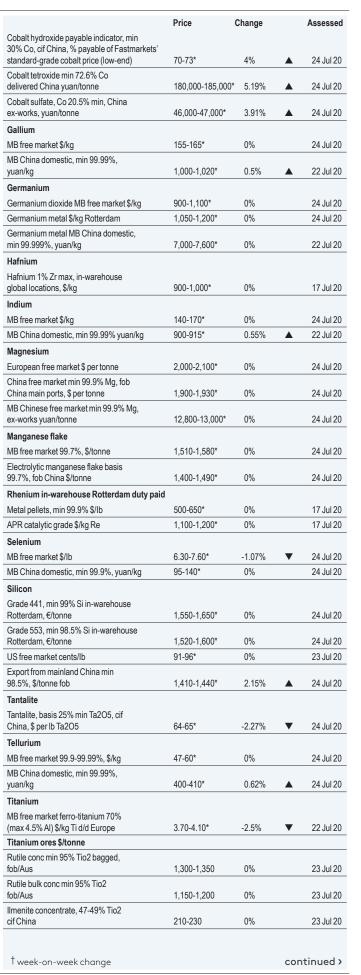
† week-on-week change

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PRFC	CIOUSI	METALS

PRECIOUS METALS				
	Price	Change <sup>†</sup>		Assessed
Iridium				
MB free market: min 99.9%, \$/troy oz in-warehouse	1,580-1,700*	0%		24 Jul 20
Johnson Matthey base price: (unfab)	1,560-1,700	0 %		24 JUI 20
\$/troy oz (08 hrs)	1,645	0%		24 Jul 20
Englehard base price: \$/troy oz	1,660	0%		24 Jul 20
Palladium				
European free market: min 99.9%, \$/troy oz in-warehouse	2,126-2,155*	6.92%		24 Jul 20
Englehard base price: \$/troy oz	2,155	7.8%		24 Jul 20
Johnson Matthey base price: (unfab)				
\$/troy oz (08 hrs)	2,149	7.77%		24 Jul 20
Platinum European free market: min 99.9%,				
\$/troy oz in-warehouse	906-917*	9.95%		24 Jul 20
Englehard base price: \$/troy oz	908	9.93%		24 Jul 20
Johnson Matthey base price: (unfab)	047	40.400/		04 1-100
\$/troy oz (08 hrs) Rhodium	917	10.48%	-	24 Jul 20
European free market: min 99.9%,				
\$/troy oz in-warehouse	6,500-9,000*	0%		24 Jul 20
Englehard base price: \$/troy oz	8,750	0%		24 Jul 20
Johnson Matthey base price: (unfab) \$/troy oz (08 hrs)	8,725	0.29%		24 Jul 20
Ruthenium	0,725	0.2376	-	24 Jul 20
European free market: min 99.9%,				
\$/troy oz in-warehouse	210-300*	0%		24 Jul 20
Englehard base price: \$/troy oz	280	0%		24 Jul 20
Johnson Matthey base price: (unfab) \$/troy oz (08 hrs)	270	0%		24 Jul 20
	210	070		2100120
MINOR METALS				
WINOK WE TALS				
	Price	Change <sup>†</sup>		Assessed
Antimony	Price	Change <sup>†</sup>		Assessed
<b>Antimony</b> MB free market Regulus, min 99.65%,	Price	Change <sup>†</sup>		Assessed
Antimony	Price 5,150-5,400*	Change <sup>†</sup> -0.47%	•	Assessed
Antimony MB free market Regulus, min 99.65%, max Se 50 ppm, max 100 ppm Bi, \$/tonne in-warehouse Rotterdam MMTA Standard Grade II, \$/tonne	5,150-5,400*	-0.47%	•	24 Jul 20
Antimony MB free market Regulus, min 99.65%, max Se 50 ppm, max 100 ppm Bi, \$/tonne in-warehouse Rotterdam MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam		-	•	
Antimony MB free market Regulus, min 99.65%, max Se 50 ppm, max 100 ppm Bi, \$/tonne in-warehouse Rotterdam MMTA Standard Grade II, \$/tonne	5,150-5,400*	-0.47%	_	24 Jul 20 24 Jul 20
Antimony MB free market Regulus, min 99.65%, max Se 50 ppm, max 100 ppm Bi, \$/tonne in-warehouse Rotterdam MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam MB Chinese free market MMTA Standard	5,150-5,400* 5,100-5,350*	-0.47%	•	24 Jul 20
Antimony MB free market Regulus, min 99.65%, max Se 50 ppm, max 100 ppm Bi, \$/tonne in-warehouse Rotterdam MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam MB Chinese free market MMTA Standard Grade II, delivered duty-paid yuan/tonne	5,150-5,400* 5,100-5,350*	-0.47%	•	24 Jul 20 24 Jul 20
Antimony MB free market Regulus, min 99.65%, max Se 50 ppm, max 100 ppm Bi, \$/tonne in-warehouse Rotterdam MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam MB Chinese free market MMTA Standard Grade II, delivered duty-paid yuan/tonne Arsenic	5,150-5,400* 5,100-5,350* 36,000-36,500*	-0.47% -0.29% 1.4%	•	24 Jul 20 24 Jul 20 22 Jul 20
Antimony MB free market Regulus, min 99.65%, max Se 50 ppm, max 100 ppm Bi, \$/tonne in-warehouse Rotterdam MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam MB Chinese free market MMTA Standard Grade II, delivered duty-paid yuan/tonne Arsenic MB free market \$/lb Bismuth MB free market \$/lb	5,150-5,400* 5,100-5,350* 36,000-36,500*	-0.47% -0.29% 1.4%	•	24 Jul 20 24 Jul 20 22 Jul 20
Antimony MB free market Regulus, min 99,65%, max Se 50 ppm, max 100 ppm Bi, \$/tonne in-warehouse Rotterdam MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam MB Chinese free market MMTA Standard Grade II, delivered duty-paid yuan/tonne Arsenic MB free market \$/lb Bismuth MB free market \$/lb MB china domestic, min 99.99%,	5,150-5,400* 5,100-5,350* 36,000-36,500* 1.10-1.5* 2.55-2.70*	-0.47% -0.29% 1.4% 0% 0.96%	•	24 Jul 20 24 Jul 20 22 Jul 20 17 Jul 20 24 Jul 20
Antimony MB free market Regulus, min 99.65%, max Se 50 ppm, max 100 ppm Bi, \$/tonne in-warehouse Rotterdam MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam MB Chinese free market MMTA Standard Grade II, delivered duty-paid yuan/tonne Arsenic MB free market \$/lb Bismuth MB free market \$/lb	5,150-5,400* 5,100-5,350* 36,000-36,500* 1.10-1.5*	-0.47% -0.29% 1.4% 0%		24 Jul 20 24 Jul 20 22 Jul 20 17 Jul 20
Antimony MB free market Regulus, min 99.65%, max Se 50 ppm, max 100 ppm Bi, \$/tonne in-warehouse Rotterdam MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam MB Chinese free market MMTA Standard Grade II, delivered duty-paid yuan/tonne Arsenic MB free market \$/lb Bismuth MB free market \$/lb MB China domestic, min 99.99%, yuan/tonne	5,150-5,400* 5,100-5,350* 36,000-36,500* 1.10-1.5* 2.55-2.70*	-0.47% -0.29% 1.4% 0% 0.96%		24 Jul 20 24 Jul 20 22 Jul 20 17 Jul 20 24 Jul 20
Antimony MB free market Regulus, min 99.65%, max Se 50 ppm, max 100 ppm Bi, \$/tonne in-warehouse Rotterdam MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam MB Chinese free market MMTA Standard Grade II, delivered duty-paid yuan/tonne Arsenic MB free market \$/lb Bismuth MB free market \$/lb MB China domestic, min 99.99%, yuan/tonne Cadmium	5,150-5,400* 5,100-5,350* 36,000-36,500* 1.10-1.5* 2.55-2.70* 36,000-36,500*	-0.47% -0.29% 1.4% 0% 0.96% 3.87%		24 Jul 20 24 Jul 20 22 Jul 20 17 Jul 20 24 Jul 20 24 Jul 20
Antimony MB free market Regulus, min 99.65%, max Se 50 ppm, max 100 ppm Bi, \$/tonne in-warehouse Rotterdam MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam MB Chinese free market MMTA Standard Grade II, delivered duty-paid yuan/tonne Arsenic MB free market \$/lb Bismuth MB free market \$/lb MB China domestic, min 99.99%, yuan/tonne Cadmium MB free market min 99.95% cents/lb	5,150-5,400* 5,100-5,350* 36,000-36,500* 1.10-1.5* 2.55-2.70* 36,000-36,500* 90-100*	-0.47% -0.29% 1.4% 0% 0.96% 3.87% -1.55%		24 Jul 20 24 Jul 20 22 Jul 20 17 Jul 20 24 Jul 20 24 Jul 20 24 Jul 20
Antimony MB free market Regulus, min 99.65%, max Se 50 ppm, max 100 ppm Bi, \$/tonne in-warehouse Rotterdam MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam MB Chinese free market MMTA Standard Grade II, delivered duty-paid yuan/tonne Arsenic MB free market \$/lb Bismuth MB free market \$/lb MB China domestic, min 99.99%, yuan/tonne Cadmium MB free market min 99.95% cents/lb MB free market min 99.99% cents/lb Chromium MB free market alumino-thermic min	5,150-5,400* 5,100-5,350* 36,000-36,500* 1.10-1.5* 2.55-2.70* 36,000-36,500* 90-100* 95-105*	-0.47% -0.29% 1.4% 0% 0.96% 3.87% -1.55% 0%		24 Jul 20 24 Jul 20 22 Jul 20 17 Jul 20 24 Jul 20 24 Jul 20 24 Jul 20 24 Jul 20
Antimony MB free market Regulus, min 99.65%, max Se 50 ppm, max 100 ppm Bi, \$/tonne in-warehouse Rotterdam MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam MB Chinese free market MMTA Standard Grade II, delivered duty-paid yuan/tonne Arsenic MB free market \$/lb Bismuth MB free market \$/lb MB China domestic, min 99.99%, yuan/tonne Cadmium MB free market min 99.95% cents/lb MB free market min 99.99% cents/lb Chromium MB free market alumino-thermic min 99% \$/tonne	5,150-5,400* 5,100-5,350* 36,000-36,500* 1.10-1.5* 2.55-2.70* 36,000-36,500* 90-100*	-0.47% -0.29% 1.4% 0% 0.96% 3.87% -1.55%		24 Jul 20 24 Jul 20 22 Jul 20 17 Jul 20 24 Jul 20 24 Jul 20 24 Jul 20
