

## NEWS AND ANALYSIS

### China's W market falls on weaker demand

China's tungsten market has been facing downward pressure since early February because of weaker downstream demand both from the domestic and global market.

Domestic downstream demand for tungsten from the cemented carbide industry, the largest consumer of tungsten, has been flat since early this year, with carbide producers receiving limited fresh orders from the cemented carbide industry over the past month.

Downstream buyers this month were operating from stocks and trying to press down target prices to boost their profit margins, which have become thinner because of firmer feedstock costs driven by reduced high-grade resources in the past two years, according to tungsten carbide producers.

Domestic downstream demand from the photovoltaic (PV) industry, a new demand growth sector in the past few years, has also become weaker over the past year because of slower growth in the PV industry where over-capacity, thin profit margins and less policy support slowed its rapid growth seen in 2022-2023.

Most tungsten wire producers are maintaining operating rates at around 50pc, and have reported a noticeable slump in orders. Demand for tungsten metal from the PV industry increased to 3,000-5,000 t/yr during 2022-2023 from very little in previous years, but has since fallen to about 50pc of this in the second half of 2024, according to industry estimates.

Beijing announced on 4 February that it will [extend export controls](#) on compounds of tungsten, including ammonium paratungstate (APT), oxide, carbide and tungsten

## MARKETS

Minor Metals	3-11
Base Metals	12-15
Ferro-alloys	16-20
Rare Earths	21-22

## NEWS AND ANALYSIS

DRC halts cobalt exports to curb oversupply	3
Shandong Doguide builds Ti dioxide plant	3
China's magnesium metal output rises in Jan	3
World refined Cu market in surplus in 2024: ICSG	15
Global zinc market in deficit in 2024: ILZSG	15
4Q imports of Russian FeTi up ahead of sanctions	16

## MARKETS

Key prices					
Market	Unit	Date	Low	High	±
Minor metals					
Antimony regulus trioxide grade min 99.65% Sb du Rotterdam	\$/t	20 Feb	50,000.00	52,000.00	nc
Gallium min 99.99% cif main airport	\$/kg	20 Feb	600.00	680.00	nc
Germanium min 99.999% fob China	\$/kg	20 Feb	2,600	2,700	nc
Hafnium min 99% max 0.5% Zr du Rotterdam	\$/kg	18 Feb	3,700.00	4,000.00	nc
Indium min 99.99% fob China	\$/kg	20 Feb	340.00	350.00	nc
Niobium ingot min 99.8% in-warehouse Rotterdam	\$/kg	3 Feb	90.00	95.00	nc
Rhenium APR min 69.4% Re (catalyst grade) dp Rotterdam (per kg Re)	\$/kg Re	18 Feb	1,600.00	1,800.00	nc
Silicon 5-5-3 min 98.5% Si fob China	\$/t	20 Feb	1,530	1,560	nc
Tantalite basis 25% Ta2O5 cif main port	\$/lb	20 Feb	88.00	92.00	+1.500
Titanium sponge TG-Tv 10x30mm du Rotterdam	\$/kg	20 Feb	4.80	5.40	nc
Titanium 6Al 4V ingot fob US producer	\$/lb	31 Jan	10.50	12.25	nc
Tungsten APT fob China (per mtu WO3)	\$/mtu WO3	20 Feb	335	340	nc
Battery metals					
Cobalt hydroxide min 30% cif China	\$/lb	20 Feb	5.60	5.80	-0.025
Cobalt min 99.8% alloy grade du Rotterdam	\$/lb	24 Feb	13.50	14.50	nc
Graphite flake 95% min ex-works China	Yn/t	18 Feb	2,800.00	3,000.00	nc
Lithium carbonate min 99.5% cif China	\$/kg	20 Feb	9.30	9.40	nc
Manganese sulphate min 32% Mn battery grade ex works China	Yn/t	18 Feb	5,900	6,100	nc
Nickel sulphate min 22% cif China	\$/t	20 Feb	3,170	3,220	nc
Rare Earths					
Dysprosium oxide min 99.5% fob China	\$/kg	24 Feb	235.00	240.00	nc
Neodymium metal min 99% fob China	\$/kg	24 Feb	77.50	78.00	0.5500
Praseodymium oxide 99.5-99.9% ex-works China	Yn/t	24 Feb	465,000	470,000	+5,000
Praseodymium-Neodymium oxide min 99% fob China	\$/t	24 Feb	62,000	62,500	+1,000
Terbium oxide min 99.99% ex-works China	Yn/kg	24 Feb	6,200	6,250	+50
Ferro-alloys					
Ferro-chrome HC min 65% Cr 6-8% C ddp NWE (per lb Cr)	\$/lb Cr	20 Feb	1.2500	1.5500	nc
Ferro-molybdenum 60% Mo fob China	\$/kg	24 Feb	51.8000	52.3000	nc
Ferro-titanium 70% Ti fob North America warehouse	\$/lb	20 Feb	2.85	3.10	nc
Base metals					
Aluminium P1020 US midwest premium	\$/lb	19 Feb	0.38	0.40	+0.055
Copper grade A cathode premium cif Shanghai	\$/t	20 Feb	45	65	nc
Nickel briquette min 99.8% in-warehouse Rotterdam	\$/t	20 Feb	100.00	300.00	nc

## NEWS AND ANALYSIS

alloys. No export permits have been reported up until now and tungsten export firms have stopped purchasing feedstock from the domestic market in February given export uncertainties.

"Most export firms were preparing for files required by the government for orders signed in January, and there have been few new orders signed since the control because we are not sure what will happen for tungsten exports next," an exporter told *Argus*. Other export firms expected export permits will be very slow to be issued.

China produced around 99,600t of metal equivalent of tungsten in 2024, with 19,000t or 19pc of the total exported, according to industry estimates.

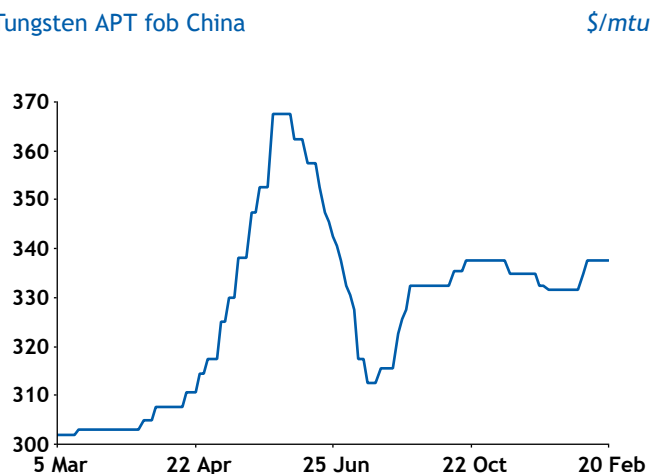
#### Lower term bids and offers

Leading primary material consumer Xiamen Tungsten on 24 February set its second-half February bidding price at Yn210,000/t, down by Yn2,000/t from the last round, and down by Yn2,500/t from a month earlier.

Fellow consumer Zhangyuan Tungsten set its second-half February bid price at Yn211,000/t for 88.5pc grade tungsten APT, down by Yn1,500/t from the first half of the month. It also lowered its bid price for 55pc grade tungsten concentrate to Yn141,500/t from Yn143,000/t during the same period.

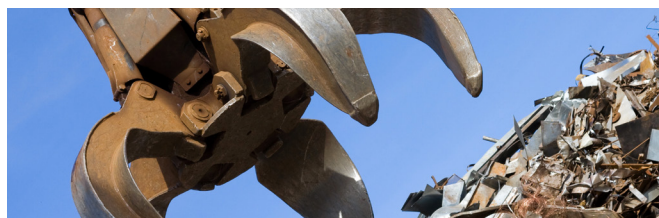
Primary material producer Jiangxi Tungsten cut its second-half February offer price for 65pc grade wolframite concentrate by Yn1,000/t to Yn143,500/t over the same period.

#### Tungsten APT fob China



Term commitments made up 60-70pc of total deals and played a key role in determining the market's trajectory over the past year. Spot suppliers typically adjust their prices in line with term bids and offers.

*Argus* last assessed prices for 88.5pc grade APT at Yn211,000-212,000/t ex-works on 20 February, down by Yn1,000/t from the assessment on 18 February. Prices are likely to fall further this week in view of lower term bids and spot offers in the market. Market participants are mostly committed to term contracts and are monitoring the price direction. But tight concentrate supply caused by depleting high-grade resources is expected to prevent prices from declining too much, according to some participants.



## Black Mass Calculator

Estimate the intrinsic scrap value of different battery chemistries

Reference 6 pre-defined battery chemistries:

- LCO
- NCA
- NCM111
- NCM523
- NCM622
- NCM811

or define your own

Add costs, discounts and surcharges as required

Add alloy

Select alloy or add elements ...

PREDEFINED

ELEMENTS

+ Aluminum Alloys

- Black Mass

LCO scrap

NCA scrap

NCM111 scrap

NCM523 scrap

NCM622 scrap

NCM811 scrap

+ Brass/Bronze



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## MINOR METALS: MARKET NEWS AND ANALYSIS

### DRC halts cobalt exports to curb oversupply

The Democratic Republic of Congo (DRC) will suspend cobalt exports for four months in an attempt to firm up prices during a period of oversupply, it announced today.

"The cobalt market requires the adoption of a temporary measure to suspend exports in order to deal with the overabundance of supply on the international market," mineral markets regulator Arecoms said.

The ban will last for "a period of four months" on all exports from the DRC resulting from mining, whether "industrial, semi-industrial, small-scale or small-scale, artisanal", it said.

Prices for cobalt have been steadily falling since 2022, while there has been a significant expansion in cobalt production in the country, particularly by China's CMOC, which has become one of the largest copper and cobalt producers in the world in recent years.

#### Participants see limited impact

"In my opinion it's not really a fix... the Congolese miners will continue to produce, there's no export ban on copper... it will force miners to stockpile the cobalt in the DRC and wait for the ban to be lifted," a trader told *Argus*.

And the country has in the past announced export bans that were not implemented or partially implemented, they said.

"It remains to be seen to what extent they will actually enforce this, they've already said copper export deliveries can continue. It's a tough one to enforce, let's put it that way."

Other market participants warned of the impact that sudden decisions have on the reputation of the world's largest cobalt producing country.

"As usual, it's terribly delivered to the market and reminds everyone how much of a risk cobalt from the DRC is," another trader said.

They added that concentration of supply has been negative for the international market and affected investment in alternative sources of the material.

"This is bad for Chinese-owned mines in the DRC, but good for the overall health of the international cobalt market," the trader told *Argus*. "If this is the beginning of a 12-month export ban, then it's a huge thing."

