

DAILY

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Aluminium market expects price pressure from Rusal sanctions relief

NEW YORK, LONDON

Aluminium market participants in the United States and Europe expect further downward pressure on premiums and London Metal Exchange prices following the US Treasury Department's announcement that sanctions against UC Rusal will be removed.

Sanctions were imposed against Rusal in April, followed by several extensions of general licenses that allowed companies additional time to wind down their contracts with the Russian aluminium supplier. The US Treasury's Office of Foreign Assets Control announced on Wednesday December 19 that sanctions will be removed in 30 days - pending US Congressional approval - due to significant restructuring and corporate governance changes.

Rusal released a statement Thursday December 20, warning investors that the US Treasury's decision is not final.

"There is no assurance that the termination of sanctions imposed on [Rusal] will materialize or eventually be consummated as contemplated or at all," the Russian producer said in the statement.

Holiday Notice

Daily PDFs will be downloadable until Monday December 24. After that, because of public holidays, the next daily PDF will be downloadable on Thursday January 3, 2019. Rusal shares on the Hong Kong Stock Exchange closed 9.38% higher at HK\$2.45 (\$0.31) at Thursday's close.

Multiple sources told Fastmarkets that they anticipate downward pressure on an already depressed LME aluminium price and some softening in the US Midwest aluminium premium.

At least partially due to the sanctions, the P1020 duty-paid Midwest premium climbed to a multiyear high of 22-23 cents per lb in April - more than double the 9.4-9.5 cents per lb at which it began the year. The premium was most recently assessed at 18.75-19.25 cents per lb on December 18.

The LME aluminium cash contract closed the official session on December 19 at \$1,928 per tonne; it has traded below \$2,000 per tonne since October 23.

"The LME will probably trickle down a bit. The Midwest should stay up because tariffs are still in place," one US aluminium trader said.

A second trader only partially agreed. "[The LME aluminium price] is going to keep coming down. Product premiums will be under pressure too and the Midwest will also be under pressure," he said.

Following the sanctions in April, the LME suspended putting Rusal metal on-warrant.

"In the event that the OFAC removes Rusal and EN+ from the SDN list and thereby removes the sanctions (the 'OFAC Delisting'), the LME proposes recommending to the Special Committee that it remove the temporary conditional suspension so that warranting may be resumed of all Rusal metal," the LME said in a December 19

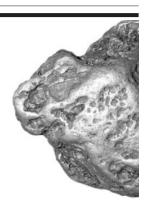
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update, further noting that "Members would be free to enter into contracts with Rusal or any subsidiary or affiliate of Rusal, and there would be no requirements to make payment into a blocked account or provide any form of undertaking to the LME."

Several sources believe Rusal will be forced to offer steep discounts to regain market share.

"It's going to add short-term pressure to the LME. But I also believe it could add longer-term pressure on the Midwest premium," a third trader said. "It will mean more metal availability. They're going to be forced to give metal away below valuations just to move metal - just to regain their market share. And I think they'll buy their market share."

The same trader added that Rusal will struggle to win back buyers who were burned by their overexposure to the company's supply earlier in the year.

But not all sources believe the removal of sanctions will significantly affect the market.

"I think that broadly it can loosen up metal, and it can drop the intrinsic value of aluminium. I don't know if it necessarily has much of an impact on the Midwest transaction price," a fourth trader said.

"[The expectation of sanctions relief was] already in prices so therefore I don't see a substantial change... The market has changed on the supply side in the past couple months," IHS Markit analyst John Mothersole said.

In Europe, sources expect LME spreads to feel the pressure.

The LME's cash/January spread widened to a \$24.50-per-tonne backwardation on Wednesday from a \$20-per-tonne backwardation a day earlier. Meanwhile, the LME's cash/threemonth spread eased to a \$1-per-tonne contango on Wednesday from a \$2-per-tonne contango the previous day, but it has been vacillating between contango and backwardation in recent weeks.

Those spreads are now more vulnerable to a steeper backwardation, according to sources in Europe.

"The spreads will get absolutely hammered off the back of this.

Remember [Rusal has not] been able to deliver into the LME since April. Spreads are going to soften, [the] cash/three-month [spread] is going to come off even more," a European warrant trader told Fastmarkets.

"It's definitely confirmed that [the decision to lift sanctions] is going through. Whether [the removal of sanctions is contested] is going to keep the market in the same kind of flux, but the LME is going to have to issue something on this to clarify what can come back to market, and my guess is that it could be a sizable amount of Russian aluminium," the trader added.

The sanctions drove the benchmark P1020 Rotterdam duty-unpaid in-warehouse premium up to \$150-165 per tonne - its highest level in around three years - on April 19. The premium has since dropped to a two-year low of \$60-75 per tonne on December 14, mostly due to a persistent backwardation in nearby LME spreads during the past month.

European market participants were mixed on how the Rotterdam premium would respond when the sanctions come off. Some predicted the premium will ease to around \$40-50 per tonne.

"I'll believe it when [the sanctions removal] is firm. I think premiums in Europe are going to drop further, but not by much," a European aluminium trader said.

"The [premiums] are already so low in Europe. There is more downside risk in the US," another trader disagreed.

Some US market participants also expressed uncertainty surrounding the announcement, given that Congress must still approve the measure under the Countering America's Adversaries Through Sanctions Act (CAATSA). But lawyers at international trade law firm Wiley Rein told Fastmarkets that US president Donald Trump could veto a resolution of disapproval by Congress, although Congress may have other tools to keep sanctions in place.

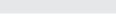
Justin Yang and Hassan Butt in London contributed to this report. MICHAEL ROH





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Base metals

METAL BULLETIN'S KEY PRICES			
Daily base metal prices and premiums (\$/t)			
	Price	Change [†]	Assessed
LME copper cash settlement	6,015.00	-2.92%	▼ 20 Dec 18
Weekly copper premium (in-whs Rotterdam)	45.00	0%	10 Jan 17
Daily copper premium (in-whs Shanghai)	79.00	5.33%	▲ 24 Aug 18
Weekly copper premium (in-whs Singapore)	8.00	-20%	▼ 10 Jan 17
LME aluminium cash settlement	1,923.50	-0.03%	▼ 20 Dec 18
Daily aluminium premium (in-whs Rotterdam)	87.00	2.35%	▲ 24 Aug 18
Weekly aluminium premium (in-whs Shanghai)	99.00	0%	21 Aug 18
Weekly aluminium premium (cif MJP)	123.00	0%	20 Mar 18
Weekly aluminium premium (in-whs Singapore)	10.00	0%	10 Jan 17
LME zinc cash settlement	2,600.00	-3.17%	▼ 20 Dec 18
Weekly zinc premium (in-whs Rotterdam)	95.00	0%	10 Jan 17
Weekly zinc premium (in-whs Shanghai)	147.00	8.89%	▲ 21 Aug 18
LME nickel cash settlement	10,885.00	0.79%	▲ 20 Dec 18
Weekly nickel premium (in-whs Shanghai)	190.00	2.7%	▲ 21 Aug 18
LME lead cash settlement	1,961.50	0.44%	▲ 20 Dec 18
LME tin cash settlement	19,375.00	-0.18%	▼ 20 Dec 18

	Price	Change [†]	Assessed
Alumina index fob Australia (\$/t)	411.52	-2.45%	▼ 19 Dec 18
Charge chrome index 50% Cr cif Shanghai (\$/lb Cr)	0.81	0%	14 Dec 18
Manganese ore index 44% Mn cif Tianjin (\$/dmtu)	6.91	-4.03%	▼ 14 Dec 18
Manganese ore index 37% Mn fob Port Elizabeth (\$/dmtu)	5.50	-8.79%	▼ 14 Dec 18
Manganese ore index 37% Mn cif Tianjin China (\$/dmtu)	6.22	-7.58%	▼ 14 Dec 18
MB Index CFR Turkey HMS 1&2 (80:20) (North Europe material)	283.01	-5.7%	▼ 19 Dec 18
HMS 1&2 ferrous scrap index (80:20) fob Rotterdam (\$/t)	281.05	-2.3%	▼ 14 Dec 18
Copper concentrate Asia-Pacific index TC import \$/dmt	86.20	-2.93%	▼ 14 Dec 18
Copper concentrate Asia-Pacific index RC import US cents/lb	8.62	-2.93%	▼ 14 Dec 18
METAL BULLETIN'S KEY PRICES: ASSESSI	MENTS		
	Price	Change [†]	Assessed
Ferro-chrome, 6-8% C, basis 60% Cr, del European consumers (\$/lb Cr)	0.99-1.05	-0.49%	▼ 14 Dec 18
Silico-manganese, basis 65-75% Mn, 15-19% Si, del European consumers (€/t)	970-1,020	0%	14 Dec 18
Ferro-silicon, basis 75% Si, del European consumers (€/t)	1,250-1,300	0%	14 Dec 18
	1,200 1,000	0 70	14 Dec 10
Ferro-titanium, 70% Ti, ddp (\$/kg)	4.40-4.90	0%	19 Dec 18
Ferro-titanium, 70% Ti, ddp (\$/kg) Ferro-manganese, basis 78% Mn, del European consumers (€/t)		0%	
Ferro-manganese, basis 78% Mn, del	4.40-4.90	0%	19 Dec 18
Ferro-manganese, basis 78% Mn, del European consumers (€/t) Ferro-molybdenum, basis 65-70% Mo,	4.40-4.90 1,060.00-1,100	0% .00 0% -2.13%	19 Dec 18
Ferro-manganese, basis 78% Mn, del European consumers (€/t) Ferro-molybdenum, basis 65-70% Mo, in-whs Rotterdam (\$/kg Mo)	4.40-4.90 1,060.00-1,100 28.50-28.85	0% .00 0% -2.13% -1.22%	19 Dec 18 14 Dec 18 19 Dec 18
Ferro-manganese, basis 78% Mn, del European consumers (€/t) Ferro-molybdenum, basis 65-70% Mo, in-whs Rotterdam (\$/kg Mo) Molybdic oxide, in-whs Rotterdam (\$/lb Mo) Ferro-tungsten, basis 75% W, in-whs	4.40-4.90 1,060.00-1,100 28.50-28.85 12.00-12.20	0% .00 0% -2.13% -1.22% -1.63%	19 Dec 18 14 Dec 18 19 Dec 18 19 Dec 18
Ferro-manganese, basis 78% Mn, del European consumers (€/t) Ferro-molybdenum, basis 65-70% Mo, in-whs Rotterdam (\$/kg Mo) Molybdic oxide, in-whs Rotterdam (\$/lb Mo) Ferro-tungsten, basis 75% W, in-whs Rotterdam (\$/kg W)	4.40-4.90 1,060.00-1,100 28.50-28.85 12.00-12.20 30.80-32.65	0% .00 0% -2.13% -1.22% -1.63% -7.01%	19 Dec 18 14 Dec 18 19 Dec 18 19 Dec 18 19 Dec 18

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Base metals

METAL BULLETIN'S KEY ALUMINIUM PR	ICES		
	Price	Change [†]	Assessed
Alumina index fob Australia (\$/t)	411.52	-2.45%	▼ 19 Dec 18
Group 1 pure 99% Al & litho scrap, del UK (£/t)	1,360-1,410	0%	19 Dec 18
Cast aluminium wheels, del UK (£/t)	1,200-1,225	0%	19 Dec 18
LME aluminium cash settlement (\$/t)	1,923.50	-0.03%	▼ 20 Dec 18
Daily aluminium premium, duty-unpaid (in-whs Rotterdam) (\$/t)	87.00	2.35%	▲ 24 Aug 18
Daily aluminium premium, duty-unpaid (in-whs Shanghai) (\$/t)	99.00	0%	21 Aug 18
Daily aluminium premium (cif MJP) (\$/t)	123.00	0%	20 Mar 18
Daily aluminium premium, duty-unpaid (in-whs Singapore) (\$/t)	10.00	0%	10 Jan 17
Extrusion billet premium, 6063, duty-paid, in-whs Rotterdam (\$/t)	480-500	-2%	▼ 14 Dec 18
LM24 pressure diecasting ingot (del UK consumers) (£/t)	1,400-1,450	0%	19 Dec 18
LM6/LM25 gravity diecasting ingot (del UK consumers) (£/t)	1,690-1,770	0%	19 Dec 18
DIN226 pressure diecasting ingot (del European consumers) (€/t)	1,500-1,540	2.01%	▲ 14 Dec 18
Aluminium ingot ADC 12 spot (MJP) \$/tonne	1,600-1,630	-1.37%	▼ 19 Dec 18

LONDON, NEW YORK, SHANGHAI

GLOBAL TIN WRAP: European premiums hold steady in quiet market conditions; US, China premiums flat

The tin premium in Europe held firm on Tuesday December 18, but remains elevated amid continued Indonesian export delays, while quiet market conditions and a closed import window kept US and Chinese premiums flat week on week.

- Europe awaits Indonesian export resolution
- Reduced output caps domestic US market
- Chinese premiums steady amid seasonal lull

EUROPEAN PREMIUMS REMAIN ELEVATED DESPITE SPOT INACTIVITY

Fastmarkets assessed the premium for 99.9% standard grade tin ingot with 300ppm lead content, on an in-warehouse Rotterdam basis, at \$410-460 per tonne on Tuesday, with participants continuing to report quiet market conditions.

Some tin participants remain confident that delays to Indonesian exports, which have been in effect since mid-October, will abate in the New Year, while other market participants are holding out for Indonesia's general election on April 17, 2019 for greater clarity on the country's rapidly expanding economy.

In the weeks after the suspension of the country's biggest inspector, PT Surveyor Indonesia, on October 15, refined tin exports fell by more than 40%. Exports for November have fallen to a two-and-a-half year low of 3,375 tonnes, down 33% from 5,025 tonnes in October, according to trade data provided by the Indonesia Commodity & Derivatives Exchange (ICDX).

In December so far, just 1,730 tonnes of tin has traded on the ICDX, with no exports recorded since December 11.

"I've been talking to some of my usual private smelter contacts, and they're working towards getting [PT Surveryor Indonesia] reinstated, but it's at a bit of stalemate right now," a European tin

trader told Fastmarkets.

"I think if you keep in mind the time lag on transit time regarding Indonesian exports, I think spot premiums are going to soar when things pick up in January, in addition to there being a shortage in prompt tin supply," the trader added.

Tin's underlying price on the London Metal Exchange remains well supported above \$19,200 per tonne, while the metal's cash/three-month spread remains in a backwardation of \$35 per tonne from a \$24 per tonne backwardation last week.

While total LME tin stocks remain below 3,000 tonnes, stock on the Shanghai Futures Exchange are above 8,000 tonnes. But the International Tin Association estimates around 15,000-30,000 tonnes sits off-exchange in China, tin's largest global exporter.

US PREMIUMS STILL INSULATED FROM MACRO SHIFTS

Tin dealers reported premiums on spot sales in the United States unchanged as the local market remained insulated both from reduced output by the world's second-largest tin producer and rising tin prices on the LME.

The Fastmarkets' assessment for the Baltimore in-warehouse premium was \$500-600 per tonne on Tuesday, unchanged at that range since June.

The delivered-US Midwest tin premium was also steady, at \$550-625 per tonne, as it has been since February.

One source, noting that LME tin cash prices have been rising for about two weeks or so said, "I see the price is going up but I can't say why. The physical side is not that strong at this time of year so it might be because of Indonesian shipments."

The LME tin daily official cash price was up to \$19,500 a tonne on December 17, the day the source spoke, a \$570 per tonne gain from one week before and almost \$1,000 from the recent low price of \$18,425 a tonne on November 28.

The backwardation was also much more pronounced, with a \$250 differential between the LME cash and three-month prices on December 17, versus a \$25 differential on November 28, suggesting stronger immediate demand.

By the next day, however, the cash price had slipped slightly to \$19,300 per tonne and the backwardation was closer to recent levels: with the tin three-month daily official LME price being just \$50 a tonne less than that day's cash price.

CHINA TIN PREMIUM STABLE IN A QUIET MARKET

In China, the tin premium for 99.9% tin ingots on a cif Shanghai basis was \$230-250 per tonne on Tuesday, holding steady on a closed import window.

"Nothing changed in the market, it's like everyone is on holiday already," a Shanghai-based trader said.

"It is a seasonal lull these days, both demand and supply is pretty weak," the trader added.

Tin stocks on the Shanghai Futures Exchange were down 97 tonnes week on week to 8,328 tonnes as of December 14.

Meanwhile, the 99.9% tin ingot premium cif Taiwan was at \$200-220 per tonne on Tuesday, similarly unchanged from the previous week on unchanged fundamentals.

HASSAN BUTT, VIOLET LI, ORLA O'SULLIVAN



Base metals

NEW YORK

OFAC sanctions against UC Rusal, En+ to be removed in 30 days

The US Department of the Treasury's Office of Foreign Assets Control (OFAC) plans to remove sanctions against UC Rusal and En+Group in 30 days due to significant restructuring and corporate governance changes, it said in a notice.

Russian oligarch Oleg Deripaska will remain sanctioned, however, and his property will remain blocked.

"Treasury sanctioned these companies because of their ownership and control by sanctioned Russian oligarch Deripaska, not for the conduct of the companies themselves. These companies have committed to significantly diminish Deripaska's ownership and sever his control," US Treasury Secretary Steven Mnuchin said. "OFAC maintains the ability under the terms of the agreement to have unprecedented levels of transparency into operations."

Sanctions were imposed against both Rusal and En+ on April 6, along with ESE, a wholly owned subsidiary of En+.

The move helped propel the US P1020 Midwest premium to a multiyear high of 22-23 cents per lb on April 10, its highest level since February 2015. It has since softened to 18.75-19.25 cents per lb.

Earlier this month, Robert Menendez, a member of the Democratic Party and the senior US senator from New Jersey, said in a letter to Mnuchin that efforts to remove sanctions without Deripaska relinquishing control of both Rusal and En+ and receiving no benefits from either "would likely meet strong opposition in Congress."

TERMS OF THE AGREEMENT

Rusal, En+ and ESE have now agreed to a framework to cut Deripaska's direct and indirect shareholding stake, overhaul the composition of the En+ and Rusal boards of directors, and undertake other corporate governance steps. The parties have also committed to full transparency with Treasury by undertaking extensive, ongoing auditing, certification and reporting requirements, OFAC said.

Deripaska's investment in these companies is effectively frozen, however, and he cannot obtain cash in return for his shares or from future dividends issued by Rusal, En+ or ESE.

According to the OFAC letter to Congress, the result of OFAC's conditions for delisting is that Deripaska's investment in En+ is "isolated and frozen."

"En+ is the linchpin underlying the designations of these companies, since Deripaska has virtually no direct ownership stake in Rusal, and none at all in ESE. Specifically, Deripaska's stake in En+ will be reduced from approximately 70% to 44.95%, and his stake cannot be increased in the future," the letter said.

It also noted that Deripaska's ownership interest in En+ will fall further as a result of a restructuring transaction in which Glencore or its subsidiary swaps shares in Rusal for a direct ownership interest in En+.

En+ has agreed to create a board of 12 directors with a majority of independent directors, eight of which will be independent of Deripaska.

En+, once it is no longer subject to sanctions, will continue to control Rusal through a 56.88% stake, and En+ shall retain its right to nominate the chief executive officer of Rusal. Deripaska will only retain a direct shareholding interest in Rusal of 0.01%, and any dividends from this interest would be placed in a blocked account,

OFAC said in its letter.

The current chairman of Rusal, Matthias Warnig, is stepping down as a condition of the delisting of Rusal and will no longer be a member of its board. Deripaska will have no right to appoint any members of the Rusal board, which will now have 14 members, of which eight will be independent non-executives with no ties to Deripaska.

Any foreign persons that knowingly facilitate a significant transaction for or on behalf of Deripaska will be subject to secondary sanctions, while US persons will continue to be prohibited from dealing, directly or indirectly, with Deripaska or any other designated person.

Lord Gregory Barker, the former Minister of State for Energy and Climate Change for the United Kingdom, has engaged in negotiations with OFAC extensively during the past eight months on behalf of Rusal, En+ and ESE.

ANDREA HOTTER





METAL BULLETIN'S KEY NOBLE ALLOYS AND ORE PRICES					
	Price	Change [†]		Assessed	
Molybdic oxide, in-whs Rotterdam (\$/lb Mo)	12.00-12.20	-1.22%	•	19 Dec 18	
Molybdic oxide, USA (\$/lb Mo)	12.20-12.30	-0.81%	•	13 Dec 18	
Ferro-molybdenum, basis 65% min, in-whs Rotterdam (\$/kg Mo)	28.50-28.85	-2.13%	•	19 Dec 18	
Tungsten, APT, in-whs Rotterdam (\$/mtu)	275.00-290.00	0%		14 Dec 18	
Ferro-tungsten, basis 75% W, in-whs Rotterdam (\$/kg W)	30.80-32.65	-1.63%	•	19 Dec 18	
Ferro-vanadium, basis 78% min, free delivery duty paid consumer plant, 1st grade, Western Europe (\$/kg V)	82.00-85.00	-14.36%	•	19 Dec 18	
Vanadium pentoxide, min 98% V, (\$/lb V2O5)	23.50-24.00	0%		14 Dec 18	

METAL BULLETIN'S KEY BULK ALLOYS AND ORE PRICES					
	Price	Change [†]	Assessed		
Charge chrome 50% Cr index cif Shanghai (\$/lb Cr)	0.81	0%	14 Dec 18		
Manganese ore index 44% Mn cif Tianjin (\$/dmtu)	6.91	-4.03%	▼ 14 Dec 18		
Manganese ore index 37% Mn fob Port Elizabeth (\$/dmtu)	5.50	-8.79%	▼ 14 Dec 18		
Manganese ore index 37% Mn cif Tianjin China (\$/dmtu)	6.22	-7.58%	▼ 14 Dec 18		
Ferro-chrome, 6-8% C, basis 60% Cr, del European consumers (\$/lb Cr)	0.99-1.05	-0.49%	▼ 14 Dec 18		
Ferro-manganese, basis 78% Mn, del European consumers (€/t)	1,060-1,100	0%	14 Dec 18		
Ferro-manganese, basis 78% Mn, in-whs Pittsburgh (\$/long ton)	1,280-1,375	-0.75%	▼ 13 Dec 18		
Silico-manganese, basis 65-75% Mn, 15-19% Si, del European consumers (€/t)	970-1,020	0%	14 Dec 18		
Ferro-silicon, basis 75% Si, del European consumers (€/t)	1,250-1,300	0%	14 Dec 18		

LONDON, SHANGHAI

FOCUS: Why China's implementation of new rebar policy is failing to support vanadium prices

Revised standards for rebar in China have failed to lend continued support to vanadium prices in the country since their introduction in November, primarily due to enforcement of the standards not being as stringent as previously expected, market sources told Fastmarkets.

The new rebar policy, effective November 1, 2018, requires Chinese steel mills to eliminate the original 335 megapascals (MPa)-tensile strength rebar and start producing 600MPa-tensile strength rebar, which has better earthquake resistance.

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

Chinese mills were expected to add 0.03-0.05% of vanadium for HRB400 rebar and 0.05-0.08% for HRB500 rebar to meet the new standards, according to market participants, which in turn would bring about greater demand for vanadium products and thus provide support to their respective prices.

Speaking to Fastmarkets, one market participant said if China's

new rebar policy was strictly adhered throughout the domestic industry, this would generate around 2,000 tonnes of vanadium demand per month.

Surprisingly however, despite the new rebar policy coming into effect in early November, Chinese vanadium prices have actually showed signs of weakening, instead of increasing or at least remaining at the levels held at the end of October as many participants had expected.

Fastmarkets' latest price assessment for ferro-vanadium, fob China, stood at \$80-90 per kg on Thursday December 13, down from a historical high of \$130-140 per kg reached on October 18.

Meanwhile, the price for vanadium pentoxide, fob China, was assessed at at \$18-20 per lb on December 13, down 40.6% from an all-time high of \$31-33 per lb reached on October 25.

Chinese vanadium prices lost upward momentum in early November after demand for the material failed to demonstrate an evident uptick because domestic mills' enthusiasm for buying vanadium alloys had cooled, with mills saying that they have stocked up sufficient volume that would enable them to sustain normal production for a while.

"Everyone is waiting and watching to see whether the new [rebar] policy will be enforced stringently and there will be no [procurements of large quantities of vanadium alloy products] until a clearer sign shows up," a market participant told Fastmarkets in early November.

Vanadium prices then began to drop sharply in late November, the result of subdued demand because the implementation of the new rebar policy was not being enforced as strictly as previously expected, market participants told Fastmarkets.

"I heard some small-sized steel mills did not add vanadium in their November rebar-making process at all," a marker source said.

On noticing the downtrend in domestic Chinese vanadium prices due to soft demand, some suppliers cut their own offer prices in an attempt to clear their inventories, which in turn drove vanadium prices downward at a more rapid pace.

The failure behind some Chinese mills to strictly abide by the new rebar policy is a combination of several factors, Fastmarkets understands.

COST-SAVING ZEAL DRIVES MILLS TO TAKE ADVANTAGE OF LOOPHOLES IN NEW POLICY

The new policy puts forward a series of physical inspection methods to effectively eliminate the production of steel via water-quenching, but mills may not take the initiative to add alloys into their production processes since the government does not require data on the actual alloy content of rebar products made from November onward, market sources said.

Furthermore, the central government has not sent relevant inspection teams to supervise how domestic mills are carrying out their operations under the new rebar policy. As a result, some mills may not be enforcing the policy in its entirety for the sake of cutting costs.

"Without stringent supervision, it's no surprise that mills would not strictly enforce the policy. And it might be a few months until the government initiates the inspection work," a second source said.

SHRINKING STEEL PROFITS POSE CHALLENGE FOR POLICY IMPLEMENTATION

Chinese steel mills' profits have been greatly squeezed since November amid the continuous decline in domestic steel prices, posing a significant challenge for the strict implementation of the policy, market sources said.

Fastmarkets assessed the price of rebar in east China at 3,780-3,820



yuan (\$548-554) per tonne on December 19, down from a one-year high of 4,670-4,700 yuan per tonne on October 30.

Mills became less active in enforcing the government-mandated policy when their profits shrank to a mere 500 yuan to per tonne currently from over 1,000 yuan per tonne earlier in the year, sources said.

"Adding vanadium into the rebar-making process to meet the required tensile strength [as per the new rebar policy] means an increase of cost by 200-300 yuan per tonne. And if [Chinese] mills strictly carried out the policy, it would leave them a much narrower room for profits. Mills understand this clearly and that's why they have become cautious about buying vanadium products since November," a trader said.

MILLS SEEKING SUBSTITUTE ALLOYS IN PUSH FOR COST EFFECTIVENESS

In light of the higher vanadium prices witnessed in October and November due to an expected surge in demand for the material, Chinese mills have increasingly turned to more cost-effective alternatives.

"The legislation does not specify you have to use vanadium to achieve tensile strength, so it's appealing [for Chinese mills] to look at alternatives," a European participant commented.

It is reasonable that some Chinese mills have shown more interest in buying ferro-niobium, prices of which are comparatively more stable and much cheaper than those for vanadium products. And among those vanadium products, vanadium-nitrogen has gained increasing popularity among mills in terms of its cost-competitiveness compared to ferro-vanadium, market participants said.

Despite the continuous decline in vanadium prices since November, Chinese mills have not resumed their interest in procuring ferro-vanadium yet because they feel current prices are still a bit high and expect the prices will soften further in the short term so it is better to wait for now.

CHARLOTTE RADFORD, AMY LV

ONDON

INTERVIEW: China Molybdenum expects more acquisitions; IXM key for future growth

China Molybdenum's acquisition of trading house IXM is central to the company's growth strategy for the coming years and it will continue to survey the market for more M&A opportunities, the company told Fastmarkets.

The Chinese mining company, which has spent \$4.65 billion in the past two years on an acquisition rampage, remains open to buy new assets if the right ones appear.

"We are looking for metals we already have, but also others that we don't," China Molybdenum company secretary Rubin Yue told Fastmarkets in a December 11 phone interview from China.

China Molybdenum's push for growth by acquisition has come concurrent with western mining companies shying away from making bold bets on assets.

In 2016, when the company agreed to buy Freeport McMoRan's \$2.65 billion interest in the Tenke Fungurume copper-cobalt mine, copper prices were languishing well below \$5,000 per tonne, with the LME's three-month copper price plunging to six-year lows of \$4,315 per tonne on January 15.

The price has since rallied, closing most recently at \$6,005 per tonne on December 19.

With fears of an abrupt end to high Chinese economic growth and an expected demand crunch, talk among base metal miners was one of mine closures rather than acquisitions. Yet, China Molybdenum seems happy to go against the grain.

"Our goal is to be a respected international resources enterprise and our previous acquisitions have helped us to develop but we don't have any models to realize, we just have our own model of development," Yue said.

ELECTRIC AMBITIONS

Founded in 1982 and a longtime participant in the minor metals and phosphates markets, China Molybdenum's most recent growth has come from its acquisitions of the Tenke mine and IXM, formerly the metals trading arm of agricultural commodity merchants Louis Dreyfus.

The addition of copper and cobalt to the company's portfolio comes at the same time as the targeted response to the rise of the electric vehicle (EV) market. The company projects that by 2030 there will approximately 3-4 million tonnes of additional copper demand just from developments in the EV industry.

"We see the future of these two metals as strategically related to the EV development," Yue said, citing industry research that an electric car with 50 kilowatt hour batteries will need 80 kilos of copper and 8 kilos of cobalt.

The International Copper Association projects copper demand from EV will rise from 185,000 tonnes in 2017 to 1.74 million tonnes in 2027. The association also predicts further demand to come from charging units and infrastructure.

China Molybdenum could utilize IXM to help bring these new products to the market, while buying a trading house also means the company has access to information from across the entire metals supply chain.

"By accessing this information about metal trading, we could have a more solid base for our next steps of development," Yue said.

DRC ELECTION WATCH

Due to its interest in Tenke, China Molybdenum is watching the current lead up to general elections in the Democratic Republic of Congo (DRC) closely.

The country is imposing a new mining code that will increase royalties on cobalt sales paid to the state from 3.5% to 10%.

China Molybdenum joined other international mining companies that have investments in the DRC in lobbying for the code to be watered down, which so far has been unsuccessful.

"We continue to talk with the DRC government to guarantee the good implementation of the convention we already have with them before the mining code," Yue said.