Antimony         MB free market Regulus, min 99.65%, max Se 50 ppm, max 100 ppm Bi, \$/tonne in-warehouse Rotterdam         MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam         MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam         MB chinese free market MMTA Standard Grade II, delivered duty-paid yuan/tonne         Arsenic         MB free market \$/lb         Bismuth         MB free market \$/lb         MB free market min 99.95% cents/lb         Chromium         MB free market alumino-thermic min 99% \$/tonne         Cobalt	5,150-5,400* 5,100-5,350* 36,000-36,500* 1.10-1.5* 2.55-2.70* 36,000-36,500* 90-100* 95-105* 5,850-6,100*	-0.47% -0.29% 1.4% 0% 0.96% 3.87% -1.55% 0% -0.29%		24 Jul 20 24 Jul 20 22 Jul 20 17 Jul 20 24 Jul 20 24 Jul 20 24 Jul 20 24 Jul 20 24 Jul 20
Antimony MB free market Regulus, min 99.65%, max Se 50 ppm, max 100 ppm Bi, \$/tonne in-warehouse Rotterdam MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam MB Chinese free market MMTA Standard Grade II, delivered duty-paid yuan/tonne Arsenic MB free market \$/lb Bismuth MB free market \$/lb MB China domestic, min 99.99%, yuan/tonne Cadmium MB free market min 99.95% cents/lb MB free market min 99.99% cents/lb Chromium MB free market alumino-thermic min 99% \$/tonne	5,150-5,400* 5,100-5,350* 36,000-36,500* 1.10-1.5* 2.55-2.70* 36,000-36,500* 90-100* 95-105*	-0.47% -0.29% 1.4% 0% 0.96% 3.87% -1.55% 0%		24 Jul 20 24 Jul 20 22 Jul 20 17 Jul 20 24 Jul 20 24 Jul 20 24 Jul 20 24 Jul 20
Antimony         MB free market Regulus, min 99.65%, max Se 50 ppm, max 100 ppm Bi, \$/tonne in-warehouse Rotterdam         MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam         MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam         MB free market MMTA Standard Grade II, delivered duty-paid yuan/tonne         Arsenic         MB free market \$/lb         Bismuth         MB free market \$/lb         MB free market alloy-99%, cents/lb         Chromium         MB free market alloy-grade \$/lb         MB free market alloy-grade \$/lb         MB free market alloy-grade \$/lb	5,150-5,400* 5,100-5,350* 36,000-36,500* 1.10-1.5* 2.55-2.70* 36,000-36,500* 90-100* 90-100* 95-105* 5,850-6,100* 13.80-14.10* 13.75-14.05*	-0.47% -0.29% 1.4% 0% 0.96% 3.87% -1.55% 0% -0.29% 0% 0%		24 Jul 20 24 Jul 20 22 Jul 20 17 Jul 20 24 Jul 20
Antimony         MB free market Regulus, min 99.65%, max Se 50 ppm, max 100 ppm Bi, \$/tonne in-warehouse Rotterdam         MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam         MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam         MB chinese free market MMTA Standard Grade II, delivered duty-paid yuan/tonne         Arsenic         MB free market \$/lb         Bismuth         MB free market \$/lb         MB free market alloy.99%, cents/lb         Chromium         MB free market allowino-thermic min 99% \$/tonne         Cobalt         MB free market alloy-grade \$/lb         MB free market standard-grade \$/lb         MB high-grade, weighted average of all confirmed international trades, \$/lb	5,150-5,400* 5,100-5,350* 36,000-36,500* 1.10-1.5* 2.55-2.70* 36,000-36,500* 90-100* 95-105* 5,850-6,100* 13.80-14.10*	-0.47% -0.29% 1.4% 0% 0.96% 3.87% -1.55% 0% -0.29% 0%		24 Jul 20 24 Jul 20 22 Jul 20 17 Jul 20 24 Jul 20 24 Jul 20 24 Jul 20 24 Jul 20 24 Jul 20 24 Jul 20
Antimony         MB free market Regulus, min 99.65%, max Se 50 ppm, max 100 ppm Bi, \$/tonne in-warehouse Rotterdam         MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam         MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam         MB free market MMTA Standard Grade II, delivered duty-paid yuan/tonne         Arsenic         MB free market \$/lb         Bismuth         MB free market \$/lb         MB free market alloy-99%, cents/lb         Chromium         MB free market alloy-grade \$/lb         MB free market alloy-grade \$/lb         MB free market alloy-grade \$/lb	5,150-5,400* 5,100-5,350* 36,000-36,500* 1.10-1.5* 2.55-2.70* 36,000-36,500* 90-100* 90-100* 95-105* 5,850-6,100* 13.80-14.10* 13.75-14.05*	-0.47% -0.29% 1.4% 0% 0.96% 3.87% -1.55% 0% -0.29% 0% 0%	×	24 Jul 20 24 Jul 20 22 Jul 20 17 Jul 20 24 Jul 20
Antimony         MB free market Regulus, min 99.65%, max Se 50 ppm, max 100 ppm Bi, \$/tonne in-warehouse Rotterdam         MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam         MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam         MB free market MMTA Standard Grade II, delivered duty-paid yuan/tonne         Arsenic         MB free market \$/lb         Bismuth         MB free market \$/lb         MB free market alloy-99%, cents/lb         Chromium         MB free market alloy-grade \$/lb         MB free market alloy-grade \$/lb         MB free market alloy-grade \$/lb         MB free market standard-grade \$/lb         MB high-grade, weighted average of all confirmed international trades, \$/lb         MB low-grade, weighted average of	5,150-5,400* 5,100-5,350* 36,000-36,500* 1.10-1.5* 2.55-2.70* 36,000-36,500* 90-100* 90-100* 95-105* 5,850-6,100* 13.80-14.10* 13.75-14.05* 13.75*	-0.47% -0.29% 1.4% 0% 0.96% 3.87% -1.55% 0% -0.29% 0% 0% 0% 0% -2.48%	×	24 Jul 20 24 Jul 20 22 Jul 20 17 Jul 20 24 Jul 20
Antimony         MB free market Regulus, min 99.65%, max Se 50 ppm, max 100 ppm Bi, \$/tonne in-warehouse Rotterdam         MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam         MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam         MB freise free market MMTA Standard Grade II, delivered duty-paid yuan/tonne         Arsenic         MB free market \$/lb         Bismuth         MB free market \$/lb         MB free market min 99.95% cents/lb         Chromium         MB free market alloy-grade \$/lb         MB free market alloy-grade \$/lb         MB free market alloy-grade \$/lb         MB free market standard-grade \$/lb         MB high-grade, weighted average of all confirmed international trades, \$/lb         MB low-grade, weighted average of all confirmed international trades, \$/lb         MB China domestic, min 99.8% yuan/tonne	5,150-5,400* 5,100-5,350* 36,000-36,500* 1.10-1.5* 2.55-2.70* 36,000-36,500* 90-100* 90-100* 95-105* 5,850-6,100* 13.80-14.10* 13.75-14.05* 13.75*	-0.47% -0.29% 1.4% 0% 0.96% 3.87% -1.55% 0% -0.29% 0% 0% 0% 0% -2.48%	×	24 Jul 20 24 Jul 20 22 Jul 20 17 Jul 20 24 Jul 20
Antimony         MB free market Regulus, min 99.65%, max Se 50 ppm, max 100 ppm Bi, \$/tonne in-warehouse Rotterdam         MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam         MMTA Standard Grade II, \$/tonne in-warehouse Rotterdam         MB free market MMTA Standard Grade II, delivered duty-paid yuan/tonne         Arsenic         MB free market \$/lb         Bismuth         MB free market \$/lb         MB free market alloy-99%, cents/lb         Chromium         MB free market alloy-99% cents/lb         Chromium         MB free market alloy-grade \$/lb         MB free market alloy-grade \$/lb         MB free market alloy-grade \$/lb         MB free market standard-grade \$/lb         MB high-grade, weighted average of all confirmed international trades, \$/lb         MB low-grade, weighted average of all confirmed international trades, \$/lb         MB how-grade, weighted average of all confirmed international trades, \$/lb	5,150-5,400* 5,100-5,350* 36,000-36,500* 1.10-1.5* 2.55-2.70* 36,000-36,500* 90-100* 90-100* 95-105* 5,850-6,100* 13.80-14.10* 13.75-14.05* 13.75* 13.81*	-0.47% -0.29% 1.4% 0% 0.96% 3.87% -1.55% 0% -0.29% 0% 0% -0.22%		24 Jul 20 22 Jul 20 22 Jul 20 17 Jul 20 24 Jul 20