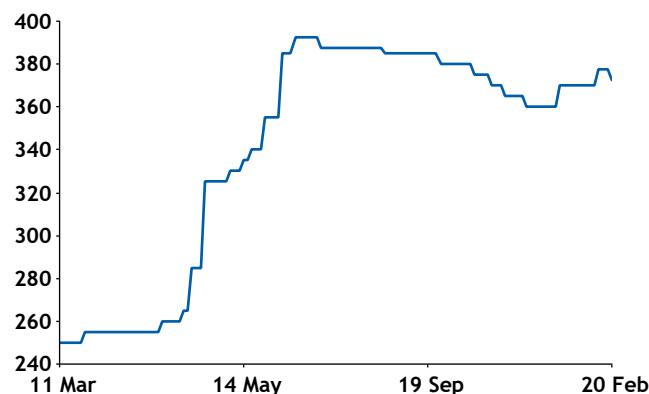
By Chris Welch and Thomas Kavanagh

### Shandong Doguide builds Ti dioxide plant

Major Chinese titanium dioxide producer Shandong Doguide on 15 February started constructing a titanium dioxide production plant in Bachu county in northwest China's Xinjiang region.

Indium min 99.99pc du Rotterdam

\$/kg



Doguide will invest 6bn yuan (\$824mn) to build the plant with a designed capacity of 300,000 t/yr. More details including the construction schedules and launch dates were undisclosed.

The company has suspended exports of dioxide to European buyers since July 2024, as the European Commission announced preliminary anti-dumping duties on imports from China on 13 July. China exported 1.9mn t of dioxide in 2024, accounting for 40pc of its total output, industry data show.

China is the world's largest dioxide producer, and its capacity reached about 6.35mn t/yr in 2024 after an addition of 70,000 t/yr in 2023.

The country produced 4.766mn t of dioxide in 2024, up by 15pc from 2023. Around 4.051mn t was produced from rutile, accounting for 85pc of the total, while 560,000t was produced from anatase, accounting for 12pc, according to data from China's National Chemical Industry Productivity Center's titanium dioxide branch.

China's dioxide market has remained firm, as some dioxide producers have raised their offers owing to higher concentrate feedstock costs and limited dioxide supplies. *Argus* last assessed the range for 93pc min rutile grade dioxide stable from 18 February at Yn14,200-15,000/t ex-works China on 20 February, with export prices assessed at \$2,000-2,100/t fob China for the same grade.

### China's magnesium metal output rises in Jan

China's magnesium output increased in January, because of equipment upgrades and recovery from shutdowns in May-October 2023 owing to the phasing-out of in-house semi-coke furnaces.

The country's output rose to 87,000t in January, up by 13pc from 76,800t a year earlier, data from the magnesium

## MINOR METALS: MARKET NEWS AND ANALYSIS

association of the China Nonferrous Metals Industry Association (CNMA) show.

Shaanxi and Shanxi have remained the largest production hubs in China. Output in Shaanxi totalled 54,000t in January, up by 16pc on the year. Output in the neighbouring Shanxi picked up by 3.9pc on the year to 18,600t.

Around 15-16 magnesium metal producers in Fugu shut their in-house semi-coke furnaces with capacities below 75,000 t/yr in May-October 2023. Producers began to resume output at the end of 2023 after upgrading their furnaces or building new capacities.

Demand from the downstream alloy and powder industries remained weak in 2024, caused by a slowdown in the domestic steel and real estate sectors.

Higher output and tepid demand weighed on magnesium metal prices. Argus-assessed average prices moved down by 100 yuan/t (\$13.69/t) from the previous assessment on 21 February to Yn15,700-16,200/t ex-works on 24 February, the lowest since 16 April 2021, when prices stood at Yn15,600-16,000/t.

### China's InP export controls to delay 1Q sales: AXT

Compound semiconductor materials manufacturer AXT expects Chinese export controls on indium phosphide (InP) introduced earlier this month to reduce its first-quarter revenue by \$4mn-5mn in delayed sales.

The company expects its first-quarter revenue to total between \$18m and \$20mn, taking into account growth in its gallium arsenide (GaAs) substrate business offset by the impact of the InP trade restrictions and a decrease in raw material revenue.

In 2024, around 40pc of AXT's InP revenue came from China and 60pc from the rest of the world.

The company's fourth-quarter InP revenue totalled \$9.1mn, up from \$5.4mn a year earlier, reflecting continued demand from data centre applications including artificial intelligence (AI) as well as passive optical networks (PONs).

AXT is working with its customers outside China to prepare applications on their behalf and expects to submit its first application in early March. Based on its experience with the previously introduced controls on GaAs exports, it typically takes 40-45 business days to receive a response. Repeat applications are often processed faster, AXT chief executive Morris Young said. The company does not believe any of its InP sales go to military applications, as its customers are predominantly in data communication, which should allow it to resume sales once it receives the permits.

InP is not easily substitutable, and sales could rebound

during the second and third quarters. "Our recovery for indium phosphide is probably going to be better than our recovery from gallium arsenide would have been," Young said.

InP demand from the communication sector is rising as the industry is beginning its transition to lasers with speeds of 100 gigabits/second (Gb/s) to 100 Gb/s and higher. This is opening up new opportunities for GaAs as well as high-speed InP-based photo detectors in optical interconnects, which AXT expects to continue growing in 2025.

AXT intends to move into the low-orbit satellite market for germanium substrates in China when germanium prices move back down to a level that supports profitability, Young said. Prices for germanium metal have soared to around \$3,500/kg cif Europe from as low as \$1,600/kg a year ago, and the metal is a major component of the cost of goods sold.

AXT produces gallium, arsenic, indium, germanium and quartz for its internal use and sells excess output on the open market. It is working to expand this business in 2025.  
*By Nicole Willing*

### BMW delays Mini BEV production in UK

German carmaker BMW Group – which includes the Mini brand – has delayed the start of its Mini BEV (battery electric vehicle) production at its facility in Oxford, the UK, because of uncertainty within the industry, it said today.

Production of two Mini BEV models at the Oxford plant was planned to start in 2026 and by 2030 the site would produce electric vehicles (EVs) exclusively. But BMW will now postpone progress of the £600mn project "given the multiple uncertainties facing the automotive industry", it told Argus.

And BMW will not take a planned grant from the UK government towards the plant, but the two will "remain in close dialogue about [its] future plans".

The government started a consultation last month on phasing out the sale of new petrol and diesel cars from 2030. The previous government pushed back the deadlines, causing some hesitation on further EV investments in the industry.

Recent demand for EVs in Europe has been mixed, with **41pc year-on-year sales growth** in the UK last month, but demand in Germany was **27pc down last year**.

And where sales have grown, buyers have increasingly looked to more affordable Chinese brands as Europe's legacy carmakers have **struggled to compete**.

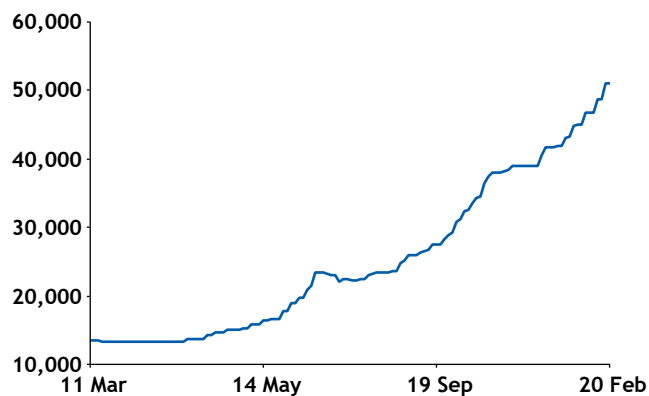
*By Ellanee Kruck*

## Battery metals price assessments

	Unit	24 Feb		± Date	±
		Low	High		
Antimony					
Ingot min 99.65% ex-works China (20 Feb)	Yn/t	144,000	146,000	18 Feb	nc
Ingot min 99.65% fob China (20 Feb)	\$/t	32,900	34,200	18 Feb	nc
Min 99.85% ex-works China (20 Feb)	Yn/t	145,000	148,000	18 Feb	nc
Regulus grade II min 99.65% Sb du Rotterdam (20 Feb)	\$/t	50,000	52,000	18 Feb	nc
Regulus Trioxide grade min 99.65% Sb du Rotterdam (20 Feb)	\$/t	50,000	52,000	18 Feb	nc
Trioxide min 99.5% ex-works China (20 Feb)	Yn/t	121,000	123,000	18 Feb	nc
Trioxide min 99.5% fob China (20 Feb)	\$/t	22,200	26,000	18 Feb	nc
Trioxide min 99.8% ex-works China (20 Feb)	Yn/t	127,000	130,000	18 Feb	nc
Trioxide min 99.8% fob China (20 Feb)	\$/t	22,400	27,000	18 Feb	nc
Concentrate 50% min del China consumer (20 Feb)	Yn/t	122,000	124,000	18 Feb	nc
Cadmium					
Min 99.99% du Rotterdam (20 Feb)	\$/lb	2.00	2.10	18 Feb	nc
Min 99.99% ex-works China (18 Feb)	Yn/t	34,800	35,100	11 Feb	nc
Min 99.99% cif India (20 Feb)	Rs/kg	440.00	450.00	18 Feb	nc
Min 99.95% du Rotterdam (20 Feb)	\$/lb	1.90	2.00	18 Feb	nc
Min 99.95% cif India (20 Feb)	Rs/kg	440.00	450.00	18 Feb	nc
Oxide min 99.5% ex-works China (18 Feb)	Yn/t	35,300	35,600	11 Feb	nc
Cobalt					
(Electrolytic metal) min 99.8% ex-works China (20 Feb)	Yn/kg	150	175	18 Feb	nc
Chloride min 24% ex-works China (20 Feb)	Yn/t	32,000	33,000	18 Feb	nc
Cobalt min 99.8% alloy grade du Rotterdam	\$/lb	13.50	14.50	21 Feb	nc
Cobalt min 99.8% chemical grade du Rotterdam	\$/lb	11.00	12.00	21 Feb	nc
Cobalt hydroxide min 30% cif China (20 Feb)	\$/lb	5.60	5.80	18 Feb	-0.03
Oxide 72% ex-works China (20 Feb)	Yn/kg	102	107	18 Feb	-1
Powder min 99.8% ex-works China (20 Feb)	Yn/kg	159	165	18 Feb	-1
Cobalt sulphate min 20.5% ex-works China (20 Feb)	Yn/t	26,000	27,000	18 Feb	nc
Sulphate min 20.5% ex-works China excl. VAT USD/lb (20 Feb)	\$/lb	1.43	1.49	18 Feb	-0.01
Tetroxide min 73% ex-works China (20 Feb)	Yn/kg	106	110	18 Feb	-1.0
Graphite					
Flake 94% carbon ex-works China (18 Feb)	Yn/t	2,500	2,600	11 Feb	nc
Graphite Flake 94% carbon fob China (18 Feb)	\$/t	430	470	11 Feb	nc
Lithium					
Carbonate min 99.5% ex-works China	Yn/t	75,500	76,500	21 Feb	-175
Carbonate min 99.5% ex-works China excl. VAT USD/kg	\$/kg	9.21	9.33	21 Feb	-0.02
Lithium carbonate min 99.5% cif China (20 Feb)	\$/kg	9.30	9.40	18 Feb	nc
Cobalt oxide min 60% Co ex-works China (20 Feb)	Yn/kg	132	146	18 Feb	-1
Hydroxide min 56.5% ex-works China	Yn/t	68,500	78,500	21 Feb	nc
Hydroxide min 56.5% ex-works China excl. VAT USD/kg	\$/kg	8.36	9.58	21 Feb	+0.01
Lithium hydroxide min 56.5% fob China (20 Feb)	\$/kg	10.20	10.60	18 Feb	-0.05
Manganese					
Manganese sulphate min 32% Mn battery grade ex works China (18 Feb)	Yn/t	5,900	6,100	11 Feb	nc
Dioxide min 91% carbon battery grade ex works China (18 Feb)	Yn/t	15,600	16,100	11 Feb	nc
Dioxide min 91% alkaline battery grade ex works China (18 Feb)	Yn/t	16,500	17,000	11 Feb	nc
Dioxide min 91% carbon battery grade ex works China excl. VAT USD/t (18 Feb)	\$/t	1,901	1,962	11 Feb	+11
Dioxide min 91% alkaline battery grade ex works China excl. VAT USD/t (18 Feb)	\$/t	2,010	2,071	11 Feb	+12