China Molybdenum is hopeful that a new, post-Joseph Kabila government will relax rulings, despite most election campaigns backing the code and its implementation.

"We expect the new government could create better condition for the investors and, as a company in the DRC, we will focus on our production," Yue said.

Still, even after its recent growth the company remains watchful for acquisition opportunities in the future.

"In 2016, we acquired two assets, in the DRC and Brazil, but before that we waited two or three years for the opportunities to appear,"

"We are waiting for future opportunities, but the waiting time could be long or short depending on what comes up," he added.

ARCHIE HUNTER



LONDON, SINGAPORE

2018 REVIEW: Seven things that changed in ores, alloys this year

Fastmarkets MB looks back at a year of changes in the ores and alloys markets.

MANGANESE ORE MARKET STABILITY

Manganese ore prices were relatively stable in 2018, following two years of unprecedented volatility. This was the first year since 2016 that did not end in a sharp rally, resulting in a dull year for traders, but a lucrative time for producers. The market has been underpinned strong demand from China, while Chinese silicomanganese futures contracts had far less influence on the ore market this year, despite being a key driver of price volatility in 2017.

MANGANESE MEETINGS

Chinese silico-manganese smelters started holding monthly meetings to discuss ore and alloy prices. Agendas included establishing a price ceiling for manganese ore in March and keeping the wider manganese market stable in November. Market participants say the meetings have been quite successful in achieving their goals, but sometimes a consensus collapses shortly after an agreement, or wider market forces limit the smelters' influence.

SILICO-MANGANESE CAPACITY IN CHINA RAMPS UP

Silico-manganese capacity in China was boosted by about 120,000 tonnes over 2018 up until November. Smelters have enjoyed high profit margins and their additional capacity has supported strong manganese ore prices. However the additional capacity, which has now reached 567,600-592,800 tonnes, means competition among smelters will intensify. This squeeze on ore consumers is expected to be passed onto producers, especially if Chinese silico-manganese production starts to exceed demand. As a result, the additional alloy smelter capacity will inject additional volatility into the ore market.

CHROME LOST ITS SHINE

After a strong 2017 that piqued investor interest in the market, chrome prices have dipped to two-year I ows amid highore stocks in China and increased ferro-chrome supply competition in Europe. The greatest drop occurred in the Turkish lumpy chrome ore market, which hit \$215-225 per tonne in mid-December, down from \$295-310 per tonne at the start of the year. High carbon ferro-chrome prices in Europe dropped 21% across the year, largely due to an increase in off-spec Indian material in the market, which sparked fierce competition among sellers for market share.

GLENCORE MARKETING CHANGES

Stuart Cutler will retire from his role as head of Glencore's ferroalloys marketing department at the end of the year, after 25 years at the company. Cutler's departure leaves rising stars Jason Kluk and Ruan Van Schalkwyk to run the department as part of Glencore's new generation of leadership. Kluk and Van Schalkwyk previously held senior trading roles for chrome and manganese respectively.

FERRO-VANADIUM PRICES RALLIED

Consolidating an increase that began in late 2017, ferro-vanadium prices achieved an unprecedented rally, before faltering in

November. Fastmarkets' European price quotation for ferrovanadium was up more than 90% in mid-December, compared with the beginning of the year. At its height in November the price reached \$126-128 per kg, compared with \$46.50-49.50 per kg at the start of the year.

CHINA'S MOLYBDENUM EXPORTS STALLED

Molybdenum in China has been in short supply due to limited domestic availability, environmental inspections and stable demand from steel mills. Everything produced in China is used in the domestic market so the export market is only active when it is profitable for producers to do so. Comparatively higher domestic prices for much of 2018 mean China's ferro-molybdenum exports have slumped this year. China exported a total of 3,842 tonnes of ferro-molybdenum in the first ten months of this year, compared to 6,858 tonnes in the same period last year, according to data collected by Fastmarkets. China's demand for ferro-molybdenum is expected to be stable in 2019, meaning exports are likely to be similarly lackluster in future.

JANIE DAVIES, KAREN NG, JON STIBBS

GALWAY

European molybdenum markets extend downward trend

The European molybdenum markets dropped in trading this week as suppliers cut their offer prices to encourage buying interest amid weakening demand.

There is an abundance of spot ferro-molybdenum available and signs of lower oxide prices, although the latter has some support due to limited production in coming months.

The ferro-molybdenum, basis 65%, in-warehouse Rotterdam price dropped to \$28.50-28.80 per kg on Wednesday December 19, from \$28.80-29 per kg on Friday. About 70 tonnes was reported traded broadly within the new price range.

"We have lost several tenders on ferro-molybdenum in Europe, where winning prices were \$28.50-28.70 per kg for truckload quantities on a duty-paid basis," an industry source said.

Most buying interest between regular dealers appears to be centered within the new pricing range, with one or two other sources assessing the market slightly higher or lower.

For oxide, Fastmarkets assessed the price of European drummed molybdic oxide, in-warehouse Rotterdam, at \$12-12.20 per lb on Wednesday, from \$12.10-12.20 per lb on Friday. One trade for about 20 tonnes was reported at \$12.05 per lb in Europe, with another 40 tonnes of trade reported at \$12 per lb in Busan, South Korea.

"The oxide offer price is widening as people are testing the market in quiet trading conditions. We'll know more once the holidays are over and business gets going in January," a trader said.

There is fairly bullish market sentiment surrounding oxide prices for the coming months due to tight supplies and no prospect for new production. As a counter to bullish sentiment in European market prices, however, are worries about consumer demand. The US-China trade war, currency volatility and underlying consumption are all undermining European steelmakers' confidence in their melting output for 2019.

In terms of ferro-molybdenum consumption, European steelmakers have been cautious in their approach to making new free market orders, which is tempting lower offer prices from some European suppliers.

Carbon and stainless steel markets have been under pressure over the past few months due to competitive imports from Asia and slower domestic demand. Steel distributors still have high

9



Ores & alloys

stock levels and destocking did not go as fast as planned for the majority of buyers, so competition has been strong, according to steel trade sources.

European steel trading market activity will be negligible from now until the first week of January due to seasonal holidays in Europe. But once market activity returns, participants expect prices to drop further because import offer prices are likely to be low.

Steel sources believe that without tighter import controls the European market will be under pressure against lower-priced imports from Asia where production costs are cheaper. If the European market situation persists it may threaten European steel production rates.

DECLAN CONWAY

LONDON; SHANGHAI

Trade log December 2018: Ferro-tungsten, APT

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

WEDNESDAY DECEMBER 19 FERRO-TUNGSTEN

- Prices indicated at \$32 per kg in Europe
- 3 tonnes offered at \$31.75 per kg in Europe
- Offer at \$31.6 per kg in Europe
- 5 tonnes sold at \$30.8 per kg in Europe
- 3 tonnes reportedly sold below \$32 per kg in Europe
- 5 tonnes reportedly sold at \$30.9 per kg in Europe
- 1.5 tonne sold at \$33.5 per kg in Europe
- 1 tonne sold at \$33.5 per kg in Europe
- Prices indicated at \$32.5-33 per kg in Europe
- 10 tonnes reportedly sold at \$30.9 per kg in Europe
- 30 tonnes bought at \$32.65 per kg in Europe
- Offer at \$33.5 per kg in Europe
- Prices indicated at \$32 per kg in Europe

FRIDAY DECEMBER 14

APT

- Prices indicated at \$275-290 per mtu in Europe
- Prices indicated at \$275-290 per mtu in Europe
- Prices indicated at \$275-280 per mtu in Europe
- Offer at \$270 per mtu in Europe
- Offer at \$275 per mtu in Europe
- Prices indicated at \$275-290 per mtu in Europe
- Prices indicated at \$275-290 per mtu in Europe

FERRO-TUNGSTEN

- Prices indicated at \$31.50-33 per kg in Europe
- Prices indicated at \$31-32 per kg in Europe
- Prices indicated at \$32-32.50 per kg in Europe
- Prices indicated at \$32 per kg in Europe
- Prices indicated at \$32-33 per kg in Europe
- Prices indicated at \$32-33 per kg in Europe
- Prices indicated at \$32-33 per kg in Europe
- Prices indicated at \$31.50-32.50 per kg in Europe
- Prices indicated at \$32-33 per kg in Europe

• Prices indicated at \$32-33 per kg in Europe

WEDNESDAY DECEMBER 12

APT

- Prices indicated at \$275-280 per mtu fob China
- Offer at \$272 per mtu fob China
- Offer at \$282-283 per mtu fob China
- Deal heard at \$270 per mtu fob China
- Offer at \$275 per mtu fob China
- Offer at \$280-285 per mtu fob China

FERRO-TUNGSTEN

- 4 tonnes sold at \$32.50 per kg fob China
- Price indicated at \$33-34 per kg fob China
- Price indicated at \$33-34 per kg fob China
- 5 tonnes sold at \$31.30 per kg in Europe
- Offer at \$31.40 per kg in Europe
- Prices indicated at \$32-33 per kg in Europe
- Prices indicated at \$32-33 per kg in Europe
- Prices indicated at \$31.50-32.50 per kg in Europe
- Prices indicated at \$32.50-33.50 per kg in Europe
- Prices indicated at \$32-33 per kg in Europe
- Prices indicated at \$32.50-33 per kg in Europe
- Prices indicated at \$32-33 per kg in Europe

FRIDAY DECEMBER 7

APT

- Prices indicted at \$275-295 per mtu in Europe
- Prices indicated at \$270 per mtu in Europe
- Prices indicated at \$275-295 per mtu in Europe
- Bid at \$265 per mtu in Europe
- Offers at \$280-290 per mtu in Europe
- Prices indicated at \$275 per mtu in Europe
- Prices indicated at \$275-295 per mtu in Europe
- Prices indicated at \$265-285 per mtu in Europe
- Prices indicated at \$275-295 per mtu in Europe
- Small tonnages sold at \$295 per mtu in Europe

FERRO-TUNGSTEN

- Prices indicated at \$32.5 per kg in Europe
- 6 tonnes sold at \$33.8 per kg in Europe
- 6 tonnes sold at \$33.7 per kg in Europe
- 4 tonnes offered at \$33.75-33.8 per kg in Europe
- Prices indicated at \$32.5-33.5 per kg in Europe
- 6 tonnes reportedly sold at \$33.6 per kg in Europe
- Prices indicated at \$32-33 per kg in Europe
- ullet Prices indicated at \$32-33 per kg in Europe
- Prices indicated at \$32-33 per kg in Europe
- Prices indicated at \$32.5-33 per kg in Europe
 Prices indicated at \$32-32.5 per kg in Europe
- Prices indicated at \$32-33 per kg in Europe
- Prices indicated at \$32-33 per kg in Europe
 Prices indicated at \$32-33 per kg in Europe

WEDNESDAY DECEMBER 5 APT

- Prices indicated at \$275-280 per mtu fob China
- 20 tonnes sold at \$287 per mtu fob China
- Prices indicated at \$275-280 per mtu fob China
- 20 tonnes sold at \$279 per mtu fob China
- Offer at \$275-280 per mtu fob China

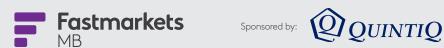
FERRO-TUNGSTEN

• Prices indicated at \$33-34 per kg fob China



- Offer at \$33-34 per kg fob China
- Offer at \$33-34 per kg fob China
- 10 tonnes sold at \$33.7 per kg in Europe
- Prices indicated at \$32.5-33 per kg in Europe
- 6 tonnes offered at \$33.7 per kg in Europe
- 10 tonnes reportedly sold at \$31.6 per kg in Europe
- Prices indicated at \$32.5-33 per kg in Europe
- Prices indicated at \$32.5-33 per kg in Europe
- Prices indicated at \$33-33.8 per kg in Europe

EWA MANTHEY, HUAQING FU







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METAL BULLETIN'S KEY MINOR METAL PRICES					
	Price	Change [†]	Assessed		
Antimony, ingots (regulus), in-whs Rotterdam (\$/t)	7,900-8,100	0%	19 Dec 18		
Antimony, MMTA standard grade II, in-whs Rotterdam (\$/t)	7,750-7,900	-1.26%	▼ 19 Dec 18		
Bismuth, min 99.99% Bi, in-whs Rotterdam (\$/lb)	3.40-3.80	-5.26%	▼ 19 Dec 18		
Cobalt (low-grade) in-whs Rotterdam (\$/lb)	27.50-29.50	-7.01%	▼ 19 Dec 18		
Cobalt (high-grade) in-whs Rotterdam (\$/lb)	27.00-29.00	-8.65%	▼ 19 Dec 18		
Indium, min 99.99% In, in-whs Rotterdam (\$/kg)	230-260	0%	19 Dec 18		
Manganese flake, in-whs Rotterdam (\$/tonne)	2,150-2,250	0%	19 Dec 18		
Selenium, min 99.5% Se, in-whs Rotterdam (\$/lb)	12.50-14.00	-1.85%	▼ 19 Dec 18		
Tellurium, min 99.9% Te, in-whs (\$/kg)	60.00-75.00	-3.57%	▼ 19 Dec 18		

LONDON, SHANGHAI

Two Chinese antimony smugglers arrested in latest crackdown; market downplays impact on prices

Chinese customs officials continue to clamp down on antimony smuggling, with more material seized and more arrests made this week, Fastmarkets understands.

Two suspects were arrested and 20 tonnes of antimony ingot seized on Wednesday December 19 amid China's latest efforts to stop the illegal movement of goods via the China-Vietnam border, sources familiar with the matter told Fastmarkets MB on Thursday.

But the market has so far downplayed the news and its possible impact on prices.

"These two suspects were supposed to have been seized in the previous round of smuggling crackdown activity early in August but they managed to escape at that time. They came out to smuggle [antimony ingot] again as they believed the government's supervision on smuggling activity had loosened but they were arrested this time," a well-informed source said.

In the August operation, over 3,000 tonnes of antimony was seized and 11 suspects arrested.

"The matter will not impact the domestic [antimony] market much," the source added.

Fastmarkets assessed the price of Chinese MMTA standard grade II antimony, delivered duty-paid at 49,500-50,000 yuan (\$7,176-7,249) per tonne on Wednesday, unchanged for the third consecutive week.

Meanwhile, the price for antimony with bismuth content below 100ppm in-warehouse Rotterdam remained stable at \$7,900-8,100 per tonne as of Wednesday.

China launched this year's fifth crackdown on smuggling early on Wednesday morning in a joint operation involving over 857 police from 13 customs offices including Changsha in Hunan province, Nanning in Guangxi Zhuang Autonomous Region, Guangzhou in Guangdong province and Shanghai, China's General Administration of Customs said on its official website.

A total of 129 suspects were reported to have been arrested and around 91,600 tonnes of confiscated goods involving waste plastics, slag as well as some exported ferro-silicon was seized, according to China customs.

HEIGHTENED SCRUTINY ON SMUGGLING

In contrast to the relative calm in the Chinese domestic market, the latest arrests have "sent shock waves across the market," according to a trader in Europe.

The August crackdown led to the arrest of 11 suspects in Changsha in Hunan province, Nanning in Guangxi Autonomous Region, Guangzhou in Guangdong province and Beijing. The seizure pushed European antimony prices to this year's high of \$8,600-8,800 per tonne

Since then smuggling activity has significantly decreased with only a few containers being shipped through the illegal channel in the past few months, according to market sources.

The Chinese government has implemented anti-smuggling strategies in recent years because more and more material has been shipped out through the illegal China-Vietnam border channel, avoiding China's official customs and, therefore, export tariffs.

The government's inspections on the smuggling channel through the China-Vietnam border usually intensify during Lunar New Year as well as the National People's Congress (NPC) and National Committee of the Chinese People's Political Consultative Conference (CPPCC), with all the shipments usually being stopped during these times.

China is a major antimony producer and supplies around 80% of the global market. The European Union, the United States, Japan and South Korea are thought to be the main destinations for China's smuggled antimony based on comparisons of Chinese customs data and that from major antimony import markets.

Typically, smuggled antimony is collected from the major production hubs of Hunan and Yunnan provinces and then shipped to Nanning, Guangxi Autonomous Region before being finally delivered out of China via the border with Vietnam.

According to market sources, the smuggled antimony is usually shipped to Vietnam via a 30-40 meter bordering river between Guangxi province and Vietnam Haiphong port behind the backs of border guards. The cargo is reportedly transported by small boats and trolleys, or shouldered by people during "emergency moments," sources said

Across five rounds of government operations against smuggled goods this year, the authorities have arrested 718 suspects and confiscated a total of more than 1.55 million tonnes of solid waste.

China initiated its crackdown in February in an attempt to prevent waste being illegally imported into the country and eradicate smuggling activities at the same time.

EWA MANTHEY, AMY LV

LONDON

Trade log December 2018: Selenium

The latest selenium transactions, bids, offers and assessments in Europe reported to Fastmarkets MB.

Unless otherwise stated, all prices are per lb on an in-warehouse Rotterdam basis. Delivered prices are netted back.

WEDNESDAY DECEMBER 19

- Prices indicated at \$11.50-13.50 per lb
- Material sold at \$13-14 per lb
- Prices indicated at \$13-14 per lb
- 300 kg sold at \$12.50 per lb



- Prices indicated at \$13-14 per lb
- Prices indicated at \$12.50-13.50 per lb
 - Fastmarkets MB's price assessment for selenium moves down to \$12.50-14 per lb from \$13-14 per lb previously on concluded business and in line with the majority of the price assessments.
 - Two deals were reported to Fastmarkets MB during the pricing session a trader sold 300 kg at \$12.50 per lb and a seller concluded business at \$13-14 per lb.
 - A second trader put the market at \$11.50-13.50 per lb and the seller indicated prices at \$13-14 per lb. A producer assessed the market at \$13-14 per lb and a second producer put the prices at \$12.50-13.50 per lb.

FRIDAY DECEMBER 14

- 1 tonne sold at \$14.3 per lb
- Prices indicated at \$13-14 per lb
- Prices indicated at \$12.5-13.5 per lb
- Prices indicated at \$13-14 per lb
- Prices indicated at \$13-14 per lb
 - Fastmarkets MB's price assessment for selenium remains stable at \$13-14 per lb, in-warehouse, with the only spot business concluded within the current range.
 - A seller concluded a one-tonne deal at \$14.3 per lb.
 - A trader assessed the market at \$13-14 per lb while a second trader put the market at \$12.5-13.5 per lb. Two producers indicated prices at \$13-14 per lb.

WEDNESDAY DECEMBER 12

- Prices indicated at \$13.5-14.5 per lb
- Offer at \$14.25 per lb
- Prices indicated at \$13-14 per lb
- 300 kg sold at \$13 per lb
- Prices indicated at \$12-13.5 per lb
- Prices indicated at \$13-14 per lb
 - Fastmarkets MB's price assessment for selenium moves down to \$13-14 per lb from \$13.5-14.5 per lb.
 - One trader sold 300 kg at \$13 per lb.
 - A seller indicated the market at \$13.5-14.5 per lb. A trader assessed prices at \$12.5-12.7 per lb and a second trader put the market at \$13-14 per lb. A producer assessed the market at \$12-13.5 per lb and a second producer indicated prices at \$13-14 per lb.
 - The fall in the price range reflects concluded business at the lower end of the range and on the vast majority of indications within the new range.

FRIDAY DECEMBER 7

- Prices indicated at \$12.5-14 per lb
- Prices indicated at \$13.5-15 per lb
- 500 kg sold at \$13.9 per lb
- Prices indicated at \$13.5-15 per lb
- Prices indicated at \$13.5-14.5 per lb
- 2 tonnes sold at \$13.5 per lb
- Prices indicated at \$13.5-14.5 per lb

- Prices indicated at \$12.5-13.5 per lb
- Prices indicated at \$12.8 per lb
- Fastmarkets MB's price assessment for selenium moves down to \$13.5-14.5 per lb from \$13.5-15 previously on concluded business and in line with the majority of the price assessments.
- Two deals were reported to Fastmarkets MB during the pricing session a seller concluded a 500kg deal at \$13.9 per lb and a trader sold two tonnes at \$13.5 per lb.
- A trader put the market at \$12.5-14 per lb and two traders indicated prices at \$13.5-14.5 per lb. A seller assessed prices at \$13.5-15 per lb.
- A producer put the market at \$12.5-13.5 per lb and a second producer indicated prices at \$12.8 per lb.

WEDNESDAY DECEMBER 5

- Prices indicated at \$13-14 per lb
- Prices indicated at \$14-15 per lb
- 1.4 tonnes sold at \$16.7 per lb
- Prices indicated at \$13.5-15 per lb
- 750 kg bought at \$13.2 per lb
- Prices indicated at \$13.5-14.5 per lb
- Prices indicated at \$12.8 per lb
 - Fastmarkets MB's price assessment for selenium remains stable at \$13.50-15 per lb, in-warehouse.
 - A trader assessed the market at \$13-14 per lb while a second trader put the market at \$13.50-15 per lb. A producer put the market at \$13.50-14.50 per lb, a second producer assessed the market at \$12.80 per lb and a consumer indicated the market at \$13.50-15 per lb.
 - Two deals were not included in the final price assessment both were outliers above and below the current range. A trader reported business at \$13.20 per lb for 750 kg and a seller concluded a deal for 1.4 tonnes at \$16.70 per lb.

EWA MANTHEY

SHANGHAI

Trade log December 2018: Cobalt Sulfate

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

Unless otherwise stated, all prices are yuan per tonne on an ex-works basis.

The cobalt sulfate, Co 20.5% min, China ex-works, adjustment to the low-grade cobalt low-end price at Co 20.5% basis is on a \$ per lb basis.

FASTMARKETS MB PRICES

The exchange rate according to Oanda.com on Wednesday December 19 was 65,000 yuan to \$9,423.

WEDNESDAY DECEMBER 19 PRICE UNCHANGED AT 65,000-68,000 YUAN PER TONNE (DISCOUNT AT \$1.79-1.96 PER LB)

- ullet Price indicated at 65,000-68,000 yuan per tonne
- Small tonnages sold at about 65,000-66,000 yuan per tonne
- Small tonnages sold at about 66,000 yuan per tonne
- Price indicated at 65,000-68,000 yuan per tonne
- Price indicated at 63,000-65,000 yuan per tonne
- \bullet Price indicated at 70,000-72,000 yuan per tonne
- Price indicated at 67,000-68,000 yuan per tonne
- Small tonnages sold at about 65,000 yuan per tonne



- Small tonnages sold at about 63,000 yuan per tonne
- Offer at about 68,000-70,000 yuan per tonne
- Price indicated at 63,000-68,000 yuan per tonne
- Price indicated at 65,000-66,000 yuan per tonne

FRIDAY DECEMBER 14

NEW PRICE AT 65,000-68,000 YUAN PER TONNE (DISCOUNT AT \$1.99-2.16 PER LB)

- Offer at about 64,000-65,000 yuan per tonne
- Price indicated at 70,000 yuan per tonne
- Small tonnages sold at about 65,000-66,000 yuan per tonne
- Small tonnages sold at about 68,000 yuan per tonne
- Offer at about 68,000 yuan per tonne
- Price indicated at 68,000 yuan per tonne
- Price indicated at 63,000 yuan per tonne
- Price indicated at 66,000 yuan per tonne

WEDNESDAY DECEMBER 12 NEW PRICE AT 65,000-70,000 YUAN PER TONNE (DISCOUNT AT \$2.15-2.43 PER LB)

- Offer at about 65,000-70,000 yuan per tonne
- Small tonnages sold at about 65,000-66,000 yuan per tonne
- Small tonnages sold at 68,000 yuan per tonne
- Price indicated at 70,000 yuan per tonne
- Price indicated at 65,000-68,000 yuan per tonne
- Price indicated at 66,000-70,000 yuan per tonne
- Price indicated at 66,000-67,000 yuan per tonne
- Offer at about 62,000-63,000 yuan per tonne (outside Fastmarkets MB specifications)
- Offer at about 65,000 yuan per tonne
- Price indicated at 64,000-65,000 yuan per tonne
- Offer at about 62,500 yuan per tonne (outside Fastmarkets MB specifications)
- Offer at about 66,000-68,000 yuan per tonne
- Price indicated at 71,000-72,000 yuan per tonne
- Offer at about 65,000 yuan per tonne
- Small tonnages sold at about 63,000 yuan per tonne
- Price indicated at 66,000-71,000 yuan per tonne
- Offer at about 65,000 yuan per tonne
- Small tonnages sold at about 64,000 yuan per tonne
- Price indicated at about 63,000 yuan per tonne
- Price indicated at 67,000-68,000 yuan per tonne

FRIDAY DECEMBER 7 NEW PRICE AT 66,000-71,000 YUAN PER TONNE

(DISCOUNT AT \$2.18-2.47 PER LB)

- Price indicated at 70,000-72,000 yuan per tonne
- Price indicated at 68,000 yuan per tonne
- Small tonnages sold at about 66,000-67,000 yuan per tonne
- Small tonnages sold at about 69,000 yuan per tonne
- Offer at about 65,000-68,000 yuan per tonne
- Price indicated at 70,000 yuan per tonne
- Price indicated at 66,000-68,000 yuan per tonne
- Price indicated at 65,000-68,000 yuan per tonne
- Price indicated at 70,000 yuan per tonne
- Price indicated at 70,000 yuan per tonne
- Large tonnages sold at about 68,000 yuan per tonne

- Price indicated at 65,000 yuan per tonne
- Offer at about 68,000 yuan per tonne
- Price indicated at 65,000 yuan per tonne

WEDNESDAY DECEMBER 5 NEW PRICE AT 65,000-71,000 YUAN PER TONNE (DISCOUNT AT \$2.49-2.83 PER LB)

- Price indicated at 65,000-68,000 yuan per tonne
- Large tonnages sold at about 63,500 yuan per tonne
- Small tonnages sold at about 71,000 yuan per tonne
- Offer for large tonnages at about 65,000 yuan per tonne
- Deal heard at about 63,000-65,000 yuan per tonne
- Very small tonnages sold at about 78,000-79,000 yuan per tonne
- Price indicated at 70,000 yuan per tonne
- Price indicated at 70,000 yuan per tonne
- Bid at about 66,000-68,000 yuan per tonne
- Price indicated at 70,000 yuan per tonne
- Price indicated at 68,000-70,000 yuan per tonne
- Large tonnages sold at about 65,000 yuan per tonne
- Price indicated at 65,000-68,000 yuan per tonne
- Offer at about 65,000 yuan per tonne
- Large tonnages sold at about 66,500 yuan per tonne
- Price indicated at 70,000 yuan per tonne

SUSAN ZOU

LONDON

Trade log December 2018: Cobalt

Cobalt trade log including business, bids and offers reported to Fastmarkets.

Unless otherwise stated, all prices are per lb on an in-warehouse basis. Delivered prices are netted back.

FASTMARKETS PRICES

In light of feedback received as part of the consultation on its international cobalt price specifications, Fastmarkets will change the names of its benchmark in-warehouse Rotterdam assessments from January 2019.