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	Price	Change <sup>†</sup>	Assessed
Molybdenum molybdic oxide			
Europe drummed molybdic oxide \$/lb Mo	6.90-7.15*	-1.4%	▼ 24 Jul 20
Molybdenum MB drummed molybdic oxide Mo, in-whs Busan, \$/Ib	7.20-7.30*	-1.36%	▼ 24 Jul 20
US canned molybdic oxide \$/Ib Mo	7-7.20*	-3.07%	▼ 23 Jul 20
Ferro-molybdenum			
Basis 65% min, in-warehouse Rotterdam \$/kg Mo	17.70-18*	-1.11%	▼ 24 Jul 20
US free market 65-70% Mo \$/Ib in-warehouse Pittsburgh	8.05-8.5*	-0.6%	▼ 23 Jul 20
Tungsten			
Rotterdam & Baltimore cif APT, 88.5% WO3, duty-free \$/mtu	205-210*	0%	24 Jul 20
Export from mainland China APT Chinese No1 grade, min 88.5% WO3, S/mtu fob	205-215*	0%	22 Jul 20
MB Chinese free market concentrate 65% Wo3 in-warehouse China yuan/tonne	82,000-84,000*	1.84%	▲ 22 Jul 20
Ferro-tungsten			
Basis 75% W min \$/kg W in-warehouse Rotterdam duty-unpaid	24.30-25.80*	-0.79%	▼ 24 Jul 20
Vanadium			
Ferro-vanadium basis 78% min, fob, China \$/kg V	29.5-30.5*	0%	23 Jul 20
Ferro-vanadium basis 78% min, free delivery duty paid consumer plant, 1st grade, Western Europe \$/kg V	22.85-24*	4.34%	▲ 24 Jul 20
US free market ferro-vanadium \$/lb in-warehouse Pittsburgh	9.30-9.60*	0%	23 Jul 20
Vanadium pentoxide 98% min, fob, China \$/Ib V205	6.90-7*	0%	23 Jul 20
Vanadium pentoxide min 98%, in-warehouse Rotterdam \$/Ib V205	5.10-5.5*	0%	24 Jul 20

BULKALLOYS			
	Price	Change <sup>†</sup>	Assessed
Ferro-chrome \$/Ib Cr			
China import charge chrome 50% Cr index, cif Shanghai, duty-unpaid	0.70*	-1.41%	▼ 24 Jul 20
Ferro-Chrome European Benchmark Indicator, Lumpy Cr charge basis 52% (and high carbon), \$ per Ib	1.15*	0%	24 Jul 20
Spot 6-8% C basis 50% Cr delivered duty paid China yuan/tonne	5,800-6,200*	-1.64%	▼ 24 Jul 20
Contract 6-8% C basis 50% Cr delivered duty paid China yuan/tonne	6,100-6,300*	0%	24 Jul 20
Lumpy Cr charge basis 52% Cr (and high carbon) quarterly	1.14*	0%	01 Jul 20
High carbon 6-8.5% C basis 60-70% Cr max 1.5% Si, major European destinations	0.76-0.90*	0%	24 Jul 20
0.10% C average 65-70% Cr	1.55-1.75*	8.55%	▲ 24 Jul 20
European low carbon in-warehouse 0.06% C max - 65% Cr	1.58-1.81*	6.94%	▲ 24 Jul 20
Low phosphorous Cr min 65% C max 7% Si max 1% p max 0.015% Ti max 0.05%	0.85-0.96*	-7.18%	▼ 24 Jul 20
High-carbon ferro-chrome 57-65% Cr, cif duty-updaid Japan, \$/lb	0.70-0.73*	-1.38%	▼ 16 Jul 20
High carbon ferro-chrome 57-65% Cr, cif duty-unpaid South Korea, \$/lb	0.69-0.72*	-0.7%	▼ 16 Jul 20
US free market low carbon duty-paid fob Pi	ttsburgh		
US free market in-warehouse Pittsburgh 6-8% C basis 60-65% Cr max 2% Si	0.86-0.95*	0%	23 Jul 20
0.05%C - 65% min Cr	1.85-1.95*	0%	23 Jul 20
0.10% C - 62% min Cr	1.68-1.72*	0%	23 Jul 20
0.15% C - 60% min Cr	1.53-1.63*	0%	23 Jul 20

Chrome ore \$/tonne		0		
Chrome ore cif main Chinese ports				
South African UG2 chrome ore concs, index basis 42%	132*	-1.49%	▼	24 Jul 20
Turkish lumpy 40-42% cfr main Chinese ports	190-200*	-1.27%	▼	24 Jul 20
Chrome Ore inventories at the main ports of Tianjin, Qinzhou, Lianyungang and Shanghai, million tonnes	3.45-3.57*	5.25%		20 Jul 20
Ferro-manganese				
basis 78% Mn (scale pro rata) standard 7.5% C €/tonne	850-880*	0%		24 Jul 20
US free market 78% Mn standard 7.5% C \$/long ton in-warehouse Pittsburgh	1,165-1,275*	0%		23 Jul 20
US free market medium carbon duty-paid fob Pittsburgh, 80% min Mn 1.5% max C \$/Ib	0.85-0.92*	0%		23 Jul 20
MB Chinese free market min 65% Mn max 7.0% C in-warehouse China yuan/tonne	5,100-5,400*	0%		24 Jul 20
Manganese ore				
44% Mn index, cif Tianjin \$/dmtu of metal contained	4.09*	-1.45%	▼	24 Jul 20
37% Mn index, fob Port Elizabeth \$/dmtu of metal contained	3.11*	-3.42%	▼	24 Jul 20
37% Mn index, cif Tianjin \$/dmtu of metal contained	3.78*	-2.33%	▼	24 Jul 20
base 37% Mn port index, range 35-39%, fot Tianjin yuan/dmtu	34.60*	-0.86%	▼	24 Jul 20
base 44% Mn port index, range 42-48%, fot Tianjin yuan/dmtu	37*	-0.27%	▼	24 Jul 20
Inventories at the main ports of Tianjin and Qinzhou, million tonnes	4.46-4.60*	4.5%		20 Jul 20
Ferro-nickel				
China premium, 26-32% nickel contained, cif China, \$/tonne	-1,5001,300*	27.27%		29 Jun 20
Ferro-silicon				
Lumpy basis 75% Si (scale pro rata), major European destinations, €/tonne	860-900*	0%		24 Jul 20
US free market \$/Ib in-warehouse Pittsburgh lumpy basis 75% Si - imported	0.83-0.86*	0%		23 Jul 20
Export from mainland China, min 75% Si, 7.5% C, \$/tonne, fob	1,060-1,100*	-2.26%	▼	22 Jul 20
MB Chinese free market min 75% Si, in-warehouse China, yuan/tonne	5,800-5,900*	-1.68%	▼	22 Jul 20
Silico-manganese				
Lumpy basis 65-75% Mn basis 15-19% Si (scale pro rata), major European destinations, €/tonne	850-890*	0%		24 Jul 20
US free market \$/Ib in-warehouse Pittsburgh	0.48-0.51*	0%		23 Jul 20
MB Chinese free market min 65% Mn max 17% Si in-warehouse duty-paid China yuan/tonne	5,900-6,000*	0%		24 Jul 20
65% min Mn 16% min Si \$/tonne fob India	850-870*	-1.71%	▼	24 Jul 20