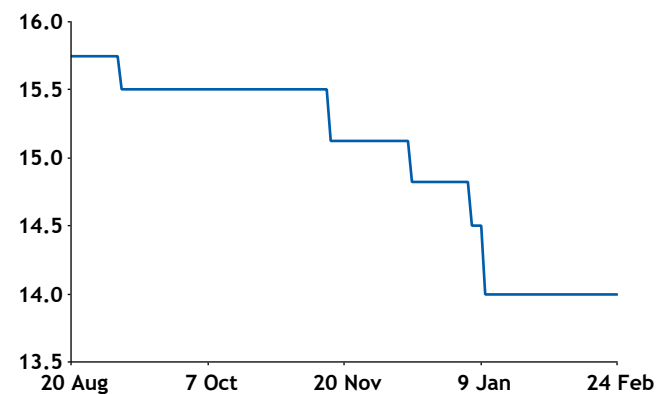
Antimony Regulus Grade II

\$/kg



Cobalt min 99.8% Alloy Grade du Rotterdam

\$/lb





Electronic metals price assessments					
	Unit	24 Feb		± Date	±
		Low	High		
Bismuth					
Min 99.99% du Rotterdam (20 Feb)	\$/lb	12.00	15.00	18 Feb	+3.25
Min 99.99% ex-works China (20 Feb)	Yn/t	86,000	88,000	18 Feb	nc
Min 99.99% fob China (20 Feb)	\$/lb	5.38	5.51	18 Feb	nc
Gallium					
Min 99.9999% ex-works China (18 Feb)	Yn/kg	1,950	2,000	11 Feb	-50
Min 99.9999% fob China (18 Feb)	\$/kg	350	360	11 Feb	-5
Min 99.99% ex-works China (20 Feb)	Yn/kg	1,725	1,825	18 Feb	nc
Min 99.99% fob China (20 Feb)	\$/kg	330	355	18 Feb	nc
Min 99.99% cif Main Airport (20 Feb)	\$/kg	600	680	18 Feb	nc
Germanium					
Dioxide min 99.999% ex-works China (20 Feb)	Yn/kg	11,700	11,900	18 Feb	nc
Dioxide min 99.999% fob China (20 Feb)	\$/kg	1,710	1,760	18 Feb	nc
Dioxide min 99.999% cif main airport Europe (20 Feb)	\$/kg	2,200	2,300	18 Feb	nc
Metal (zone refined ingot) min 99.999% ex-works China (20 Feb)	Yn/kg	16,000	17,000	18 Feb	nc
Metal min 99.999% cif main airport Europe (20 Feb)	\$/kg	3,000	3,400	18 Feb	nc
Min 99.999% fob China (20 Feb)	\$/kg	2,600	2,700	18 Feb	nc
Indium					
Min 99.99% du Rotterdam (20 Feb)	\$/kg	355	390	18 Feb	-5
Min 99.99% ex-works China (20 Feb)	Yn/kg	2,500	2,600	18 Feb	nc
Indium min 99.99% fob China (20 Feb)	\$/kg	340	350	18 Feb	nc
Min 99% ex-works China (20 Feb)	Yn/kg	2,450	2,550	18 Feb	nc
Selenium					
Dioxide min 98% del China consumer (20 Feb)	Yn/kg	105.00	115.00	18 Feb	nc
Min 99.5% du Rotterdam (20 Feb)	\$/lb	12.00	15.00	18 Feb	-0.25
Powder min 99.9% del China consumer (20 Feb)	Yn/kg	180.00	205.00	18 Feb	nc
Tantalum					
Pentoxide min 99.5% ex-works China (18 Feb)	Yn/kg	1,600	1,630	11 Feb	+25
Tantalite basis 25% Ta <sub>2</sub> O <sub>5</sub> cif main port (20 Feb)	\$/lb	88.00	92.00	18 Feb	+1.50
Min 99.8% du Rotterdam (20 Feb)	\$/kg	295	305	18 Feb	nc
Tellurium					
99.99% ex-works China (18 Feb)	Yn/kg	680	695	11 Feb	nc
Min 99.99% du Rotterdam (20 Feb)	\$/kg	100.00	140.00	18 Feb	+27.50
Zirconium					
Carbonate 40% Zr (Hf)O <sub>2</sub> 0.2% Cl ex-works China (18 Feb)	Yn/t	20,000	20,500	11 Feb	nc
Carbonate 40% Zr (Hf)O <sub>2</sub> 0.2% Cl fob China (18 Feb)	\$/t	2,790	2,860	11 Feb	nc
Carbonate 40% Zr (Hf)O <sub>2</sub> 0.005% Cl ex-works China (18 Feb)	Yn/t	21,000	21,500	11 Feb	nc
Carbonate 40% Zr (Hf)O <sub>2</sub> 0.005% Cl fob China (18 Feb)	\$/t	2,940	3,010	11 Feb	nc
Fused zirconia 98.5% ZrO ex-works China (18 Feb)	Yn/t	32,500	33,000	11 Feb	nc
Oxychloride 36% Zr(Hf)O <sub>2</sub> ex-works China (18 Feb)	Yn/t	14,000	14,500	11 Feb	nc
Oxychloride 36% Zr(Hf)O <sub>2</sub> fob China (18 Feb)	\$/t	1,970	2,100	11 Feb	nc
Silicate 65% Zr(Hf)O <sub>2</sub> ex-works China (18 Feb)	Yn/t	15,000	15,500	11 Feb	nc
Sponge 99.4% Zr+Hf ex-works China (18 Feb)	Yn/kg	165.00	175.00	11 Feb	nc

High-temperature metals price assessments					
	Unit	24 Feb		± Date	±
		Low	High		
Chromium					
(alumino-thermic) min 99% dp Rotterdam (20 Feb)	\$/t	9,200	11,400	18 Feb	nc
(aluminothermic) min 99% Cr fob China (20 Feb)	\$/t	8,250	9,700	18 Feb	+25
(aluminothermic) min 99% Cr ex-works China (20 Feb)	Yn/t	60,500	68,000	18 Feb	+250
Hafnium					
Min 99% max 0.5% Zr du Rotterdam (18 Feb)	\$/kg	3,700	4,000	11 Feb	nc
Crystal bar Hf+Zr min 99.95% ex-works China (20 Feb)	Yn/kg	16,500	17,000	13 Feb	nc
Crystal bar Hf+Zr min 99.95% fob China (20 Feb)	\$/kg	2,600	2,650	13 Feb	nc
Ingot Hf+Zr min 99.95% ex-works China (20 Feb)	Yn/kg	18,500	19,000	13 Feb	nc
Ingot Hf+Zr min 99.95% fob China (20 Feb)	\$/kg	2,900	2,950	13 Feb	nc
Molybdenum					
Ingot min 99.8% in-warehouse Rotterdam (18 Feb)	\$/kg	62.00	64.00	11 Feb	nc
Concentrates Mo 45% ex-works China	Yn/mtu	3,520	3,550	21 Feb	-10
Roasted concentrates (oxide) min 57% ex-works China	Yn/mtu	3,620	3,650	21 Feb	-10.00
Oxide min 57% Mo in-warehouse Busan	\$/lb	21	21	21 Feb	+0.10
Oxide min 57% Mo du Rotterdam (20 Feb)	\$/lb Mo	20.65	20.85	18 Feb	+0.10
Oxide min 57% Mo duty paid India (20 Feb)	Rs/kg Mo	2,400	2,430	18 Feb	+3
Niobium					
Ingot min 99.8% in-warehouse Rotterdam (03 Feb)	\$/kg	90.00	95.00	2 Jan	nc
Pentoxide min 99.5% ex-works China (18 Feb)	Yn/kg	375	385	11 Feb	nc
(columbite) concentrate min 50% Nb <sub>2</sub> O <sub>5</sub> cif main port (20 Feb)	\$/lb	19.00	20.00	18 Feb	nc
Rhenium					
APR min 69.2% Re (basic grade) du Rotterdam (18 Feb)	\$/kg Re	900	950	11 Feb	nc
APR min 69.4% Re (catalyst grade) dp Rotterdam (18 Feb)	\$/kg Re	1,600	1,800	11 Feb	nc
APR min 69.4% Re ex-works China (18 Feb)	Yn/kg	7,500	10,000	11 Feb	nc
Pellets min 99.9% Re dp Rotterdam (18 Feb)	\$/lb	850	950	11 Feb	nc
Tungsten					
APT du Rotterdam (20 Feb)	\$/mtu WO <sub>3</sub>	345	350	18 Feb	nc
Tungsten APT fob China (20 Feb)	\$/mtu WO <sub>3</sub>	335	340	18 Feb	nc
APT min 88.5% ex-works China (20 Feb)	Yn/t	211,000	212,000	18 Feb	-1,000
Carbide min 99.7% ex-works China (20 Feb)	Yn/kg	311	313	18 Feb	nc
Carbide powder (3-4micron) fob China (20 Feb)	\$/kg	43.50	44.50	18 Feb	nc
Ingot min 99.9% in-warehouse Rotterdam (18 Feb)	\$/kg	48.00	52.00	11 Feb	nc
Oxide (Yellow/Blue oxide) fob China (20 Feb)	\$/t	34,000	34,500	18 Feb	nc
Oxide min 99.95% ex-works China (20 Feb)	Yn/t	244,500	245,500	18 Feb	nc
Concentrates 55% min ex-works China (20 Feb)	Yn/t	142,000	143,500	18 Feb	-250
Concentrates min 65% ex-works China (20 Feb)	Yn/t	143,000	144,000	18 Feb	-1,000
Concentrates min 65% in-warehouse Rotterdam (20 Feb)	\$/dmtu	270	275	18 Feb	+2
Vanadium					
Pentoxide fused flake min 98% du Rotterdam (18 Feb)	\$/lb V <sub>2</sub> O <sub>5</sub>	5.10	5.30	11 Feb	nc
Pentoxide 98% V <sub>2</sub> O <sub>5</sub> fob China	\$/lb	4.90	5.10	21 Feb	nc
Pentoxide 98% V <sub>2</sub> O <sub>5</sub> ex-works China	Yn/t	73,000	75,000	21 Feb	nc