DECEMBER 19 2018 HIGH-GRADE - \$27-29

- Material reportedly sold at \$28
- Offer at \$26.95
- Offer at \$29
- Offer for small tonnage at \$28.50
- Offer for standard tonnage at \$25
- Offers heard at \$26
- Prices indicated at \$25-27
- Prices indicated at \$27.50
- Prices indicated at \$27.50-29.50
- Prices indicated at \$27-28
- Prices indicated at \$28.60-30.60
- Prices indicated at \$28-30
- Prices indicated at \$29.50-30
- Small tonnage sold at \$27.50

LOW-GRADE - \$27.50-29.50

- Offer at \$25 (material outside Fastmarkets' specifications)
- Offer at \$27.50
- Offer at \$30.75
- Offer at about \$31.90
- Offer for small tonnage at \$28.50
- Offer for standard tonnage at \$30.20



- Offers at \$27-28
- Prices indicated at \$25-27
- Prices indicated at \$27.50
- Prices indicated at \$27-28
- Prices indicated at \$27-29
- Prices indicated at \$28.50-30.50
- Prices indicated at \$28-30
- Prices indicated at \$29.50-30

DECEMBER 14 2018

HIGH-GRADE - \$28.60-30.60

- Offer for large tonnage at \$27-29
- Offer for large tonnage at \$28
- Prices indicated at \$28.50-30.50
- Prices indicated at \$28.60-29.80
- Prices indicated at \$28.90-30.40
- Prices indicated at \$28-29
- Prices indicated at \$29.50-30.50
- Prices indicated at \$29.90
- Prices indicated at \$29.90-31.40
- Prices indicated at \$29.90-31.40
- Small tonnage
- Small tonnage sold at \$28.60
- Small tonnage sold at \$30.50
- Small tonnage sold at \$30.50
- Small tonnage sold at \$30.50 (below minimum tonnage)
- Small tonnage sold at about \$30.70
- Standard tonnage sold at \$28.80

LOW-GRADE - \$28.50.30-50

- Material reportedly sold at \$27.60
- Offer for small tonnage at \$28.50
- Offer for small tonnage at \$30.20
- Offer for small tonnage at \$31
- Price indicated at \$28.60-29.80Price indicated at \$28-29
- Price indicated at \$28-30
- Price indicated at \$29.70-30.50
- Price indicated at \$29.75-31
- Price indicated at \$29.80-31.50
- Price indicated at \$29.80-31.50
- Price indicated at \$29-30.50
- Priced indicated at \$25-26 (forward)
- Small tonnage sold at \$27.90
- Small tonnage sold at \$28.90
- Small tonnage sold at \$30
- Standard tonnage sold at \$25.50 (material outside Fastmarkets' specifications)

DECEMBER 12 2018

HIGH-GRADE - \$29.90-31.40

- About 5 tonnes sold at \$29.90
- Large tonnage sold at \$28.95
- Offer for standard tonnage at \$29
- Prices indicated at \$29
- Prices indicated at \$29.90-31.50
- Prices indicated at \$30

- Prices indicated at \$30.40-31
- Prices indicated at \$30.50
- Prices indicated at \$30.50
- Prices indicated at \$30.50-32
- Prices indicated at \$30.50-32
- Prices indicated at \$30.50-32
- Small tonnage of material sold at \$30 (material outside Fastmarkets' specifications)

LOW-GRADE - \$29.80.31-50

- Material reportedly sold at \$28.90-29
- Material reportedly sold at \$30.10-30.30
- Material reportedly sold at \$32.30
- Offer for large tonnage at \$29 (forward)
- Offer for small tonnage at \$28.50
- Offer for small tonnage at \$28.50
- Offer for small tonnage at \$29.90
- Offer for small tonnage at \$31.60
- Prices indicated at \$22-25 (material outside Fastmarkets' specifications)
- Prices indicated at \$29.80-30.50
- Prices indicated at \$29.90-31.15
- Prices indicated at \$30
- Prices indicated at \$30.30
- Prices indicated at \$30.30
- Prices indicated at \$30.3-32
- Prices indicated at \$30.3-32
- Prices indicated at \$30.3-32
- Prices indicated at \$32-32.3
- Small tonnage sold at \$28.25
 Small tonnage sold at \$28.40 (material outside Fastmarkets'
- specifications)

 Small toppage cold at \$28.45 (material outside Fastmarkets)
- Small tonnage sold at \$28.45 (material outside Fastmarkets' specifications)
- Small tonnage sold at \$30.65
- Small tonnage sold at \$31.70
- Small tonnage sold at \$32.95

DECEMBER 7 2018

HIGH-GRADE - \$30.50-32

- Offer for 5 tonnes at \$31.25
- Offer for small tonnage at \$31.50
- Offer for small tonnage at \$32.25
- Prices indicated at \$29-31
- Prices indicated at \$30.50-32
- Prices indicated at \$31.80-32.60
- Prices indicated at \$31.80-32.60
- Prices indicated at \$31.80-32.60
- Prices indicated at \$31-31.50
- Prices indicated at \$31-32
- Small tonnage sold at \$31.10
- Small tonnage sold at \$31.80
- Small tonnage sold below \$32.40 (below minimum tonnage)

LOW-GRADE - \$30.30-32

- Bid for small tonnage at \$29.50
- Material reportedly sold at \$27
- Offer at \$31
- Offer for small tonnage at \$32
- Prices indicated at \$29-31
- Prices indicated at \$30.50-32
 Prices indicated at \$31.80-32
- Prices indicated at \$31.80-32.60



- Prices indicated at \$31.80-32.60
- Prices indicated at \$31.80-33
- Prices indicated at \$31-32
- Small tonnage sold at \$29.35 (material outside Fastmarkets' specifications)
- Small tonnage sold at \$29.90
- Small tonnage sold at \$30
- Small tonnage sold at \$30.30

DECEMBER 5 2018

HIGH-GRADE - \$31.80-32.60

- Offer for 10 tonnes at \$28.30 (forward)
- Offer for small tonnage at \$32.25
- Prices indicated at \$28.50-31.50
- Prices indicated at \$31.55-32.60
- Prices indicated at \$31.80-32.60
- Prices indicated at \$31.80-32.60
- Prices indicated at \$31.80-32.60
- Prices indicated at \$31-32
- Small tonnage sold at \$32
- Small tonnage sold at \$32.75
- Small tonnage sold at \$32.90 (below minimum tonnage)

LOW-GRADE - \$31.80-32.60

- About 5 tonnes sold at \$28.85 (material outside Fastmarkets' specifications)
- Offer for 10 tonnes at \$28.50 (forward)
- Offer for large tonnage at \$28.15 (material outside Fastmarkets' specifications)
- Offer for small tonnage at \$31.70-31.80
- Prices indicated at \$28.50-31.50
- Prices indicated at \$31.75-32.60
- Prices indicated at \$31.90-32.60
- Prices indicated at \$31-32
- Prices indicated at \$32.50
- Prices indicated at \$32-32.60Prices indicated at \$32-32.60
- Prices indicated at \$32-32.60
- Prices indicated at \$32-32.60
- Prices indicated at \$32-32.60
- Small tonnage sold at \$31.10
- Small tonnage sold at \$31.75 (material outside Fastmarkets' specifications)
- Small tonnage sold at \$32.25
- Small tonnage sold at \$32.95
- Small tonnage sold at about \$34.45

CHARLOTTE RADFORD, MARTIM FACADA

LONDON

TITANIUM SNAPSHOT: Ferro-titanium, scrap markets stable before Christmas

Key data from the Wednesday December 19 pricing session in Europe.

FERRO-TITANIUM 70% (in \$ per kg, DELIVERED DUT			
New price	Previous price	Change to midpoint of range	
4.40-4.90	4.40-4.90	0	0
Source: Fastmarkets			

TITANIUM SCRAP TURNINGS, UNPROCESSED (MAX 0.5% SN) (in \$ per lb, CIF EUROPEAN PORTS)

New price	Previous price		
0.90-1.00	0.90-1.00	0	0
Source: Fastmarkets			

TITANIUM SCRAP TURNINGS, UNPROCESSED (0.5-2% SN) (in \$ per lb. CIF EUROPEAN PORTS)

(III & per lb, Oil LONO! LANT	01(10)		
New price	Previous price	Change to midpoint of range	
0.85-0.90	0.85-0.90	0	0
Source: Fastmarkets			

KEY DRIVERS

- Prices for ferro-titanium and titanium scrap were stable although the market was quiet in advance of the Christmas break.
- There were opposing drivers in the ferro-titanium market. Russian material continued to enter the market at the lower end of the range and exert a bearish influence, however, some European producers reported unusually strong demand and predicted the price would rise about \$5 per lb in the new year.
- There was little disagreement in scrap prices, which one market participant said would remain stable until mid-January when demand from Scandinavian buyers would determine the direction of the market.

KEY QUOTES

- "We are faced with a large shortfall regarding ferro-titanium. There are lots of inquiries, however there is zero availability at the moment for prompt. We are indicating \$5 per lb for delivery at the end January at the earliest. Prices are definitely moving higher as a consequence" UK supplier
- "Scrap availability is definitely reduced and I am expecting higher prices in January. We can still purchase small amounts at \$0.95 per Ib or thereabouts" market participant
- "The market is quiet, but that is normal for this time of the year"
 market participant

"There is a lack of demand and the Russians are happy to sell at lower prices – I would prefer to sell at a higher prices" - trader

 "Most producers are well sold into December and January but there is more aggressive business being done by traders" – European producer

JON STIBBS



Exchange news & prices

LONDON

LME proposes end to Rusal suspension on OFAC intention to lift sanctions against UC Rusal, En+

The London Metal Exchange has initiated a process of market feedback following the US Department of the Treasury's Office of Foreign Assets Control (OFAC) intention to remove sanctions against UC Rusal and En+ Group, issuing both a member note and press statement on Wednesday December 19.

In accordance with OFAC's decision to notify Congress of its plans to terminate sanctions – inclusive of a period of 30 days until effective removal – the LME has given its members, clients and other interested parties until December 28 to provide feedback, the exchange said in a note to members.

"The LME notes the recent notification from OFAC regarding the proposed lifting of the sanctions against Rusal. In the event of the sanctions being lifted, the LME proposes removing all previous requirements around suspension of Rusal brand metal from being delivered into LME warehouses and used in settlement," the LME said on Wednesday.

The exchange had placed a "temporary conditional suspension" on placing Rusal metal on warrant in April following the US sanctions against Rusal and Russian oligarch Oleg Deripaska.

"It will also be possible for members to enter into contracts with Rusal. The LME is engaging with the market on next steps and will provide an update in due course," it added.

The LME is also proposing a cessation of restrictions against member dealings with Rusal and any subsidiaries or affiliates in line with the time period given by OFAC, stating that members would subsequently be free to enter into contracts with Rusal.

Following the close of the market feedback process on December 28, 2018, the exchange will forward the results in reference to the warranting of Rusal metal to the LME Special Committee, which will make a final decision.

"Once it is known whether OFAC will proceed (or has proceeded) with the OFAC delisting [of sanctions against UC Rusal] on January 18, 2019, in accordance with its intention as stated in the OFAC notice, the LME will in short order hold a meeting of the Special Committee and make a final announcement in relation to both the warranting proposal and contracts proposal," the LME concluded in its note to members.

HASSAN BUTT

SHANGHAI

SHFE vs LME physical arbitrage 20/12: Copper, aluminium, zinc, nickel

Arbitrage for copper, aluminium, zinc and nickel imported into China on Thursday December 20*

COPPER

-\$63.33 (-437.96 yuan)

ALUMINIUM

-\$404.41 (-2,796.61 yuan)

7INC

-\$97.26 (-672.58 yuan)

NICKEL

\$316.43 (2,188.17 yuan)

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

On January 2, 2018, Fastmarkets improved its calculation to more accurately reflect arbitrage windows for physical trading. In addition, Fastmarkets has adopted China's latest announced VAT of 16% to its arbitrage calculation, effective May 2, 2018.

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

HUILI



	Price	Change [†]	Assessed
HRC, EU imports (cfr main EU port, northern Europe) (€/t)	480-490	-3.48%	▼ 19 Dec 18
HRC, EU imports (cfr main EU port, southern Europe) (€/t)	460-470	-1.06%	▼ 19 Dec 18
HRC, CIS exports (fob stowed main Black Sea port) (\$/t)	450-470	-1.6%	▼ 17 Dec 18
HRC, UAE imports (cfr Jebel Ali) (\$/t)	525-530	0%	18 Dec 18
HRC, Turkish imports (cfr main Turkish port) (\$/t)	490-495	0%	14 Dec 18
HRC, Latin America exports (fob stowed main Latin American port) (\$/t)	500-505	0%	14 Dec 18
HRC, commodity grade, US imports (cfr Gulf port) (\$/short ton)	680-720	-3.45%	▼ 12 Dec 18
HRC, China export (fob main China port) (\$/t)	483-483	0.97%	▲ 20 Dec 18
HRC, South East Asia imports (cfr Vietnam) (\$/t)	480-490	-1.02%	▼ 17 Dec 18
HRC, Iran imports (cfr main port) (\$/t)	595-600	0%	29 Aug 18
HRC, Saudi Arabia imports (cfr main port) (\$/t)	530-540	0%	18 Dec 18
CRC, EU imports (cfr main EU port, northern Europe) (€/t)	570-590	-2.52%	▼ 19 Dec 18
CRC, EU imports (cfr main EU port, southern Europe) (€/t)	560-570	-1.74%	▼ 19 Dec 18
CRC, CIS exports (fob stowed main Black Sea port) (\$/t)	530-560	-1.36%	▼ 17 Dec 18
CRC, UAE imports (cfr main Jebel Ali) (\$/t)	590-600	0%	18 Dec 18
CRC, Turkish imports (cfr main Turkish port) (\$/t)	560-580	0%	14 Dec 18
CRC, Latin America exports (fob stowed main Latin American port) (\$/t)	625-630	0%	14 Dec 18
CRC, US imports (cfr Gulf) (\$/short ton)	810-840	-1.79%	▼ 12 Dec 18
CRC, China export (fob main China port) (\$/t)	520-525	-1.88%	▼ 18 Dec 18
CRC, Iran imports (cfr main port) (\$/t)	630-640	0%	29 Aug 18

DNEPR

MEIS 2018: Snowball effect of Section 232 tariffs affects third of world trade, Mena region at risk - Ezz Steel

The knock-on effect of Section 232 tariffs imposed by the United States in March this year on imports of steel and aluminium has been swift and dramatic.

In retaliation, the European Union, Canada and Turkey swiftly imposed their own safeguard measures; the Eurasian economic zone is set to do so soon.

But this trade war poses in particular a threat to the Middle East-North Africa region, which is currently the least protected from imports, George Matta, chief marketing officer of Ezz Steel, said at the 22nd Middle East Iron and Steel Conference in Dubai on December 10-12.

"It is inevitable, given that world steel trade accounts for at least 29% of production, or 463 million tonnes last year, that protectionism in one import market, such as the USA, will cause other countries to protect or 'safeguard' their own markets from diverted supply," he told delegates.

"The US import market accounted for 7.5% of global trade or 34.6 million tonnes last year - its share of global steel usage is 6.2% - so the potential impact on other steel markets is more acute. So far this year US safeguarding has been very effective - imports have fallen by 12% through the first nine months," he said.

According to Matta, the total volume of trade affected by the global protective measures this year amounts to 150 million tonnes, which accounts for 33% of world trade.

Producers in protected markets have the most to gain from a trade war – in the US, for example, spot prices have risen significantly because of the newly erected barriers to cheaper supply from elsewhere.

"Average US spot import prices have increased by close to \$200 per tonne year on year [from the first to the third quarters of 2018] after 25% tariffs were introduced in April. By contrast, export-dependent markets such as China and Russia have seen local prices rise by just \$75 per tonne," Matta said.

Fastmarkets' assessment of the US import rebar price averaged \$654.74 per short ton (\$721.72 per metric tonne) cfr port of Houston in the year to date, up by \$169.14 per short ton from the average of \$485.60 per short ton in 2017.

Fastmarkets' price assessment for Russian domestic rebar averaged 37,862 roubles per cpt Moscow including VAT in the year to date, up by 6,708 (\$102) roubles from the average of 31,154 roubles per tonne cpt in 2017.

And Fastmarkets' price assessment for Northern China domestic rebar averaged 4,010 yuan per tonne ex-warehouse so far this year, up by 349 yuan (\$50) from the average of 3,661 per tonne ex-warehouse in 2017.

The emergence of regional price disparity to this extent is hurting the steel industry in markets such as the Middle East and North Africa by making the region more attractive to overseas steel suppliers.

While steelmakers' utilization rates in 2017 were only about 40% of capacity in North Africa and were below 50% in the Gulf Cooperation Council (GCC) region, producers outside Mena operated at around 80% of capacity, Matta said.

"Utilization rates rise as a function of increased production but not lower capacity," he said.

Crude steel production rose by 5.3% year on year over the first 10 months in January-October 2018, to 1.5 billion tonnes, the World Steel Association estimated.

Steel demand in the Mena region is finally climbing out of a



three-year depression, at least.

"The acceleration in regional economic growth, from just 1.3% in 2017 to 2.7% this year is as usual spurring a steel demand revival. We predict steel demand [in the Mena region] will rise by 2.8% this year," Matta said.

Long steel consumption, supported by increased construction activity, is the main driver of demand in the region. But activity in the engineering and metal goods sectors is slowing, which is weighing on flat-rolled consumption.

"The turnaround in construction activity is forecast to endure through 2019 and as a consequence, pull long products demand [in the Mena] higher and at a faster rate than for flat-rolled demand through both 2018 and 2019," Matta said.

"Nevertheless at 3.0% and 2.5% this year and next, it is a modest rate of recovery that will keep demand below peak [of almost 5% in 2017] but at the same time incentivize external suppliers to restore their market shares in a strengthening market," he added.

Mena long steel consumption will reach 48 million tonnes in 2018 and will climb to 50 million tonnes in 2019, Ezz Steel - Egypt's biggest producer - estimates.

It expects flat steel consumption in the region to rise by 3.5% in 2018 to 25.3 million tonnes and by a further 1.5% in 2019 to 25.7 million tonnes

VLADA NOVOKRESHCHENOVA

DNEPR

EC extends final decision over safeguards for steel imports

The European Commission (EC) extended the deadline for a final decision over safeguards for a number of steel products imports, to February 1, 2019, the EC said.

The EC started an investigation into safeguards for a number of steel products on March 26, 2018 to prevent steel shipments being redirected to the EU, after Section 232 import tariffs imposed by the United States

The initial deadline for the investigation was nine months after it started. The regulations, however, allow the investigation to be extended by a maximum of two months in exceptional circumstances.

"The size of the investigation in terms of product scope – 26 categories as well as the 800 interested parties registered – is unprecedented. This therefore places a heavy administrative burden on the EC because of the significant number of representations made by the parties, as well as a complex legal and economic analysis of recent data," the EC added.

"There are a large number of interested parties who provided replies to a questionnaire, written comments and/or participated in hearings. The collection and analysis of vast amounts of information required a significant amount of time and resources," the EC said.

In addition, current provisional safeguard measures adopted against certain steel products ensures the necessary temporary protection of the EU industry, so that an extension of the current investigation would not have a negative effect on the market.

The EC imposed preliminary measures in its safeguard case on July 18, in the form of tariff rate quotas on 23 steel product

categories, based on average import volumes over the past three years. A 25% tariff will be added if the imports quota is exceeded.

The EC is expected to set definitive measures in its safeguard investigation by imposing quarterly quotas on each exporting country. However, quotas are not expected to be applied to imported hot-rolled coil, according to market sources. Quotas are calculated based on historical import volumes, although Europe is already protected from hot-rolled coil imports from China, Russia, Ukraine, Iran and Brazil through anti-dumping measures.

Preliminary measures have not had major impact on coil import volumes, and it did not prevent the decline of domestic prices due to low import offers in the fourth quarter.

But the situation might change if the form of definitive measures is different from the preliminary decision, according to market sources. As quotas will be calculated based on historical import volumes from the past three years, and taking into the account that a number of flat products sources have been blocked by anti-dumping measures, it is unclear how these volumes will be reflected in definitive quotas.

As a result, the anticipated definitive decision in the safeguard case is adding to uncertainty to the EU coil market.

Fastmarkets' weekly price assessment for HRC imports to Southern Europe was €460-470 (\$524-5366) per tonne cfr main ports on December 19, compared with €465-475 per tonne cfr last week, reflecting lower offers from Turkey.

And Fastmarkets' weekly price assessment for HRC imported to Northern Europe was €480-490 per tonne cfr main ports this week, down from €500-505 per tonne cfr main ports.

MARIA TANATAR

DNEPR

EUROPE CRC: Mood in the market remains negative

Domestic prices for cold-rolled coil (CRC) in Europe have been largely unchanged over the week, but sentiment in the market remains negative, sources told Fastmarkets.

The market has been slow due to the seasonal de-stocking from distributors ahead of the year-end.

Market sources believe that although activity will somewhat recover in the first half of January, the demand improvement will not be strong enough to support domestic prices.

In the meantime, the upcoming definitive decision in the European Commission's (EC) safeguard case is adding uncertainty to the market outlook.

The EC is expected to set definitive measures in its safeguard investigation in the form of quarterly quotas set for each exporting country in early February.

Market participants said that it still remains unclear on whether the EC will sets the measures in the forms mentioned above, on how the quarterly quotas will be calculated and if any countries currently subject to other trade defence measures will be included.

The EC imposed preliminary measures in its safeguard case on July 18, in the form of tariff rate quotas on 23 steel product categories, based on average import volumes over the past three years. Under those measures, which can remain in place for a maximum of 200 days, imports face a 25% tariff if the quota is exceeded.

The case was started in an attempt to prevent steel shipments being redirected to the European Union following the Section 232 import tariffs imposed by the United States.

"It is not clear what the decision will look like, which does not help confidence in the market. In addition, demand is not going to be strong and there is still a threat from cheap imports, so domestic



prices will have to go down," an Italian trader said.

SOUTHERN EUROPE

Fastmarkets' weekly price assessment of domestic CRC in Southern Europe was €560-590 (\$638-672) per tonne ex-works on December 19, unchanged over the week.

The lower end of the price assessment represented prices in Italy, while the upper end reflected prices in Spain.

The weekly price assessment for imported CRC in Southern Europe was €560-570 per tonne cfr main ports on Wednesday, compared with €570-580 per tonne cfr main ports a week earlier.

NORTHERN EUROPE

Fastmarkets' weekly price assessment for domestic CRC in Northern Europe was stable over the week at €600-625 per tonne ex-works on December 19.

The assessment reflected the latest transactions and offers heard in the market

Fastmarkets' weekly price assessment for imported CRC in Northern Europe was €570-590 per tonne cfr main ports this week, compared with €580-600 per tonne a week earlier.

MARIA TANATAR

LONDON

Flat Steel Products Trade Log, December 20, 2018

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

LATEST TRANSACTIONS: HOT-ROLLED COIL

- East China, domestic, commercial-grade HRC (4.5-12mm), traded at 3,810-3,820 yuan (\$552-554) per tonne, including VAT.
- North China, domestic, commercial-grade HRC (4.5-12mm), traded at 3,680-3,700 yuan per tonne, including VAT.

SHANGHAI

CHINA HRC: Domestic prices up amid falling inventory levels

China's hot-rolled coil prices rebounded on Thursday December 20 amid lower inventory, with those in the north posting larger increases on fears of a supply drop.

DOMESTIC

- Eastern China (Shanghai): 3,810-3,820 yuan (\$552-554) per tonne, up 10-20 yuan per tonne
- Northern China (Tianjin): 3,680-3,700 yuan per tonne, up 60-70

HRC inventory levels in the country fell by around 76,600 tonnes over the week to Thursday, according to a domestic steel consultancy.

Buyers had been stocking up in the last couple of weeks amid low inventory levels, which helped support prices in the spot market.

Prices in Shanghai have been largely above 3,800 yuan per tonne since last Friday, according to Fastmarkets MB's assessment.
In the northern region, prices rose by bigger margins due to

several mills there said to be cutting output due to restrictions related to the winter heating season, to cut pollution. A recent accident at a mill in that region also sparked some concerns over a possible short-term drop in supply.

Hebei-based Cangzhou Zhongtie Equipment Manufacturing Material Co suffered a blackout two weeks ago when some of the cables at its plant caught fire. It is not known whether the company has been operating at normal rates since then, but market participants said it had resulted in a segment of the market to step up on their efforts to restock.

This helped send spot prices for HRC higher, a trader in Hangzhou told Fastmarkets MB.

EXPORT

• MB fob China HRC Index: \$482.50 per tonne fob, down \$2.50 per tonne

Mills were still trying to sell HRC to domestic traders at \$485 per tonne fob during the day.

Buyers in Vietnam were only willing to pay up to \$495 per tonne cfr Vietnam - equivalent to about \$480 per tonne fob China.

A few traders said they would like to take up these bids, but noted that it was hard to secure cargoes in recent days because most mills are sold out of February-delivery materials, a Beijing-based trader said. March-delivery shipments will only be offered in the New Year.

Market participants estimated that transactions could take place around \$480-485 per tonne fob if traders manage to find mills that can fulfil these orders.

MARKET CHATTER

"Although domestic prices these days are high, it is hard to say how long this scenario will last, especially when we talk about next year, because we are seeing very little signs of a sustainable rebound on the demand side," a Shanghai-based trader said.

SHANGHAI FUTURES EXCHANGE

The most-traded May HRC futures contract closed at 3,459 yuan per tonne on Thursday, up 11 yuan per tonne from Wednesday.

MIRANDA SONG

DNEPR

EUROPE HRC: Domestic prices likely to continue gradual fall

Domestic prices for hot-rolled coil (HRC) in the European Union are expected to continue their gradual decline after the market recovers from the Christmas holiday period lull, sources told Fastmarkets on Wednesday December 19.

The prices are expected to stabilize for a couple of weeks due to the lack of market activity over the Christmas holiday period in Europe, according to market participants.

But in the first half of January, when buyers and steelmakers return to the market, domestic prices are expected to slide further due to the negative global trend and slow trading across Europe, sources said.

"I do not [expect] prices to drop massively, but the market will remain relatively weak, and [domestic] prices [for HRC] will likely to go down step by step in the first quarter," a European trader said.

In the meantime, European steelmakers were reported to have sufficient order books, which has helped to prevent an bigger drop of domestic prices, according to market sources.

The anticipated definitive decision in the safeguard case, which is scheduled to be set in February, is adding to uncertainty to the market.

The European Commission (EC) is expected to set definitive



measures in its safeguard investigation in the form of quarterly quotas set for each exporting country. While per-country quotas are not expected to be applied to imported hot-rolled coil, according to market sources. Quotas are calculated based on historical import volumes, and the European market has already been shielded from HRC originating from China, Russia, Ukraine, Iran and Brazil by anti-dumping measures.

Market participants said that it still remains unclear whether the EC will sets the measures in the forms mentioned above; how the quarterly quotas will be calculated; if any countries currently subject to other trade defence measures will be included; and if the quota-per-country system is will apply to HRC.

The EC imposed preliminary measures in its safeguard case on July 18, in the form of tariff rate quotas on 23 steel product categories, based on average import volumes over the past three years. Under those measures, which can remain in place for a maximum of 200 days, imports face a 25% tariff if the quota is exceeded.

The case was started in an attempt to prevent steel shipments being redirected to the European Union following the Section 232 import tariffs imposed by the United States.

"At this point it is hard to say what impact [definitive] decision is going to have, but the [European mills] will try to use it as reason to increase prices," an Italian distributor said.

NORTHERN EUROPE

Fastmarkets' weekly price assessment for domestic HRC in Northern Europe was €520-530 (\$591-602) per tonne ex-works on December 19, down by €10 per tonne from €530-540 per tonne ex-works.

The assessment reflects latest transactions heard in the market. One source also said that the steelmakers can trade HRC at \leqslant 510 per tonne ex-works, but the number was not confirmed and therefore was not included into the assessment.

Despite negative sentiment in the market mills are expected to increase their official coil offers by €20 per tonne, according to market sources

And Fastmarkets' weekly price assessment for HRC imported to Northern Europe was €480-490 per tonne cfr main ports this week, down from €500-505 per tonne cfr main ports.

The assessment reflects "workable" prices hard in the market.

SOUTHERN EUROPE

Fastmarkets' weekly price assessment for domestic HRC in Southern Europe was stable over the week at €470-500 per tonne ex-works on December 19.

The assessment reflects the latest deals heard in the market. Italian mills are willing to drop prices to €460 per tonne ex-works for bigger lots or for specific customers, according to market sources. These lower prices were not included in the assessment as they do not reflect average prices in the market.

Fastmarkets' weekly price assessment for HRC imports to Southern Europe was €460-470 per tonne cfr main ports on Wednesday, compared with €465-475 per tonne cfr last week.

Turkish mills were offering and trading HRC to Italy at the assessment price, sources said.

While HRC produced in India was on offer in Southern Europe at €470-485 per tonne ex-works, the price was said to be "too high"

and therefore only the lower end of the range was reflected in the assessment

CENTRAL EUROPE

Fastmarkets' weekly domestic price assessment for HRC in Central Europe was €510-520 per tonne ex-works this week, compared with €510-530 ex-works a week earlier.

This assessment reflects the workable prices and offers heard in the market, sources told Fastmarkets.

MARIA TANATAR

DNEPR

EUROPE PLATE: Domestic prices steady on seasonal Iull, to move down in Jan

Domestic prices for heavy steel plate in Europe have been largely stable due to the seasonal market slowdown ahead of Christmas, sources told Fastmarkets on Wednesday December 19.

Yet, prices are expected to move down in January after market participants return to the market after holidays.

"Demand was not good in December and it is unlikely to significantly recover in January, apart from some seasonal re-stocking activity. In addition, slab prices continue to decrease, so the [European plate] mills will most likely have to decrease prices after holidays," a Northern European source said.

Fastmarkets' weekly price assessment for slab exported from the Commonwealth of Independent States (CIS) dropped by \$15 per tonne week on week to \$415-420 per tonne fob Black Sea on December 17 due to negative sentiment in the finished steel products market.

The decline in slab prices will have a direct impact on Italian re-rollers, market sources told Fastmarkets, while a change in prices in the south could have a negative influence on Northern European prices.

In the meantime, Fastmarkets' weekly price assessment for domestic grade-S235JR heavy steel plate in Southern Europe was €540-550 (\$614-625) per tonne ex-works on December 19, unchanged over the week.

The assessment represented latest transactions heard in the market. Fastmarkets' weekly price assessment for domestic grade-S235JR heavy steel plate in Northern Europe was €580-600 per tonne ex-works on December 19, widening down from €590-600 per tonne ex-works last week, reflecting transactions and offers heard in the market.

MARIA TANATAR



Carbon steel long products

METAL BULLETIN'S KEY LONG STEEL P	PRICES		
	Price	Change [†]	Assessed
Rebar, China export (fob main China port) (\$/t)	486-486	1.58%	▲ 20 Dec 18
Rebar, EU import (cfr main EU port, northern Europe) (€/t)	500-505	0%	19 Dec 18
Rebar, EU import (cfr main EU port, southern Europe) (€/t)	470-500	-2.02%	▼ 19 Dec 18
Rebar, CIS exports (fob stowed main Black Sea port) (\$/t)	455-465	-3.66%	▼ 17 Dec 18
Rebar, Turkish exports (fob main Turkish port) (\$/t)	450-460	-2.67%	▼ 20 Dec 18
Rebar, UAE imports (cfr Jebel Ali) (\$/t)	515-525	0.1%	▲ 18 Dec 18
Rebar, US imports (cfr Gulf) (\$/short ton)	650-690	0%	19 Dec 18
Rebar, Latin America exports (fob stowed main Latin American port) (\$/t)	560-565	0%	14 Dec 18
Rebar, South East Asia imports (cfr Singapore) (\$/t)	480-490	-3%	▼ 17 Dec 18
Rebar, Southern Europe exports (fob main port) (€/t)	460-490	0%	19 Dec 18
Rebar, Iran imports (cfr northern ports) (\$/t)	430-440	0%	21 Dec 16
Rebar, Saudi Arabia imports (cfr main port) (\$/t)	570-575	0%	26 Jun 18
Rebar, Algeria imports (cfr main port) (€/t)	480-490	0%	03 Oct 18

SHANGHAI

CHINA REBAR: Prices rise amid futures, billet gains

China's rebar prices strengthened on Thursday December 20 following gains in the billet and futures markets.

DOMESTIC

- Eastern China (Shanghai): 3,800-3,830 yuan (\$551-555) per tonne, up 10-20 yuan per tonne
- Northern China (Beijing): 3,600-3,630 yuan per tonne, up 20-30 yuan per tonne

Improved demand for billet sent the price of the semi-finished product in Tangshan upward during the day.

Rebar futures also rose in the afternoon following the release of data indicating a decline in output. A total of 3.3 million tonnes of rebar were produced in the week to Thursday, down 26,500 tonnes from the preceding week, according to a local industry information provider.

Production rates for the long steel product has been on the decline in recent weeks, which takes the pressure off prices, market sources said.

EXPORT

• MB fob China Rebar Index: \$486.32 per tonne, up \$3.82 per tonne Offers were at \$490-495 per tonne fob during the day, the same as a day earlier.

But the strengthening domestic market led participants to raise their estimates for mills' acceptable prices to \$475-490 per tonne fob on Thursday, compared with \$475-485 per tonne fob a day earlier.

Buyers did not submit any bids. According to an export trader in eastern China, buyers have enough materials in their inventories. Furthermore, the cargoes that they booked two to three months ago are only being delivered now.

This suggests that they have no urgent need of materials and will likely be more interested in short selling cargoes that will be delivered in the second quarter of 2019, the trader said.

A cargo was heard to have been sold by a short-selling trader at \$470 per tonne cfr Hong Kong early this week.