Price

Change

† week-on-week change

continued >

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Assessed

CARBON STEEL - EUROPE			
	Price	Change <sup>†</sup>	Assessed
Northern Europe imports			
Fastmarkets MB's assessment of cfr price steel, € per tonne cfr main EU port	es for imported, non-EU	origin, commercial-	quality carbon
Rebar	410-430*	-0.59%	▼ 22 Jul 20
Wire rod (mesh quality)	415-430*	0%	22 Jul 20
Plate (8-40mm)	440-450*	0%	22 Jul 20

Cold rolled coil
Hot-dip galvanized coil

#### Southern Europe imports

Hot rolled coil

Fastmarkets MB's assessment of cfr prices for imported, non-EU origin, commercial-quality carbon steel, € per tonne cfr main EU port

410-415\*

460-465\*

520-530\*

0%

0%

0%

22 Jul 20

22 Jul 20

22 Jul 20

Rebar	410-420*	-0.6%	▼	22 Jul 20
Wire rod (mesh quality)	410-420*	0%		22 Jul 20
Plate (8-40mm)	430-450*	0%		22 Jul 20
Hot rolled coil	390-400*	0%		22 Jul 20
Cold rolled coil	465-475*	0%		22 Jul 20
Hot-dip galvanized coil	530-540*	0%		22 Jul 20

#### Southern Europe exports

Fastmarkets MB's assessment of Southern Europe mills' prices for export outside Southern Europe of commercial-quality carbon steel, € per tonne fob main Southern European port

Rebar	390-410*	0%	22 Jul 20
Wire rod (mesh quality)	405-420*	0.61%	22 Jul 20

#### Northern Europe domestic

Fastmarkets MB's assessment of prices within the EU (excluding the UK) for commercial-quality carbon steel of EU origin,  $\notin$  per tonne delivered basis point

Rebar	440-460*	0%	22 Jul 20
Wire rod (mesh quality)	420-440*	0%	22 Jul 20
Sections (medium)	540-560*	0%	22 Jul 20
Beams	530-560*	1.87%	22 Jul 20

#### Southern Europe domestic

Fastmarkets MB's assessment of prices within the EU (excluding the UK) for commercial-quality carbon steel of EU origin, € per tonne delivered basis point

Rebar	425-435*	0%	22 Jul 20
Wire rod (mesh quality)	425-440*	0%	22 Jul 20
Sections (medium)	550-560*	0%	22 Jul 20
Beams	535-560*	1.86%	22 Jul 20
Central Europe domestic € per tonne ex-work	s		
Hot rolled coil	390-400*	0%	22 Jul 20
Poland domestic zloty per tonne ex-works			
Rebar	1,840-1,970*	1.87%	24 Jul 20
Northern Europe € per tonne ex-works			
Plate (8-40mm)	470-490*	1.05%	22 Jul 20
Hot rolled coil index	408.21-408.21*	0.17%	24 Jul 20
Cold rolled coil	485-510*	0.51%	22 Jul 20
Hot-dip galvanized coil	495-520*	0.5%	22 Jul 20
Southern Europe € per tonne ex-works			
Plate (8-40mm)	430-440*	2.35%	22 Jul 20
Hot rolled coil	390-400*	0.64%	22 Jul 20
Cold rolled coil	475-490*	0.52%	22 Jul 20
Hot-dip galvanized coil	480-490*	0.52%	22 Jul 20

CARBON STEEL - CIS	
	Price

#### CIS exports (Black Sea)

Fastmarkets MB's assessment of CIS mills' prices for export outside the CIS of commercial-quality carbon steel, \$ per tonne fob stowed main Black Sea port

Change<sup>†</sup>

Billet index	385*	2.67%	24 Jul 20
Slab	385-390*	2.65%	20 Jul 20
Rebar	420-430*	3.03%	20 Jul 20
Wire rod (mesh)	440-445*	4.12%	20 Jul 20
Heavy plate (8-50mm)	460-475*	1.08%	20 Jul 20
Hot rolled coil	400-415*	1.24%	20 Jul 20
Cold rolled coil	465-475*	2.17%	20 Jul 20

#### Russia domestic

Fastmarkets MB's assessment of prices within Russia for commercial-quality carbon steel, rubles per tonne, carriage paid to (cpt) inc VAT

Rebar	34,000-35,000*	1.47%	20 Jul 20
Hot rolled sheet	40,000-42,000*	1.86%	20 Jul 20
Cold rolled sheet	45,000-47,000*	0%	20 Jul 20
Plate	40,000-41,000*	0%	20 Jul 20

CARBON STEEL - MIDDLE EAST						
	Price	Change <sup>†</sup>		Assessed		
Turkish exports						
Fastmarkets MB's assessment of Turkish mills' prices for export of commercial-quality carbon steel, per tonne fob main Turkish port						
Billet	405-410*	5.16%		23 Jul 20		
Rebar	415-425*	0.6%		23 Jul 20		

Rebar	415-425*	0.6%	23 Jul 20
Wire rod (mesh quality)	465-475*	5.62%	23 Jul 20
Merchant bars	465-475*	1.08%	23 Jul 20
Structural pipe	470-490*	0%	08 Jul 20
Hot rolled coil	430-450*	2.33%	24 Jul 20
Hot dip galvanized	610-620*	1.65%	24 Jul 20

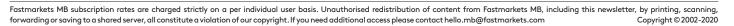
#### Turkish domestic

(

Fastmarkets MB's assessment of prices within Turkey for commercial-quality carbon steel of Turkish origin, \$ per tonne ex-works

origin, \$ per tonne ex-works			
Billet	405-410*	5.16%	23 Jul 20
Hot rolled coil	450-460*	2.25%	24 Jul 20
Cold rolled coil	530-535*	1.91%	24 Jul 20
Hot dip galvanized	610-625*	1.65%	24 Jul 20
Prepainted galvanized	710-730*	1.77%	24 Jul 20
Fastmarkets MB's assessment of prices within Tu origin, TRY per tonne ex-works 18% VAT included		uality carbon steel c	f Turkish
Rebar	3,490-3,520*	1.89%	23 Jul 20
Wire rod (mesh quality)	3,700-3,900*	1.33%	23 Jul 20
Turkish imports			
Fastmarkets MB's assessment of prices for impor main Turkish port	ted commercial-quali	ty carbon steel, \$ pe	r tonne cfr
Billet	395-405*	3.9%	23 Jul 20
Hot rolled coil	415-425*	0%	24 Jul 20
Cold rolled coil	470-490*	0%	24 Jul 20
UAE imports			
Fastmarkets MB's assessment of prices for impor Jebel Ali	ted commercial-quali	ty carbon steel, \$ pe	r tonne cfr
Billet	410-415*	1.85%	21 Jul 20
Rebar	455-460*	0%	21 Jul 20
Hot rolled coil	460-480*	5.86%	21 Jul 20
Cold rolled coil	530-535*	1.91%	21 Jul 20
Hot dip galvanized coil	610-680*	4.88%	21 Jul 20
Saudi Arabia imports			
Fastmarkets MB's assessment of prices for impor	ted commercial-quali	ty carbon steel, \$ pe	r tonne cfr