Super alloys - scrap (del US processor)				\$/lb
	Timing	Low	High	±
Hastelloy C air melted	24 Feb	6.50	7.10	0.01
Hastelloy X air melted	24 Feb	3.78	3.97	0.00
Inconel 600 vacuum melted	24 Feb	4.25	4.32	0.01
Inconel 601 vacuum melted	24 Feb	3.52	3.72	0.01
Inconel 617 vacuum melted	24 Feb	4.70	5.16	0.00
Inconel 625 vacuum melted	24 Feb	6.68	7.06	0.01
Inconel 718 vacuum melted	24 Feb	6.15	6.39	0.01
Waspaloy vacuum melted	24 Feb	4.43	4.77	0.00

Super alloys - primary				\$/lb
	Timing	Assessment		±
Inconel 625 vacuum melted ex-works Europe	na	na		na
Inconel 625 vacuum melted del US processor	na	na		na
Inconel 718 vacuum melted ex-works Europe	na	na		na
Inconel 718 vacuum melted del US processor	na	na		na
7075 aluminium ex-works Europe	na	na		na
7075 aluminium del US processor	na	na		na

Mineral sands price assessments					
	Unit	18 Feb		± Date	±
		Low	High		
Rutile					
Rutile Hainan min 90% TiO <sub>2</sub> exworks China	Yn/t	6,500	6,800	11 Feb	nc
Rutile Australian min 95% TiO <sub>2</sub> exworks China	Yn/t	8,000	8,500	11 Feb	nc
Zircon sand					
Zircon sand Hainan min 65% O2 exworks China	Yn/t	11,500	11,700	11 Feb	+200
Zircon sand Australian min 66% O2 cif China	\$/t	1,930	1,950	11 Feb	nc
Monazite					
Monazite REO+ThO min 60pc exworks China	Yn/t	40,000	42,000	11 Feb	nc



Light metals price assessments					
	Unit	24 Feb		± Date	±
		Low	High		
Magnesium					
Alloy min 90% Mg AZ91 ex-works China	Yn/t	17,700	18,200	21 Feb	-100
Alloy min 90% Mg AZ91 fob China	\$/t	2,460	2,530	21 Feb	-10
Min 99.9% du Rotterdam (20 Feb)	\$/t	2,400	2,450	18 Feb	nc
Min 99.9% ex-works China	Yn/t	15,700	16,200	21 Feb	-100
Min 99.9% fob China	\$/t	2,190	2,260	21 Feb	-10
Powder 99.9% Mg 20-80 mesh ex-works China	Yn/t	17,200	17,700	21 Feb	-100
Powder 99.9% Mg 20-80 mesh fob China	\$/t	2,400	2,470	21 Feb	-10
Manganese					
Briquette min 97% Mn ex-works China	Yn/t	14,200	14,400	21 Feb	nc
Briquette 97% Mn fob China	\$/t	1,940	1,990	21 Feb	nc
Flake 99.7% Mn ex-works China	Yn/t	13,600	13,800	21 Feb	nc
Flake min 99.7% fob China	\$/t	1,900	1,950	21 Feb	nc
Flake min 99.7% du Rotterdam (20 Feb)	\$/t	2,010	2,050	18 Feb	nc
Lump min 95% Mn ex-works China	Yn/t	14,000	14,200	21 Feb	nc
Lump 95% Mn fob China	\$/t	1,950	2,000	21 Feb	nc
Silicon					
5-5-3 min 98.5% Si dat Chinese ports (20 Feb)	Yn/t	10,600	10,800	18 Feb	nc
5-5-3 min 98.5% Si fob China (20 Feb)	\$/t	1,530	1,560	18 Feb	nc
5-5-3 min 98.5% Si ddp Europe works (20 Feb)	€/t	2,100	2,275	18 Feb	nc
5-5-3 min 98.5% Si fca duty paid Rotterdam within 90 days (20 Feb)	€/t	2,100	2,275	13 Feb	+13
4-4-1 min 99% Si dat Chinese ports (20 Feb)	Yn/t	11,100	11,300	18 Feb	nc
4-4-1 min 99% Si fob China (20 Feb)	\$/t	1,600	1,630	18 Feb	nc
4-4-1 min 99% Si ddp Europe works (20 Feb)	€/t	2,200	2,375	18 Feb	nc
3-3-0-3 min 99% Si dat Chinese ports (20 Feb)	Yn/t	11,800	12,000	18 Feb	nc
3-3-0-3 min 99% Si fob China (20 Feb)	\$/t	1,700	1,730	18 Feb	nc
3-3-0-3 min 99% Si fca Europe works (20 Feb)	€/t	2,300	2,600	18 Feb	nc
2-2-0-2 min 99.5% Si dat Chinese ports (20 Feb)	Yn/t	17,900	18,200	13 Feb	nc
2-2-0-2 min 99.5% Si fob China (20 Feb)	\$/t	2,540	2,570	13 Feb	nc
2-2-0-2 min 99.5% Si fca Europe works (20 Feb)	€/t	2,550	2,650	18 Feb	nc
Titanium					
Concentrate 50% TiO <sub>2</sub> ex-works China (VAT unpaid) (20 Feb)	Yn/t	1,900	2,000	18 Feb	nc
Concentrate 46% TiO <sub>2</sub> ex-works China (VAT unpaid) (20 Feb)	Yn/t	2,100	2,150	18 Feb	nc
Concentrate Vietnamese A grade min 50% TiO <sub>2</sub> FOB China warehouse (20 Feb)	\$/t	315.00	335.00	13 Feb	nc
Concentrate Vietnamese B grade min 54% TiO <sub>2</sub> FOB China warehouse (20 Feb)	\$/t	300.00	315.00	13 Feb	nc
Concentrate Mozambique origin min 50% TiO <sub>2</sub> CIF China (20 Feb)	\$/t	330.00	360.00	13 Feb	nc
Concentrate Australia origin min 50% TiO <sub>2</sub> CIF China (20 Feb)	\$/t	300.00	330.00	13 Feb	nc
Dioxide 93pc min rutile grade ex-works China (20 Feb)	Yn/t	14,200	15,000	18 Feb	nc
Dioxide 93pc min rutile grade fob China (20 Feb)	\$/t	2,000	2,100	18 Feb	nc
Dioxide 98pc min anatase grade ex-works China (20 Feb)	Yn/t	12,800	13,300	18 Feb	nc
Ingot min 99% Ti pure TA1 ex-works China (18 Feb)	Yn/t	54,000	57,000	11 Feb	+3,000
Ingot min 99% Ti pure TA2 ex-works China (18 Feb)	Yn/t	52,000	54,000	11 Feb	+3,000
Ingot min 99% Ti pure TA3 ex-works China (18 Feb)	Yn/t	55,000	58,000	11 Feb	+3,000
6Al 4V ingot fob US producer (31 Jan)	\$/lb	10.50	12.25	31 Dec	nc
Ingot CP Grade 1 contract cif main port USD/kg (03 Feb)	\$/kg	12.50	14.50	2 Jan	nc
Ingot CP Grade 2 contract cif main port USD/kg (03 Feb)	\$/kg	11.50	12.50	2 Jan	nc
Slag min 92% TiO <sub>2</sub> ex-works China (20 Feb)	Yn/t	7,280	7,380	18 Feb	nc
Sponge 99.7% Ti ex-works China (20 Feb)	Yn/t	47,000	48,000	18 Feb	+1,000
Sponge 99.6% Ti ex-works China (20 Feb)	Yn/t	46,000	47,000	18 Feb	+1,000
Sponge 99.7% Ti fob China (20 Feb)	\$/kg	6.50	6.70	18 Feb	+0.10
Sponge 97.5% Ti TG-Tv 5x30mm fob China (20 Feb)	\$/kg	4.70	4.90	18 Feb	+0.10
Sponge TG-Tv 10x30mm du Rotterdam (20 Feb)	\$/kg	4.80	5.40	18 Feb	nc
Tetrachloride min 99.9% TiCl <sub>4</sub> ex-works China (20 Feb)	Yn/t	6,000	6,500	18 Feb	nc

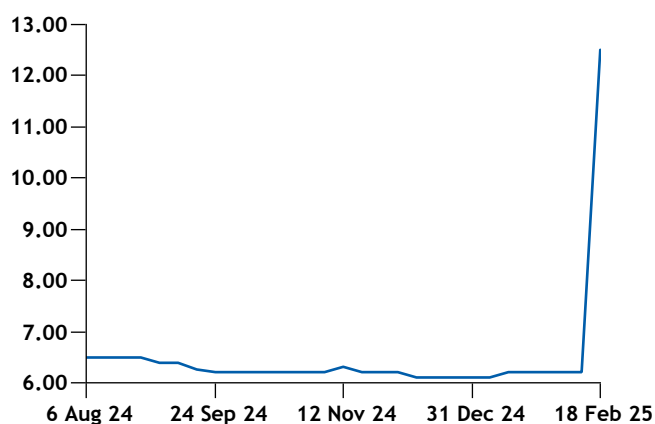
Weekly US price assessments							
Metal	Unit	24 Feb	High	±	17 Feb	High	±
		Low			Low		
Electronic metals							
Bismuth							
Bismuth Ingot min 99.99% fob US warehouse (18 Feb)	\$/lb	12.00	13.00	+6.30	6.10	6.30	nc
Indium							
Ingot min 99.99% fob US warehouse (18 Feb)	\$/kg	375.00	400.00	nc	375.00	400.00	nc
Selenium							
Selenium min 99.5% fob US warehouse (18 Feb)	\$/lb	12.75	13.20	nc	12.75	13.20	nc
Tantalum							
Scrap 99.9% vacuum melted del US consumer (18 Feb)	\$/lb	148.00	153.00	nc	148.00	153.00	nc
Tellurium							
Min 99.95% fob US warehouse (18 Feb)	\$/kg	72.00	77.00	nc	72.00	77.00	nc
Battery metals price assessments							
Antimony							
Min 99.65% cif US (18 Feb)	\$/lb	23.800	24.500	+1.7000	22.200	22.700	nc
Cadmium							
Min 99.99% fob US warehouse (18 Feb)	\$/lb	2.20	2.40	nc	2.20	2.40	nc
Min 99.95% fob US warehouse (18 Feb)	\$/lb	2.10	2.20	nc	2.10	2.20	nc
Cobalt							
Min 99.8% fob US warehouse (18 Feb)	\$/lb	14.70	15.45	-0.05	14.75	15.50	+0.50
Light metals price assessments							
Magnesium							
Min 99.9% fob US warehouse (18 Feb)	\$/t	5,842	6,504	nc	5,842	6,504	nc
Manganese							
Electrolytic metal min 99.7% fob US warehouse (20 Feb)	\$/lb	1.20	1.30	+0.10	1.10	1.20	+0.06
Silicon							
5-5-3 min 98.5% Si fob US warehouse (18 Feb)	\$/lb	1.180	1.260	nc	1.180	1.260	-0.030
5-5-3 min 98.5% Si fob US warehouse 90 days (18 Feb)	\$/lb	1.160	1.240	nc	1.160	1.240	-0.030
Titanium							
Scrap 6Al 4V bulk weldable del US dealer/processor (20 Feb)	\$/lb	3.85	4.55	nc	3.85	4.55	nc
Scrap 6Al 4V clips del US dealer/processor (20 Feb)	\$/lb	2.70	2.90	nc	2.70	2.90	nc
Scrap grade CP1 solids del US dealer/processor (20 Feb)	\$/lb	2.45	2.95	nc	2.45	2.95	nc
Scrap grade CP2 solids del US dealer/processor (20 Feb)	\$/lb	1.90	2.20	nc	1.90	2.20	nc
Scrap grade CP3/4 solids del US dealer/processor (20 Feb)	\$/lb	1.30	1.55	nc	1.30	1.55	nc
Scrap 6Al 4V turnings aero quality del US processor (20 Feb)	\$/lb	2.85	3.15	nc	2.85	3.15	nc
High-temperature metals price assessments							
Molybdenum							
Oxide min 57% fob US warehouse (20 Feb)	\$/lb	20.750	21.250	-0.2500	21.000	21.500	nc