MARKET CHATTER

"A few steel mills lowered their rebar production rates due to restrictions associated with the winter heating season or maintenance in view of the marginal profit margins, so output could continue to drop over the next one week, which will support rebar prices," a trader in Shanghai said.

BILLET

As at 3pm, billet was being traded at 3,390 yuan per tonne including VAT in Tangshan, up 30 yuan per tonne from a day earlier.

SHANGHAI FUTURES EXCHANGE

The most-traded May rebar futures contract closed at 3,481 yuan per tonne on Thursday, down 56 yuan per tonne from a day earlier.

LONDON

EUROPE SECTIONS: Market resists proposed price increases

Hollow steel sections prices in Europe were unchanged this week, which reflects doubts about the ability of mills to push through proposed price increases, market participants told Fastmarkets MB on Wednesday December 19.

Fastmarkets MB's domestic price assessment for commoditysize, grade-S235 square hollow sections made in Northern Europe was unchanged week on week at €635-650 (\$721-738) per tonne delivered on Wednesday.

Prices for the feedstock material used for hollow sections, hot-rolled coil (HRC), have continued to fall in December - Fastmarkets MB's weekly price assessment for HRC in Northern Europe fell to \leqslant 520-530 per tonne ex-works on Wednesday from \leqslant 550-560 per tonne ex works on November 7.

"Hollow section prices are unchanged but we see a further drop in HRC. I am not expecting a price increase of hollow sections and [mills] will not get it. They can try but so far all plate suppliers are trying to get orders at a lower price. They will not be successful moving the hollow section price upwards," a trader said.

The market has paid close attention to the import quota that was set by the European Commission (EC) earlier this year.

On July 18 this year, the EC imposed preliminary measures in a regional safeguard case in the form of tariff rate quotas on 23 steel product categories, based on average import volumes over the past three years. Imports will face a 25% tariff if the quota is exceeded.

It is highly likely the quota will be met and exceeded - the quota volume set by the EC for hollow steel sections allowing for 387,343 tonnes of material to be imported free of tariff before February 2, 2019, is now almost completely exhausted.

As of December 19, only 18,904 tonnes remain unallocated under the import tariff. This total is in the "critical" range, the EC said on its website.

Throughout December, the import quota has declined week on week, with 43,580 tonnes remaining unallocated as of December 12, continued >



Carbon steel long products

down from 58,156 tonnes on December 5 and 147,574 tonnes on November 7.

The EC is expected to make an announcement about the import quota within the next six weeks once the provisional safeguarding measures have been in place for a maximum of 200 days.

"I have not seen any price increases yet but I have not doing a lot of enquiries this time of year," a distributor said. "There is no change at all to prices. January will be a month of some new insight because of the import quota. Maybe the price will go up but I don't think it will - people have quite good stocks or will go elsewhere to where prices are still the same."

"I did expect the quota to run out," he added. "It's not a big deal or big surprise for the quota to be used up in January and then there will be a few weeks of not knowing what is going to happen, I will just wait - I have patience."

Fastmarkets MB's domestic price assessment for commoditysize, grade-S235 square hollow sections made in Southern Europe was unchanged at €630-650 per tonne delivered on December 19.

CARRIE BONE

LONDON

EUROPE WIRE ROD: Quota questions continue ahead of Feb renewal

European prices for mesh-quality wire rod stayed flat across the Northern and Southern parts of the continent on Wednesday December 19, with questions over the future of the region's import quotas continuing.

Fastmarkets MB's weekly domestic price assessment for mesh-quality wire rod in both Southern and Northern Europe was at €540-560 (\$614-636) per tonne delivered on Wednesday, unchanged from last week.

The European Commission's import safeguard quota for wire rod - tariff codes: 7213 00 00 00, 7227 00 00 00 – is now more than 97% filled, with 1,027,610 tonnes of the original quota now gone and little activity expected ahead of its renewal in February.

Some companies were already looking for storage space near the EU border while deliveries have arrived that will not be able to fall into the quota's allowance and will need to wait until February to avoid a 25% tariff, a trader said.

In addition to uncertainty over what the new quotas will look like, with the industry calling for county-specific quotas and quarterly or even monthly quotas too, there is also the specter of the UK possibly leaving the EU in March without any type of trade deal.

"If the UK goes no-deal, will there be no safeguards?" a trader asked. "Will the UK be exempt from the new quotas, and if they are, will Turkey insist on the same exemptions?"

JETHRO WOOKEY

LONDON

SOUTHERN EUROPE REBAR: Low offers encourage small price dip ahead of holidays

The price for rebar produced and delivered in Southern Europe fell slightly on the low end on Wednesday December 19, with some low offers from Spain carrying into the year-end period.

Fastmarkets MB's weekly price assessment for domestic rebar in Southern Europe slipped to €520-540 (\$591-614) per tonne delivered on Wednesday, but there is very little activity predicted ahead of the New Year and the February renewal of the European Commission's safeguard import quota.

A trader reported offers from Spain at the new low of the range, while others are already expecting some tentative offers from importers ahead of the quota's renewal. Around 672,142 tonnes, or 94%, of the rebar quota - under tariff codes 7214 20 00 00 and 7214 99 10 00 - have been used up so far.

"There is already some push from importers, with people talking about the quota renewal in February," a producer said. "There are some import offers floating around for February delivery."

Yet there is still a lot of uncertainty surrounding the quotas, with recent calls from the industry for quotas to be applied separately to individual countries, and for quarterly or even monthly quotas rather than an annual one.

"It's not going to be that attractive to do business before February," a trader said.

JETHRO WOOKEY

LONDON

NORTHERN EUROPE REBAR: Year-end, quota uncertainty puts market on stand

The price for rebar produced and delivered in Northern Europe stayed flat on Wednesday December 19, with the year-end and uncertainty over import quotas keeping the market quiet.

Fastmarkets MB's weekly price assessment for domestic rebar in Northern Europe remained at €540-560 (\$614-636) per tonne delivered on Wednesday, with very little activity in the week while the market winds down for the year-end holidays.

The European Commission's safeguard import quota for rebar - under tariff codes 7214 20 00 00 and 7214 99 10 00 - has almost been filled, with 672,142 tonnes or 94% of the quota used up so far. The quotas will be renewed in early February, although the market knows little about what the new quotas will look like.

"We're waiting for the announcement from the EC, and they have to do it sometime in January at the latest," a producer said. "The industry is asking for quotas by country, and also quarterly or monthly quotas. Right now there's just more waiting and more uncertainty."

There will not be much in the way of concluded business before the quotas announcement is made, with buyers unlikely to be tempted to market amid such uncertainty and creditors likewise.

"Prices will probably stay flat from now until February, or when we hear about the quota, one trader said.

JETHRO WOOKEY



Carbon steel long products

LONDON

EUROPE BEAMS: Prices unchanged as market pauses for holidays

Domestic prices for steel beams in Europe were flat week on week due to the market winding down for Christmas holidays, sources said on Wednesday December 19.

Fastmarkets MB's weekly price assessment for domestic S235-grade, 200x200mm, category-2 H-beam in Northern Europe was at €620-645 (\$705-733) per tonne on December 19, flat week on week

"Prices are stable as expected, everybody is closed now. All mills will increase prices when Europe is on holiday because nobody can react to it," a distributor said.

Mills have been pushing for price increases of €15-20 per tonne since November but no new business has yet been booked at these levels; this also comes at a time when feedstock costs have continued to fall

Fastmarkets MB's index for Northern European HMS 1&2 (80:20) scrap material, the feedstock for H-beams and a general indicator for the global scrap market, has continued to fall in December, dropping to \$286.25 per tonne on December 18, down from \$316.69 per tonne cfr at the start of the month and \$331.43 per tonne cfr on November 1.

The corresponding weekly price assessment for domestic

S235-grade, 200x200mm, category-2 H-beam in Southern Europe was €630-645 per tonne delivered on Wednesday, unchanged week on week.

CARRIE BONE



A new paper from Fastmarkets MB and CME Group takes a look at what's on deck for aluminium in the months and years to come.



To download visit: u.metalbulletin.com/cme-whitepaper-ustariffs/



Carbon steel semifinished products

	Date	Obt	A
	Price	Change [†]	Assessed
Slab, CIS exports (fob stowed main Black Sea port) (\$/t)	415-420	-3.47%	▼ 17 Dec 18
Slab, Brazil export (fob main port) (\$/t)	430-475	-1.09%	▼ 14 Dec 18
Slab, South East/East Asia (cfr main port) (\$/t)	445-455	0%	17 Dec 18
Billet, CIS exports index (fob Black Sea port) (\$/t)	420	-0.71%	▼ 19 Dec 18
Billet, Turkish exports (fob main Turkish port) (\$/t)	420-440	0%	20 Dec 18
Billet, Turkish imports (cfr main Turkish port) (\$/t)	420-440	-2.27%	▼ 20 Dec 18
Billet, UAE imports (cfr Jebel Ali) (\$/t)	470-480	0%	18 Dec 18
Billet, Latin American exports (fob			
stowed main Latin America port) (\$/t)	480-490	0%	14 Dec 18
Billet, Indian exports (fob main India port) (\$/t)	430-435	-5.46%	▼ 14 Dec 18
Billet, South East Asia imports (cfr main port) (\$/t)	460-462	-0.32%	▼ 20 Dec 18
Billet, Iran export (fob Iranian ports) (\$/t)	385-390	-1.27%	▼ 19 Dec 18
Billet, Egypt imports (cfr main port) (\$/t)	440-445	0%	20 Dec 18

SINGAPORE

Southeast Asian billet market pressured by weak demand, aggressive Vietnamese offers

Import prices for steel billet in Southeast Asia remained subdued on Thursday December 20 amid low bids and minimal deals, after a major Vietnamese producer was heard slashing its offers this week.

Fastmarkets MB's daily import price assessment for billet in Southeast Asia was \$460-462 per tonne cfr Manila on Thursday, unchanged for a second day. Prices are little changed from those a week earlier, when they were at \$460-465 per tonne cfr.

Trading was thin amid lackluster demand during the year-end holiday season.

Only one transaction was reported in recent days. It involved billet from the Commonwealth of Independent States (CIS) sold to the Philippines at \$465 per tonne cfr Manila on Monday. No other deals were heard this week.

"It's near Christmas, so buying is very slow now in the Philippines," a Vietnam-based trader said on Thursday. Thai buyers are also not in a hurry to procure materials, a trader in Thailand said.

Filipino buyers indicated their interest at around \$450-455 per tonne cfr Manila this week. Thai buyers were looking to buy at around \$430-435 per tonne cfr Thailand, while those in Indonesia were heard to be bidding at \$460 per tonne cfr on Thursday.

Additional pressure on regional prices came in the form of cheaper billet in Vietnam, which led to Southeast Asian importers either reducing their bids or keeping them low.

Major Vietnamese steelmaker Formosa Ha Tinh Steel Corp surprised market participants on Monday with its low domestic offers of around \$414-420 per tonne cif for 150mm square billet to northern and southern Vietnam.

A trader in Southeast Asia estimated that the mill's offers on Monday were equivalent to about \$450-455 per tonne cfr Southeast Asia after taking into account additional logistical and transportation costs. But on Wednesday, billet buyers in Thailand said the Vietnamese mill had reduced its offer to \$445 per tonne cfr Thailand.

"But the mill is denying that they are exporting billet currently," the Vietnam-based trader said.

Prices from Formosa Ha Tinh Steel are not taken into consideration in Fastmarkets MB's assessment because the grade of the mill's billet falls outside of the price specifications. The mill is said to be producing billets of SD295 grade, instead of the more common grades in Southeast Asia such as 5sp and 3sp.

Offers from mills in the CIS stood at \$462-463 per tonne cfr Manila and \$450 per tonne cfr Thailand on Thursday, down from \$465 per tonne cfr Manila a week earlier.

Malaysian cargoes were offered at around \$460-480 per tonne off Manila

Iranian offers were heard at \$445-450 per tonne cfr Thailand this week. These are excluded from Fastmarkets MB's assessment because they fall below mainstream levels due to the United States' trade sanctions on Iran

Vietnamese billet produced from induction furnaces was available at \$455-460 per tonne cfr Manila on Thursday. These are also excluded from the assessment because they tend to be lower than mainstream prices due to the inferior quality of such products.

FIONA LAM



Stainless & special steels

METAL BULLETIN'S KEY STAINLESS STEEL PRICES						
	Price	Change [†]		Assessed		
Grade 304 HR Sheet, Asia import (cif East Asian port) (\$/t)	2,180-2,280	-1.76%	•	04 Jul 18		
Grade 304 2mm CRC, 2B Asia import (cif East Asian port) (\$/t)	1,860-1,930	-2.07%	•	19 Dec 18		
Grade 304 2mm CR sheet EU export (fob N European port) (€/t)	2,559-2,634	-2.42%	•	27 Jul 18		

SINGAPORE

East Asian stainless steel prices continue slide on year-end lull

Import prices for stainless steel in East Asia continued on a downward trend over the past week amid the year-end lull.

Fastmarkets MB's import price assessment for 304 stainless 2mm trimmed cold-rolled coil in East Asia was \$1,860-1,930 per tonne cif for the week ended Wednesday December 19, down \$40 per tonne from a week earlier.

Fastmarkets MB's import price assessment for 304 stainless trimmed hot-rolled coil in the same region was \$1,720-1,770 per tonne cif for the same period, widening downward by \$70-90 per tonne from \$1,790-1,860 per tonne cif a week earlier.

Industry sources said demand was weak in Asia due to the year-end seasonal Iull.

"Many market participants are already preparing to wind down their business activities in preparation for the year-end holiday season, so there is very thin demand," a trader in China said.

There was not a lot of negotiations made for spot cargoes, with sellers in both Southeast Asia and China reporting thin transactions.

"There are almost no spot price negotiations in the market. Some mills have not issued any offers at all unless they have firm inquiries from buyers," a service center source in Southeast Asia said.

Offers for stainless HRC were reported at \$1,770-1,850 per tonne cif, compared with \$1,790-1,890 per tonne cif in the previous week.

Stainless CRC were generally offered around \$1,860-1,950 per tonne cif, down from \$1,900-2,000 per tonne cif a week earlier.

Trading activity is expected to resume only after the New Year, but there is little chance of a strong uptick in demand even in

"The market is likely to remain muted into January until the Lunar New Year period. The market condition for after the Lunar New Year remains unclear, so it is not easy to describe how demand will be like then," a source at a stainless steel mill said.

Nickel prices edged up over the past week, however.

The three-month nickel contract on the London Metal Exchange ended Wednesday's official trading session at \$10,850-10,855 per tonne, up \$75 per tonne from \$10,775-10,780 per tonne the previous week.

China's domestic market showed some signs of rebounding over the past week, although the effect has yet to spread over to rest of the East Asian market.

Fastmarkets MB's price assessment for 304 stainless CRC in the country's major market of Wuxi was 14,300-14,800 (\$2,074-2,146) per tonne including VAT for the week ended Wednesday, narrowing upward by 100 yuan per tonne week on week.

Prices for stainless 304 stainless HRC in Wuxi were at 13,600-

13,700 yuan per tonne on Wednesday, up 300 yuan per tonne from a week earlier.

PAUL LIM



Ferrous raw materials

METAL BULLETIN'S KEY IRON ORE PRICES	1			
cfr main China port \$ per dry metric tonne				
	Price	Change [†]		Assessed
Iron ore index (62% fe)	72.26-72.26	6.81%		20 Dec 18
Iron ore pellet index cfr Qingdao (65% fe)	118.58-118.58	-1.27%	•	14 Dec 18

SHANGHAI, SINGAPORE

IRON ORE DAILY: No holiday lull for SGX's new high-grade derivative contract; physical prices up again

Singapore Exchange's 65% Fe iron ore derivative contract continues to lend transparency to the high-grade segment, with trades registered for August-December 2019 months on Thursday December 20 and physical prices up amid active trading.

MB 62% FE IRON ORE INDEX:

\$72.26 per tonne cfr Qingdao, up \$3.11 per tonne.

MB 62% FE PILBARA BLEND FINES INDEX:

\$72.09 per tonne cfr Qingdao, up \$3.14 per tonne.

MB 62% FE IRON ORE INDEX-LOW ALUMINA:

\$73.97 per tonne cfr Qingdao, up \$1.91 per tonne.

MB 58% FE PREMIUM INDEX:

\$63.51 per tonne cfr Qingdao, up \$1.75 per tonne.

MB 65% FE IRON ORE INDEX:

\$86.90 per tonne cfr Qingdao, up \$1.60 per tonne.

MB 62% FE CHINA PORT PRICE INDEX:

553 yuan per wet metric tonne (implied 62% Fe China Port Price \$71 per dry tonne), up 1 yuan per wmt.

KEY DRIVERS

A total of 2,550 lots or 255,000 tonnes of the 65% Fe iron ore derivative were traded and cleared by 18:30 Singapore time on Thursday. Trades were done for each calendar month from January to December 2019.

Thursday was the first time that trades were registered beyond the second half of 2019, "which shows that the contract is developing pretty well", a senior executive at a broker said.

The derivative contract, which is settled based on Fastmarkets' MB 65% Fe Iron Ore Index, was launched on December 3 and has attracted participation from miners such as Anglo American, banks, traders and funds, among others.

Prior to the launch, market participants had cited the ability of the derivative contract to provide a visible forward curve as one of the key reasons why they saw a need for it.

In the physical iron ore market, prices also jumped again in the day following an uptick in China's ferrous futures in the afternoon.

Trading was very active at Chinese ports amid moderately higher prices, while seaborne cargoes also changed hands at stronger fixed prices or premiums on indices.

To improve air quality, north China's steel hub of Tangshan announced further industrial restrictions on Thursday including a full-stop to local sintering production during December 20-31, according to sources.

Upgraded from earlier restrictions of 40-100%, the new order could further increase local mills' need for iron ore lumps, a Chinese steelmaker source said.

Due to a better reception of lower grade materials in China, Fortescue Metals Group is narrowing the downward price adjustment for January shipments of its 56.5% Fe Super Special fines and 58.2% Fe Fortescue Blend fines to 37% and 28% respectively, from 40% and 29% for December shipments, according to sources.

The MB 62% Fe Iron Ore Index, published daily by Fastmarkets MB, rose \$3.11 per tonne on Thursday, while the daily MB 65% Fe Iron Ore Index increased \$1.60 per tonne. The price movements were based on the visible market activity detailed below, which was included in the index calculation according to the published methodology.

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

QUOTE OF THE DAY

"Iron ore inventories have stayed at relatively low levels at Chinese ports, so prices are are more prone to rise than to fall," a trading source in east China told Fastmarkets.

TRADES/OFFERS HEARD IN THE MARKET

- Rio Tinto, tender, 170,000 tonnes of 61% Fe Pilbara Blend fines, sold at \$70.93 per tonne cfr China, laycan January 3-12.
- Vale, Global Ore, 100,000 tonnes of 65% Fe Iron Ore Carajas, traded at \$87 per tonne cfr China, bill of lading dated November 19.
- Beijing Iron Ore Trading Center (Corex), joint cargo, 70,000 tonnes of 62% Fe Pilbara Blend fines, traded at the January average of a 62% Fe index, plus a premium of \$1.40 per tonne; 100,000 tonnes of 62.5% Fe Pilbara Blend lumps, traded at the January average of a 62% Fe index and its lump premium, adjusted for Fe content, plus a premium of \$1.40 per tonne,, laycan January 12-21.
- Corex, 170,000 tonnes of 62% Fe Pilbara Blend fines, sold at the January average of a 62% Fe index, plus a premium of \$1.85 per tonne, laycan January 14-23.
- BHP, Corex, joint cargo, 90,000 tonnes of 61% Fe Jimblebar fines, offered at the January average of two 62% Fe indices, adjusted for Fe content, plus a discount of \$6.80 per tonne; 110,000 tonnes of 62.4% Fe Newman fines, offered at the January average of a 62% Fe index, adjusted for Fe content, plus a premium of \$2.15 per tonne, laycan January 1-10 (Bid made at a discount of \$7.25 per tonne, and a premium of \$1.25 per tonne).
- Corex, 90,000 tonnes of 61% Fe Jimblebar fines, offered at the January average of two 62% Fe indices, adjusted for Fe content, plus a discount of \$6.50 per tonne, laycan January 1-10 (Bid made at a discount of \$7.35 per tonne).
- Global Ore, joint cargo, 90,000 tonnes of 62% Fe Mining Area C fines, offered at the January average of a 62% Fe index, plus a discount of \$2.30 per tonne; 110,000 tonnes of 62% Fe Newman fines, offered at the January average of a 62% Fe index, plus a premium of \$2.20 per tonne, laycan January 1-10.
- Global Ore, 177,000 tonnes of 62% Fe Standard Sinter Feed Guaiba, offered at the January average of the MB 62% Fe Iron Ore Index and its value-in-use plus a premium of \$1.80 per tonne, bill of lading dated December 7.
- Anglo American, tender, joint cargo, 50,000 tonnes of 64.3% Fe Kumba Standard lumps, and 120,000 tonnes of 63.8% Fe Kumba



Ferrous raw materials

Standard fines, laycan December 22-January 5.

• Vale, tender, 165,000 tonnes of 64.55% Fe Lump Ore Carajas, sold late on Wednesday at the February average of the MB 62% Fe Iron Ore Index, adjusted for Fe content, plus a premium of \$17.20 per tonne, bill of lading dated December 8.

PORT PRICES

Pilbara Blend fines was trading at around 548-560 yuan per wmt in Tangshan city and in Shandong province on Thursday, compared with 545-555 yuan per wmt a day earlier, sources told Fastmarkets.

The latest price range was equivalent to \$70.30-71.90 per tonne cfr China.

DALIAN COMMODITY EXCHANGE AFTERNOON CLOSE

The most-traded May iron-ore futures contract closed at 496.50 yuan per tonne on Thursday, up by 9.50 yuan per tonne from Wednesday's closing price.

DEEPALI SHARMA, JULY ZHANG, ALEX THEO

SHANGHAI

COKING COAL DAILY: Seaborne market still deadlocked, PCI prices soften

The seaborne coking coal market remained in a stalemate on Thursday December 20 with offers made at prevailing levels failing to pique the interest of buyers.

"I was offered three cargoes of premium low-vol hard coking coal at around \$210-212 per tonne cfr China during the day. Though sellers said there is room for negotiation, I'm not ready to commit yet," a northeastern Chinese mill source said.

A Chinese trader echoed the sentiment.

"End users are generally unwilling to buy at this juncture. Seaborne prices are still not attractive enough for them to take the risk of buying now, because buyers expect prices to fall further in January-February," he said.

In the pulverized coal injection (PCI) segment, some 60,000 tonnes of higher-ranked materials were traded around \$123 per tonne fob Australia, Fastmarkets heard.

"We are still worried about the uncertainties surrounding the ban on the customs clearance of imported coal. We will refrain from buying seaborne PCI until next year and buy from the port should the need arise," a source at a private Chinese mill said.

Meanwhile, sources told Fastmarkets that a mine in Queensland, Australia that produces second-tier PCI has encountered some disruptions to its production. As such, its sales to the spot market will be affected until the end of the first quarter of next year.

No further details were heard at the time of writing.

A Chinese mill source with knowledge of the disruptions at the mine downplayed its effect on the PCI market.

"The outlook for the steel market has not been too positive. The production disruption at the mine will not have an adverse impact on the PCI market," the source said.

The Dalian Commodity Exchange's most-traded May hard coking coal contract closed at 1,191 yuan (\$173) per tonne on Thursday, down 4.50 yuan per tonne from Wednesday.

The benchmark May coke contract closed at 1,986 yuan per tonne, up 9 yuan per tonne for the day.

Fastmarkets' MB fob Australia Premium Hard Coking Coal Index was flat at \$226.74 per tonne, while the cfr China index rose \$0.27 per tonne to \$205.80 per tonne.

The hard coking coal indices were also unchanged, at \$186.04 per tonne fob Australia and \$195.23 per tonne cfr China.

In the low-vol PCI segment, the cfr China index fell \$0.94 per tonne to \$135.87 per tonne while the fob Australia equivalent shed \$2.44 per tonne to \$124.30 per tonne.

SOPHIE ZHAO

DNEPR

Russia's Metalloinvest to upgrade blast furnaces, pig iron capacity unchanged

Leading pig iron exporter Metalloinvest is to modernize two of its four blast furnaces before the end of 2020, but will keep its pig iron capacity largely unchanged, the Russian company said this week.

A major global supplier of iron ore, pig iron and hot-briquetted iron (HBI), Metalloinvest awarded the upgrade contract to Netherlands-based global equipment suppliler Danieli Corus, which will be upgrading the companies No2 and No3 blast furnaces its Ural Steel facility at Novotroitsk in the Orenburg region to the south of Moscow.

"There will be no significant changes [in output]," a Metalloinvest spokesman told Fastmarkets.

A Danieli Corus spokesman said the upgrade would make the furnaces more effective.

"The upgraded blast furnaces will be able to produce their hot metal more efficiently and will be able to achieve longer campaign lengths," he said. "[But] they will not be enlarged to such an extent that the annual production will become significantly higher."

The commissioning of BF No2 is scheduled for the second quarter of 2020, and the company expects BF No3 to be back up and running again in the fourth quarter of 2020.

BF No3 will only be stopped for modernization once BF No2 is running at normal rates again after the upgrade, Metalloinvest told Fastmarkets.

BF No2 has been out of action since early 2016, Fastmarkets understands.

"During the re-equipping of BF No3, BFs No1, No2 and No4... will remain in constant operation," the Metalloinvest spokesman said.

"The re-equipping of blast furnaces is an important step in the development programme for Ural Steel, which also includes the modernization of the plant's electric-arc furnaces," Andrey Varichev, Metalloinvest's chief executive officer said.

Metalloinvest will replace two existing electric-arc furnaces (EAFs) in 2019.

The furnaces will be transitioned to using flexible modular furnace (FMF) technology, which will provide flexibility in the use of various charge components, with the possibility of increasing the share of hot metal in the charge to 85%, according to Metalloinvest.

Total capacity of two new EAFs will be above 2.2 million tonnes per year, roughly equal to existing steelmaking capacities at Ural Steel, although the share of hot metal in the charge could be increased up to 85%, the company added.

In 2017, Metlloinvest produced a combined 4.8 million tonnes of crude steel at its Ural Steel plant and at its Oskol Electrometallurgical Plant (OEMK) at Stary Oskol in the Belgorod region west of Moscow, using just 600,000 tonnes of pig iron. The company also used 3.4 million tonnes of direct-reduced iron or HBI in steelmaking last year.

The company produced 2.7 million tonnes of pig iron in 2017, while the installed capacity of the three blast furnaces at Ural Steel is around 3 million tonnes.



Ferrous raw materials

Once BF No2 resumes operation and BF No3 is halted for modernization, the installed capacity of Ural Steel will decrease to around 2.5 million tonnes, Fastmarkets calculates.

If the pig iron share used to produce steel at the facility reaches 85% and capacity falls, the company could cut shipments to the market.

In 2017, Metalloinvest supplied 2.1 million tonnes of pig iron to the market. Traditionally, Metalloinvest exports around 95% of its pig iron.

Fastmarkets' CIS export price assessment for high-manganese pig iron was stable at \$355-360 per tonne fob Black Sea on December 13 on low trading activity before the holiday season in key outlets.

The company said the investment in the project will exceed 7 billion roubles or \$104.95 million, including 18% VAT.

"In the future, the programme will involve the modernization of BF No4 with the subsequent transfer to... predominantly using iron ore pellets," the company said.

MARINA SHULGA

LONDON

Tosyali Algeria commissions 2.5m tpy directreduced iron plant

Steelmaker Tosyali Algeria has announced the completion of a 'state-of-the-art' direct reduced iron-making (DRI) plant with a nameplate capacity of 2.5 million tonnes per year.

In a press release this week, Suhat Korkmaz, chief executive officer of Tosyali Holdings, the Turkey-headquartered parent company of Tosyali Algeria, said the plant, "provides Tosyali Algeria with greater flexibility to produce high-quality steel products and will eliminate the need to purchase imported scrap."

The plant was supplied by Midrex Technologies and consortium partner Paul Wurth.

The plant is capable of simultaneously producing hot and cold direct reduced iron (HDRI and CDRI).

Commissioning of the plant began in July 2018 and production of CDRI started in late November 2018. HDRI production is expected to begin in February 2019, which also is the scheduled official plant start-up.

The DRI plant will feed a 2.3 million tpy electric arc furnace (EAF) that was commissioned in the spring of this year. EAF's can be fed with both DRI and scrap.

This comes at a time when the market believes that increasing domestic steel production in Algeria is likely to end the country's reliance on billet imports.