Hot rolled coil	460-490*	4.4%		21 Jul 20
† week-on-week change			cor	tinued >



Assessed

	Price	Change	Assessed
UAE domestic			
Fastmarkets MB's assessment of prices within dirhams per tonne ex-works	n UAE for commercia	Il-quality carbon st	eel of UAE origin,
Rebar	1,770-1,773*	0%	21 Jul 20
Iran exports			
Fastmarkets MB's assessment of prices quote steel to overseas buyers, \$ per tonne fob Irani.		rs for commercial-	quality carbon
Billet	380-385*	2%	▲ 22 Jul 20
Slab	375-380*	0%	22 Jul 20
Egyptian domestic			
Fastmarkets MB's assessment of prices within origin, E£ per tonne ex-works	n Egypt for commerc	ial-quality carbon s	steel of Egyptian
Rebar	9,200-9,680*	0%	23 Jul 20
Egyptian import			
Fastmarkets MB's assessment of prices for im main port	ported commercial-	quality carbon stee	el, \$ per tonne cfr
Billet	380-405*	0.64%	▲ 23 Jul 20
CARBON STEEL - LATIN AMERICA			
	Price	Change <sup>†</sup>	Assessed
Latin American exports			
Fastmarkets MB's assessment of Latin Americ commercial-quality carbon steel, \$ per tonne f			America of
Billet	365-370*	0%	24 Jul 20
Slab, Brazil	380-390*	1.99%	▲ 24 Jul 20
Wire rod mesh quality	440-450*	0%	24 Jul 20
Heavy plate over 10mm	470-480*	-1.04%	▼ 24 Jul 20
Hot rolled coil (dry)	445-460*	0%	24 Jul 20
Cold rolled coil	490-500*	0%	24 Jul 20
South America imports			
Fastmarkets MB's assessment of cfr prices for	r imported, commerc	ial-quality carbon	steel,
<i>\$ per tonne cfr main ports</i> Plate	500-520*	-2.39%	▼ 24 Jul 20
Hot rolled coil	495-520*		<ul> <li>24 Jul 20</li> <li>24 Jul 20</li> </ul>
Cold rolled coil	535-550*		▲ 24 Jul 20
Galvanized coil	600-630*		▲ 24 Jul 20
Galvalume coil	720-730*		▲ 24 Jul 20
Argentina domestic \$ per tonne ex-works			
Fastmarkets MB's assessment of prices within tonne	n Argentina for comm	ercial-quality carb	oon steel, \$ per
Hot rolled coil	720-725*	0%	10 Jul 20
Cold rolled coil	815-820*	0%	10 Jul 20
Galvanized coil	1,045-1,125*	0%	10 Jul 20
Rebar	850-860*	0%	10 Jul 20
Brazil domestic	000 000	070	10 001 20
Fastmarkets MB's assessment of prices within tonne ex-works	n Brazil for commerc	al-quality carbon s	steel, Reais per
Hot rolled coil	2,745-2,795*	4.71%	▲ 10 Jul 20
Cold rolled coil	3,100-3,150*	4.15%	▲ 10 Jul 20
Hot dip galvanized coil	3,350-3,420*	-0.82%	▼ 10 Jul 20
Fastmarkets MB's assessment of prices within	n Brazil for commerci	al-quality carbon s	steel, Reais per
tonne delivered	2 / 10 2 520*	5 110/	▲ 10 Jul 00
Rebar	2,410-2,530*	5.11%	▲ 10 Jul 20
CARBON STEEL - NAFTA			
	Price	Change <sup>†</sup>	Assessed
IIS imports	1 100	onange.	100000CU
US imports Fastmarkets MB's assessment of prices for im steel, \$ per short ton cfr port Houston	ported, non-Nafta o	igin, commercial-	quality carbon
Rebar	540-560*	2.8%	▲ 22 Jul 20
Merchant bars	630-650*	0%	22 Jul 20 26 Jun 20
moronalit bara	000-000	0 /0	20 Juli 20

	Price	Change	Assessed
Wire rod (low carbon)	560-590*	-0.86%	▼ 21 Jul 20
Medium sections	650-670*	0%	25 Jun 20
Medium plate	600-640*	0%	22 Jul 20
Hot rolled coil (commodity)	450-480*	-3.12%	▼ 22 Jul 20
Cold rolled coil	650-680*	2.31%	▲ 22 Jul 20
Hot dipped galvanized 0.012-0.015, G30	820-860*	-1.18%	▼ 22 Jul 20
OCTG API5CT - Casing J55 import South Korean-made, cif Houston, \$/short ton	700-750*	0%	30 Jun 20
OCTG API5CT - Casing J55 import non-South Korean-made, cif Houston, \$/short to	on 690-710*	0%	30 Jun 20
US domestic			
Fastmarket AMM's assessment of prices within Canadian origin, \$ per short ton, delivery terms a		ercial-quality carbo	on steel of US or
Rebar (fob mill)	560-560*	0%	22 Jul 20
Plate (fob mill)	520*	0%	17 Jul 20
Hot rolled coil Midwest index (fob mill)	439*	-6.24%	▼ 23 Jul 20
Cold rolled coil (fob mill)	650*	-1.52%	▼ 23 Jul 20
Hot-dip galvanized coil (base) Midwest (fob mill)	640*	0%	23 Jul 20
OCTG API5CT - casing J55 (fob mill)	880-950*	0%	30 Jun 20
Fastmarket AMM's assessment of prices within Canadian origin, \$ per hundredweight, delivery		, ,	on steel of US or
Merchant bar 3 x 3 1/4 angle (fob mill)	34.25-34.25*	0%	26 Jun 20

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Channa

CARBON STEEL - ASIA			
	Price	Change <sup>†</sup>	Assessed
China exports			

#### Fastmarkets MB's assessment of Chinese mills prices for export of commercial-quality carbon steel, \$ per tonne fob main China port

Rebar index	470-470*	1.08%		24 Jul 20
Wire rod (mesh quality)	465-470*	1.08%		21 Jul 20
Heavy plate	485-490*	-0.51%	▼	21 Jul 20
Hot rolled coil index	476-476*	1.17%		24 Jul 20
Cold rolled coil	505-515*	1.49%		21 Jul 20
Galvanized coil 1mm	570-575*	1.33%		21 Jul 20

#### Eastern China domestic

Fastmarkets MB's assessment of prices in eastern China for commercial-quality carbon steel of Chinese origin, yuan per tonne ex-warehouse

Rebar	3,610-3,640*	1.4%	24 Jul 20
Wire rod (mesh)	3,730-3,760*	1.63%	24 Jul 20
Sections	3,750-3,800*	0.27%	24 Jul 20
Plate	3,940-3,960*	0.89%	24 Jul 20
Hot rolled coil (min 2mm)	3,930-3,950*	1.42%	24 Jul 20
Cold rolled coil (0.5 - 2 mm)	4,290-4,320*	1.06%	24 Jul 20
Hot-dip galvanized coil	4,540-4,590*	0.66%	24 Jul 20

#### Northern China domestic

Fastmarkets MB's assessment of prices in northern China for commercial-quality carbon steel of Chinese origin (Tangshan), yuan per tonne ex-works

Billet	3,420-3,420*	0.29%		24 Jul 20
Fastmarkets MB's assessment of prices in north Chinese origin, yuan per tonne ex-warehouse	ern China for comm	ercial-quality	carbon	steel of
Hot rolled coil	3,790-3,830*	0.66%		24 Jul 20
Rebar	3,640-3,680*	-0.41%	▼	24 Jul 20

† week-on-week change

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#### Indian exports

Fastmarkets MB's assessment of Indian mills' prices for export of commercial-quality carbon steel, \$ per tonne fob main India port

Billet	395-400*	0%	24 Jul 20
Plate (12-40mm)	460-465*	3.35%	24 Jul 20
Hot rolled coil (commodity)	465-470*	3.31%	24 Jul 20
Hot-dip galvanized coil	615-620*	6.93%	24 Jul 20

#### Indian imports

Fastmarkets MB's assessment of prices for imported, non-EU origin, commercial-quality carbon steel, \$ per tonne cfr main India port

Plate (20-60mm)	560-565*	0%	24 Jul 20
Hot rolled coil (commodity)	480-485*	0%	24 Jul 20
Hot rolled coil (CR grade)	500-505*	0%	24 Jul 20
Cold rolled coil	580-585*	0%	24 Jul 20

#### Indian domestic

Fastmarkets MB's assessment of prices within India for commercial-quality carbon steel, rupees per tonne ex-works

Billet	28,400-28,600*	4.78%	24 Jul 20
Heavy plate	34,000-34,500*	0%	24 Jul 20
Hot rolled coil	35,000-35,500*	0%	24 Jul 20
Cold rolled coil	41,250-41,500*	0%	24 Jul 20
DRI	18,000-18,200*	5.85%	24 Jul 20
Hot-dip galvanized coil	44,000-44,500*	0%	24 Jul 20
Rebar	31,300-31,500*	2.95%	24 Jul 20

#### STAINLESS STEEL

	Price	Change <sup>†</sup>	Assessed
Asia import			
\$/tonne cif East Asian port			
Grade 304 2mm CR coil 2B	1,780-1,830*	-0.55%	▼ 22 Jul 20
Grade 304 hot rolled coil	1,680-1,740*	-0.87%	▼ 22 Jul 20
China domestic			
yuan/tonne, in-warehouse			
Grade 304 2mm CR coil	13,500-14,000*	0.36%	▲ 22 Jul 20
Grade 430 2mm CR coil	7,300-7,350*	0%	22 Jul 20
EU domestic			
2mm 304 cold rolled stainless sheet, €/tonne			
N.Europe Base price	700-750*	0%	24 Jul 20
Alloy surcharge	1,329-1,343*	0%	24 Jul 20
N.Europe transaction	1,900-1,950*	-2.04%	▼ 24 Jul 20
2mm 316 cold rolled stainless sheet, €/tonne			
Base price	1,050-1,100*	0%	24 Jul 20
Alloy surcharge	1,855-1,922*	0%	24 Jul 20
304 stainless steel bright bar, €/tonne			
Base price	985-1,015*	0%	24 Jul 20
Alloy surcharge	1,645-1,692*	0%	24 Jul 20