## Monthly US price assessments

		31 Jan			31 Dec		
Metal	Unit	Low	High	±	Low	High	±
Arsenic							
Min 99% fob US warehouse	\$/lb	1.70	2.00	nc	1.70	2.00	nc
Chromium							
(aluminothermic) fob US warehouse	\$/lb	5.00	5.40	-0.40	5.40	5.80	nc
Molybdenum							
Scrap 99.7% airmelt del US consumer	\$/lb	22.00	23.00	-1.00	23.00	24.00	nc
Scrap 99.9% pure vacuum del US processor	\$/lb	25.00	26.00	-1.00	26.00	27.00	-0.50
Niobium							
(columbium) scrap vacuum del US consumer	\$/lb	42.00	45.00	nc	42.00	45.00	nc
(columbium) scrap vacuum del US processor	\$/lb	32.00	35.00	nc	32.00	35.00	nc
Rhenium							
APR catalyst 69.4% fob US warehouse	\$/lb	800	885	+75	735	800	+17.5
99.9% fob US warehouse	\$/lb	920	990	+100	800	910	+175.0
Titanium							
6Al 4V ingot fob US producer	\$/lb	10.50	12.25	nc	11.00	11.75	-0.25
Tungsten							
99.9% min Chinese bar del US consumer	\$/lb	28.50	29.50	nc	28.50	29.50	+6.00
Carbide scrap inserts fob US processor	\$/lb	10.75	11.25	+0.38	10.50	10.75	+0.38
Carbide scrap rounds fob US processor	\$/lb	11.00	11.50	+0.38	10.75	11.00	+0.38
99.9% scrap solids consumer price fob US processor	\$/lb	22.00	24.00	+2.00	20.00	22.00	+1.00
99.9% scrap del US processor	\$/lb	17.50	19.50	+1.50	16.00	18.00	+0.50

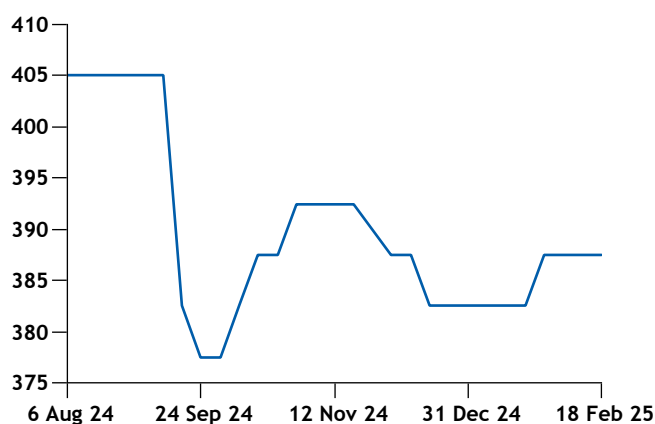
Bismuth ingot min 99.99% fob US warehouse

\$/lb



Indium ingot min 99.99% fob US warehouse

\$/kg



## BASE METALS: MARKET COMMENTARY

### Europe Zn: Limited spot enquiries hold premiums

European special high-grade (SHG) spot zinc premiums held steady for another week as demand remains unchanged, but there are discussions surrounding limited supply.

The Argus weekly assessment for the SHG zinc in-warehouse Rotterdam premium has held at \$180-210/t since 13 January, reflecting stable market conditions and limited spot enquiries.

The SHG zinc premium in Italy continues to be reported at approximately \$210-230/t delivered to customer, but fewer offers have been reported in the past month.

Three-month zinc prices on the London Metal Exchange (LME) decreased by 0.84pc over the week to \$2,874/t in today's official session as the dollar was little moved recently. On-warrant tonnage of zinc in LME-registered warehouses increased by 7.1pc over the week to 142,575t.

The global refined zinc market was in a deficit of 62,000t in 2024 as demand held steady but supply declined, according to data released by the International Lead and Zinc Study Group (ILZSG).

The Mount Isa rail line – which connects multiple Queensland phosphate, copper and zinc mines to the Port of Townsville – [reopened](#), after floods damaged the track earlier this month.

Canadian mining firm Hudbay Minerals [produced](#) 3.8pc less zinc in full-year 2024 compared with 2023.

### US Zn: Premiums rise on tariff concerns

US zinc sellers raised special high-grade (SHG) premiums at 17.5-20¢/lb this week, from 17.5-19¢/lb last week.

Still, one unconfirmed offer was heard as high as a 22.5¢/lb premium as the market was still absorbing the potential for 25pc tariffs on zinc imports. This offer was not representative of the current market but rather preparation by some sellers to get ahead of a possible tariff-driven price increase, market participants said.

President Donald Trump in January announced 25pc tariffs on good from Canada and Mexico effective 1 February. Trump on 3 February postponed the imposition of the tariffs for 30 days.

In preparation for the potential imposition of tariffs on Canadian and Mexican zinc, some sellers reported possible inclusions of a tariff surcharge to their contracts but did not confirm when those surcharges would be imposed.

Any tariffs on Canadian and Mexican zinc are unlikely to impact US supply, but premiums are expected to rise, and those costs will be passed on to the consumers.

The dollar was little moved on Monday, keeping zinc prices relatively flat.

Aluminium					
	Unit	Date of assessment	Low	High	±
Premiums					
P1020 US midwest premium	\$/lb	19 Feb	0.3800	0.4000	+0.0550
P1020 US midwest premium monthly avg	\$/lb	31 Jan	0.2290	0.2490	+0.0146
P1020 US midwest transaction	\$/lb	24 Feb	1.5920	1.6125	-0.0132
6061 billet US premium	\$/lb	19 Feb	0.0900	0.1000	nc
6063 billet del US premium	\$/lb	19 Feb	0.0900	0.1000	nc
6063 billet del US transaction	\$/lb	24 Feb	1.6820	1.7125	-0.0132
6063 extrusion premium billet del Italy	\$/t	19 Feb	500	530	-30.0
6063 extrusion premium billet del Germany	\$/t	19 Feb	500	530	-30.0
6063 extrusion duty paid premium in-warehouse Rotterdam	\$/t	19 Feb	450	480	-30.0
P1020 duty paid 3-month premium in-warehouse Rotterdam	\$/t	19 Feb	280	300	-30.0
P1020 duty paid premium cif Japan forward quarter	\$/t	9 Jan	228	228	na
P1020 duty paid spot premium in-warehouse Rotterdam	\$/t	19 Feb	280	300	-30.0
P1020 duty unpaid 3-month premium in-warehouse Rotterdam	\$/t	19 Feb	240	260	nc
P1020 duty unpaid spot premium in-warehouse Rotterdam	\$/t	19 Feb	240	260	nc
P1020 low-carbon upcharge in-warehouse Rotterdam	\$/t	5 Feb	0	15	-17.5
P1020 low-carbon premium duty paid in-warehouse Rotterdam	\$/t	19 Feb	280	315	-30.0
P1020 low-carbon premium duty unpaid in-warehouse Rotterdam	\$/t	19 Feb	240	275	nc
Aluminium-alloy die castings 12 ADC12 cif Japan	\$/t	20 Feb	2,370	2,420	nc
Copper concentrates TC/RCs, cif China					
	Unit	Timing	Assessment	±	
Smelter purchase treatment charges	\$/t	21 Feb	-10.50	-3.60	
Smelter purchase refining charges	€/lb	21 Feb	-1.05	-0.36	
Trader purchase treatment charges	\$/t	21 Feb	-27.70	-3.60	
Trader purchase refining charges	€/lb	21 Feb	-2.77	-0.36	
Averages					
Smelter purchase Treatment charges MTD	\$/t	21 Feb	-6.70	-1.90	
Smelter purchase Treatment charges monthly average	\$/t	January	2.95	-5.10	
Smelter purchase Refining charges MTD	€/lb	21 Feb	-0.67	-0.19	
Smelter purchase Refining charges monthly average	€/lb	January	0.30	-0.51	
Trader purchase treatment charges MTD	\$/t	21 Feb	-23.90	-1.90	
Trader purchase treatment charges monthly average	\$/t	January	-15.45	-5.10	
Trader purchase refining charges MTD	€/lb	21 Feb	-2.39	-0.19	
Trader purchase refining charges monthly average	€/lb	January	-1.55	-0.51	

## BASE METALS: MARKET COMMENTARY

The London Metal Exchange (LME) three-month zinc price closed at \$2,874/metric tonne (t), decreasing by just 0.6pc on Monday. The LME price set a one-week low with stockpiles setting a one-week high at 161,000t. The Singapore warehouse increased its stock total by 7,400t on Monday.

### Metal futures: Prices split in officials

Base metal prices were mixed in official trading on the London Metal Exchange (LME) on Monday, as a sell-off in US equities late last week and improving prospects in the Chinese property market provided divergent pressures.

The dollar was little moved over the weekend. The US dollar index, which measures the dollar against a basket of others, was at 106.607 following the official session – marginally down from 106.668 at the same time on Friday.

The Dow Jones Industrial Average index finished the week down by 2.5pc – its worst week since October – after sharp falls on Thursday and Friday. The index recovered marginally through midday trading, rising by 0.5pc from the prior close.

China's property market woes may be abating after the government eased limits on home prices. So far this year, the share of land parcel sales achieving at least 20pc above asking price has totaled 37pc, from 14pc last year and just 4.6pc in 2023, according to data tracked by independent real estate research firm China Index Academy.

Three-month LME copper prices edged down by 0.2pc from Friday's levels in today's official session, settling at \$9,510.50/t. In the US, the Chicago Mercantile Exchange (CME) copper contract for the next active month – March – fell by nearly 1pc to \$4.52/lb.