ROSS YEO



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Prices

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

NEW YORK FUTURES			
	Price	Change [†]	Assessed
Comex: Copper high grade cents/lb			
Settlement	272.15	-1.7%	▼ 19 Dec 18
Open interest	214,050	2.54%	▲ 18 Dec 18
Stocks (short ton)	115,984	-5.05%	▼ 18 Dec 18
Comex: Gold \$/troy oz			
Settlement	1,252.10	0.62%	▲ 19 Dec 18
Open interest	412,485	2.54%	▲ 18 Dec 18
Stocks (troy oz)	8,338,693	0%	18 Dec 18
Nymex: Palladium \$/troy oz			
Settlement	1,240.20	1.65%	▲ 19 Dec 18
Stocks (troy oz)	46,538	0.64%	▲ 18 Dec 18
Nymex: Platinum \$/troy oz			
Settlement	796.00	-1.38%	▼ 19 Dec 18
Stocks (troy oz)	173,474	-0.06%	▼ 18 Dec 18
Comex: Silver cents/troy oz			
Settlement	1,470.20	-0.16%	▼ 19 Dec 18
Open interest	172,860	-0.7%	▼ 18 Dec 18
OUANGUALEUTUREO			
SHANGHAI FUTURES			
	Price	Change [†]	Assessed
Aluminium yuan/tonne	13,635	0,0	▲ 20 Dec 18
Copper yuan/tonne	48,270	-2.11%	▼ 20 Dec 18
Nickel cathode yuan/tonne	90,140	1.74%	▲ 20 Dec 18
Tin ingot yuan/tonne	144,300	-0.07%	▼ 20 Dec 18
Zinc yuan/tonne	21,305	-0.86%	▼ 20 Dec 18
Steel rebar month 1 yuan/tonne	3,782	6.78%	▲ 20 Dec 18
Steel rebar month 2 yuan/tonne	3,557	-3.81%	▼ 20 Dec 18
Steel rebar month 3 yuan/tonne	3,531	0.97%	▲ 20 Dec 18
Weekly stocks deliverable			
Aluminium (tonnes)	688,825	-3.43%	▼ 14 Dec 18
Copper (tonnes)	122,222	-1.34%	▼ 14 Dec 18
Nickel cathode (tonnes)	14,517	-2.79%	▼ 14 Dec 18
Tin ingot (tonnes)	8,328	-1.15%	▼ 14 Dec 18
Zinc (tonnes)	24,879	-7.34%	▼ 14 Dec 18
Steel rebar (tonnes)	2,134	0%	14 Dec 18

DAILY METAL AND STEEL

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

	Price	Change [†]	Assessed
Aluminium high grade \$			
Cash official	1,922.50-1,923.50	0 -0.03% ▼	20 Dec 18
Cash unofficial	1,931.50-1,933.50	0.44%	19 Dec 18
3 months official	1,923.00-1,923.50	0 -0.43% ▼	20 Dec 18
3 months unofficial	1,931.00-1,933.00	O -0.21% ▼	7 19 Dec 18
LME Tapo notional average price (NAP)	1,946.69	-0.61% ▼	7 19 Dec 18
LME stocks (tonnes)	1,254,125	14.54%	19 Dec 18
Aluminium alloy (A380.1/DIN/D12S) \$			
LME cash official	1,395.00-1,405.00	0 -1.06% ▼	20 Dec 18
LME cash unofficial	1,450.00-1,460.00	2.83%	19 Dec 18
LME 3 months official	1,390.00-1,410.00	O -1.06% ▼	20 Dec 18
LME 3 months unofficial	1,445.00-1,455.00	3.2%	19 Dec 18
LME stocks (tonnes)	11,660	-3.32% ▼	7 19 Dec 18

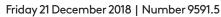
	Price	Change	Assessed
N. American special aluminium alloy			
LME cash official	1,380.00-1,390	.00 0%	20 Dec 18
LME cash unofficial	1,392.50-1,402	.50 0.54%	▲ 19 Dec 18
LME 3 months official	1,415.00-1,420	.00 0.53%	▲ 20 Dec 18
LME 3 months unofficial	1,405.00-1,415	.00 1.44%	▲ 19 Dec 18
LME stocks (tonnes)	133,580	-1.08%	▼ 19 Dec 18
Copper grade A \$			
LME cash official	6,014.50-6,015	.00 -2.92%	▼ 20 Dec 18
LME cash unofficial	5,997.00-5,999	.00 -2.57%	▼ 19 Dec 18
LME 3 months official	6,030.00-6,035	.00 -2.46%	▼ 20 Dec 18
LME 3 months unofficial	6,020.00-6,022	.00 -2.08%	▼ 19 Dec 18
LME Tapo notional average price			
(NAP)	6,144.88	-0.6%	▼ 19 Dec 18
LME stocks (tonnes)	128,225	6.88%	▲ 19 Dec 18
Lead \$			
LME cash official	1,961.00-1,961	.50 0.45%	▲ 20 Dec 18
LME cash unofficial	1,939.00-1,941	.00 -1.52%	▼ 19 Dec 18
LME 3 months official	1,962.00-1,964	.00 0.1%	▲ 20 Dec 18
LME 3 months unofficial	1,946.00-1,948	.00 -1.47%	▼ 19 Dec 18
LME stocks (tonnes)	107,625	0.63%	▲ 19 Dec 18
Nickel \$			
LME cash official	10,880.00-10,8	85.000.79%	▲ 20 Dec 18
LME cash unofficial	10,840.00-10,8	50.001.24%	▲ 19 Dec 18
LME 3 months official	10,985.00-10,9	90.001.15%	▲ 20 Dec 18
LME 3 months unofficial	10,920.00-10,9	30.001.27%	▲ 19 Dec 18
LME stocks (tonnes)	209,148	-0.57%	▼ 19 Dec 18
Tin\$			
LME cash official	19,350.00-19,3	75.00-0.22%	▼ 20 Dec 18
LME cash unofficial	19,310.00-19,3	60.000.29%	▲ 19 Dec 18
LME 3 months official	19,275.00-19,3	25.00-0.52%	▼ 20 Dec 18
LME 3 months unofficial	19,275.00-19,3	25.000.26%	▲ 19 Dec 18
LME stocks (tonnes)	2,800	-3.78%	▼ 19 Dec 18
Zinc special high grade \$	·		
LME cash official	2,598.00-2,600	.00 -3.18%	▼ 20 Dec 18
LME cash unofficial	2,591.00-2,593		▼ 19 Dec 18
LME 3 months official	2,538.00-2,539		▼ 20 Dec 18
LME 3 months unofficial	2,535.00-2,537		▼ 19 Dec 18
LME stocks (tonnes)	132,325	16.28%	▲ 19 Dec 18
Cobalt min 99.3%			
LME cash official	54,000.00-55,0	00 00-0 91%	▼ 20 Dec 18
LME 3 months official	54,000.00-55,0		▼ 20 Dec 18
LME stocks (tonnes)	802.00	-0.37%	▼ 19 Dec 18
Molybdenum \$	00L.00	0.01 /0	. 10 000 10
LME cash official	24,000.00-26,0	00 000%	20 Doc 19
LME 3 months official	24,000.00-26,0		20 Dec 18 20 Dec 18
LME stocks (tonnes)	0.00	0%	19 Dec 18
LIVIE STOCKS (TOTTIES)	0.00	U /0	19 Dec 10

†week-on-week change continued >



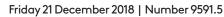


Cold Chrone	Price	Change		Assessed	MB BASE METAL PREMIUMS			
Gold \$/troy oz London morning	1.248.60	0.31%	•	19 Dec 18	All prices \$/tonne unless otherwise stated			
London afternoon	1,255.00	0.74%		19 Dec 18	*MB Copyright			
Handy/Harman	1,255.00	0.74%	<u> </u>	19 Dec 18		Price	Change [†]	Assesse
Silver per troy oz	1,233.00	0.7470		13 Dec 10	Copper			
London spot pence	1,158.00	-0.86%	•	19 Dec 18	Annual premium 8mm wire rod, cif			
London spot cents	1,464.50	-0.07%	<u> </u>	19 Dec 18	Nhava Sheva, \$/tonne	130-175*	-12.86%	▼ 07 Sep ′
Handy/Harman	1,480.20	0.22%		19 Dec 18	Rotterdam, Grade A, cathode, cif, \$/tonne	40.0-50.0*	0%	18 Dec 1
Palladium \$/troy oz	.,				Germany, Grade A, cathode, delivered,	40.0-30.0	0 70	10 Dec
London morning	1,263.00	0.64%	•	19 Dec 18	\$/tonne	85.0-95.0*	0%	18 Dec 1
London afternoon	1,253.00	-0.56%	•	19 Dec 18	North European warrants, Grade A			
Platinum \$/troy oz	<u> </u>				cathode, in-warehouse, \$/tonne	15.0-20.0*	0%	18 Dec 1
London morning	791.00	0.51%		19 Dec 18	South European warrants, Grade A cathode, in-warehouse, \$/tonne	15.0-20.0*	0%	18 Dec 1
London afternoon	791.00	0.13%	A	19 Dec 18	Leghorn, copper low-high premium,	10.0 20.0	070	10 200
Kuala Lumpur tin market					Grade A, cathode, cif, \$/tonne	65.0-70.0*	0%	18 Dec 1
Tin \$/tonne	19,300.00	0.52%		20 Dec 18	Leghorn, copper average premium,			
ICDX					Grade A, cathode, cif, \$/tonne	67.00*	0%	21 Aug ′
Tin PB300 settlement price \$/tonne	19,135.00	0.98%		20 Dec 18	Japan, copper, Grade A, cathode, cif, \$/tonne	80.0-90.0*	0%	18 Dec 1
Tin PB300 volume, tonnes	44	4300%	A	20 Dec 18	South Korea, copper low-high	00.0 00.0	070	10 200
					premium, Grade A, cathode, cif, \$/tonne	85.0-90.0*	0%	18 Dec 1
RAND FIXING PRICES					South Korea, copper average premium,			
Rand fixing prices per tonne for London Metal	Exchange trade				Grade A, cathode, cif, \$/tonne	70.00*	0%	21 Aug ′
	Price	Change [†]		Assessed	Southeast Asian warrants, Grade A cathode, in-warehouse, \$/tonne	15.0-20.0*	0%	18 Dec 1
Copper	86,401.26	-1.24%	•	20 Dec 18	East Asian warrants, Grade A	13.0-20.0	0 70	10 Dec
Aluminium	27,629.73	1.7%	A	20 Dec 18	cathode, in-warehouse, \$ per tonne	15.0-20.0*	0%	18 Dec 1
Lead	28,175.57	2.17%	A	20 Dec 18	Southeast Asia, Grade A cathode,			
Zinc	37,347.18	-1.49%	•	20 Dec 18	cif, \$ per tonne	80.0-90.0*	0%	18 Dec 1
Nickel	156,355.41	2.53%	A	20 Dec 18	Shanghai, copper low-high premium, Grade A, cathode, in-warehouse, \$/tonne	55.0-76.0*	-0.76%	▼ 20 Dec 1
Tin	278,308.31	1.55%	A	20 Dec 18	Shanghai, copper average premium,	55.0-76.0	-0.70%	▼ 20 Dec
					Grade A, cathode, in-warehouse, \$/tonne	79.00*	5.33%	▲ 24 Aug ′
EXCHANGE RATES					Shanghai, copper low-high premium,			
	Price	Change [†]		Assessed	Grade A, cathode, cif, \$/tonne	55.0-72.0*	0%	20 Dec 1
LME settlement conversion rates					Shanghai, copper average premium, Grade A, cathode, cif, \$/tonne	79.00*	6.76%	▲ 24 Aug ′
\$/£	1.2671	0.1%	A	20 Dec 18	Shanghai, copper cif ER, premium,	73.00	0.7070	24 Aug
\$/¥	111.7900	-1.5%	•	20 Dec 18	Grade A, cathode, \$/tonne	60.0-72.0*	0%	20 Dec 1
\$/€	1.1451	0.72%	A	20 Dec 18	Shanghai, copper cif SX-EW, premium,			
Closing rates, midpoint					Grade A, cathode, \$/tonne	55.0-60.0*	0%	20 Dec 1
\$/£	1.2643	-0.14%	•	19 Dec 18	Shanghai, copper bonded in-warehouse, SX-EW, premium, Grade A, cathode, \$/tonne	55.0-63.0*	-3.28%	▼ 20 Dec 2
\$/¥	112.2850	-0.82%	•	19 Dec 18	Shanghai, copper bonded in-warehouse,	33.0-03.0	-3.20 /0	20 Dec
\$/€	1.1422	0.49%	_	19 Dec 18	ER, premium, Grade A, cathode, \$/tonne	63.0-76.0*	-0.71%	▼ 20 Dec 1
£/€	1.1069	-0.63%		19 Dec 18	Taiwan, Grade A cathode, cif, \$ per tonne	73.0-90.0*	0%	18 Dec 1
\$/CNY	6.8955	0.09%		19 Dec 18	MB free market US: High-grade			
					cathode premium indicator, \$/tonne	154.3-165.3*	0%	18 Dec 1
BASE METALS ARBITRAGE					United States warrants, Grade A cathode, \$/tonne	10.0-15.0*	0%	18 Dec 1
	Price	Change [†]		Assessed	Aluminium	10.0 10.0	V /U	10 Dec
Aluminium		ŭ			Aluminium P1020A, in-warehouse			
Import arbitrage, \$/tonne	-404.41*	-5.8%	•	20 Dec 18	Rotterdam duty-unpaid, spot low-high,			
Import arbitrage, yuan/tonne	-2,796.61*	-5.37%	•	20 Dec 18	\$/tonne	60.0-75.0*	-3.57%	▼ 19 Dec 1
Copper					Aluminium P1020A, in-warehouse Rotterdam duty-unpaid, spot weighted			
Import arbitrage, \$/tonne	-63.33*	-45.82%	•	20 Dec 18	average, \$/tonne	87.00*	2.35%	▲ 24 Aug ′
Import arbitrage, yuan/tonne	-437.96*	-45.57%	•	20 Dec 18	Aluminium P1020A, cif Korea (Gwangyang			
Nickel					or Busan), spot low-high, \$/tonne	65.00-80.00*	-6.45%	▼ 18 Dec 1
Import arbitrage, \$/tonne	316.43*	121.22%	•	20 Dec 18	Aluminium P1020A, cif Korea (Gwangyang	90.00*	0%	21 Aug
Import arbitrage, yuan/tonne	2,188.17*	122.21%	A	20 Dec 18	or Busan), spot weighted average, \$/tonne Aluminium P1020A, Southeast Asian	30.00	U 70	21 Aug ′
Zinc					warrants, in-warehouse, \$/tonne	8.0-25.0*	0%	18 Dec 1
Import arbitrage, \$/tonne	-97.26*	-6.62%	•	20 Dec 18	Aluminium P1020A, East Asian			
Import arbitrage, yuan/tonne	-672.58*	-6.19%	•	20 Dec 18	warrants, in-warehouse, \$/tonne	8.0-25.0*	0%	18 Dec 1
					† week-on-week change			continued





	Price	Change	Α	ssessed		Price	Change	Assessed
Aluminium P1020A, cif Shanghai, spot low-high, \$/tonne	95.0-105.0*	0%		18 Dec 18	Aluminium extrusion billet, cif Turkey (Marmara region) duty-paid over	1 1100	onango	71000000
Aluminium P1020A, cif Shanghai, spot weighted average, \$/tonne	99.00*	0%	2	21 Aug 18	LME cash pay, \$/gross tonne Aluminium foundry alloy premium,	270.0-300.0*	0%	07 Dec 18
Aluminium P1020A, Singapore, fob, \$/tonne	60.0-70.0*	-7.14%	V 1	18 Dec 18	delivered duty-paid, Germany, \$/tonne Aluminium foundry alloy premium,	390.0-420.0*	-1.22% ▼	14 Dec 18
Aluminium P1020A, South Korea, fca, \$/tonne	75.0-90.0*	-5.71%	V 1	18 Dec 18	delivered duty-paid, Eastern Europe, \$/tonne	370.0-410.0*	-6.02% ▼	14 Dec 18
Aluminium P1020A, Malaysia, fob, \$/tonne	60.0-70.0*	-7.14%	V 1	18 Dec 18	Aluminium foundry alloy premium, delivered duty-unpaid, US midwest, \$/tonne	15.0-18.0*	22.22%	14 Dec 18
Aluminium P1020A, Shanghai, in-warehouse, \$/tonne	95.0-105.0*	0%	1	18 Dec 18	Aluminium foundry alloy premium,			
Aluminium P1020A, Taiwan, cif, \$/tonne	70.0-80.0*	0%	1	18 Dec 18	delivered duty-paid cif Turkey, \$/tonne Annual aluminium wheel alloy silicon	170.0-180.0*	0%	14 Dec 18
Aluminium P1020A, Antwerp, in-warehouse duty-unpaid, \$/tonne	60.0-73.0*	-3.62%	V 1	18 Dec 18	7 ingot cif main Japanese ports (Yokohama, Osaka, Nagoya) \$/tonne	105.0-120.0*	0%	09 Feb 18
Aluminium P1020A, Antwerp, in-warehouse duty-paid, \$/tonne	120.0-128.0*	-3.88%	V 1	18 Dec 18	Annual aluminium wheel alloy silicon 7 ingot cif main South Korean ports (Busan, Gwangyang, Incheon) \$/tonne	80.0-100.0*	0%	09 Feb 18
Aluminium P1020A, Vlissingen, in-warehouse duty-unpaid, spot, \$/tonne	60.0-73.0*	-3.62%	▼ 1	18 Dec 18	Lead	00.0-100.0	070	031 60 10
Aluminium P1020A, Vlissingen, in-warehouse duty-paid, spot, \$/tonne	120.0-128.0*	-3.88%	V 1	18 Dec 18	North European warrants, min 99.97% ingots, in-warehouse, \$/tonne	10.0-15.0*	0%	18 Dec 18
Aluminium P1020A, Italy, fca duty-paid, spot, \$/tonne	165.0-175.0*	-2.86%	V 1	18 Dec 18	Southeast Asian warrants, min 99.97% ingots, in-warehouse, \$/tonne	15.0-25.0*	0%	18 Dec 18
Aluminium P1020A, Spain, fca duty-paid, \$/tonne	170.0-180.0*	0%	1	18 Dec 18	East Asian warrants, min 99.97% ingots, in-warehouse, \$/tonne	15.0-25.0*	0%	18 Dec 18
Aluminium P1020A, Turkey, cif	170.0 100.0			10 200 10	Southeast Asia, min 99.97% cif, \$/tonne	60.0-75.0*	0%	18 Dec 18
duty-unpaid, \$/tonne	80.0-90.0*	0%	1	18 Dec 18	Southeast Asia, 99.99% cif, \$/tonne	120.0-140.0*	0%	18 Dec 18
Aluminium P1020A, cif main Japanese					Taiwan, 99.97% purity, cif, \$/tonne	40.0-85.0*	0%	18 Dec 18
ports, spot low-high, \$/tonne	60.0-80.0*	0%	1	18 Dec 18	Taiwan, 99.99% purity, cif, \$/tonne	135.0-145.0*	0%	18 Dec 18
Aluminium P1020A, cif main Japanese	102.00*	00/	,	20 Mar 10	India, 99.97% purity, cif, \$/tonne	40.0-100.0*	0%	18 Dec 18
ports, spot weighted average, \$/tonne	123.00*	0%		20 Mar 18	India, 99.99% purity, cif, \$/tonne	140.0-160.0*	0%	18 Dec 18
Aluminium ingot ADC 12 ex-works China, duty-paid, yuan/tonne	13,700-14,000*	-1.07%	▼ 1	19 Dec 18	South European warrants, 99.97% purity, in-warehouse, \$/tonne	15.0-30.0*	0%	18 Dec 18
Aluminium ingot ADC 12 spot, main Japanese ports, \$/tonne	1,600-1,630*	-1.37%	V 1	19 Dec 18	Rotterdam, 99.97% purity, duty-paid fca, \$/tonne	65.0-75.0*	0%	18 Dec 18
Aluminium P1020A, cif main Japanese ports, quarterly, \$/tonne	103.0-103.0*	-21.97%	▼	01 Oct 18	Rotterdam, 99.99% purity, duty-paid fca, \$/tonne	165.0-170.0*	0%	18 Dec 18
Aluminium extrusion billet premium 6063 cif Japan, yearly, \$/tonne	140.0-150.0*	-6.45%	▼	12 Jan 18	Italy, 99.97% purity, duty-paid fca, \$/tonne	120.0-130.0*	0%	18 Dec 18
Aluminium P1020A, in-warehouse Rotterdam duty-paid, spot \$/tonne	120.0-130.0*	-3.85%	V 1	18 Dec 18	US warrants, 99.97% purity,			18 Dec 18
Aluminium 6063 extrusion billet, in-warehouse Rotterdam duty-paid, spot, \$/tonne	480.0-500.0*	-2%	V 1	14 Dec 18	in-warehouse, \$/tonne US lead premium 99.97%, delivered domestic, \$/lb	20.0-30.0* 0.09-0.11*	0%	18 Dec 18
Aluminium P1020A, delivered US midwest, spot, \$/lb	0.188-0.193*	-1.3%		18 Dec 18	US lead premium 99.97%, delivered domestic, cents/lb	9.00-11.00*	0%	18 Dec 18
Aluminium P1020A, US warrants,					US lead premium 99.99%, delivered			
in-warehouse, \$/tonne	115.0-125.0*	0%	1	18 Dec 18	domestic, cents/lb	11.00-13.00*	0%	18 Dec 18
Aluminium P1020A, delivered Sao Paulo region, spot, \$/tonne	260.0-270.0*	0%	1	18 Dec 18	Nickel Shanghai, nickel low-high premium,	000 0 040 0*	00/	40.540
Aluminium P1020A, cif Brazilian main ports duty-unpaid, spot, \$/tonne	160.0-170.0*	0%	1	18 Dec 18	99.8% purity in-warehouse, \$/tonne Shanghai, nickel average premium,	200.0-210.0*	0%	18 Dec 18
Aluminium 6063 + 6060 extrusion billet, cif Brazilian main ports, spot (premium over LME cash), \$/tonne	300.0-330.0*	0%	(07 Dec 18	99.8% purity in-warehouse, \$/tonne Shanghai, nickel low-high premium,	190.00*	2.7%	21 Aug 18
Aluminium extrusion billet, delivered	300.0-330.0	070		or Dec 10	99.8% purity, full plate, cif, \$/tonne Shanghai, nickel premium, 99.8%	190.0-200.0*	-2.5% ▼	18 Dec 18
duty-paid North Germany (Ruhr region) over LME 30-day pay, \$/gross tonne	520.0-540.0*	-1.85%	▼ 1	14 Dec 18	purity full plate, cif, \$/tonne Southeast Asian warrants, min 99.80%	185.00*	5.71%	21 Aug 18
Aluminium extrusion billet, delivered duty-paid Italy (Brescia area) over LME 60-day pay, \$/gross tonne	500.0-540.0*	0%	1	14 Dec 18	full plates, in-warehouse, \$/tonne Southeast Asian warrants, min 99.80%	110-180*	0%	18 Dec 18
Aluminium extrusion billet, delivered duty-paid Spain over LME 60-day pay,	2.2.0 0.0.0	2.0		_ 30 .0	briquettes, in-warehouse, \$/tonne East Asian warrants, min 99.80% full	10-15*	0%	18 Dec 18
\$/gross tonne Aluminium extrusion billet, cif Thailand	500.0-520.0*	-3.77%	▼ (07 Dec 18	plates, in-warehouse, \$/tonne East Asian warrants, min 99.80%	100-160*	0%	18 Dec 18
duty-unpaid over LME cash pay, \$/gross tonne	200.0-230.0*	0%	9	23 Nov 18	briquettes, in-warehouse, \$/tonne North European warrants, min 99.80%,	10-15*	0%	18 Dec 18
Aluminium extrusion billet, cif Japan		•			in-warehouse, \$/tonne	190-230*	0%	18 Dec 18
duty-unpaid over MJP and LME cash pay, \$/gross tonne	140.0-155.0*	1.72%	•	19 Oct 18	uncut cathodes premium indicator	190.0-250.0*	0%	18 Dec 18
					† week-on-week change		со	ntinued >





4x4 cathodes premium indicator	Price 450.0-500.0*	Change 0%	Assessed 18 Dec 18
briquettes premium indicator	235.0-265.0*	0%	18 Dec 18
Nickel 4x4 cathode premium, delivered consumer works US, US cents per pound	35-45*	0%	18 Dec 18
Nickel briquette premium, delivered			
consumer works US, US cents per pound Tin	24-28*	0%	18 Dec 18
Rotterdam spot premium, 99.9% low ead ingots, in-warehouse \$/tonne	475-550*	0%	18 Dec 18
Rotterdam spot premium 99.9% ingot, n-warehouse \$/tonne	410-460*	0%	18 Dec 18
Rotterdam spot premium 99.85% ingot, n-warehouse \$/tonne	275-300*	0%	18 Dec 18
South East Asian warrants, min 99.85% ingots, in-warehouse \$/tonne	15-30*	0%	18 Dec 18
Singapore spot premium, 99.9% ngots, in-warehouse \$/tonne	25-75*	0%	18 Dec 18
Singapore spot premium, 99.9% low ead ingots, in-warehouse \$/tonne	250-300*	0%	18 Dec 18
Shanghai spot premium, 99.85% ngots, cif, \$/tonne	150-170*	0%	18 Dec 18
Shanghai spot premium, 99.9% ngots, cif, \$/tonne	230-250*	0%	18 Dec 18
Shanghai spot premium, 99.9% ow lead ingots, cif, \$/tonne	320-350*	0%	18 Dec 18
Faiwan spot premium, 99.9% ngots, cif, \$/tonne	200-220*	0%	18 Dec 18
Baltimore premium, 99.85% ASTM grade A ingots, in-warehouse \$/tonne	500-600*	0%	18 Dec 18
US midwest premium, 99.85% ASTM grade A ingots, delivered \$/tonne	550-625*	0%	18 Dec 18
US New York spot, cents/lb	946-947	-1.76%	▼ 25 Jun 18
Zinc North European warrants, min 99.995% SHG ingots, \$/tonne MB EU: Special high grade, fca Rotterdam,	10.0-25.0*	0%	18 Dec 18
\$/tonne Malaysia in-warehouse, 99.995%	115.0-125.0*	-1.23%	▼ 18 Dec 18
SHG ingots, \$/tonne	120.0-140.0*	4%	▲ 18 Dec 18
Malaysia fca, 99.995%, \$/tonne	125.0-145.0*	3.85%	▲ 18 Dec 18
Southeast Asia cif, 99.995%, \$/tonne	150.0-170.0*	-5.88%	▼ 18 Dec 18
Singapore, zinc low-high premium, 99.995% purity, in-warehouse, \$/tonne	120.0-140.0*	4%	▲ 18 Dec 18
Singapore, zinc average premium, 99.995% purity, in-warehouse, \$/tonne	120.00*	41.18%	▲ 21 Aug 18
Singapore, zinc premium, 99.995% purity, fca \$/tonne	125.0-145.0*	3.85%	▲ 18 Dec 18
Shanghai, zinc low-high premium, 99.995% purity, in-warehouse, \$/tonne	160.0-170.0*	-5.71%	▼ 18 Dec 18
Shanghai, zinc average premium, 99.995% purity, in-warehouse, \$/tonne	147.00*	8.89%	▲ 21 Aug 18
Shanghai 99.995% purity, cif \$/tonne	140.0-150.0*	-6.45%	▼ 18 Dec 18
Faiwan 99.995% purity SHG ingots, iif \$/tonne	160.0-170.0*	-1.49%	▼ 18 Dec 18
ndia 99.995% purity, cif duty-unpaid	130.0-155.0*	0%	18 Dec 18
6/tonne			
ndia 99.995% purity, cif duty-paid	235.0-255.0*	0%	18 Dec 18
India 99.995% purity, cif duty-paid \$/tonne Antwerp 99.995% purity, duty-paid fca	235.0-255.0* 115.0-125.0*	0% -1.23%	
ndia 99.995% purity, cif duty-paid 6/tonne Antwerp 99.995% purity, duty-paid fca 6/tonne taly 99.995% purity, duty-paid fca			▼ 18 Dec 18
%/tonne India 99.995% purity, cif duty-paid %/tonne Antwerp 99.995% purity, duty-paid fca %/tonne Italy 99.995% purity, duty-paid fca %/tonne Italy 99.995% purity, delivered duty-paid %/tonne	115.0-125.0*	-1.23%	▼ 18 Dec 18
India 99.995% purity, cif duty-paid \$/tonne Antwerp 99.995% purity, duty-paid fca \$/tonne Italy 99.995% purity, duty-paid fca \$/tonne Italy 99.995% purity, delivered duty-paid	115.0-125.0* 140.0-145.0*	-1.23% -1.72%	18 Dec 18 ▼ 18 Dec 18 ▼ 18 Dec 18 18 Dec 18

BASE METALS				
DAGE WETALG	Price	Change [†]		Assessed
Alumina	1 1100	onungo		71000000
MB Chinese free market, metallurgical grade, delivered duty-paid, yuan/tonne	2,900.0-2,950.0*	-1.52%	•	20 Dec 18
Alumina Index fob Australia	411.52*	-2.45%	•	19 Dec 18
Alumina Index fob Brazil	8.33*			20 Dec 18
Alumina Index fob Brazil, inferred Brazil price \$ per dry metric ton	419.65*			19 Dec 18
Aluminium				
Shanghai bonded aluminium stocks, tonnes	4,500-5,000*	0%		03 Dec 18
Bauxite				
fob Kamsar, Guinea \$/tonne per dmtu	38*	-1.32%	•	20 Dec 18
fob Trombetas, Brazil \$/tonne per dmtu	37*	0%		20 Dec 18
Copper & Brass Producer premium				
Aurubis European Grade A cathode				
ex-works \$/tonne	86.0	0%		20 Oct 17
Codelco: Contract Grade A cathode (average)	98.0	11.36%	A	26 Sep 18
Germany: (VDM) Electro, €/tonne wirebar (DEL):	5,327.3-5,354.7	-3.13%	•	19 Dec 18
cathodes:	5,240.0-5,340.0	-2.76%	<u> </u>	19 Dec 18
South Africa: Palabora copper rod				
7.90mm, Rand/tonne	100,396.770	-3.2%	•	03 Dec 18
Copper concentrate Asia-Pacific Index RC import, US cents/lb (twice				
monthly on 15th and last day of month)	8.62-8.62*	-2.93%	▼	14 Dec 18
Copper concentrate Asia-Pacific Index TC import, \$/dmt (twice monthly on				
15th and last day of month)	86.20-86.20*	-2.93%	•	14 Dec 18
Shanghai bonded copper stocks, tonnes	410,000-415,000*	2.74%	A	17 Dec 18
Nickel				
Nickel pig iron high grade NPI content 10-15% contract price delivered duty-paid China yuan per nickel unit price	960.00-970.00*	0%		18 Dec 18
Nickel pig iron high grade NPI content				
10-15% spot price China yuan per nickel unit price	960.00-980.00*	0%		18 Dec 18
Shanghai bonded nickel stocks, tonnes	24,000-32,000*	-9.68%	•	03 Dec 18
Nickel ore	7			
Laterite ore with 1.5% nickel				
content cif China, \$/tonne	27-29*	0%		18 Dec 18
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	50-52*	0%		18 Dec 18
Lead				
Germany: (VDM) virgin soft, €/tonne	1,840.00-1,880.00	-1.59%	\blacksquare	19 Dec 18
Lead concentrate spot treatment charge (TC) high silver CIF Asia Pacific, \$/tonne	40-50*	100%	A	30 Nov 18
Lead concentrate spot treatment charge (TC) low silver CIF Asia Pacific, \$/tonne	10-30*	-33.33%	•	30 Nov 18
EUROBAT has decided to discontinue collecting				
longer be able to supply this information to the M the end of 2017.	екаг Бинект. Тпе рге	aniums wiii de	e uisco	munueu mom
Zinc Cormony: (V/DM) virgin, Eltonno	2 440 00 2 440 00) 2 4 7 0 /	•	10 Dec 10
Germany: (VDM) virgin, €/tonne UK: Special high grade, delivered	2,440.00-2,440.00) -3.17%	•	19 Dec 18
monthly average price £/tonne Zinc concentrate spot treatment	2,205*	-1.96%	•	03 Dec 18
charge (TC) CIF Asia-Pacific \$/tonne	170-190*	38.46%	A	30 Nov 18
Zinc concentrate spot treatment charge (TC) delivered North China yuan/tonne	5,100-5,300*	9.47%	A	30 Nov 18
Zinc concentrate spot treatment charge (TC)	4,900-5,100*	3.09%	•	30 Nov 18
delivered South China yuan/tonne Shanghai bonded zinc stocks, tonnes	38,300-44,300*	68.57%	_	03 Dec 18
J	, , ,-,			
† week-on-week change			100	ntinued >