	Price	Change	Assessed		
US domestic					
Fastmarkets AMM's appraisal of prices within the USA for commercial-quality stainless steel of US or Canadian origin, \$ per hundredweight, fob					
Grade 304 coiled plate	108-108*	0.93%	10 Jul 20		
Grade 316 coiled plate	151-151*	0%	10 Jul 20		
Grade 304 cold rolled sheet	117-117*	0.86%	10 Jul 20		
Grade 316L cold rolled sheet	152-152*	0%	10 Jul 20		
IRON ORE					
	Price	Change <sup>†</sup>	Assessed		
65% Fe Brazilian Index CFR Qingdao (MBIOI-65-BZ-Index) \$/tonne	120.80*	-0.58%	24 Jul 20		
Lump premium CFR Qingdao (MBIOI-LP Index) cents per dmtu	3.5*	-56.25%	24 Jul 20		
Iron ore index (62% Fe)	109.39*	-0.83% 🔻	24 Jul 20		
Iron ore index (62% LA)	111.56*	-0.69% 🔻	24 Jul 20		
58% Fe Iron Ore Index (MBIOI-58) CFR Qingdao on a 58% fe basis Daily Price \$/dry metric tonne	90.56*	-1.55%	24 Jul 20		
High grade Premium (MBIOI-58P) CFR Qingdao on a 58% basis low alumina, low phosphorous Daily Price \$/dry metric tonne	7*	0%	24 Jul 20		
Iron Ore Implied 58% Fe high specification price	97.56*	-1.44%	24 Jul 20		
Iron Ore product differential - PBF delivered Qingdao, China CFR \$/tonne	-1.47*	-349.15%	24 Jul 20		
Iron ore 62% Fe Pilbara Blend Fines (MBIOI-PBF) \$/tonne	107.92*	-2.69%	24 Jul 20		
Iron Ore 62% Fe China port price index	846*	-0.94% 🔻	24 Jul 20		
Implied 62% Fe China Port Price \$ per tonne	111.67*	-1.14% 🔻	24 Jul 20		
Iron ore pellet index cfr Qingdao (65% Fe)	125.67*	-2.03% 🔻	24 Jul 20		
Iron ore concentrate index cfr Qingdao (66% Fe)	116.42*	-2.36%	24 Jul 20		
Iron ore implied pellet premium over the Fastmarkets MB 65% Fe Brazilian iron ore index cfr Qingdao US\$/tonne	4.35*	-22.32%	24 Jul 20		
Iron ore DR-grade pellet premium index Middle East reference, \$/dmt	31*	0%	30 Jun 20		
Metal Bulletin Indicator for US\$/% AI MBIOI AI-VIU cfr Qingdao	-4.06*	2.53%	20 Jul 20		
Metal Bulletin Indicator for US\$/% Fe in iron ore fines cfr Qingdao	1.83*	3.98%	20 Jul 20		
Iron Ore Fines 65% Fe, % Fe value in use cfr Qingdao \$/dry metric tonne	2.07*	1.47%	20 Jul 20		
Metal Bulletin Indicator for US\$/% Si MBIOI Si-VIU cfr Qingdao	-2.03*	-0.98%	20 Jul 20		
Iron Ore Fines 62% Fe, 0.01% Phosphorous value in use MBIOI Phos-VIU cfr Qingdao US cent per dry metric tonne	-0.60*	-10.45%	20 Jul 20		
COKING COAL					

\$ per metric tonne				
	Price	Change <sup>†</sup>		Assessed
Premium hard coking coal index cfr China	119.39*	1.51%		24 Jul 20
Hard coking coal index cfr China	100.25*	0.23%		24 Jul 20
Premium hard coking coal index fob Australia	108.22*	0.67%		24 Jul 20
Hard coking coal index fob Australia	88.09*	-1.12%	▼	24 Jul 20
China hard coking coal Shanxi spot market domestic delivered yuan/tonne	1,180-1,480*	1.14%		20 Jul 20
65% CSR coke \$/tonne fob China	280-285*	0%		21 Jul 20
Low Vol PCI Index \$ per dry metric tonne cfr Jingtang	81.70*	0.42%		24 Jul 20
Low Vol PCI Index \$ per dry metric tonne fob DBCT	69.96*	1.08%		24 Jul 20

† week-on-week change

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FERROUS SCRAP			
	Price	Change <sup>†</sup>	Assessed
UK ferrous scrap domestic			
The following is Fastmarket MB's evaluation of within the month listed. Prices may vary accord conjunction with editorial comment on the Ferr	ding to region and de	,	
£/tonne			
Cut grades			
OA plate and structural	110-125*		13 Jul 20
1&2 old steel	90-105*	-4.88%	13 Jul 20
12A/C new production heavy and shovellable steel	135-150*	-3.39%	▼ 13 Jul 20
12D new production heavy and shovellable steel	140-155*	-3.28%	▼ 13 Jul 20
Bales and cuttings			
4A new steel bales	140-155*	-3.28%	13 Jul 20
4C new steel bales	130-145*	-3.51%	13 Jul 20
8A new loose light cuttings	130-145*	-3.51%	13 Jul 20
8B new loose light cuttings	115-130*	-3.92%	13 Jul 20
Turnings			
UK inter-merchant 7B heavy steel turnings	65-80*	-6.45%	13 Jul 20
Castiron			
9A/10 heavy and light cast iron	100-115*		13 Jul 20
9B/C cylinder block scrap	120-135*		13 Jul 20
11A cast iron borings	60-70*	0%	13 Jul 20
Prices relate to new UK scrap specifications			
Please see metalbulletin.com for full explanation	on of price changes		
UK intermerchant weekly price			
£/tonne			
5C loose old light	85-95*	0%	24 Jul 20
UK ferrous scrap export			
Fastmarkets MB's assessment \$ fob main UK	port		
HMS 1&2 (80:20 mix)	247-252*	4.18%	▲ 24 Jul 20
Shredded	252-257*	4.09%	▲ 24 Jul 20
Bangladesh import			
HMS 1&2 (80:20 mix) deep-sea origin,			
cfr, \$/tonne	280-290*	4.01%	▲ 23 Jul 20
Indian import			
Fastmarkets MB's assessment \$/tonnne cfr NI	hava Sheva		
MB index cfr India shredded	285.96*	1.6%	▲ 24 Jul 20
HMS 1&2 (80:20 mix)	245-260*	0%	17 Jul 20
Alloy steel scrap domestic			
UK wholesale merchants' stainless ( $\pounds$ /tonne)			
18/8 solids	840-870*	0%	24 Jul 20
18/8 turnings	715-740*	0%	24 Jul 20
316 solids	1,230-1,270*	0%	24 Jul 20
316 turnings	1,045-1,080*	0%	24 Jul 20
12-13% Cr solids	120-140*	0%	24 Jul 20
16-17% Cr solids	150-170*	0%	24 Jul 20
Cif Europe stainless € per tonne			
18/8 solids	960-970*	0%	24 Jul 20
18/8 turnings	865-875*	0%	24 Jul 20
316 solids	1,370-1,390*	0%	24 Jul 20
316 turnings	1,235-1,250*	0%	24 Jul 20
Rotterdam export			
Fastmarkets MB's assessment \$/tonnne fob R	otterdam		
MB index fob Rotterdam HMS 1&2 (80:20)	248.78*	4.44%	▲ 24 Jul 20
HMS 1&2 (75:25 mix)	236-241*	4.38%	24 Jul 20
Shredded	246-251*		24 Jul 20