Although US president Donald Trump has yet to target copper imports with trade measures, he did say in January that the red metal would be included in his tariffs on industrial metals, before [announcing](#) a blanket 25pc tariff on all aluminum and steel imports in February.

Markets expect copper tariffs to be levied, with the CME copper contract price reaching a record premium over LME prices this month as the tariff threat has been priced in.

Copper stocks in LME warehouses also are being drawn

down in large quantities as traders look to maximize shipments to the US ahead of any tariff announcements. On-warrant copper stocks fell by just over 15pc over the weekend to 182,825t today, and have dropped by almost 30pc from 20 February.

Global refined copper [output exceeded consumption](#) in 2024, resulting in a surplus owing to higher production in China and the Democratic Republic of Congo (DRC), according to the International Copper Study Group (ICSG), a trade organization.

Three-month LME nickel prices rose by 0.3pc to \$15,570/t today, while the three-month LME aluminum contract fell by 1.2pc to \$2,663/t.

LME aluminum stocks also have been reduced ahead of the US import tariffs that come into effect on 12 March. On-warrant aluminum stocks fell by nearly 7pc over the weekend and by almost 20pc from 18 February to 208,400t today – their lowest since May last year before stock levels [jumped](#) following the LME's announcement of its ban on Russian metals.

Three-month LME lead prices climbed by 0.4pc to \$2,003/t; three-month LME zinc fell by 0.6pc to \$2,874/t; and three-month LME tin rose by 0.6pc to \$33,685/t.

The April forward contract for WTI, the US crude benchmark, rose by 30¢/bl to \$70.70/bl.

Zinc					
	Unit	Timing	Low	High	±
Special high grade in-warehouse Rotterdam premium	\$/t	24 Feb	180.00	210.00	nc
Special high grade del US premium	\$/lb	24 Feb	0.1750	0.2000	+0.0050
Special high grade del US transaction	\$/lb	24 Feb	1.4632	1.4882	-0.0036

Copper cathodes and brass					
	Unit	Timing	Low	High	±
Copper cathode premiums					
Cathode grade A del US midwest	\$/lb	19 Feb	0.1000	0.1300	nc
Cathode grade A del US midwest transaction	\$/lb	24 Feb	4.6170	4.6470	-0.0430
Cathode grade A delivered Germany	\$/t	18 Feb	170.00	190.00	nc
Cathode grade A cif Rotterdam	\$/t	18 Feb	100.00	130.00	nc
Cathode grade A del southern Europe	\$/t	18 Feb	140.00	160.00	nc
Grade A cathode cif Shanghai	\$/t	20 Feb	45.00	65.00	nc
Brass/bronze alloys del US					
C89833	\$/lb	20 Feb	5.5500	5.6500	nc
C89836	\$/lb	20 Feb	5.5500	5.6500	nc
Scrap					
Scrap bare bright cif China cash spread % of LME 3-month	pct	19 Feb	97.70	98.40	0.00
Scrap #1 cif China cash spread % of LME 3 month	pct	19 Feb	96.50	97.40	0.00
Scrap #2 cif China cash spread % of LME 3-month	pct	19 Feb	95.00	96.00	0.00

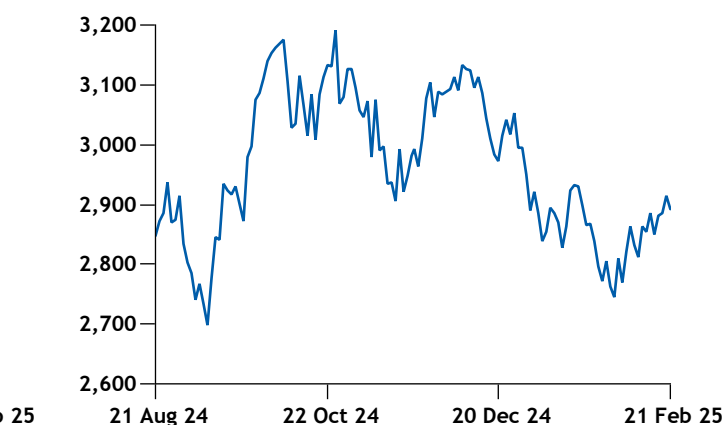
Lead					
	Unit	Timing	Low	High	±
Ingot primary 99.97% premium del US	\$/lb	18 Feb	0.1200	0.1500	nc
Ingot primary 99.97% del US transaction	\$/lb	24 Feb	1.0138	1.0438	+0.0066

Nickel					
	Unit	Timing	Low	High	±
Europe					
Briquette min 99.8% in-warehouse Rotterdam	\$/t	20 Feb	100.00	300.00	nc
Cathode full-plate premium (non-Russian origin) in-warehouse Rotterdam	\$/t	20 Feb	100.00	150.00	nc
Cathode full-plate premium (Russian origin) in-warehouse Rotterdam	\$/t	20 Feb	-50.00	50.00	nc
Cathode 4x4 inch premium (non-Russian origin) in-warehouse Rotterdam	\$/t	20 Feb	250.00	325.00	nc
Cathode 4x4 inch premium (Russian origin) in-warehouse Rotterdam	\$/t	20 Feb	150.00	300.00	nc
Cathode full-plate (non-Russian origin) in-warehouse Rotterdam transaction	\$/t	24 Feb	15,425.00	15,485.00	+32.50
Cathode full-plate (Russian origin) in-warehouse Rotterdam transaction	\$/t	24 Feb	15,275.00	15,385.00	+32.50
Cathode 4x4 inch (non-Russian origin) in-warehouse Rotterdam transaction	\$/t	24 Feb	15,575.00	15,660.00	+32.50
Cathode 4x4 inch (Russian origin) in-warehouse Rotterdam transaction	\$/t	24 Feb	15,475.00	15,635.00	+32.50
Briquette in-warehouse Rotterdam transaction	\$/t	24 Feb	15,425.00	15,635.00	+32.50
US					
Briquette premium del US	\$/lb	20 Feb	0.30	0.35	nc
Cathode 4x4inch premium (small lots) del US	\$/lb	20 Feb	0.60	0.65	nc
Cathode 4x4inch premium (truckloads) del US	\$/lb	20 Feb	0.55	0.60	nc
Cathode 4x4inch (truckloads) del US transaction	\$/lb	24 Feb	7.5058	7.5558	+0.0158
Cathode 1x1inch premium (small lots) del US	\$/lb	31 Jan	1.17	1.23	-0.03
Cathode 1x1inch premium (truckloads) del US	\$/lb	31 Jan	1.12	1.18	-0.02
China					
Cathode full plate premium cif Shanghai	\$/t	20 Feb	50	100	nc
Full plate premium ex-warehouse Shanghai Jinchuan-produced	Yn/t	20 Feb	1,900	2,100	-150
Full plate premium ex-warehouse Shanghai imported	Yn/t	20 Feb	-100	0	-50
Ore min 1.8% Ni fca China	Yn/wmt	20 Feb	610	620	nc
Philippine ore min 1.3% Ni cif China	\$/wmt	20 Feb	39	42	nc
Pig iron min 10% ex-works China	Yn/mtu	20 Feb	970	990	+10
Nickel pig iron 10-14% cif China main port duty unpaid	\$/mtu	21 Feb	118	120	+1
Mixed hydroxide precipitate (MHP) payable indicator 30-40% Ni cif China	pct	20 Feb	79.00	80.00	nc
Mixed hydroxide precipitate (MHP) 37% min cif China main port duty unpaid	\$/mtu	21 Feb	123.0	123.0	0.0
Matte payable indicator 70% min Ni cif China	pct	20 Feb	83	84	nc
Nickel matte 70% cif China main port duty unpaid	\$/mtu	21 Feb	128.0	128.0	0.0
Sulphate min 22% ex-works China excl. VAT USD/t	\$/t	20 Feb	3,171.27	3,219.88	-8.97
Sulphate min 22% ex-works China	Yn/t	20 Feb	26,100	26,500	nc
Sulphate min 22% cif China	\$/t	20 Feb	3,170	3,220	nc

Tin LME 3 months official



Zinc LME 3 months official





## BASE METALS: MARKET NEWS AND ANALYSIS

### World refined Cu market in surplus in 2024: ICSG

Global refined copper output exceeded consumption in 2024, resulting in a surplus owing to higher production in China and the Democratic Republic of Congo (DRC), according to trade organisation the International Copper Study Group (ICSG).

The global refined copper market produced around 27.63mn t and consumed about 27.33mn t in 2024, leading to a surplus of 301,000t, compared with a deficit of 52,000t the year before, the ICSG said.

Global copper mine production increased by nearly 2.4pc on the year to 22.91mn t in 2024 after a recovery following constrained output in 2023 in Chile and Indonesia, as well as additional output from ramp-ups at mines in DRC, Botswana, Mongolia and Serbia.

DRC's output grew by around 14pc in 2024 as a result of the ramp-up of Kinsanfu and the expansions of the Tenke and Kamoa-Kakula mines. Chilean production increased by 5pc owing to higher output at the Escondida and Collahuasi mines and the ramp-up of Quebrada Blanca. And Indonesian output also rose by 14pc on the year after recovering from operational constraints at the Grasberg and Batu Hijau mines in 2023 caused by rainfall and landslides. These gains were partially offset by lower output in Peru and the US, which saw declines of 1pc and 8pc, respectively.

Global refined copper output in 2024 increased by around 4.2pc on the year to 27.63mn t, consisting of 23.05mn t of primary refined production – which includes electrolytic and electrowinning from ores – and 4.58mn t of secondary production from scrap. The growth was driven by expanded capacity in China and DRC, which together account for around 54pc of world refined copper output. Refined copper output increased by around 5pc in Japan and 2.4pc in the US, but declined by 6.5pc in Chile and 2pc in the EU.

World refined copper use was up by around 2.9pc on the year to 27.33mn t in 2024, as Chinese apparent demand grew by about 3.5pc and global ex-China use was up by around 2.2pc. Growth was partially offset by weaker demand in the EU, Japan and the US.

Global refined copper use totalled 2.39mn t in December, while global refined copper production reached 2.37mn t, resulting in a deficit of 22,000t for the month.

*By Roxana Lazar*

### Global zinc market in deficit in 2024: ILZSG

The global refined zinc market was in a deficit of 62,000t in 2024 as demand held steady but supply declined, according to data released by the International Lead and Zinc Study Group (ILZSG).

The world zinc market was in a deficit in 2024 because of reduced output from several countries, compared with a surplus of 310,000t in 2023, the ILZSG reported.

Global mined zinc output fell by 2.8pc on the year to 11.89mn t, driven by declines of 31.5pc in Canada, 1.5pc in China and 13.5pc in Peru, where production at the Antamina mine declined substantially. Europe also saw a 9.7pc decline owing to reductions in Ireland and Poland. But these drops were partially offset by rises in Bolivia, Mexico and the Democratic Republic of Congo (DRC), where Ivanhoe Mines commissioned the Kipushi mine in June.