	Price	Change [†]		Assessed
Iridium				
MB free market: min 99.9%, \$/troy oz	4 400 4 500*	0.000/	_	40 D 40
in-warehouse Johnson Matthey base price: (unfab)	1,420-1,520*	-0.68%	_	19 Dec 18
\$/troy oz (08.00 hrs)	1,480	0%		20 Dec 18
Englehard base price: \$/troy oz	1,485	0%		20 Dec 18
Palladium				
European free market: min 99.9%, \$/troy oz in-warehouse	1,260-1,269*	0.68%	•	19 Dec 18
Englehard base price: \$/troy oz	1,273	-0.39%	-	20 Dec 18
Johnson Matthey base price: (unfab)	1,2.0	0.0070		20 200 10
\$/troy oz (08.00 hrs)	1,278	-0.08%	▼	20 Dec 18
Platinum				
European free market: min 99.9%, \$/troy oz in-warehouse	785-795*	0.19%	•	19 Dec 18
Englehard base price: \$/troy oz	789	-2.47%	-	20 Dec 18
Johnson Matthey base price: (unfab)				
\$/troy oz (08.00 hrs)	794	-1.98%	▼	20 Dec 18
Rhodium				
European free market: min 99.9%, \$/troy oz in-warehouse	2,415-2,515*	-2.57%	•	20 Dec 18
Englehard base price: \$/troy oz	2,505	-2.34%	<u> </u>	20 Dec 18
Johnson Matthey base price: (unfab)				
\$/troy oz (08.00 hrs)	2,500	-2.72%	•	20 Dec 18
Ruthenium				
European free market: min 99.9%, \$/troy oz in-warehouse	245-285*	-1.85%	•	19 Dec 18
Englehard base price: \$/troy oz	270	0%		20 Dec 18
Johnson Matthey base price: (unfab)				
\$/troy oz (08.00 hrs)	270	0%		20 Dec 18
	270	0%		20 Dec 18
	270 Price	0% Change [†]		20 Dec 18 Assessed
MINOR METALS				
\$/troy oz (08.00 hrs) MINOR METALS Antimony MB free market Regulus, min 99.65%,				
MINOR METALS Antimony MB free market Regulus, min 99.65%, max Se 50 ppm, max 100 ppm Bi,	Price	Change [†]		Assessed
MINOR METALS Antimony MB free market Regulus, min 99.65%, max Se 50 ppm, max 100 ppm Bi, \$/tonne in-warehouse Rotterdam				
MINOR METALS 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	Price	Change [†]	•	Assessed
MINOR METALS 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	Price 7,900-8,100* 7,750-7,900*	Change [†] 0% -1.26%	•	19 Dec 18
MINOR METALS 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	Price 7,900-8,100*	Change [†]	•	Assessed
MINOR METALS Antimony MB free market Regulus, min 99.65%,	Price 7,900-8,100* 7,750-7,900*	Change [†] 0% -1.26%	•	19 Dec 18 19 Dec 18
MINOR METALS 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	Price 7,900-8,100* 7,750-7,900* 49,500-50,000*	Change [†] 0% -1.26% 0%	•	19 Dec 18 19 Dec 18
MINOR METALS 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	Price 7,900-8,100* 7,750-7,900* 49,500-50,000*	Change [†] 0% -1.26% 0%	*	19 Dec 18 19 Dec 18 19 Dec 18 07 Dec 18
MINOR METALS 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%,	7,900-8,100* 7,750-7,900* 49,500-50,000* 1.20-1.50*	0% -1.26% 0% -5.26%		19 Dec 18 19 Dec 18 19 Dec 18 19 Dec 18
MINOR METALS 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	7,900-8,100* 7,750-7,900* 49,500-50,000* 1.20-1.50*	Change [†] 0% -1.26% 0%		19 Dec 18
MINOR METALS 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 China domestic, min 99.99%, yuan/tonne Cadmium	7,900-8,100* 7,750-7,900* 49,500-50,000* 1.20-1.50* 3.40-3.80* 48,000-50,000*	Change [†] 0% -1.26% 0% 0% -5.26% -1.51%		19 Dec 18 19 Dec 18 19 Dec 18 07 Dec 18 19 Dec 18
MINOR METALS 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	7,900-8,100* 7,750-7,900* 49,500-50,000* 1.20-1.50* 3.40-3.80* 48,000-50,000*	Change [†] 0% -1.26% 0% 0% -5.26% -1.51% 0%		19 Dec 18
MINOR METALS 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 China domestic, min 99.99%, yuan/tonne Cadmium MB free market min 99.95% cents/lb MB free market min 99.99% cents/lb	7,900-8,100* 7,750-7,900* 49,500-50,000* 1.20-1.50* 3.40-3.80* 48,000-50,000*	Change [†] 0% -1.26% 0% -5.26% -1.51%		19 Dec 18 19 Dec 18 19 Dec 18 19 Dec 18
MINOR METALS 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	7,900-8,100* 7,750-7,900* 49,500-50,000* 1.20-1.50* 3.40-3.80* 48,000-50,000*	Change [†] 0% -1.26% 0% 0% -5.26% -1.51% 0%		19 Dec 18 19 Dec 18 19 Dec 18 07 Dec 18 19 Dec 18 14 Dec 18
MINOR METALS 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	7,900-8,100* 7,750-7,900* 49,500-50,000* 1.20-1.50* 3.40-3.80* 48,000-50,000*	Change [†] 0% -1.26% 0% 0% -5.26% -1.51% 0%		19 Dec 18 19 Dec 18 19 Dec 18 07 Dec 18 19 Dec 18 14 Dec 18
MINOR METALS 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	7,900-8,100* 7,750-7,900* 49,500-50,000* 1.20-1.50* 3.40-3.80* 48,000-50,000* 120.00-135.00* 123.00-140.00*	0% -1.26% 0% -5.26% -1.51% 0%		19 Dec 18
MINOR METALS 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 Cobalt MB free market high-grade \$/lb	Price 7,900-8,100* 7,750-7,900* 49,500-50,000* 1.20-1.50* 3.40-3.80* 48,000-50,000* 120.00-135.00* 123.00-140.00* 10,200-10,500* 27.00-29.00*	0% -1.26% 0% -5.26% -1.51% 0% 0% -8.65%	*	19 Dec 18 14 Dec 18 19 Dec 18 19 Dec 18
MINOR METALS 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 Cobalt MB free market high-grade \$/lb MB free market low-grade \$/lb	Price 7,900-8,100* 7,750-7,900* 49,500-50,000* 1.20-1.50* 3.40-3.80* 48,000-50,000* 120.00-135.00* 123.00-140.00*	0% -1.26% 0% -5.26% -1.51% 0% 0%	▼ ▼	19 Dec 18 14 Dec 18 19 Dec 18 19 Dec 18
MINOR METALS 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 99.95% cents/lb Chromium MB free market alumino-thermic min 99% \$/tonne Cobalt MB free market high-grade \$/lb MB free market low-grade \$/lb MB high-grade, weighted average of	Price 7,900-8,100* 7,750-7,900* 49,500-50,000* 1.20-1.50* 3.40-3.80* 48,000-50,000* 120.00-135.00* 123.00-140.00* 27.00-29.00* 27.50-29.50*	0% -1.26% 0% -5.26% -1.51% 0% 0% -8.65% -7.01%	*	19 Dec 18 14 Dec 18 19 Dec 18 19 Dec 18 19 Dec 18 19 Dec 18
MINOR METALS 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 Cobalt MB free market high-grade \$/lb MB free market low-grade \$/lb MB free market low-grade \$/lb MB free market low-grade \$/lb MB high-grade, weighted average of all confirmed international trades, \$/lb	Price 7,900-8,100* 7,750-7,900* 49,500-50,000* 1.20-1.50* 3.40-3.80* 48,000-50,000* 120.00-135.00* 123.00-140.00* 10,200-10,500* 27.00-29.00*	0% -1.26% 0% -5.26% -1.51% 0% 0% -8.65%	v v	19 Dec 18 14 Dec 18 19 Dec 18 19 Dec 18 19 Dec 18 19 Dec 18
MINOR METALS Antimony MB free market Regulus, min 99.65%, max Se 50 ppm, max 100 ppm Bl, \$/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 Cobalt MB free market low-grade \$/lb MB high-grade, weighted average of all confirmed international trades, \$/lb MB low-grade, weighted average of	Price 7,900-8,100* 7,750-7,900* 49,500-50,000* 1.20-1.50* 3.40-3.80* 48,000-50,000* 120.00-135.00* 123.00-140.00* 27.00-29.00* 27.50-29.50*	0% -1.26% 0% -5.26% -1.51% 0% 0% -8.65% -7.01%	v v	19 Dec 18 14 Dec 18 19 Dec 18
MINOR METALS 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 Cobalt MB free market low-grade \$/lb MB ligh-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%	Price 7,900-8,100* 7,750-7,900* 49,500-50,000* 1.20-1.50* 3.40-3.80* 48,000-50,000* 120.00-135.00* 123.00-140.00* 27.00-29.00* 27.50-29.50* 27.50* 28.72*	0% -1.26% 0% -5.26% -1.51% 0% -8.65% -7.01% -5.37% -5.53%	V V V V	19 Dec 18 14 Dec 18 19 Dec 18
MINOR METALS 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	Price 7,900-8,100* 7,750-7,900* 49,500-50,000* 1.20-1.50* 3.40-3.80* 48,000-50,000* 120.00-135.00* 123.00-140.00* 27.00-29.00* 27.50-29.50* 27.50*	0% -1.26% 0% -5.26% -1.51% 0% -8.65% -7.01% -5.37% -5.53%	V V V V	19 Dec 18 14 Dec 18 19 Dec 18

	Price	Change	Assessed
Gallium	405 400*	00/	40 D 40
MB free market \$/kg MB China domestic, min 99.99%,	165-190*	0%	19 Dec 18
yuan/kg	1,020-1,050*	2.99%	▲ 19 Dec 18
Germanium			
Germanium dioxide MB free market \$/kg	950-1,150*	0%	19 Dec 18
Germanium metal \$/kg Rotterdam	1,300-1,450*	0%	19 Dec 18
Germanium metal MB China domestic, min 99.999%, yuan/kg	8,000-8,500*	1.23%	▲ 19 Dec 18
Hafnium			
Hafnium 1% Zr max, in-warehouse global locations, \$/kg	950-1,050*	0%	07 Dec 18
Indium	020.000*	00/	40 D 40
MB free market \$/kg MB China domestic, min 99.99%	230-260*	0%	19 Dec 18
yuan/kg	1,500-1,530*	-1.3%	▼ 19 Dec 18
Indium Corp ingots min 99.97% \$/kg fob	440.00	-40.94%	▼ 26 Jun 15
Magnesium			
European free market \$ per tonne	2,750-2,800*	0%	14 Dec 18
China free market min 99.8% Mg, fob China main ports, \$ per tonne	2,690-2,700*	-1.46%	▼ 14 Dec 18
MB Chinese free market min 99% Mg, ex-works yuan/tonne	17,500-17,800*	-2.22%	▼ 14 Dec 18
Manganese flake			
MB free market \$/tonne	2,150-2,250*	0%	19 Dec 18
Mercury MB free market \$ per flask	2,400-2,700*	0%	07 Dec 18
Rhenium in-warehouse Rotterdam duty paid	2,400-2,700	070	07 Dec 10
Metal pellets, min 99.9% \$/lb	726-775*	1.35%	▲ 07 Dec 18
APR catalytic grade \$/kg Re	1,390-1,580*	-1.66%	▼ 07 Dec 18
Selenium			
MB free market \$/Ib	12.50-14.00*	-1.85%	▼ 19 Dec 18
MB China domestic, min 99.9%, yuan/kg	190-250*	0%	14 Dec 18
Selenium dioxide, MB China domestic, min 98%, yuan/kg	105-110*	0%	14 Sep 18
Silicon			
Grade 441, min 99% Si in-warehouse Rotterdam, €/tonne	1,840-1,920*	0%	14 Dec 18
Grade 553, min 98.5% Si in-warehouse Rotterdam, €/tonne	1,750-1,860*	0%	14 Dec 18
US free market cents/lb	118-121*	-2.45%	▼ 10 Dec 18
Export from mainland China min	4.550.4.040*	0.470/	- 445 40
98.5%, \$/tonne fob	1,550-1,610*	-2.17%	▼ 14 Dec 18
MB free market \$/kg	60.00-75.00*	-3.57%	▼ 19 Dec 18
MB China domestic, min 99.99%,			
yuan/kg	480-500*	-2%	▼ 14 Dec 18
Titanium MB free market ferro-titanium 70%			
(max 4.5% AI) \$/kg Ti d/d Europe	4.40-4.90*	0%	19 Dec 18
Titanium ores \$/tonne			
Rutile conc min 95% Tio2 bagged, fob/Aus	1,045-1,350	0%	13 Dec 18
Rutile bulk conc min 95% Tio2 fob/Aus	1,000-1,050	0%	13 Dec 18
Ilmenite concentrate, 47-49% Tio2 cif China	164-180	0%	13 Dec 18
+			
† week-on-week change			continued >

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NOBLE ALLOYS & ORES			
NOBLE ALLO 13 & UKES			
	Price	Change [†]	Assessed
Molybdenum molybdic oxide	10.00.10.00*	4.000/	_ 400 40
Europe drummed molybdic oxide \$/lb Mo	12.00-12.20*	-1.22%	▼ 19 Dec 18
US canned molybdic oxide \$/lb Mo	12.20-12.30*	-0.81%	▼ 13 Dec 18
Ferro-molybdenum			
Basis 65% min, in-warehouse Rotterdam \$/kg Mo	28.50-28.85*	-2.13%	▼ 19 Dec 18
US free market 65-70% Mo \$/lb in-warehouse Pittsburgh	13.30-13.60*	0%	13 Dec 18
MB Chinese free market concentrate 45% Mo in-warehouse China yuan/mtu	1,990-2,020*	-0.74%	▼ 31 Oct 18
Tungsten European free market APT \$/mtu	275-290*	0%	14 Dec 18
Export from mainland China APT Chinese No1 grade, min 88.5% W03, S/mtu fob	272-285*	0%	19 Dec 18
MB Chinese free market concentrate			
65% Wo3 in-warehouse China yuan/tonne	96,000-98,000*	-2.02%	▼ 19 Dec 18
Ferro-tungsten Basis 75% W min \$/kg W in-warehouse Rotterdam duty-unpaid	30.80-32.65*	-1.63%	▼ 19 Dec 18
China export min 75% \$/kg W, fob China	33.00-34.00*	0%	19 Dec 18
Vanadium Ferro-vanadium basis 78% min, fob, China \$/kg V	70.00-75.00*	-14.71%	▼ 20 Dec 18
Ferro-vanadium basis 78% min, free delivery duty paid consumer plant, 1st grade, Western Europe \$/kg V	82.00-85.00*	-14.36%	▼ 19 Dec 18
US free market ferro-vanadium \$/lb in-warehouse Pittsburgh	49.00-52.00*	-5.61%	▼ 13 Dec 18
Vanadium pentoxide 98% min, fob, China \$/Ib V205	14.00-16.50*	-19.74%	▼ 20 Dec 18
Vanadium pentoxide min 98%, in-warehouse Rotterdam \$/lb V205	23.50-24.00*	0%	14 Dec 18
Zircon			
Foundry grade bulk \$/tonne fob Australia	950-1,000	0%	01 Feb 18
	,,,,,,	0%	12 Apr 18
Premium bulk \$/tonne fob Australia	1,380-1,570	0 /0	12 Apr 10
Premium bulk \$/tonne fob Australia	1,380-1,570	070	12Api 10
Premium bulk \$/tonne fob Australia BULK ALLOYS	1,380-1,570		Assessed
BULKALLOYS		Change [†]	·
BULK ALLOYS Ferro-chrome \$/lb Cr			·
BULK ALLOYS Ferro-chrome \$/lb Cr China import charge chrome 50% Cr			·
Ferro-chrome \$/lb Cr China import charge chrome 50% Cr index, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark Indicator, Lumpy Cr charge basis 52%	Price	Change [†]	Assessed
Ferro-chrome \$/lb Cr China import charge chrome 50% Cr index, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark Indicator, Lumpy Cr charge basis 52% (and high carbon), \$ per lb Spot 6-8% C basis 50% Cr delivered	Price 0.81*	Change [†]	Assessed
BULK ALLOYS Ferro-chrome \$/lb Cr China import charge chrome 50% Cr index, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark	Price 0.81* 1.13*	Change† 0%	Assessed 14 Dec 18
Ferro-chrome \$/lb Cr China import charge chrome 50% Cr index, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark Indicator, Lumpy Cr charge basis 52% (and high carbon), \$ per lb Spot 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Contract 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Lumpy Cr charge basis 52% Cr (and	Price 0.81* 1.13* 6,800-7,000*	Change† 0% 0%	14 Dec 18 14 Dec 18
Ferro-chrome \$/lb Cr China import charge chrome 50% Cr index, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark Indicator, Lumpy Cr charge basis 52% (and high carbon), \$ per lb Spot 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Contract 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Lumpy Cr charge basis 52% Cr (and high carbon) quarterly High carbon 6-8.5% C basis 60-70% Cr	Price 0.81* 1.13* 6,800-7,000* 6,700-6,950* 1.12*	Change† 0% 0% 0% 0% -9.68%	Assessed 14 Dec 18 14 Dec 18 14 Dec 18 14 Dec 18 ▼ 18 Dec 18
Ferro-chrome \$/lb Cr China import charge chrome 50% Cr index, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark Indicator, Lumpy Cr charge basis 52% (and high carbon), \$ per lb Spot 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Contract 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Lumpy Cr charge basis 52% Cr (and high carbon) quarterly High carbon 6-8.5% C basis 60-70% Cr max 1.5% Si	Price 0.81* 1.13* 6,800-7,000* 6,700-6,950* 1.12* 0.99-1.05*	Change† 0% 0% 0% 0% -9.68% -0.49%	Assessed 14 Dec 18
Ferro-chrome \$/lb Cr China import charge chrome 50% Cr index, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark Indicator, Lumpy Cr charge basis 52% (and high carbon), \$ per lb Spot 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Contract 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Lumpy Cr charge basis 52% Cr (and high carbon) quarterly High carbon 6-8.5% C basis 60-70% Cr max 1.5% Si 0.10% C average 60-70% Cr European low carbon in-warehouse	Price 0.81* 1.13* 6,800-7,000* 6,700-6,950* 1.12* 0.99-1.05* 2.01-2.11*	Change† 0% 0% 0% 0% -9.68% -0.49% -2.83%	Assessed 14 Dec 18 14 Dec 18 14 Dec 18 ▼ 18 Dec 18 ▼ 14 Dec 18 ▼ 14 Dec 18
BULK ALLOYS Ferro-chrome \$/lb Cr China import charge chrome 50% Cr index, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark Indicator, Lumpy Cr charge basis 52% (and high carbon), \$ per lb Spot 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Contract 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Lumpy Cr charge basis 52% Cr (and high carbon) quarterly High carbon 6-8.5% C basis 60-70% Cr max 1.5% Si 0.10% C average 60-70% Cr European low carbon in-warehouse 0.06% C max -65% Cr Low phosphorous Cr min 65% C max 7%	Price 0.81* 1.13* 6,800-7,000* 6,700-6,950* 1.12* 0.99-1.05* 2.01-2.11* 2.02-2.14*	Change† 0% 0% 0% -9.68% -0.49% -2.83% -3.93%	Assessed 14 Dec 18 14 Dec 18 14 Dec 18 14 Dec 18 ▼ 18 Dec 18 ▼ 14 Dec 18 ▼ 14 Dec 18 ▼ 14 Dec 18
Ferro-chrome \$/lb Cr China import charge chrome 50% Cr index, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark Indicator, Lumpy Cr charge basis 52% (and high carbon), \$ per lb Spot 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Contract 6-8% C basis 50% Cr	Price 0.81* 1.13* 6,800-7,000* 6,700-6,950* 1.12* 0.99-1.05* 2.01-2.11*	Change† 0% 0% 0% 0% -9.68% -0.49% -2.83%	Assessed 14 Dec 18 14 Dec 18 14 Dec 18 ▼ 18 Dec 18 ▼ 14 Dec 18 ▼ 14 Dec 18
BULK ALLOYS Ferro-chrome \$/lb Cr China import charge chrome 50% Cr index, cif Shanghai, duty-unpaid Ferro-Chrome European Benchmark Indicator, Lumpy Cr charge basis 52% (and high carbon), \$ per lb Spot 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Contract 6-8% C basis 50% Cr delivered duty paid China yuan/tonne Lumpy Cr charge basis 52% Cr (and high carbon) quarterly High carbon 6-8.5% C basis 60-70% Cr max 1.5% Si 0.10% C average 60-70% Cr European low carbon in-warehouse 0.06% C max -65% Cr Low phosphorous Cr min 65% C max 7% Si max 1% p max 0.015% Ti max 0.05% Japan import 8-9% C, basis 60% Cr,	Price 0.81* 1.13* 6,800-7,000* 6,700-6,950* 1.12* 0.99-1.05* 2.01-2.11* 2.02-2.14*	Change† 0% 0% 0% -9.68% -0.49% -2.83% -3.93%	Assessed 14 Dec 18 14 Dec 18 14 Dec 18 14 Dec 18 ▼ 18 Dec 18 ▼ 14 Dec 18 ▼ 14 Dec 18 ▼ 14 Dec 18

US free market low carbon duty-paid fob Pit	Price tsburgh	Change	Assessed
US free market in-warehouse Pittsburgh 6-8% C basis 60-65% Cr max 2% Si	1.100-1.200*	-8%	▼ 13 Dec 18
0.05%C - 65% min Cr	2.30-2.32*	0%	13 Dec 18
0.10% C - 62% min Cr	2.00-2.02*	0%	13 Dec 18
0.15% C - 60% min Cr	1.90-1.96*	-1.03%	▼ 13 Dec 18
Chrome ore \$/tonne			
Chrome ore cif main Chinese ports			
South African UG2 chrome ore concs, index basis 42%	156*	0%	14 Dec 18
Turkish lumpy 40-42% cfr main Chinese ports	215-225*	0%	14 Dec 18
Ferro-manganese			
basis 78% Mn (scale pro rata) standard 7.5% C €/tonne	1,060-1,100*	0%	14 Dec 18
US free market 78% Mn standard 7.5% C \$/long ton in-warehouse Pittsburgh	1,280-1,375*	-0.75%	▼ 13 Dec 18
US free market medium carbon duty-paid fob Pittsburgh, 80% min Mn 1.5% max C \$/lb	1.12-1.15*	0%	13 Dec 18
MB Chinese free market min 65% Mn max 7.0% C in-warehouse China yuan/tonne	7,100-7,200*	-1.38%	▼ 14 Dec 18
Manganese ore			
44% Mn, cif Tianjin \$/dmtu of metal contained	6.91*	-4.03%	▼ 14 Dec 18
37% Mn, fob Port Elizabeth \$/dmtu of metal contained	5.50*	-8.79%	▼ 14 Dec 18
Inventories at the main ports of Tianjin and Qinzhou, million tonnes	2.87-2.90*	8.87%	▲ 12 Dec 18
Ferro-nickel			
China premium, 26-32% nickel contained, cif China, \$/tonne	-250120*	-17.78%	▼ 26 Nov 18
Ferro-silicon			
Lumpy basis 75% Si (scale pro rata)	4.050.4.000*	00/	44.5 40
€/tonne US free market \$/lb in-warehouse	1,250-1,300*	0%	14 Dec 18
Pittsburgh lumpy basis 75% Si - imported	1.00-1.04*	-0.97%	▼ 13 Dec 18
Export from mainland China, min 75% Si, 7.5% C, \$/tonne, fob	1,270-1,300*	0%	14 Dec 18
MB Chinese free market min 75% Si, in-warehouse China, yuan/tonne	7,200-7,400*	0%	14 Dec 18
Silico-manganese			
Lumpy basis 65-75% Mn basis 15-19% Si (scale pro rata) €/tonne	970-1,020*	0%	14 Dec 18
US free market \$/Ib in-warehouse Pittsburgh	0.62-0.64*	0%	13 Dec 18
MB Chinese free market min 65% Mn max 17% Si in-warehouse China yuan/tonne	8,000-8,200*	-1.82%	▼ 14 Dec 18
65% min Mn 16% min Si \$/tonne fob India	1,020-1,040*	-0.96%	▼ 14 Dec 18