	Price	Change		Assessed
Turkish import				
Fastmarkets MB's assessment \$/tonne cfr mail	n Turkish ports			
MB index cfr Turkey HMS 1&2 (80:20)				
(North Europe material)	265.66*	3.8%		24 Jul 20
MB index cfr Turkey HMS 1&2 (80:20) (United States material)	271.24*	3.72%		24 Jul 20
HMS 1&2 (75:25 mix)	250-255*	4.12%		24 Jul 20
Shredded	272-275*	4.59%		24 Jul 20
Turkish domestic				
Fastmarkets MB's assessment delivered				
Melting scrap from shipbreaking (\$/tonne)	258-258*	5.31%		20 Jul 20
Auto bundle scrap (Turkish lira/tonne)	1,660-1,940*	1.98%		20 Jul 20
USA export	1,000 1,010	1.0070	_	20 001 20
		March March		
Fastmarket AMM ferrous scrap export index \$/				00 1-100
HMS 1&2 (80:20)	240*	0.21%		22 Jul 20
Shredded	245*	0.33%		22 Jul 20
USA domestic				
Fastmarkets AMM Midwest index \$/gross ton d	elivered mill			
No1 heavy melting scrap	203.73*	-7.31%	▼	10 Jul 20
No1 busheling	278.02*	-14.16%	▼	10 Jul 20
Shredded	241.67*	-6.31%	▼	10 Jul 20
China domestic				
yuan/tonne delivered mill				
Heavy scrap	2,640-2,700*	0%		24 Jul 20
Japan export				
yen/tonne fob main port Japan				
H2	24,500-25,000*	6.45%		22 Jul 20
P&S	27,000-27,500*	2.83%		22 Jul 20
Shindachi	26,500-27,500*	1.89%		22 Jul 20
Shredded	26,500-27,000*	0.94%		22 Jul 20
South Korea import				
H2 Japan origin, cfr main port,				
yen/tonne	26,000-26,000*	3.38%		24 Jul 20
HMS 1&2 (80:20 mix) deep-sea origin,	000 070*	0.040		
cfr, \$/tonne	260-270*	2.91%		24 Jul 20
Taiwan import				
\$/tonne cfr main port				
HMS 1&2 (80:20 mix) (USA material)	243-245*	2.09%		24 Jul 20
Vietnam import				
\$/tonne cfr southern Vietnam				
HMS 1&2	270-275*	3.81%		24 Jul 20
H2 Japan origin	255-260*	3%		24 Jul 20
Germany domestic				
Fastmarkets MB's assessment €/tonne deliver	ed at mill			
Grade E40 (shredded steel scrap)	225-235	-7.07%	▼	16 Jul 20
No E8 (thin new production steel scrap)	230-235	-6.06%	▼	16 Jul 20
No E3 (old thick scrap)	220-230	-6.25%	▼	16 Jul 20
Italy domestic				
Fastmarkets MB's assessment €/tonne deliver	ed at mill			
No E3 (old thick scrap)	210-230	2.33%		13 Jul 20
No E8 (thin new production steel)	235-245	0%		13 Jul 20
No E40 (shredded steel scrap)	220-240	0%		13 Jul 20
(				

† week-on-week change

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Brazil exports \$/tonne, delivery terms as stated

Change<sup>†</sup>

0.76%

1.98%

0%

0.63%

0.96%

-0.45%

-0.32%

0%

Change<sup>†</sup>

1.14%

1.19%

2.07%

▼

•

Assessed

23 Jul 20

23 Jul 20

24 Jul 20

24 Jul 20

24 Jul 20

24 Jul 20

23 Jul 20

23 Jul 20

Assessed

24 Jul 20

24 Jul 20

24 Jul 20

A380.1 alloy

Price

328-335\*

255-260\*

165-165\*

322-322\*

315-315\*

327-330\*

310-315\*

319-324\*

Price

860-910\*

830-870\*

710-770\*

SCRAP SUBSTITUTES

EU imports \$/tonne Pig iron imports cfr Italy

ports

Pig iron

Pig iron Baltic Sea

Pig iron Black Sea

Aluminium

Floated frag

Mixed turnings 6%

Cast

Hot-briquetted iron cfr Italian

Hot briquetted iron Venezuela

Pig iron fob Vitorio/Rio Brazil

Pig iron fob Ponta da Maderia Brazil

CIS exports \$/tonne fob main port

NON-FERROUS SCRAP EUROPE

European free market Fastmarkets MB assessment €/tonne

US imports \$/tonne cfr Gulf of Mexico

NON-FERROUS FOUNDRY INGOTS			
	Price	Change <sup>†</sup>	Assessed
Aluminium UK £/tonne			
Fastmarkets MB free market			
LM24 pressure diecasting ingot	1,090-1,150*	0%	22 Jul 20
LM6/LM25 gravity diecasting ingot	1,390-1,430*	0%	22 Jul 20
NB: prices expressed delivered consume	r works, LM series as	s specified in BS	61490
Aluminium Europe			
Fastmarkets MB free market			
Duty paid delivered works pressure diecasting ingot price (DIN226/A380)	4 0 40 4 000*	0.00/	
-€/tonne	1,240-1,290*	0.8%	▲ 24 Jul 20
Aluminum US \$/Ib delivered Midwest			

0.68-0.70\*

0%

**UK NON-FERROUS SCRAP** Price Change<sup>†</sup> Assessed Aluminium - actual price £ per tonne Group 1 pure 99% & Litho 1,110-1,150\* 0% 22 Jul 20 22 Jul 20 Commercial pure cuttings 750-800\* 0% Clean HE9 extrusions 1,110-1,150\* 0% 22 Jul 20 22 Jul 20 Loose old rolled cuttings 470-530\* 0% Baled old rolled 610-650\* 0% 22 Jul 20 Commercial cast 620-680\* 0% 22 Jul 20 Cast wheels 890-920\* 0% 22 Jul 20 Commercial turnings 350-450\* 0% 22 Jul 20 Group 7 turnings 230-250\* 0% 22 Jul 20 Fastmarkets MB and LME aluminium scrap discounts £ per tonne Group 1 pure 99% & Litho 143-183\* -944% V 22 Jul 20 Commercial pure cuttings 493-543\* -4 95% V 22 Jul 20 Clean HE9 extrusions 143-183\* -9.44% ▼ 22 Jul 20 Loose old rolled cuttings 527-587\* 2.96% 22 Jul 20 Baled old rolled 407-447\* 3.89% 22 Jul 20 Commercial cast 377-437\* 4.09% 22 Jul 20 137-167\* 11.76% 22 Jul 20 Cast wheels 22 Jul 20 Commercial turnings 607-707\* 2.5% 807-827\* 22 Jul 20 Group 7 turnings 2% Titanium \$/lb cif Turnings, unprocessed type 90/6/4 (0.5% Sn max) 0.60-0.65\* 0% 22 Jul 20 Turnings, unprocessed 90/6/4 (over 0.5% max 2% Sn) 0.5-0.55\* 0% 22 Jul 20 Copper scrap discount cents/lb No 2 copper (birch/cliff) imported into China 94-96% cif China 23-25\* -1.04% ▼ 29 Jun 20 † week-on-week change