Production of refined zinc fell by 2.6pc on the year to 13.55mn t in 2024 as a result of limited availability of concentrates. The declines were primarily owing to reductions of 3.4pc in China, 2.3pc in Japan, 7.2pc in South Korea and 5.1pc in Canada, but were partially offset by increases from France, India and Germany, where the Nordenham smelter resumed production in March.

Consumption of the galvanising metal saw a slight rise of 0.1pc on the year at 13.61mn t because of increases in Brazil, India, South Korea, Mexico, Turkey and Vietnam, but saw declines in China, Europe and the US.

China's imports of zinc contained in zinc concentrates in 2024 fell by 13.1pc to 1.96mn t, according to the ILZSG.

Global refined zinc use totalled 1.19mn t in December, while refined metal production reached 1.15mn t, resulting in a deficit of 41,100t for the month.

*By Roxana Lazar*

For more news and analysis, please [click here](#)

## FERRO ALLOYS: NEWS AND ANALYSIS

### 4Q imports of Russian FeTi up ahead of sanctions

Global imports of Russian ferro-titanium in October-December last year increased on a quarterly and yearly basis, as flows into the EU bloc persisted ahead of [full sanctions implementation](#) on 20 December and non-EU countries raised their intake share.

Global fourth-quarter 2024 imports totalled 3,666t, up by 24pc from a year earlier and by 23pc from the [previous quarter](#), customs data compiled by Global Trade Tracker show. EU states accounted for 73pc of fourth-quarter imports, while non-EU states – chiefly Turkey and China – accounted for the balance.

EU imports in December fell to a seven-month low of 675t because EU sanctions against Russian ferro-alloys took full force on 20 December, barring inflows after this date.

The EU initially [introduced the sanctions](#) in December 2023, but they included a clause that allowed pre-existing contracts to be fulfilled, allowing imports from Russia to continue, albeit at a reduced rate.

EU imports last year slipped to 9,568t, down by 17pc on the year and their lowest since 2020, led by 17pc and 24pc decreases to the Netherlands and Germany, respectively.

On the other hand, Estonian imports last year rose by more than a third to 4,888t. The Baltic nation accounted for half of all EU imports, its highest-ever share, as Russian units continued to be routed through Estonia to break logistics lines.

Estonia's re-exports to Latvia reached an all-time high of 2,985t last year, while Latvian imports from Russia ceased.

The dip in full-year EU intake was partially offset by a redirection of volumes to non-EU markets. Turkish imports

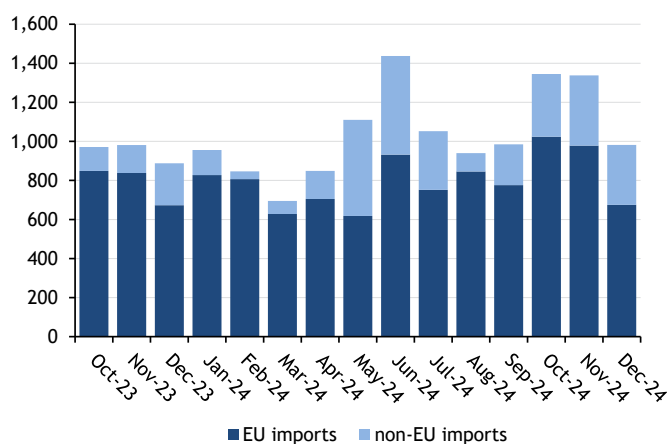
were up by 69pc to 1,248t, while Chinese imports reached 980t from zero in 2023.

Russian ferro-titanium prices averaged \$5.23-5.62/kg Ti dap Europe (import duty unpaid) in the fourth quarter of last year, compared with European prices of \$6.24-6.51/kg Ti dp/df Rotterdam. Both assessments have drifted lower through January and February this year on sustained low demand from steel mills and residual inventories of Russian material in European warehouses.

Argus discontinued its Russian ferro-titanium assessment on 20 February as sanctions will halt trade on a dap (import duty unpaid) basis.

2024 imports of Russian ferro-titanium				t
Importer	2024	2023		±%
Estonia	4,888	3,607		36%
Netherlands	3,261	3,933		-17%
Germany	1,379	1,811		-24%
Turkey	1,248	738		69%
China	980	0		na
South Korea	726	936		-22%
Czech Republic	40	15		167%
India	12	50		-76%
Latvia	0	1,693		-100%
Spain	0	214		-100%
France	0	142		-100%
South Africa	0	105		-100%
Poland	0	71		-100%
Other	0	188		-100%
Total	12,534	13,503		-7%
– Customs data, GTT				

Imports of Russian FeTi, EU vs non-EU



4Q imports of Russian ferro-titanium						t
Importer	4Q24	4Q23	3Q24	y-o-y ±%	qoq ±%	
Estonia	1,418	655	1,411	116	0	
Netherlands	949	684	651	39	46	
Turkey	424	174	215	144	97	
China	420	0	100	na	320	
Germany	311	614	277	-49	12	
South Korea	144	216	288	-33	-50	
Latvia	0	423	0	-100	na	
Czech Republic	0	0	35	na	-100	
Spain	0	94	0	-100	na	
India	0	50	0	-100	na	
Other	0	52	0	-100	na	
Total	3,666	2,962	2,977	24	23	
– Customs data, GTT						

In lieu of Russian ferro-titanium units entering the bloc, flows of scrap from Russia to Europe surged last year, to 1,408t from 120t in 2023 and just 52t in 2022. Several steel mills have issued requests for quotations since last year, including a clause ruling out EU/UK-origin ferro-titanium produced using Russian raw materials, but it is essentially impossible to verify this by examining the end product, sources said.

By Samuel Wood

### Japan's crude steel output extends fall in January

Japan's crude steel output fell for an 11th straight month in January, partly because of sluggish steel demand in the construction sector.

The country produced 6.8mn t of crude steel in January, down by 6.6pc from a year earlier, according to preliminary data released by industry group the Japan Iron and Steel Federation (JISF) on 21 February. Steel output also fell by 1.7pc from the previous month.

Crude steel output by the electric arc furnace (EAF) production method fell for a sixth consecutive month by 11pc from a year earlier to 1.6mn t, suggesting persistent weaker steel demand in construction industry.

The country's steel demand is heavily dependent on the automobile and construction sectors, and steel products for the industries are generally produced using the basic oxygen furnace (BOF) and EAF methods respectively.

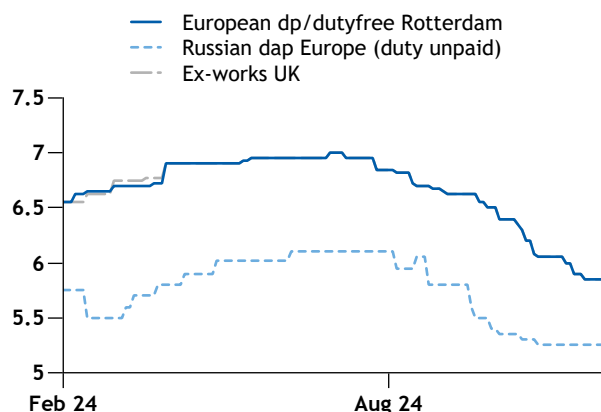
Rising material costs and labour shortages continue to delay construction projects, with some projects requiring replanning, JISF said in January.

Distribution warehouse construction projects have been one of the fastest-growing steel consuming construction projects in recent years and is partly underpinning steel demand in the industry. But distribution warehouses now appear to be in "oversupply", JISF added.

Sluggish steel demand in construction sector is poised to continue. Booked orders of ordinary steel for construction

### Ferro-titanium min 70% Ti

\$/kg (per kg Ti)



Japanese ferrous output					'000t
	Jan '25	Dec '24	Jan '24	m-o-m ± %	y-o-y ± %
Crude steel production					
Ordinary steel	5,252.2	5,392.9	5,595.3	-2.6	-6.1
Specialty steel	1,534.9	1,514.5	1,670.3	1.3	-8.1
Total crude production	6,787.1	6,907.4	7,265.6	-1.7	-6.6
Crude steel production method					
Basic oxygen furnace	5,146.2	5,218.7	5,427.1	-1.4	-5.2
Electric arc furnace	1,640.9	1,688.7	1,838.6	-2.8	-10.8
Pig iron production	5,075.2	5,172.2	5,344.5	-1.9	-5.0

— Japan Iron and Steel federation

\*Based on preliminary data

use in December fell by 8.9pc to 662,796t, marking the seventh consecutive month of year-on-year decline, according to separate data released by JISF on 17 February.

Steel demand in the automobile sector also remains sluggish. Booked orders of ordinary steel for automobile use also fell on the year for a 12th straight month by 1.9pc to 618,974t in in December.