† week-on-week change



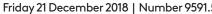


					CARBON STEEL - CIS				
	Price	Change [†]		Assessed		Price	Change [†]		Assesse
Northern Europe imports					CIS exports (Black Sea)				
Metal Bulletin's appraisal of cfr prices fo	or imported, non-EU origin,	commercial-qua	lity carb	on steel, €	Metal Bulletin's appraisal of CIS mills'	prices for export outside the C	IS of commerc	cial-qua	lity carbon
per tonne cfr main EU port	,		•		steel, \$ per tonne fob stowed main Bla			•	•
Rebar	500-505*	0%		19 Dec 18	Billet index	420*	-0.71%	\blacksquare	19 Dec 1
Wire rod (mesh quality)	520-530*	0%		19 Dec 18	Slab	415-420*	-3.47%	•	17 Dec 1
Plate (8-40mm)	570-580*	0%		19 Dec 18	Rebar	455-465*	-3.66%	•	17 Dec 1
Hot rolled coil	480-490*	-3.48%	▼	19 Dec 18	Wire rod (mesh)	485-490*	-2.99%	•	17 Dec 1
Cold rolled coil	570-590*	-2.52%	▼	19 Dec 18	Heavy plate (10-50mm)	545-585*	-4.24%	•	17 Dec 1
Hot-dip galvanized coil	600-620*	-3.94%	▼	19 Dec 18	Hot rolled coil	450-470*	-1.6%	•	17 Dec 1
Southern Europe imports					Cold rolled coil	530-560*	-1.36%	•	17 Dec 1
	urimparted non FII origin		litu a a uba	an ataal 6	CIS domestic				
Metal Bulletin's appraisal of cfr prices fo per tonne cfr main EU port	ii iiriportea, riori-Lo origiri,	commercial-qua	пц сагы	on steer, e		hin Duggio for commorgial gue	litu oorhon oto	ol of C	Coriain
Rebar	470-500*	-2.02%	•	19 Dec 18	Metal Bulletin's appraisal of prices with rubles per tonne, carriage paid to (cpt,		anty carbon ste	eror Cr	S Origiri,
Wire rod (mesh quality)	520-530*	0%	•	19 Dec 18	Rebar	36,000-36,500*	0%		17 Dec 1
Plate (8-40mm)	560-570*	0%		19 Dec 18	Hot rolled sheet	39,200-40,000*	0%		17 Dec 1
Hot rolled coil	460-470*	-1.06%	▼	19 Dec 18	Cold rolled sheet	46,500-47,000*	0%		17 Dec 1
Cold rolled coil		-1.74%	<u>*</u>	19 Dec 18	Plate		0%		17 Dec 1
	560-570*		*		riate	39,500-40,000*	0 70		17 Dec 1
Hot-dip galvanized coil	570-580*	-6.5%	•	19 Dec 18	CARBON STEEL - MIDDLE EAST				
Southern Europe exports					O'MBONOTELE IIIBBELENOT	Dries	Channet		A
Metal Bulletin's appraisal of Southern E			ern Euro	ppe of		Price	Change [†]		Assesse
commercial-quality carbon steel, € per to -					Turkish exports				
Rebar	460-490*	0%		19 Dec 18	Metal Bulletin's appraisal of Turkish m	ills' prices for export of comme	ercial-quality ca	arbon s	teel, \$ per
Wire rod (mesh quality)	480-500*	0%		19 Dec 18	tonne fob main Turkish port				
Northern Europe domestic					Billet	420-440*	0%		20 Dec 1
Metal Bulletin's appraisal of prices within	in the EU (excluding the Uk) for commercial	-quality	carbon	Rebar	450-460*	-2.67%	•	20 Dec 1
steel of EU origin, € per tonne delivered	basis point				Wire rod (mesh quality)	485-490*	0%		20 Dec 1
Rebar	540-560*	0%		19 Dec 18	Merchant bars	575-600*	-2.08%	•	20 Dec 1
Wire rod (mesh quality)	540-560*	0%		19 Dec 18	Structural pipe	590-600*	-1.65%	•	12 Dec 1
Sections (medium)	635-650*	0%		19 Dec 18	Hot rolled coil	510-515*	0%		14 Dec 1
Beams	620-645*	0%		19 Dec 18	Hot dip galvanized	670-680*	-1.46%	\blacksquare	14 Dec 1
Southern Europe domestic					Turkish domestic				
Metal Bulletin's appraisal of prices within	n the FU (excluding the UK) for commercial	-auality	carbon	Metal Bulletin's appraisal of prices with	hin Turkey for commercial-qua	lity carbon ste	el of Tu	rkish origin
steel of EU origin, € per tonne delivered		,	7		\$ per tonne ex-works		·		
Rebar	520-540*	-0.93%	\blacksquare	19 Dec 18	Billet	440-445*	-0.56%	\blacksquare	20 Dec 1
Wire rod (mesh quality)	540-560*	0%		19 Dec 18	Rebar	530-545*	-2.27%	•	16 Aug 1
Sections (medium)	630-650*	0%		19 Dec 18	Wire rod (mesh quality)	560-580*	-2.98%	•	16 Aug 1
Beams	630-645*	0%		19 Dec 18	Hot rolled coil	510-520*	-1.44%	▼	14 Dec 1
					Cold rolled coil	595-600*	-1.24%	•	14 Dec 1
Central Furone domestic € per tonne					Hot dip galvanized				
		-0.96%	•	10 Dec 18		670-680*	0%		14 Dec 1
Hot rolled coil	510-520*	-0.96%	▼	19 Dec 18		670-680* 740-770*	0%		
Central Europe domestic € per tonne Hot rolled coil Poland domestic zloty per tonne ex-v	510-520* works				Prepainted galvanized	670-680* 740-770*	0% 0%		
Hot rolled coil	510-520*	-0.96%	▼	19 Dec 18	Prepainted galvanized Turkish imports	740-770*	0%		14 Dec 1
Hot rolled coil Poland domestic zloty per tonne ex-v Rebar	510-520* works 2,260-2,340*				Prepainted galvanized Turkish imports Metal Bulletin's appraisal of prices for	740-770*	0%	pertor	14 Dec 1
Hot rolled coil Poland domestic zloty per tonne ex-v Rebar Northern Europe € per tonne ex-work	510-520* works 2,260-2,340*				Prepainted galvanized Turkish imports Metal Bulletin's appraisal of prices for Turkish port	740-770* imported commercial-quality o	0% earbon steel, \$		14 Dec 1
Hot rolled coil Poland domestic zloty per tonne ex-v Rebar Northern Europe € per tonne ex-work Plate (8-40mm)	510-520* works 2,260-2,340*	-0.86%	▼	14 Dec 18	Prepainted galvanized Turkish imports Metal Bulletin's appraisal of prices for Turkish port Billet	740-770* imported commercial-quality o 420-440*	0% earbon steel, \$ -2.27%	pertor ▼	14 Dec 1
Hot rolled coil Poland domestic zloty per tonne ex-v Rebar Northern Europe € per tonne ex-work Plate (8-40mm) Hot rolled coil	510-520* works 2,260-2,340* (s 580-600*	-0.86% -0.84%	*	14 Dec 18 19 Dec 18	Prepainted galvanized Turkish imports Metal Bulletin's appraisal of prices for Turkish port Billet Hot rolled coil	740-770* imported commercial-quality of 420-440* 490-495*	0% earbon steel, \$ -2.27% 0%		20 Dec 1
Hot rolled coil Poland domestic zloty per tonne ex-v	510-520* works 2,260-2,340* ss 580-600* 520-530*	-0.86% -0.84% -1.87%	*	14 Dec 18 19 Dec 18 19 Dec 18	Prepainted galvanized Turkish imports Metal Bulletin's appraisal of prices for Turkish port Billet	740-770* imported commercial-quality o 420-440*	0% earbon steel, \$ -2.27%		14 Dec 1
Hot rolled coil Poland domestic zloty per tonne ex-v Rebar Northern Europe € per tonne ex-work Plate (8-40mm) Hot rolled coil Cold rolled coil Hot-dip galvanized coil	510-520* works 2,260-2,340* \$ 580-600* 520-530* 600-625* 620-645*	-0.86% -0.84% -1.87% 0%	*	14 Dec 18 19 Dec 18 19 Dec 18 19 Dec 18	Prepainted galvanized Turkish imports Metal Bulletin's appraisal of prices for Turkish port Billet Hot rolled coil	740-770* imported commercial-quality of 420-440* 490-495*	0% earbon steel, \$ -2.27% 0%		14 Dec 1 nne cfr main 20 Dec 1 14 Dec 1
Hot rolled coil Poland domestic zloty per tonne ex-v Rebar Northern Europe € per tonne ex-work Plate (8-40mm) Hot rolled coil Cold rolled coil Hot-dip galvanized coil Southern Europe € per tonne ex-work	510-520* works 2,260-2,340* \$580-600* 520-530* 600-625* 620-645* ks	-0.86% -0.84% -1.87% 0% 0.4%	*	14 Dec 18 19 Dec 18 19 Dec 18 19 Dec 18	Prepainted galvanized Turkish imports Metal Bulletin's appraisal of prices for Turkish port Billet Hot rolled coil Cold rolled coil	740-770* imported commercial-quality of 420-440* 490-495* 560-580*	0% earbon steel, \$ -2.27% 0% 0%	*	14 Dec 1 ane cfr main 20 Dec 1 14 Dec 1 14 Dec 1
Hot rolled coil Poland domestic zloty per tonne ex-v Rebar Northern Europe € per tonne ex-work Plate (8-40mm) Hot rolled coil Cold rolled coil Hot-dip galvanized coil Southern Europe € per tonne ex-work Plate (8-40mm)	510-520* works 2,260-2,340* \$ 580-600* 520-530* 600-625* 620-645* ks 540-550*	-0.86% -0.84% -1.87% 0% 0.4%	*	14 Dec 18 19 Dec 18	Prepainted galvanized Turkish imports Metal Bulletin's appraisal of prices for Turkish port Billet Hot rolled coil Cold rolled coil UAE imports	740-770* imported commercial-quality of 420-440* 490-495* 560-580*	0% earbon steel, \$ -2.27% 0% 0%	*	14 Dec 1 ane cfr mair 20 Dec 1 14 Dec 1 14 Dec 1
Hot rolled coil Poland domestic zloty per tonne ex-v Rebar Northern Europe € per tonne ex-work Plate (8-40mm) Hot rolled coil Cold rolled coil Hot-dip galvanized coil Southern Europe € per tonne ex-work Plate (8-40mm) Hot rolled coil	510-520* works 2,260-2,340* \$\$ 580-600* 520-530* 600-625* 620-645* ks 540-550* 470-500*	-0.86% -0.84% -1.87% 0% 0.4%	*	14 Dec 18 19 Dec 18	Prepainted galvanized Turkish imports Metal Bulletin's appraisal of prices for Turkish port Billet Hot rolled coil Cold rolled coil UAE imports Metal Bulletin's appraisal of prices for	740-770* imported commercial-quality of 420-440* 490-495* 560-580*	0% earbon steel, \$ -2.27% 0% 0%	*	14 Dec 1 20 Dec 1 14 Dec 1 14 Dec 1
Hot rolled coil Poland domestic zloty per tonne ex-v Rebar Northern Europe € per tonne ex-work Plate (8-40mm) Hot rolled coil Cold rolled coil Southern Europe € per tonne ex-work Plate (8-40mm) Hot rolled coil Cold rolled coil Cold rolled coil	510-520* works 2,260-2,340* (S 580-600* 520-530* 600-625* 620-645* ks 540-550* 470-500* 560-590*	-0.86% -0.84% -1.87% 0% 0.4% 0% 0%	V V A	14 Dec 18 19 Dec 18	Prepainted galvanized Turkish imports Metal Bulletin's appraisal of prices for Turkish port Billet Hot rolled coil Cold rolled coil UAE imports Metal Bulletin's appraisal of prices for Ali	740-770* imported commercial-quality of 420-440* 490-495* 560-580* imported commercial-quality of	0% earbon steel, \$ -2.27% 0% 0% carbon steel, \$	*	14 Dec 1 20 Dec 1 14 Dec 1 14 Dec 1 14 Dec 1 18 Dec 1
Hot rolled coil Poland domestic zloty per tonne ex-v Rebar Northern Europe € per tonne ex-work Plate (8-40mm) Hot rolled coil Cold rolled coil Southern Europe € per tonne ex-work Plate (8-40mm) Hot rolled coil Cold rolled coil Cold rolled coil	510-520* works 2,260-2,340* \$\$ 580-600* 520-530* 600-625* 620-645* ks 540-550* 470-500*	-0.86% -0.84% -1.87% 0% 0.4%	*	14 Dec 18 19 Dec 18	Prepainted galvanized Turkish imports Metal Bulletin's appraisal of prices for Turkish port Billet Hot rolled coil Cold rolled coil UAE imports Metal Bulletin's appraisal of prices for Ali Billet	740-770* imported commercial-quality of 420-440* 490-495* 560-580* imported commercial-quality of 470-480*	0% earbon steel, \$ -2.27% 0% 0% earbon steel, \$ 0%	, ▼ pertor	14 Dec 1 20 Dec 1 14 Dec 1 14 Dec 1 14 Dec 1 18 Dec 1 18 Dec 1
Hot rolled coil Poland domestic zloty per tonne ex-v Rebar Northern Europe € per tonne ex-work Plate (8-40mm) Hot rolled coil Cold rolled coil Hot-dip galvanized coil Southern Europe € per tonne ex-work Plate (8-40mm) Hot rolled coil Cold rolled coil Hot-dip galvanized coil	510-520* works 2,260-2,340* (S 580-600* 520-530* 600-625* 620-645* ks 540-550* 470-500* 560-590*	-0.86% -0.84% -1.87% 0% 0.4% 0% 0%	V V A	14 Dec 18 19 Dec 18	Prepainted galvanized Turkish imports Metal Bulletin's appraisal of prices for Turkish port Billet Hot rolled coil Cold rolled coil UAE imports Metal Bulletin's appraisal of prices for Ali Billet Rebar	740-770* imported commercial-quality of 420-440* 490-495* 560-580* imported commercial-quality of 470-480* 515-525*	0% earbon steel, \$ -2.27% 0% 0% earbon steel, \$ 0% 0.1%	, ▼ pertor	14 Dec 1 20 Dec 1 14 Dec 1 14 Dec 1 14 Dec 1 18 Dec 1 18 Dec 1 18 Dec 1
Hot rolled coil Poland domestic zloty per tonne ex-v Rebar Northern Europe € per tonne ex-work Plate (8-40mm) Hot rolled coil Cold rolled coil Hot-dip galvanized coil Southern Europe € per tonne ex-work Plate (8-40mm) Hot rolled coil Cold rolled coil Hot-dip galvanized coil	510-520* works 2,260-2,340* (S 580-600* 520-530* 600-625* 620-645* ks 540-550* 470-500* 560-590*	-0.86% -0.84% -1.87% 0% 0.4% 0% 0%	V V A	14 Dec 18 19 Dec 18	Prepainted galvanized Turkish imports Metal Bulletin's appraisal of prices for Turkish port Billet Hot rolled coil Cold rolled coil UAE imports Metal Bulletin's appraisal of prices for Ali Billet Rebar Hot rolled coil	740-770* imported commercial-quality of 420-440* 490-495* 560-580* imported commercial-quality of 470-480* 515-525* 525-530*	0% earbon steel, \$ -2.27% 0% 0% earbon steel, \$ 0% 0.1% 0%	, ▼ pertor	14 Dec 1 20 Dec 1 14 Dec 1 14 Dec 1 14 Dec 1 18 Dec 1 18 Dec 1 18 Dec 1 18 Dec 1
Hot rolled coil Poland domestic zloty per tonne ex-v Rebar Northern Europe € per tonne ex-work Plate (8-40mm) Hot rolled coil Cold rolled coil Hot-dip galvanized coil Southern Europe € per tonne ex-work Plate (8-40mm) Hot rolled coil Cold rolled coil Hot-dip galvanized coil	510-520* works 2,260-2,340* (S 580-600* 520-530* 600-625* 620-645* ks 540-550* 470-500* 560-590*	-0.86% -0.84% -1.87% 0% 0.4% 0% 0%	V V A	14 Dec 18 19 Dec 18	Prepainted galvanized Turkish imports Metal Bulletin's appraisal of prices for Turkish port Billet Hot rolled coil Cold rolled coil UAE imports Metal Bulletin's appraisal of prices for Ali Billet Rebar Hot rolled coil Cold rolled coil Hot dip galvanized coil	740-770* imported commercial-quality of 420-440* 490-495* 560-580* imported commercial-quality of 470-480* 515-525* 525-530* 590-600*	0% earbon steel, \$ -2.27% 0% 0% earbon steel, \$ 0% 0.1% 0% 0%	pertor	14 Dec 1 20 Dec 1 14 Dec 1 14 Dec 1 14 Dec 1 18 Dec 1 18 Dec 1 18 Dec 1 18 Dec 1
Hot rolled coil Poland domestic zloty per tonne ex-v Rebar Northern Europe € per tonne ex-work Plate (8-40mm) Hot rolled coil Cold rolled coil Southern Europe € per tonne ex-work Plate (8-40mm) Hot rolled coil Cold rolled coil	510-520* works 2,260-2,340* 580-600* 520-530* 600-625* 620-645* ks 540-550* 470-500* 560-590*	-0.86% -0.84% -1.87% 0% 0.4% 0% 0% -0.86%	V V A	14 Dec 18 19 Dec 18	Prepainted galvanized Turkish imports Metal Bulletin's appraisal of prices for Turkish port Billet Hot rolled coil Cold rolled coil UAE imports Metal Bulletin's appraisal of prices for Ali Billet Rebar Hot rolled coil Cold rolled coil Cold rolled coil Saudi Arabia imports	740-770* imported commercial-quality of 420-440* 490-495* 560-580* imported commercial-quality of 470-480* 515-525* 525-530* 590-600* 640-750*	0% earbon steel, \$ -2.27% 0% 0% earbon steel, \$ 0% 0.1% 0% 0% -0.71%	per tor	14 Dec 1 20 Dec 1 14 Dec 1 14 Dec 1 14 Dec 1 18 Dec 1
Hot rolled coil Poland domestic zloty per tonne ex-v Rebar Northern Europe € per tonne ex-work Plate (8-40mm) Hot rolled coil Cold rolled coil Southern Europe € per tonne ex-work Plate (8-40mm) Hot rolled coil Cold rolled coil Cold rolled coil Cold rolled coil Cotarolled coil CARBON STEEL - NORTH AFRICA	510-520* works 2,260-2,340* (S 580-600* 520-530* 600-625* 620-645* ks 540-550* 470-500* 560-590* Price	-0.86% -0.84% -1.87% 0% 0.4% 0% -0% -0.86%	▼ ▼ ▼	14 Dec 18 19 Dec 18 Assessed	Prepainted galvanized Turkish imports Metal Bulletin's appraisal of prices for Turkish port Billet Hot rolled coil Cold rolled coil UAE imports Metal Bulletin's appraisal of prices for Ali Billet Rebar Hot rolled coil Cold rolled coil Cold rolled coil Saudi Arabia imports Metal Bulletin's appraisal of prices for Ali Billet	740-770* imported commercial-quality of 420-440* 490-495* 560-580* imported commercial-quality of 470-480* 515-525* 525-530* 590-600* 640-750* imported commercial-quality of 470-480*	0% earbon steel, \$ -2.27% 0% 0% earbon steel, \$ 0% 0.1% 0% -0.71% earbon steel, \$	per tor	14 Dec 1 20 Dec 1 14 Dec 1 14 Dec 1 14 Dec 1 18 Dec 1
Hot rolled coil Poland domestic zloty per tonne ex-v Rebar Northern Europe € per tonne ex-work Plate (8-40mm) Hot rolled coil Cold rolled coil	510-520* works 2,260-2,340* (S 580-600* 520-530* 600-625* 620-645* ks 540-550* 470-500* 560-590* Price	-0.86% -0.84% -1.87% 0% 0.4% 0% -0% -0.86%	▼ ▼ ▼	14 Dec 18 19 Dec 18 Assessed	Prepainted galvanized Turkish imports Metal Bulletin's appraisal of prices for Turkish port Billet Hot rolled coil Cold rolled coil UAE imports Metal Bulletin's appraisal of prices for Ali Billet Rebar Hot rolled coil Cold rolled coil Cold rolled coil Hot dip galvanized coil Saudi Arabia imports Metal Bulletin's appraisal of prices for Rebar	740-770* imported commercial-quality of 420-440* 490-495* 560-580* imported commercial-quality of 470-480* 515-525* 525-530* 590-600* 640-750* imported commercial-quality of 570-575*	0% carbon steel, \$ -2.27% 0% 0% carbon steel, \$ 0% 0.1% 0% -0.71% carbon steel, \$	per tor	14 Dec 1. 20 Dec 1. 14 Dec 1. 14 Dec 1. 14 Dec 1. 18 Dec 1.
Hot rolled coil Poland domestic zloty per tonne ex-versebar Northern Europe € per tonne ex-work Plate (8-40mm) Hot rolled coil Cold rolled coil Southern Europe € per tonne ex-work Plate (8-40mm) Hot rolled coil Cold rolled coil Cold rolled coil Cold rolled coil Cold rolled coil CARBON STEEL - NORTH AFRICA Algeria imports Metal Bulletin's appraisal of cfr prices fo	510-520* works 2,260-2,340* (S 580-600* 520-530* 600-625* 620-645* ks 540-550* 470-500* 560-590* Price	-0.86% -0.84% -1.87% 0% 0.4% 0% -0% -0.86%	▼ ▼ ▼	14 Dec 18 19 Dec 18 Assessed	Prepainted galvanized Turkish imports Metal Bulletin's appraisal of prices for Turkish port Billet Hot rolled coil Cold rolled coil UAE imports Metal Bulletin's appraisal of prices for Ali Billet Rebar Hot rolled coil Cold rolled coil Cold rolled coil Saudi Arabia imports Metal Bulletin's appraisal of prices for Ali Billet	740-770* imported commercial-quality of 420-440* 490-495* 560-580* imported commercial-quality of 470-480* 515-525* 525-530* 590-600* 640-750* imported commercial-quality of 470-480*	0% earbon steel, \$ -2.27% 0% 0% earbon steel, \$ 0% 0.1% 0% -0.71% earbon steel, \$	per tor	14 Dec 1 20 Dec 1 14 Dec 1 14 Dec 1 14 Dec 1 18 Dec 1





	Price	Change		ssessed	CARBON STEEL - NAFTA			
Metal Bulletin's appraisal of prices within t dirhams per tonne ex-works	UAE for commercial-qual	ity carbon steel	of UAE ori	gin,		Price	Change [†]	Assess
Rebar	1,990-2,016*	0%	1	8 Dec 18	US imports			
	1,000-2,010	J /0	- 1	0 000 10	Metal Bulletin's appraisal of prices for impor	rted, non-Nafta origin. d	commercial-auality	carbon steel
Iran imports		. ,			per short ton cfr port Houston	tou, non riana ongin, o	ommororar quanty	00.200.00.,
Metal Bulletin's appraisal of prices quoted Iranian buyers, \$ per tonne cfr Iranian non		r commercial-q	uality carbo	on steel to	Rebar	650-690*	0%	19 Dec
Cold rolled coil	630-640*	0%	2	9 Aug 18	Merchant bars	770-800*	0%	30 Nov
Hot rolled coil	595-600*	0%		9 Aug 18	Wire rod (low carbon)	744-762*	0%	12 Dec
	333-000	0 70		JAug 10	Medium sections	780-820*	-12.09%	▼ 29 Nov
Iran exports		. ,			Medium plate	880-900*	0%	12 Dec
Metal Bulletin's appraisal of prices quoted Iranian buyers, \$ per tonne fob Iranian por		r commerciai-qi	uality carbo	on steel to	Hot rolled coil (commodity)	680-720*	-3.45%	▼ 12 Dec
Billet	385-390*	-1.27%	▼ 1	9 Dec 18	Cold rolled coil	810-840*	-1.79%	▼ 12 Dec
Slab	385-390*	-0.64%		9 Dec 18	Hot dipped galvanized 0.012-0.015,			
	000 000	0.0470	· 1	3 DCC 10	G30	1,060-1,110*	0%	12 Dec
Egyptian domestic		.!!	-1 -4 F +:		ERW linepipe (X42)	1,130-1,300*		▼ 27 Nov
Metal Bulletin's appraisal of prices within L E£ per tonne ex-works	Egypt for commercial-qua	ality carbon stee	ei of Egyptia	an origin,	OCTG API5CT - casing J55	1,075-1,120*	-2.44%	▼ 27 Nov
Rebar	12,180-12,198*	0%	2	0 Dec 18	US domestic			
Egyptian import	12,100-12,130	070		o Dec 10	AMM's appraisal of prices within the USA fo	r commercial-quality ca	arbon steel of US o	or Canadian ori
	orted commorpial avality	carbon stool o	nortonno	ofr main	\$ per short ton, delivery terms as indicated		001	
Metal Bulletin's appraisal of prices for imp port	oneu commerciai-quality	carbon steer, \$	per torine	on main	Rebar (fob mill)	700-720*	0%	19 Dec
Billet	440-445*	0%	2	0 Dec 18	Wire rod (mesh quality fob mill)	765-765*	0%	12 Dec
					Plate (fob mill)	990-990*	0%	14 Dec
					Hot rolled sheet index (fob mill)	727-727*		▼ 19 Dec
OARDON CTEEL LATIN					Cold rolled sheet (fob mill)	860-860*	-1.15%	▼ 13 Dec
CARBON STEEL - LATIN AMERICA					Hot-dip galvanized (base) Midwest (fob mill)	860-860*	-1.15%	▼ 13 Dec
	Price	Change [†]	As	ssessed	OCTG API5CT - casing J55 (fob mill)	1,200-1,250*		▼ 13 Dec ▼ 27 Nov
Latin American exports						· · · · ·		
Metal Bulletin's appraisal of Latin America	an mills' prices for export o	outside Latin Am	nerica of		AMM's appraisal of prices within the USA fo \$ per hundredweight, delivery terms as indi-		arbon steel of US o	or Canadian oi
commercial-quality carbon steel, \$ per tor	nne fob stowed main Latir	n American port			Merchant bar 3 x 3 1/4 angle (fob mill)	38.50-38.50*	0%	30 Nov
Billet	480-490*	0%	1-	4 Dec 18	Welchart bal 3 x 3 1/4 aligle (10b IIIIII)	30.30-30.30	070	301400
Slab, Brazil	430-475*	-1.09%	▼ 1	4 Dec 18				
Rebar	560-565*	0%	1-	4 Dec 18				
Wire rod mesh quality	560-580*	0%	1-	4 Dec 18	CARBON STEEL - ASIA			
Heavy plate over 10mm	600-620*	0%	1-	4 Dec 18		Price	Change [†]	Assess
Hot rolled coil (dry)	500-505*	0%	1-	4 Dec 18	China exports			
Cold rolled coil	625-630*	0%	1-	4 Dec 18	Metal Bulletin's appraisal of Chinese mills p	rices for export of com	mercial-quality car	bon steel, \$ pe
Galvanized coil	800-810*	0%	1	4 Dec 18	tonne fob main China port			
South America imports					Rebar index	486-486*	1.58%	▲ 20 Dec
Metal Bulletin's appraisal of cfr prices for it	mported, commercial-qu	ality carbon stee	el,		Wire rod (mesh quality)	485-490*	-1.12%	▼ 18 Dec
\$ per tonne cfr main ports					Heavy plate	500-508*	-0.2%	▼ 18 Dec
Plate	535-555*	0%	1-	4 Dec 18	Hot rolled coil index	483-483*	0.97%	▲ 20 Dec
Hot rolled coil	515-530*	1.95%	▲ 1-	4 Dec 18	Cold rolled coil	520-525*	-1.88%	▼ 18 Dec
Cold rolled coil	570-585*	4.05%	▲ 1	4 Dec 18	Galvanized coil 1mm	545-545*	-1.8%	▼ 18 Dec
Galvanized coil	590-610*	0.84%	▲ 1	4 Dec 18	Eastern China domestic			
Argentina domestic \$ per tonne ex-wor	rks				Metal Bulletin's appraisal of prices in easter	n China for commercia	l-quality carbon ste	eel of Chinese
Metal Bulletin's appraisal of prices within A	Argentina for commercial	-quality carbon	steel, \$ per	rtonne	origin, yuan per tonne ex-warehouse			
Hot rolled coil	750-755*	0%	•	4 Dec 18	Rebar	3,800-3,830*	0.39%	▲ 20 Dec
Cold rolled coil	850-860*	0%		4 Dec 18	Wire rod (mesh)	3,820-3,880*	-3.14%	▼ 14 Dec
Galvanized coil	1,090-1,170*	0%		4 Dec 18	Sections	3,750-3,800*	-2.58%	▼ 14 Dec
Rebar	850-860*	0%		4 Dec 18	Plate	3,830-3,880*	0%	14 Dec
Brazil domestic					Hot rolled coil (min 2mm)	3,810-3,820*	0.79%	▲ 20 Dec
Metal Bulletin's appraisal of prices within E	Brazil for commercial our	ality carbon etoo	al Regions	ertonne	Cold rolled coil (0.5 - 2 mm)	4,180-4,250*	-0.24%	▼ 14 Dec
metai Bulletin s appraisai of prices witnin t ex-works	orazirioi cominierciai-qua	шу сагроп ѕіее	n, rveais pe	a torine	Hot-dip galvanized coil	4,250-4,320*	0.71%	▲ 14 Dec
Hot rolled coil	2,600-2,700*	-7.83%	▼ 0	7 Dec 18	Northern China domestic			
Cold rolled coil	2,850-2,920*	-9.84%		7 Dec 18	Metal Bulletin's appraisal of prices in northe	ern China for commercia	al-quality carbon s	teel of Chinese
Hot dip galvanized coil	3,250-3,310*	-7.61%		7 Dec 18	origin (Tangshan), yuan per tonne ex-works		quanty outboll o	
					Billet	3,390-3,390*	1.8%	▲ 20 Dec
Metal Bulletin's appraisal of prices within be delivered	Brazii for commercial-qua	auty carbon stee	ei, Reais pe	ertonne	Metal Bulletin's appraisal of prices in northe			
Rebar	2 800 2 050*	00/	0.	7 Dec 18	origin, yuan per tonne ex-warehouse	Omna for commercia	ar quality carborts	con or orintest
IVENUI	2,800-2,860*	0%	0	/ Dec 18	Hot rolled coil	3,540-3,640*	-0.97%	▼ 14 Dec
					Rebar	3,470-3,590*		▼ 14 Dec
						2, 3,000		. 7 500
					† week-on-week change			continue





continued >

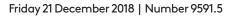
riday 21 December 2018 Nu		Charren	A -	d				
Southern China domestic	Price	Change	Assesso	d STAINLESS STEEL	Deles	Ch t		A === .
Metal Bulletin's appraisal of prices in southe origin, yuan per tonne ex-warehouse	ern China for commercial	l-quality carbon	steel of Chinese	Asia import	Price	Change [†]		Assessed
Rebar	4,320-4,400*	-2.02%	▼ 14 Dec	\$/tonne cif East Asian port				
Wire rod (mesh)	4,080-4,170*	-0.6%	▼ 14 Dec	Grade 304 2mm CR coil 2R	1,860-1,930*	-2.07%	•	19 Dec 18
Sections	3,980-4,030*	0.12%	▲ 14 Dec	Grade 304 HR sheet	2,180-2,280*	-1.76%	•	04 Jul 18
Plate	3,890-3,910*	-1.27%	▼ 14 Dec	China damastia				
Hot rolled coil (min 2mm)	3,800-3,860*	-1.79%	▼ 14 Dec	anltanna inarabaa				
Cold rolled coil (0.5 - 2 mm)	4,250-4,320*		▼ 14 Dec	Grado 304 2mm CP coil	14,300-14,800*	0.34%	_	19 Dec 18
Hot-dip galvanized coil	4,180-4,270*	-0.47%	▼ 14 Dec	Grado 430 2mm CP coil	8,250-8,300*	0.61%	A	19 Dec 18
Southeast Asia imports	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			EU export				
Metal Bulletin's appraisal of prices in South	east Asia for commercial	-auality carbon s	ctaal \$ nartann	€/tonne fob N.European port				
Billet	460-462*	-quality carbon s	▼ 20 Dec	Min 100 tonne lot				
Slab (Asia/East Asia)	445-455*	0%	17 Dec	Grade 304 2mm CR sheet	2,559-2,634*	-2.42%	•	27 Jul 18
Hot rolled coil (Vietnam)	480-490*	-1.02%	▼ 17 Dec	FII domestic				
Rebar (Singapore)	480-490*	-3%	▼ 17 Dec	2mm 304 cold rolled stainless sheet #/tonr	ne			
Wire rod (low carbon)	498-505*	-1.67%	▼ 17 Dec	N Furone Base price	925-985*	0%		14 Dec 18
,	490-303	-1.07 /0	▼ 17 Dec	Alloy surcharge	1,321-1,365*	0%		14 Dec 18
Indian exports				2mm 316 cold rolled stainless sheet, €/tonr	10			
Metal Bulletin's appraisal of Indian mills' price	ces for export of commer	cial-quality carb	on steel, \$ per	Base price	1,270-1,320*	0%		14 Dec 18
tonne fob main India port Billet	430-435*	-5.46%	▼ 14 Dec	Alloy surcharge	2,032-2,088*	0%		14 Dec 18
		-5.46%	14 Dec	304 stainless steel bright bar. €/tonne				
Plate (12-40mm)	560-570* 510-520*	1.48%		Base price	1,000-1,050*	-1.44%	•	14 Dec 18
Hot rolled coil (commodity)				Alloy surcharge	1,629-1,682*	0%		14 Dec 18
Hot-dip galvanized coil	670-680*	1.5%	▲ 14 Dec	US domestic				
Indian imports Metal Bulletin's appraisal of prices for importance of main India port	rted, non-EU origin, com	mercial-quality o	arbon steel, \$ p	AMM's appraisal of prices within the USA for coorigin, \$ per hundredweight, fob	ommercial-quality sta	ainless steel of	US or (Canadian
Plate (20-60mm)	550-555*	3.76%	▲ 14 Dec	Grade 304 coiled plate	110-110*	-3.51%	•	10 Dec 18
Hot rolled coil (commodity)	510-515*	1.99%	▲ 14 Dec	Grade 316 coiled plate	159-159*	-2.45%	•	10 Dec 18
Hot rolled coil (CR grade)	515-520*	0.98%	▲ 14 Dec	 Grade 304 cold rolled sheet 	125-125*	-3.1%	•	10 Dec 18
Cold rolled	565-575*	0.30 %	14 Dec	 Grade 316L cold rolled sheet 	168-168*	-4%	•	10 Dec 18
	303-373	070	14 060	Raw materials index				
Indian domestic				EU domestic stainless steel \$ per tonne				
Metal Bulletin's appraisal of prices within Inc ex-works				304 Europe raw materials index	1,112.78*	-1.86%	•	17 Dec 18
Billet	31,000-31,200*	-1.89%	▼ 14 Dec	CHINA IDON ODE				
Heavy plate	43,500-44,000*	-2.23%	▼ 14 Dec	8				
Hot rolled coil	43,000-43,500*	-2.26%	▼ 14 Dec	_				
Cold rolled coil	48,500-49,000*	-2.01%	▼ 14 Dec		Price	Change [†]		Assessed
DRI	21,300-21,500*	-3.17%	▼ 14 Dec		72.26*	6.81%	_	20 Dec 18
Hot-dip galvanized coil	52,000-52,500*		▼ 14 Dec		118.58*	-1.27%	•	14 Dec 18
Rebar	35,000-35,200*	-0.85%	▼ 14 Dec	Qingdao (66% Fe)	87.61*	1.78%	A	14 Dec 18
				Metal Bulletin Indicator for US\$/% Fe in iron ore fines cfr Quingdao	1.10*	-3.51%	•	03 Dec 18
STEELBENCHMARKER™ PRICES				. COKING COAL				
	Price	Change [†]	Assesse	d				
Region: USA east of the Mississippi				\$ per metric tonne				
Standard plate (\$/metric tonne)	1,087	-2.77%	▼ 10 Dec	8	Price	Change [†]		Assessed
Standard plate (\$/short ton)	986	-2.76%	▼ 10 Dec	8 Premium hard coking coal cfr China	205.80-205.80*	-1.86%	•	20 Dec 18
Hot rolled coil (\$/metric tonne)	858	-0.69%	▼ 10 Dec	8 Hard coking coal cfr China	195.23-195.23*	-0.7%	•	20 Dec 18
Hot rolled coil (\$/short ton)	778	-0.77%	▼ 10 Dec	Premium hard coking coal fob	000 74 000 74	0.40/		00.5 40
Cold rolled coil (\$/metric tonne)	986		▼ 10 Dec	— Australia 8	226.74-226.74*	0.1%		20 Dec 18
Cold rolled coil (\$/short ton)	894		▼ 10 Dec	Hard coking coal fob Australia	186.04-186.04*	0%		20 Dec 18
Region: Mainland China				China hard coking coal Shanxi spot market domestic delivered yuan/tonne	1,520-1,880*	0%		14 Dec 18
Rebar	489	0%	10 Dec	•	355-370*	-0.68%	•	18 Dec 18
Standard plate	471		▲ 10 Dec		333-370	-0.00 //	*	10 Dec 10
Hot rolled coil	458		▲ 10 Dec	_				
Cold rolled coil	536	0.19%	▲ 10 Dec					
	500	0.10/0						
Region: World export market Hot rolled coil (\$/metric tonne)	512	-3.94%	▼ 10 Dec	8				