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23 Jul 20

# Monthly averages: June

BASEMETALS			
		Low	High
Aluminium			
Aluminium P1020A, in-warehouse R premium, duty unpaid, spot \$/tonne	Rotterdam	80.00	90.00
Aluminium P1020A, in-warehouse R duty paid, spot \$/tonne	Rotterdam	100.00	113.33
Alumina			
Index fob Australia		253.95	
Copper			
US High-grade cathode premium inc	dicator,		
\$/tonne		132.28	154.32
Nickel			
Free market in warehouse premium	l la autorita d	60.00	400.00
Europe \$/tonne	Uncut cathodes	60.00	100.00
	4x4 cathodes	210.00	250.00
<b></b>	Briquettes	20.00	64.00
Tin Furances free market			
European free market		266 67	110 00
Spot Premium 99.9%, \$/tonne Kuala Lumpur (ex-smelter), \$/tonne		366.67	413.33
Antimony			
Antimony MB free market Regulus 99.65%,	le	5,316.88	5,602.50
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/tonr	ne	5,316.88 5,268.75	5,602.50 5,556.25
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/tonr MMTA Standard grade II, \$/tonne Bismuth			
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/tonr MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne I			
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/tonr MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne I in warehouse, \$/lb		5,268.75	5,556.25
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/tonr MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne I in warehouse, \$/lb Cadmium		5,268.75	5,556.25
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/tonr MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne I in warehouse, \$/lb Cadmium MB free market min 99.95%, in warehouse, cents/lb		5,268.75 2.54 98.75	5,556.25 2.67 111.25
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/tonr MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne I in warehouse, \$/lb Cadmium MB free market min 99.95%, in warehouse, cents/lb		5,268.75 2.54	5,556.25 2.67
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/tonr MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne I in warehouse, \$/lb Cadmium MB free market min 99.95%, in warehouse, cents/lb min 99.99%, in warehouse cents/lb Cobalt		5,268.75 2.54 98.75	5,556.25 2.67 111.25
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/tonr MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne I 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		5,268.75 2.54 98.75 103.75	5,556.25 2.67 111.25 116.25
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/tonr MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne I in warehouse, \$/lb Cadmium MB free market min 99.95%, in warehouse, cents/lb Cobalt MB free market Alloy Grade, in warehouse, \$/lb	lots,	5,268.75 2.54 98.75 103.75 14.46	5,556.25 2.67 111.25 116.25 14.91
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/tonr MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne I 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,	5,268.75 2.54 98.75 103.75	5,556.25 2.67 111.25 116.25
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/tonr MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne I 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	lots,	5,268.75 2.54 98.75 103.75 14.46	5,556.25 2.67 111.25 116.25 14.91
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/tonr MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne I 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,	5,268.75 2.54 98.75 103.75 14.46 14.45	5,556.25 2.67 111.25 116.25 14.91 14.89
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/tonr MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne I 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	lots,	5,268.75 2.54 98.75 103.75 14.46	5,556.25 2.67 111.25 116.25 14.91
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/tonr MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne I 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 Standard Grade, in warehouse, \$/lb Gallium MB free market MB free market	lots,	5,268.75 2.54 98.75 103.75 14.46 14.45 155.00	5,556.25 2.67 111.25 116.25 14.91 14.89 165.00
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/tonr MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne I in warehouse, \$/lb Cadmium MB free market min 99.95%, in warehouse, cents/lb Cobalt MB free market Alloy Grade, in warehouse, \$/lb Standard Grade, in warehouse, \$/lb Standard Grade, in warehouse, \$/lb Gallium MB free market MB free market MB free market MB free market s/kg Germanium Dioxide MB free market min 99.99%	lots,	5,268.75 2.54 98.75 103.75 14.46 14.45 155.00 900.00	5,556.25 2.67 111.25 116.25 14.91 14.89 165.00 1,100.00
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/tonr MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne I in warehouse, \$/lb Cadmium MB free market min 99.95%, in warehouse, cents/lb Cobalt MB free market Alloy Grade, in warehouse, \$/lb Standard Grade, in warehouse, \$/lb Standard Grade, in warehouse, \$/lb Gallium MB free market MB free market min 99.99% Metal, Rotterdam, \$/kg	lots,	5,268.75 2.54 98.75 103.75 14.46 14.45 155.00	5,556.25 2.67 111.25 116.25 14.91 14.89 165.00
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/tonr MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne I 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 Standard Grade, in warehouse, \$/lb Gallium MB free market MB free market MB free market MB free market MB free market MB free market min 99.99% Metal, Rotterdam, \$/kg Indium	lots,	5,268.75 2.54 98.75 103.75 14.46 14.45 155.00 900.00	5,556.25 2.67 111.25 116.25 14.91 14.89 165.00 1,100.00
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/tonr MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne I in warehouse, \$/lb Cadmium MB free market min 99.95%, 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 min 99.99%, Metal, Rotterdam, \$/kg Indium MB free market ingots, min 99.97%,	lots,	5,268.75 2.54 98.75 103.75 14.46 14.45 155.00 900.00	5,556.25 2.67 111.25 116.25 14.91 14.89 165.00 1,100.00
Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/tonr MMTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne I 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 Standard Grade, in warehouse, \$/lb Gallium MB free market MB free market MB free market MB free market MB free market min 99.99% Metal, Rotterdam, \$/kg Indium MB free market ingots, min 99.97%, in warehouse, \$/kg	lots,	5,268.75 2.54 98.75 103.75 14.46 14.45 155.00 900.00 1,050.00	5,556.25 2.67 111.25 116.25 14.91 14.89 165.00 1,100.00 1,200.00
MINOR METALS Antimony MB free market Regulus 99.65%, max Se 50ppm, in warehouse,\$/tonr MTA Standard grade II, \$/tonne Bismuth MB free market min. 99.99%, tonne I in warehouse, \$/lb Cadmium MB free market min 99.95%, in warehouse, cents/lb Cobalt MB free market Alloy Grade, in warehouse, \$/lb Standard Grade, in warehouse, \$/lb Standard Grade, in warehouse, \$/lb Gallium MB free market MB free market MB free market MB free market MB free market min 99.99%, Metal, Rotterdam, \$/kg Indium MB free market ingots, min 99.97%, in warehouse, \$/kg Magnesium MB free market min 99.8%, \$/tonne	lots,	5,268.75 2.54 98.75 103.75 14.46 14.45 155.00 900.00 1,050.00	5,556.25 2.67 111.25 116.25 14.91 14.89 165.00 1,100.00 1,200.00

	Low	High
Selenium		
MB free market min 99.5% in warehouse, \$/lb	6.30	7.72
Silicon		
Grade 441, min 99% Si in-warehouse		
Rotterdam, €/tonne	1,700.00	1,757.50
Titanium		
Ferro-Titanium, 70% (max 4.5% AI),		
d/d Europe, \$/kg	4.15	4.60

ORES & ALLOYS		
	Low	High
Molybdenum		
Free market in warehouse Europe drummed molybdicoxide \$/lb Mo	7.89	8.09
US canned molybdic oxide \$/lb Mo	8.03	8.34
Ferro-molybdenum		
basis 65% min, in-warehouse Rotterdam, \$/kg Mo	18.64	19.11
Tungsten		
European free market APT, \$/mtu	210.00	220.00
Ferro-tungsten		
basis 75% W min, \$/kg	25.69	27.26
Vanadium		
min 98%, in-warehouse Rotterdam, V2O5, \$/lb	5.24	6.06
Ferro-vanadium		
basis 78% min, free delivery duty paid consumer plant, 1st grade Western		
Europe, \$/kg V	23.83	24.63
US Free market 70-80%, \$/Ib	9.73	9.95

#### PRECIOUS METALS

Gold			
London \$/troy oz	Morning	1,734.03	
	Afternoon	1,732.22	
London £/troy oz	Morning	1,384.54	
	Afternoon	1,383.62	
\$/troy oz	Handy/Harman	1,732.22	
Palladium			
Morning \$/troy oz		1,925.14	
Afternoon \$/troy oz		1,920.55	
Platinum: per troy oz			
Morning \$/troy oz		822.05	
Afternoon \$/troy oz		820.77	
Rhodium			
European free market min 99.9% in-warehouse, \$/troy oz		6,940.91	9,440.91
Silver			
London			
spot pence/troy oz		1,415.23	
spot cents/troy oz		1,771.98	
Handy/Harman cents/troy oz		1,771.27	

† week-on-week change

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#### FOUNDRY INGOTS

	Low High
Aluminium	
LM24, £/tonne	1,050.00 1,120.00
LM6/LM25, £/tonne	1,397.50 1,450.00
Aluminium Europe €/tonne	1,187.50 1,257.50

#### EXCHANGE RATES (CLOSING RATES)

\$/£	1.25
\$/yen	107.60
\$/€	1.13

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Fastmarkets MB monthly average prices are calculated on those price quotations formulated during the month.

#### LONDON METAL EXCHANGE

High, low and average November (22 days)

LME averages are mean of buyers and sellers except for

settlement and 3 months sellers.			
	Jan-Nov 202	0	November
	Low	High	average
	\$	\$	\$
Aluminium (\$)			
Cash	1,421.50	1,810.25	1,564.02
3 months	1,459.50	1,826.25	1,587.27
Settlement	1,421.50	1,810.50	1,564.02
3 months seller	1,459.50	1,826.50	1,587.27
Copper Grade A (\$)			
Cash	4,617.50	6,300.25	5,742.39
3 months	4,626.50	6,327.50	5,761.89
Settlement	4,617.50	6,300.50	5,742.39
3 months seller	4,626.50	6,330.00	5,761.89
Copper Grade A (£)			
Settlement	3,832.48	4,920.14	4,586.75
3 months seller	3,834.35	4,922.22	4,600.58
Lead (\$)			
Cash	1,576.50	2,026.50	1,739.86
3 months	1,598.00	2,026.50	1,756.66
Settlement	1,576.50	2,027.00	1,739.86
3 months seller	1,598.00	2,027.00	1,756.66
Lead (£)			
Settlement	1,262.96	1,551.35	1,389.65
3 months seller	1,283.30	1,546.97	1,402.52
Nickel (\$)			
Cash	11,055.00	14,287.50	12,703.27
3 months	11,142.00	14,365.00	12,764.14
Settlement	11,055.00	14,290.00	12,703.27
3 months seller	11,142.00	14,370.00	12,764.14
Tin (\$)			
Cash	13,387.50	17,762.50	16,806.27
3 months	13,385.00	17,800.00	16,626.27
Settlement	13,400.00	17,775.00	16,806.27
3 months seller	13,385.00	17,825.00	16,626.27

			November
	Low	High	average
	\$	\$	\$
Zinc (\$)			
Cash	1,773.50	2,466.25	2,020.61
3 months	1,793.00	2,449.50	2,027.57
Settlement	1,773.50	2,466.50	2,020.61
3 months seller	1,793.00	2,450.00	2,027.57
Cobalt (\$)			
Cash	27,500.00	34,500.00	29,102.27
3 months	28,500.00	35,000.00	29,386.36
Settlement	28,000.00	34,750.00	29,102.27
3 months seller	28,500.00	35,250.00	29,386.36
Aluminium Alloy (\$)			
Cash	1,130.00	1,435.00	1,209.61
3 months	1,180.00	1,430.00	1,209.32
Settlement	1,130.00	1,440.00	1,209.61
3 months seller	1,180.00	1,440.00	1,209.32
Nasaa (\$)			
Cash	1,073.00	1,267.50	1,175.25
3 months	1,090.00	1,285.00	1,185.95
Settlement	1,073.00	1,270.00	1,175.25
3 months seller	1,090.00	1,290.00	1,185.95

#### LME SETTLEMENT CONVERSION RATES

\$/£	1.25
\$/yen	107.57
\$/€	1.13