† week-on-week change





					Price	Change		Assessed
Price	Change [†]		Assessed	MB index cfr Turkey HMS 1&2 (80:20)	200 83*	5 5.4°/-	•	19 Dec 18
				, ,				14 Dec 18
prices for proces	sed scrap delive	red to d	consumers	,				14 Dec 18
ng to region and de	estination, and si	hould b	ne read in		300-300	0 /0		14 Dec 10
us scrap pages.								
				Melting scrap from shipbreaking (\$/tonne)			•	17 Dec 18
160-185*	-10.39%	▼	13 Dec 18	Auto bundle scrap (Turkish lira/tonne)	1,490.00-1,710	.00* -3.03%	•	17 Dec 18
140-165*	-11.59%	•	13 Dec 18	USA export				
				AMM ferrous scrap export index \$/tonne East C	oast fob New York			
180-205*	-9.41%	•	13 Dec 18	HMS 1&2 (80:20)	302.00*	0%		19 Dec 18
105 010*	0.00/	_	12 Dec 10	Shredded	307.00*	0%		19 Dec 18
100-210	-9.2%	•	13 Dec 16	USA domestic				
185_210*	-0.2%	_	13 Dec 18	AMM Midwest index \$/gross ton delivered mill				
				No1 heavy melting scrap	323.19*	-0.45%	\blacksquare	10 Dec 18
				No1 busheling	401.46*	-0.12%	•	10 Dec 18
				Shredded	349.75*	-0.17%	•	10 Dec 18
155-165"	-10.53%	•	13 Dec 18	China domestic				
400.440*	40.000/	_	40.0 40					
120-140*	-13.33%	•	13 Dec 18	•	2 520 2 500*	3 86%		14 Dec 18
				· · ·	2,320-2,390	3.00 %	_	14 Dec 16
				laiwan import				
160-185*	-10.39%	•	13 Dec 18	\$/tonne cfr main port				
80-100*	-18.18%	•	13 Dec 18	HMS 1&2 (80:20 mix) (USA material)	280-283*	-0.88%	•	14 Dec 18
				Vietnam import				
changes				\$/tonne cfr southern Vietnam				
				HMS 1&2	320-325*	-1.53%	\blacksquare	14 Dec 18
				Germany domestic				
65_05*	-11 11%	•	1/ Dec 18	·	PDSV			
00-90	-11.11/0	•	14 Dec 10			1 600/		01 Nov 18
				.,				
								01 Nov 18
288-290*	0%		14 Dec 18	17				01 Nov 18
293-295*	0%		14 Dec 18					01 Nov 18
					209.20	1.6%	_	01 Nov 18
				MB assessment €/tonne delivered at mill				
337.50*	-1.54%	\blacksquare	14 Dec 18	Grade E40 (shredded steel scrap)	275-285	-2.61%	•	19 Dec 18
305-320*	-2.34%	•	14 Dec 18	No E8 (thin new production steel scrap)	275-285	0%		19 Dec 18
				No E3 (old thick scrap)	270-280	-2.65%	•	19 Dec 18
				Italy domestic				
770 800*	00/.		1/ Doc 18	MB assessment €/tonne delivered at mill				
				No E3 (old thick scrap)	270.00	-1.79%	•	19 Dec 18
				,			V	19 Dec 18
				(
				SCDADSUBSTITUTES				
				SCRAF SUBSTITUTES				
240-270*	0%		14 Dec 18		Price	Change [†]		Assessed
				EU imports \$/tonne				
850-900*	-2.23%	•	14 Dec 18	Pig iron imports cif Italy	378-380*	0%		13 Dec 18
765-810*	-2.17%	•	14 Dec 18	Latin American exports \$/tonne, delivery ter	ms as stated			
1,480-1,530*	0%		14 Dec 18	Hot briquetted iron Venezuela	240-240*	-2.04%	\blacksquare	14 Dec 18
1,330-1,375*	0%		14 Dec 18	Pig iron fob Vitorio/Rio	340-345*	-1.44%	•	14 Dec 18
				Pig iron fob Ponta da Maderia	350-367*	-2.71%	•	14 Dec 18
281,05*	-2.3%	•	14 Dec 18	•	370-380*	-1 32%	•	14 Dec 18
					010 000	1.02 /0	•	1700010
				·	275 200*	4.050/	_	12 D - 12
201-203	U /0		17 000 10	•			▼	13 Dec 18
				Pig iron Black Sea	355-360*	0%		13 Dec 18
				China domestic yuan/tonne delivered wareh	iouse			
283 04*	E 70/	_	10 Dag 19	China domestic yuan/tonne delivered wareh Pig iron	3,000-3,050*	0%		16 Feb 18
283.01*	-5.7%	•	19 Dec 18	•		0%		16 Feb 18
	160-185* 140-165* 185-210* 175-200* 170-200* 155-185* 120-140* 140-165* 160-185* 288-290* 293-295* 337.50* 305-320* 770-800* 665-680* 1,200-1,270* 1,020-1,080* 190-220* 240-270* 850-900* 765-810*	160-185* -10.39% 140-165* -11.59% 185-210* -9.2% 185-210* -9.2% 175-200* -9.64% 170-200* -9.76% 155-185* -10.53% 140-165* -11.59% 160-185* -10.39% 80-100* -18.18% 80-100* -18.18% 80-300* -18.18% 80-100* -18.18%	160-185*	### Topices for processed scrap delivered to consumers and to region and destination, and should be read in as scrap pages. ### 13 Dec 18 ### 14 Dec 18	(United States meterial) (United States meterial) (Processed scrap delivered to consumers gro region and destination, and should be read in starce pages.	Price Changet Assessed (United States mularian) 290.83* (United States mularian) 290.93* (United States mularian) 290.90* (United States m	Price Changer Assessed Mill process for processed scrop delivered to consumers to give region and desilvations, and should be read of the stream of	Mile Mile





Assessed

Change[†]

Price

	Price	Change [†]	Assesse
Aluminium	11100	onungo	ASSESSE
European free market MB assessment €/to	nne		
Floated frag	1,055-1,105*	0.47%	▲ 14 Dec 1
Cast	960-1,010*	******	▲ 14 Dec 1
Mixed turnings 6%	810-870*		▲ 14 Dec 1
Germany per 1000kg			
Pure cuttings	1,310-1,390	-0.74%	▼ 19 Dec 1
Commercial cast	1,050-1,170	0%	19 Dec 1
H9 extrusions	1,640-1,740	0%	19 Dec 1
Alloy turnings	730-850	0%	19 Dec 1
Source: VDM			
France per 1000kg			
Pure cuttings	1,520-1,540	0%	18 Dec 1
Old rolled	600-640	1.64%	▲ 18 Dec 1
Commercial cast	550-620	1.74%	▲ 18 Dec 1
Source: Lettre d'Information Metaux	555 525	1/0	
Italy per 1000kg			
Pure cuttings	1,040-1,070	0%	14 Dec 1
Old mixed scrap	1,445-1,485	0%	14 Dec 1
Commercial cast	905-940		▲ 14 Dec 1
Source: Assomet	300 340	0.0470	14 000 1
Copper			
Germany per 1000kg	1,000,5,400	0.040/	7 40 D 4
Copper wire (berry)	4,980-5,160		▼ 19 Dec 1
Heavy copper	4,640-4,780		▼ 19 Dec 1
Heavy brass	3,230-3,470		▼ 19 Dec 1
Brass turnings (MS 58)	3,580-3,790	******	▼ 19 Dec 1
Brass sheet (MS 63)	3,700-3,980	-1.16%	▼ 19 Dec 1
Source: Verein Deutscher Metallhandler			
France per 1000kg			
Electro cuttings	4,850-4,900		▼ 18 Dec 1
No 1 bright wire	4,700-4,750	0.0270	▼ 18 Dec 1
Mixed (96%)	4,350-4,400		▼ 18 Dec 1
Brass plate cuttings 70/30	3,700-3,730	*******	▼ 18 Dec 1
Brass turnings	3,200-3,250		▼ 18 Dec 1
Mixed brass	3,000-3,050	-1.63%	▼ 18 Dec 1
Source: Lettre d'Information Metaux			
Italy per 1000kg			
Electrolytic dd EN 12861-S-Cu-2	5,025-5,185	******	▼ 14 Dec 1
Enamelled wire EN 12861-S-Cu-3	4,903-5,065	-0.8%	▼ 14 Dec 1
New from tubes, strips etc EN 12861-S-Cu-4	4,927-5,155	-0.79%	▼ 14 Dec 1
Old from tubes, strips etc 12861-S-Cu-7	4,755-4,925	-0.82%	▼ 14 Dec 1
EN12861-S-Cu-Zn-1-A-Cu 63.5%	3,945-4,060	-0.99%	▼ 14 Dec 1
Mixed from valves/taps EN 12861-S-Cu-Zn-6	3,180-3,510	-1.18%	▼ 14 Dec 1
Several 95% m/m 12861-S-Cu-Zn-7	3,230-3,310	-1.21%	▼ 14 Dec 1

Chroddod caran (C/matric tanna)**	251	0.050/	▼ 10 Dec 40
Shredded scrap (\$/metric tonne)**	351	-0.85%	▼ 10 Dec 18
Shredded scrap (\$/gross ton)**	357	-0.83%	▼ 10 Dec 18
No 1 heavy melting scrap (\$/metric tonne)	326	-1.21%	▼ 10 Dec 18
No 1 heavy melting scrap (\$/gross ton)	331	-1.19%	▼ 10 Dec 18
No 1 busheling scrap (\$/metric tonne)	397	-0.5%	▼ 10 Dec 18
No 1 busheling scrap (\$/gross ton)	403	-0.49%	▼ 10 Dec 18
**For shredded scrap the region is for all b	out the West Coast		
UK NON-FERROUS SCRAP	Price	Change [†]	Assessed
Alicentations and colored	FIICE	Glialige	ASSESSE
Aluminium - actual price			
£pertonne			
Group 1 pure 99% & Litho	1,360-1,410*	0%	19 Dec 18
Commercial pure cuttings	1,020-1,050*	0%	19 Dec 18
Clean HE9 extrusions	1,340-1,390*	0%	19 Dec 18
Loose old rolled cuttings	710-730*	0%	19 Dec 18
Baled old rolled	780-800*	0%	19 Dec 18
Commercial cast	790-830*	0%	19 Dec 18
Cast wheels	1,200-1,225*	0%	19 Dec 18
Commercial turnings	585-615*	0%	19 Dec 18
Group 7 turnings	480-500*	0%	19 Dec 18
MB and LME aluminium scrap discounts			
£pertonne			
Group 1 pure 99% & Litho	116-166*	-6.62%	▼ 19 Dec 18
Commercial pure cuttings	476-506*	-2%	▼ 19 Dec 18
Clean HE9 extrusions	136-186*	-5.85%	▼ 19 Dec 18
Loose old rolled cuttings	472-492*	0%	19 Dec 18
Baled old rolled	402-422*	0%	19 Dec 18
Commercial cast	372-412*	0%	19 Dec 18
Cast wheels	-23-2*	0%	19 Dec 18
Commercial turnings	587-617*	0%	19 Dec 18
Group 7 turnings	702-722*	0%	19 Dec 18
Titanium			
\$/Ib cif			
Turnings, unprocessed type 90/6/4 (O.5% Sn max)	0.90-1.00*	0%	19 Dec 18
Turnings, unprocessed 90/6/4 (over 0.5% max 2% Sn)	0.85-0.90*	0%	19 Dec 18
Copper scrap discount			
cents/lb			
cents/lb No 2 copper (birch/cliff) imported into China 94-96% cif China	28-36*	0%	26 Nov 18

STEELBENCHMARKER™ SCRAP PRICES



Friday 21 December 2018 | Number 9591.5



NON-FERROUS FOUNDRY INGOTS			
	Price	Change [†]	Assessed
Aluminium UK £/tonne			
MB free market			
LM24 pressure diecasting ingot	1,400-1,450*	0%	19 Dec 18
LM6/LM25 gravity diecasting ingot	1,690-1,770*	0%	19 Dec 18
NB: prices expressed delivered consume	r works, LM series as	s specified in BS1	1490
Aluminium Europe			
MB free market			
Duty paid delivered works pressure			
diecasting ingot price (DIN226/A380)	4 500 4 540*	0.040/	445 40
-€/tonne	1,500-1,540*	2.01%	▲ 14 Dec 18
Aluminum US \$/lb delivered Midwest			
A380.1 alloy	0.86-0.88*	-0.57%	▼ 17 Dec 18
AFFIMET €/tonne			
AS12	3,669	-2.65%	▼ 01 Dec 18
AS12 UN	2,435	-5.44%	▼ 01 Dec 18
AS9 U3	1,810	-7.18%	▼ 01 Dec 18
AS5 U3	2,160	-6.09%	▼ 01 Dec 18
Reflects generally larger traded lots			
VDM €/1000 kg delivered			
DIN 226	2,200-2,300	0.9%	▲ 19 Dec 18
DIN 231	2,280-2,380	0.87%	▲ 19 Dec 18
DIN 311	2,260-2,360	0.87%	▲ 19 Dec 18
Aluminium bronze £/tonne UK			
AB1 ex-works	5,120	0%	18 Dec 18
AB2 ex-works	5,170	0%	18 Dec 18
Source: C.F. Booth Ltd			
Brass UK £/tonne			
SCB3 ex-works	4,230	0%	18 Dec 18
High tensile HTB1 ex-works	4,530	0%	18 Dec 18
Source: C.F. Booth Ltd			
Gunmetal UK £/tonne			
LG2 85/5/5/5 ex-works	4,860	0%	18 Dec 18
LG4 87/7/3/3 ex-works	5,750	0%	18 Dec 18
G1 1.15 PB ex-works	6,370	0%	18 Dec 18
Source: C.F. Booth Ltd	0,010	0 70	10 000 10
Phosphor bronze UK £/tonne			
PB1 ex-works	6,920	0%	18 Dec 18
Source: C.F. Booth Ltd	0,020	0 /0	10 Dec 10
Phosphor copper £/tonne			
10% P ex-works	6 300	0%	18 Doo 10
15% P ex-works	6,300	0%	18 Dec 18 18 Dec 18
Source: C.F. Booth Ltd	0,000	U /0	10 Dec 10
Zinc alloys UK £/tonne	and IIIV		
Brock Metal Co contract alloy price (delive	•	E 450/	A 04 D 10
Brock Metal ZL3	2,688		▲ 01 Dec 18
Brock Metal ZL5	2,717	5.47%	▲ 01 Dec 18





Monthly averages: November

BASE METALS			
		Low	High
Aluminium			
Aluminium P1020A, in-warehouse Rotte	rdam		
premium, duty unpaid, spot \$/tonne		70.91	78.64
Aluminium P1020A, in-warehouse Rotte duty paid, spot \$/tonne	rdam	125.56	137.78
Alumina		120.00	101.10
Index fob Australia		418.79	
Copper			
US High-grade cathode premium			
indicator, \$/tonne		154.32	165.35
Nickel			
Free market in warehouse premium			
Europe \$/tonne U	ncut cathodes	210	260
	x4 cathodes	470	520
В	riquettes	242.5	272.5
Tin			
European free market			
Spot Premium 99.9%, \$/tonne		372.5	440
Spot premium 99.85%, \$/tonne		275	300
Kuala Lumpur (ex-smelter), \$/tonne		19,109.5	
MINOR METALS			
Antimony			
MB free marketRegulus 99.65%,			
max Se 50ppm, in warehouse,\$/tonne		8,061.11	8,266.67
MMTA Standard grade II, \$/tonne		8,000	8,205.56
Bismuth			
MB free market min. 99.99%, tonne lots,		0.50	4.04
in warehouse, \$/lb		3.58	4.01
Cadmium			
MB free market		120	125
min 99.95%, in warehouse, cents/lb min 99.99%, in warehouse cents/lb		125	135 140
·		123	140
Cobalt MB free market			
High Grade, in warehouse, \$/lb		33.09	33.97
Low Grade, in warehouse, \$/lb		33.13	33.93
Germanium Dioxide		00.10	00.00
MB free market min 99.99%, \$/kg		950	1,150
Rotterdam, \$/kg		1,300	1,450
Indium		.,000	.,100
MB free market ingots, min 99.97%,			
n warehouse, \$/kg		231.11	260
Magnesium			
MB free market min 99.8%, \$/tonne		2,686	2,750
		2,684	2,712
China free market min 99.8%, \$/tonne			
China free market min 99.8%, \$/tonne Mercury			

		Low	High
Selenium			
MB free market min 99.5%		42.04	45
in warehouse, \$/lb		13.94	15
Silicon			
Grade 441, min 99% Si in-warehous Rotterdam, €/tonne	e	1,840	1,920
Titanium		1,010	1,020
Ferro-Titanium, 70% (max 4.5% Al),			
d/d Europe, \$/kg		4.65	5.11
ORES & ALLOYS			
		Low	High
Molybdenum			
Free market in warehouse Europe			
drummed molybdic oxide \$/lb Mo		11.88	12.06
US canned molybdic oxide \$/lb Mo		11.93	12.10
Ferro-molybdenum			
basis 65% min, in-warehouse		00.40	20.00
Rotterdam, \$/kg Mo		28.49	28.88
Tungsten		075	005
European free market APT, \$/mtu		275	295
Ferro-tungsten		00.04	20.52
basis 75% W min, \$/kg		32.94	33.59
Vanadium			
min 98%, in-warehouse Rotterdam, V2O5, \$/lb		28.10	28.74
Ferro-vanadium		20.10	20.14
basis 78% min, free delivery duty			
paid consumer plant, 1st grade Wes	tern		
Europe, \$/kg V		122.08	125.22
US Free market 70-80%, \$/lb		54.5	56
PRECIOUS METALS			
Gold			
London \$/troy oz	Morning	1,221.28	
London \$/troy oz	Morning Afternoon	1,221.28	
London \$/troy oz London £/troy oz			
·	Afternoon	1,220.95	
·	Afternoon Morning	1,220.95 947.10	
London £/troy oz	Afternoon Morning Afternoon	1,220.95 947.10 946.37	
London £/troy oz \$/troy oz	Afternoon Morning Afternoon	1,220.95 947.10 946.37	
London £/troy oz \$/troy oz Palladium	Afternoon Morning Afternoon	1,220.95 947.10 946.37 1,220.65	
London £/troy oz \$/troy oz Palladium Morning \$/troy oz	Afternoon Morning Afternoon	1,220.95 947.10 946.37 1,220.65	
London £/troy oz \$/troy oz Palladium Morning \$/troy oz Afternoon \$/troy oz	Afternoon Morning Afternoon	1,220.95 947.10 946.37 1,220.65	
London £/troy oz \$/troy oz Palladium Morning \$/troy oz Afternoon \$/troy oz Platinum: per troy oz	Afternoon Morning Afternoon	1,220.95 947.10 946.37 1,220.65 1,137.41 1,141.20	
London £/troy oz \$/troy oz Palladium Morning \$/troy oz Afternoon \$/troy oz Platinum: per troy oz Morning \$/troy oz	Afternoon Morning Afternoon	1,220.95 947.10 946.37 1,220.65 1,137.41 1,141.20	
London £/troy oz \$/troy oz Palladium Morning \$/troy oz Afternoon \$/troy oz Morning \$/troy oz Afternoon \$/troy oz Rhodium European free market min 99.9%	Afternoon Morning Afternoon	1,220.95 947.10 946.37 1,220.65 1,137.41 1,141.20 847.18 846.14	
London £/troy oz \$/troy oz Palladium Morning \$/troy oz Afternoon \$/troy oz Platinum: per troy oz Morning \$/troy oz Afternoon \$/troy oz Rhodium European free market min 99.9% in-warehouse, \$/troy oz	Afternoon Morning Afternoon	1,220.95 947.10 946.37 1,220.65 1,137.41 1,141.20	2,554.09
London £/troy oz \$/troy oz Palladium Morning \$/troy oz Afternoon \$/troy oz Platinum: per troy oz Morning \$/troy oz Afternoon \$/troy oz Rhodium European free market min 99.9% in-warehouse, \$/troy oz Silver	Afternoon Morning Afternoon	1,220.95 947.10 946.37 1,220.65 1,137.41 1,141.20 847.18 846.14	2,554.09
London £/troy oz \$/troy oz Palladium Morning \$/troy oz Afternoon \$/troy oz Platinum: per troy oz Morning \$/troy oz Afternoon \$/troy oz Rhodium European free market min 99.9% in-warehouse, \$/troy oz Silver London	Afternoon Morning Afternoon	1,220.95 947.10 946.37 1,220.65 1,137.41 1,141.20 847.18 846.14	2,554.09
London £/troy oz \$/troy oz Palladium Morning \$/troy oz Afternoon \$/troy oz Platinum: per troy oz Morning \$/troy oz Afternoon \$/troy oz European free market min 99.9% in-warehouse, \$/troy oz Silver London spot pence/troy oz	Afternoon Morning Afternoon	1,220.95 947.10 946.37 1,220.65 1,137.41 1,141.20 847.18 846.14 2,454.09	2,554.09
London £/troy oz \$/troy oz Palladium Morning \$/troy oz Afternoon \$/troy oz Platinum: per troy oz Morning \$/troy oz Afternoon \$/troy oz Afternoon \$/troy oz Rhodium European free market min 99.9% in-warehouse, \$/troy oz Silver London spot pence/troy oz spot cents/troy oz	Afternoon Morning Afternoon	1,220.95 947.10 946.37 1,220.65 1,137.41 1,141.20 847.18 846.14 2,454.09	2,554.09
London £/troy oz \$/troy oz Palladium Morning \$/troy oz Afternoon \$/troy oz Platinum: per troy oz Morning \$/troy oz Afternoon \$/troy oz European free market min 99.9% in-warehouse, \$/troy oz Silver London spot pence/troy oz	Afternoon Morning Afternoon	1,220.95 947.10 946.37 1,220.65 1,137.41 1,141.20 847.18 846.14 2,454.09	2,554.09
London £/troy oz \$/troy oz Palladium Morning \$/troy oz Afternoon \$/troy oz Platinum: per troy oz Morning \$/troy oz Afternoon \$/troy oz Afternoon \$/troy oz Rhodium European free market min 99.9% in-warehouse, \$/troy oz Silver London spot pence/troy oz spot cents/troy oz	Afternoon Morning Afternoon	1,220.95 947.10 946.37 1,220.65 1,137.41 1,141.20 847.18 846.14 2,454.09	2,554.09
London £/troy oz \$/troy oz Palladium Morning \$/troy oz Afternoon \$/troy oz Platinum: per troy oz Morning \$/troy oz Afternoon \$/troy oz Afternoon \$/troy oz Rhodium European free market min 99.9% in-warehouse, \$/troy oz Silver London spot pence/troy oz spot cents/troy oz	Afternoon Morning Afternoon	1,220.95 947.10 946.37 1,220.65 1,137.41 1,141.20 847.18 846.14 2,454.09	2,554.09
London £/troy oz \$/troy oz Palladium Morning \$/troy oz Afternoon \$/troy oz Platinum: per troy oz Morning \$/troy oz Afternoon \$/troy oz Afternoon \$/troy oz Rhodium European free market min 99.9% in-warehouse, \$/troy oz Silver London spot pence/troy oz spot cents/troy oz	Afternoon Morning Afternoon	1,220.95 947.10 946.37 1,220.65 1,137.41 1,141.20 847.18 846.14 2,454.09	2,554.09
London £/troy oz \$/troy oz Palladium Morning \$/troy oz Afternoon \$/troy oz Platinum: per troy oz Morning \$/troy oz Afternoon \$/troy oz Afternoon \$/troy oz Rhodium European free market min 99.9% in-warehouse, \$/troy oz Silver London spot pence/troy oz spot cents/troy oz	Afternoon Morning Afternoon	1,220.95 947.10 946.37 1,220.65 1,137.41 1,141.20 847.18 846.14 2,454.09	2,554.09
London £/troy oz \$/troy oz Palladium Morning \$/troy oz Afternoon \$/troy oz Platinum: per troy oz Morning \$/troy oz Afternoon \$/troy oz Afternoon \$/troy oz Rhodium European free market min 99.9% in-warehouse, \$/troy oz Silver London spot pence/troy oz spot cents/troy oz	Afternoon Morning Afternoon	1,220.95 947.10 946.37 1,220.65 1,137.41 1,141.20 847.18 846.14 2,454.09	2,554.09
London £/troy oz \$/troy oz Palladium Morning \$/troy oz Afternoon \$/troy oz Platinum: per troy oz Morning \$/troy oz Afternoon \$/troy oz Rhodium European free market min 99.9% in-warehouse, \$/troy oz Silver London spot pence/troy oz spot cents/troy oz	Afternoon Morning Afternoon	1,220.95 947.10 946.37 1,220.65 1,137.41 1,141.20 847.18 846.14 2,454.09	2,554.09





	Low	High
Aluminium		
LM24, £/tonne	1,410	1,465
LM6/LM25, £/tonne	1,718.75	1,782.5
Aluminium Europe €/tonne	1,432	1,490
Phosphor Bronze		
PB1 ex-works, £/tonne	6,865	
Zinc Alloy		
ZL3, £/tonne	2,549	
EXCHANGE RATES (CLOSING RATES)		
\$/£	1.29	
\$/yen	113.33	
\$/€	1.14	
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Fastmarkets MR monthly average prices are calcula	atod on those price quotati	one formulated during

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

settlement and 3 months sellers.			
	Jan-Nov 2018		November
	Low	High	average
	\$	\$	\$
Aluminium (\$)			
Cash	1,912	2,600	1,937.23
3 months	1,923.75	2,586.5	1,949.68
Settlement	1,912.5	2,602.5	1,937.75
3 months seller	1,924	2,587	1,950.02
Copper Grade A (\$)			
Cash	5,822.5	7,262	6,192.39
3 months	5,848.5	7,267	6,169.02
Settlement	5,823	7,262.5	6,193
3 months seller	5,849	7,268	6,169.80
Copper Grade A (£)			
Settlement	4,465.44	5,421.80	4,801.54
3 months seller	4,463.76	5,402.51	4,760.45
Lead (\$)			
Cash	1,866.75	2,682.75	1,939.65
3 months	1,886.5	2,655.5	1,962.55
Settlement	1,867	2,683	1,940.16
3 months seller	1,887	2,656	1,963.23
Lead (£)			
Settlement	1,442.71	1,928.42	1,504.22
3 months seller	1,435.34	1,915.31	1,514.75
Nickel (\$)			
Cash	10,705	15,747.5	11,249.20
3 months	10,755	15,785	11,325.23
Settlement	10,710	15,750	11,253.41
3 months seller	10,760	15,790	11,330.23
Tin (\$)			
Cash	18,412.5	22,102.5	19,130
3 months	18,375	21,907.5	19,108.75
Settlement	18,425	22,105	19,139.32
3 months seller	18,400	21,910	19,122.95

	Jan-Nov 2018 Low	High	November average
	\$	\$	\$
Zinc (\$)			
Cash	2,286	3,617.5	2,592.28
3 months	2,310.5	3,585.5	2,518.67
Settlement	2,287	3,618	2,592.86
3 months seller	2,311	3,586	2,519.14
Cobalt (\$)			
Cash	44,750	95,250	53,011.36
3 months	45,250	95,250	53,568.18
Settlement	45,000	95,500	53,261.36
3 months seller	45,500	95,500	53,840.91
Molybdenum (\$)			
Cash	15,750	25,000	25,000
3 months	15,750	25,000	25,000
Settlement	16,000	26,000	26,000
3 months seller	16,000	26,000	26,000
Aluminium Alloy (\$)			
Cash	1,260	2,015	1,350.61
3 months	1,335	2,020	1,384.93
Settlement	1,265	2,020	1,355.32
3 months seller	1,340	2,025	1,392.36
Nasaa (\$)			
Cash	1,319.5	2,026.5	1,385.07
3 months	1,355	2,060	1,391.16
Settlement	1,320	2,027	1,388.59
3 months seller	1,360	2,065	1,395.27

LME SETTLEMENT CONVERSION RATES	
\$/£	1.29
\$/yen	113.31
\$/€	1.14