By Yusuke Maekawa

Twice-weekly bulk alloy and feedstock prices							
Market	Unit	24 Feb		± 18 Feb	18 Feb		± 13 Feb
		Low	High		Low	High	
Ferro-chrome							
HC basis 60-64.99% Cr 6-8% C ddp NWE (20 Feb)	\$/lb Cr	1.05	1.15	-0.05	1.10	1.20	nc
HC min 65% Cr 6-8% C ddp NWE (20 Feb)	\$/lb Cr	1.25	1.55	nc	1.25	1.55	nc
LC Cr min 65% 0.10% C ddp Europe works (20 Feb)	\$/lb Cr	2.00	2.35	nc	2.00	2.35	nc
LC 60-64.99% Cr. 0.10pc C ddp Europe works (per lb Cr) (20 Feb)	\$/lb Cr	1.85	1.95	nc	1.85	1.95	nc
HC 50% Cr ex-works China	Yn/t	7,500	7,700	nc	7,500	7,700	nc
HC 50% Cr ex-works China USD/lb	\$/lb	0.83	0.85	nc	0.83	0.85	nc
HC min 60% Cr ex-works India (20 Feb)	Rs/t	100,000	101,000	+2,000	98,000	99,000	nc
Charge chrome 50-55% Cr 6-10% C cif China (20 Feb)	\$/lb	0.80	0.81	nc	0.80	0.81	nc
HC Indian 60-62% Cr 6-10% C cif China (20 Feb)	\$/lb	0.86	0.87	nc	0.86	0.87	nc
HC Kazakh 65-70% Cr 6-8% C cif China (20 Feb)	\$/lb	0.95	0.96	nc	0.95	0.96	nc
Chrome ore							
Ore South African concentrate 42-44% Cr <sub>2</sub> O <sub>3</sub> cif China (20 Feb)	\$/t	265	275	+5	260	270	+10
Ore South African concentrate 42-44% Cr <sub>2</sub> O <sub>3</sub> fca China	Yn/mtu	54.00	56.00	+1.00	53.00	55.00	nc
Ore Turkish lump 40-42% cif China (20 Feb)	\$/t	260	270	nc	260	270	nc
Ore Turkish lump 40-42% fca China	Yn/mtu	58.00	60.00	nc	58.00	60.00	nc
Ore Turkish concentrate 46-48% Cr <sub>2</sub> O <sub>3</sub> cif China (20 Feb)	\$/t	310	320	nc	310	320	nc
Ore Turkish concentrate 46-48% Cr <sub>2</sub> O <sub>3</sub> fca China (20 Feb)	Yn/mtu	61	63	nc	61	63	+3
Ore South African UG2 concentrate 40-42% Cr <sub>2</sub> O <sub>3</sub> cif China main ports (20 Feb)	\$/t	245	255	+5	240	250	+10
Ore South African UG2 concentrate 40-42% Cr <sub>2</sub> O <sub>3</sub> fca China ports	Yn/mtu	52.00	54.00	+1.00	51.00	53.00	nc
Ferro-manganese							
HC Mn 78% ddp Europe works (20 Feb)	€/t	1,100	1,135	nc	1,100	1,135	-23
HC 65% Mn ex-works China (20 Feb)	Yn/t	5,700	5,900	nc	5,700	5,900	nc
HC 75% Mn ex-works China (20 Feb)	Yn/t	6,500	6,700	nc	6,500	6,700	nc
HC 70% Mn ex-works India (20 Feb)	Rs/t	75,000	76,000	nc	75,000	76,000	nc
HC 75% Mn ex-works India (20 Feb)	Rs/t	82,000	84,000	nc	82,000	84,000	nc
Manganese ore							
Ore 44-46% lumpy ore fca China (20 Feb)	Yn/mtu	50.00	53.00	nc	50.00	53.00	nc
Silico-manganese							
65% Mn ddp Europe works (20 Feb)	€/t	1,095	1,140	-3	1,100	1,140	-20
65% Mn 17% Si ex-works China (20 Feb)	Yn/t	6,300	6,500	-200	6,500	6,700	-200
60% Mn 14% Si ex-works India (20 Feb)	Rs/t	73,500	74,500	nc	73,500	74,500	nc
60% Mn 14% Si fob India East Coast (20 Feb)	\$/t	870	880	nc	870	880	nc
65% Mn 16% Si fob India East Coast (20 Feb)	\$/t	980	990	+10	970	980	nc
Ferro-silicon							
75% Si ddp NWE (20 Feb)	€/t	1,370	1,450	-8	1,375	1,460	-38
72% Si fob China (20 Feb)	\$/t	1,120	1,170	nc	1,120	1,170	nc
72% Si ex-works China (20 Feb)	Yn/t	5,800	6,000	nc	5,800	6,000	nc
75% Si fob China (20 Feb)	\$/t	1,200	1,250	nc	1,200	1,250	nc
75% Si ex-works China (20 Feb)	Yn/t	6,300	6,500	nc	6,300	6,500	nc
Low aluminium 75% Si 0.1% Al fob China (20 Feb)	\$/t	1,350	1,400	nc	1,350	1,400	nc
Low aluminium 75% Si 0.5% Al fob China (20 Feb)	\$/t	1,250	1,300	nc	1,250	1,300	nc
70% Si ex-works India (20 Feb)	Rs/t	101,000	102,000	nc	101,000	102,000	+1,000

\* Quarterly benchmark price

Twice-weekly noble-alloy and feedstock prices							
	Unit	24 Feb		± 18 Feb	18 Feb		± 13 Feb
		Low	High		Low	High	
Ferro-molybdenum							
65-70% Mo dp Rotterdam (20 Feb)	\$/kg Mo	50.20	50.80	+0.10	50.00	50.80	+0.65
60% Mo fob China	\$/kg	51.80	52.30	nc	51.80	52.30	-0.20
60% Mo ex-works China	Yn/t	225,000	228,000	nc	225,000	228,000	-500
60% Mo ex-works India (20 Feb)	Rs/kg	2,530	2,550	nc	2,530	2,550	nc
Ferro-niobium							
min 65% Nb du Rotterdam (20 Feb)	\$/kg Nb	44.40	45.00	nc	44.40	45.00	nc
Ferro-tungsten							
min 75% W du Rotterdam (20 Feb)	\$/kg W	44.80	45.50	+0.40	44.50	45.00	nc
Ferro-titanium							
min 70% Ti dp/duty-free Rotterdam (20 Feb)	\$/kg Ti	5.60	6.00	-0.05	5.70	6.00	nc
UK min 70% Ti ex-works (20 Feb)	\$/kg Ti	5.60	6.00	-0.05	5.70	6.00	nc
Titanium							
Turnings 90/6/4 max 0.5% Sn ddp NWE (20 Feb)	\$/kg	2.80	3.00	nc	2.80	3.00	nc
Ferro-vanadium							
78-82% V dp Rotterdam (20 Feb)	\$/kg V	23.90	24.35	nc	23.90	24.35	+0.13
50% V ex-works China	Yn/t	81,000	83,000	+1,000	80,000	82,000	nc
80% V fob China	\$/kg	23.00	23.50	nc	23.00	23.50	nc
50% V ex-works India (20 Feb)	Rs/kg	1,070	1,100	nc	1,070	1,100	nc
Vanadium-nitrogen alloy							
Vanadium-nitrogen alloy 77% V 18% N ex-works China	Yn/t	112,000	114,000	+1,000	111,000	113,000	nc

Monthly price assessments						
Market	Unit	Latest		±	Previous	
		Low	High		Low	High
Ferro-boron						
17% B fob US warehouse	\$/lb	1.65	1.80	-0.05	1.70	1.85
Ferro-chrome						
Charge chrome fob US warehouse	\$/lb	1.20	1.30	nc	1.20	1.30
Ferro-manganese						
MC 80% Mn 1-2% C fob North America warehouse	\$/lb	1.00	1.05	nc	1.00	1.05
Ferro-niobium						
65% Nb fob US warehouse	\$/lb	21.50	22.50	nc	21.50	22.50
Ferro-tungsten						
75% W fob North America warehouse	\$/lb	21.50	23.25	nc	21.50	23.25
Cobalt-Nickel						
Nickel-Cobalt refinery scrap nickel contained del US processor	\$/lb	3.00	3.40	nc	3.00	3.40
Chrome Ore						
Ore Cr <sub>2</sub> O <sub>3</sub> 48-49.99% (South Kaliapani mines) OMC price ex-works India	Rs/t	27,038	27,038	nc	27,038	27,038
Ore Cr <sub>2</sub> O <sub>3</sub> 50-52% (Sukrangi mines) OMC price ex-works India	Rs/t	20,100	20,100	nc	20,100	20,100

Weekly price assessments						
Market	Unit	20 Feb			13 Feb	
		Low	High	±	Low	High
Ferro-chrome						
HC min 62% Cr 6-8% C fob US warehouse	\$/lb Cr	1.45	1.60	nc	1.45	1.60
LC min 65% Cr 0.05% C max 1.5% Si fob US warehouse	\$/lb Cr	3.00	3.30	nc	3.00	3.30
LC min 65% Cr 0.10% C max 1.5% Si fob US warehouse	\$/lb Cr	2.25	2.40	nc	2.25	2.40
LC 60% Cr 0.15% C fob US warehouse	\$/lb	2.00	2.25	nc	2.00	2.25
Ferro-manganese						
HC 75% fob China (18 Feb)	\$/t	1,130	1,150	nc	1,130	1,150
HC min 80% Mn 6-8% C fob North America warehouse	\$/lt	1,175	1,275	nc	1,175	1,275
MC 78% Mn 1.5-2% C 0.15-0.20 P ddp Europe works (18 Feb)	€/t	1,500	1,530	nc	1,500	1,530
Manganese ore						
Ore 36-38% Mn cif China	\$/dmtu	4.30	4.50	+0.30	4.00	4.20
Ore 48-50% Mn cif China	\$/dmtu	4.70	4.90	+0.30	4.40	4.60
Ore 44-46% Mn cif China	\$/dmtu	4.90	5.10	+0.30	4.60	4.80
Silico-manganese						
65% Mn 17% Si fob China (18 Feb)	\$/t	1,110	1,130	-30	1,140	1,160
min 65% Mn 16% Si fob North America warehouse	\$/lb	0.56	0.60	nc	0.56	0.60
Ferro-silicon						
min 75% Si max 0.1% C fob US warehouse	\$/lb Si	0.950	1.050	nc	0.950	1.050
Calcium-silicon						
min 28% Ca 55-60% Si fob China	\$/t	1,480	1,530	nc	1,480	1,530
min 28% Ca 55-60% Si ex-works China	Yn/t	10,400	10,600	nc	10,400	10,600
min 30% Ca 55-60% Si fob China	\$/t	1,500	1,550	nc	1,500	1,550
min 30% Ca 55-60% Si ex-works China	Yn/t	10,500	10,700	nc	10,500	10,700
Ferro-molybdenum						
min 65% Mo max 1.5% Si fob North America warehouse	\$/lb Mo	22.750	23.250	nc	22.750	23.250
Ferro-niobium						
min 66% Nb Brazilian Imports fca China port (18 Feb)	Yn/t	243,000	248,000	+3,000	240,000	245,000
Ferro-tungsten						
75% W ex-works China (18 Feb)	Yn/t	221,000	224,000	nc	221,000	224,000
min 75% W fob China (18 Feb)	\$/kg	42.50	43.50	nc	42.50	43.50
Ferro-titanium						
30% Ti ex-works China (18 Feb)	Yn/t	12,300	12,500	+50	12,200	12,500
70% scrap grade ex-works China (18 Feb)	Yn/t	27,000	29,000	nc	27,000	29,000
70% Ti fob North America warehouse	\$/lb	2.85	3.10	nc	2.85	3.10
Titanium						
Scrap min 85% Ti tin-bearing mixed turnings del US dealer/processor	\$/lb	0.60	0.70	nc	0.60	0.70
Scrap min 85% Ti non-tin-bearing mixed turnings del US dealer/processor	\$/lb	0.70	0.80	nc	0.70	0.80
Ferro-vanadium						
78-82% V max 1.5% Si fob North America warehouse	\$/lb V	14.20	15.00	+1.20	13.20	13.60
Nickel						
Ore min 1.8% Ni fca China	Yn/wmt	610	620	nc	610	620
Stainless steel						
Stainless steel scrap 304 (18-8) solids cif Rotterdam	\$/lb	0.560	0.570	+0.002	0.559	0.568
Stainless steel scrap 304 (18-8) solids cif Japan	\$/lb	0.56	0.57	nc	0.56	0.57
Stainless steel scrap 304 (18-8) solids cif South Korea	\$/lb	0.55	0.56	nc	0.55	0.56
Stainless steel scrap 304 (18-8) solids cif Taiwan	\$/lb	0.54	0.55	nc	0.54	0.55
Stainless steel scrap 409/410 solids del US processor	\$/lt	493	515	nc	493	515
Stainless steel scrap 430 solids del US processor	\$/lt	605	627	+12	582	627



Current week prices in full						
China export and delivered Europe prices						
Element	units	Date	Low	High	± Date	±
<b>Cerium</b>						
Carbonate min 45% REO fob China	\$/kg	18 Feb	0.54	0.64	11 Feb	nc
Metal min 99.9% C 0.03% max. Fe 0.2% max fob China	\$/kg	20 Feb	6.70	6.90	18 Feb	nc
Metal min 99% fob China	\$/kg	20 Feb	5.10	5.40	18 Feb	nc
Oxide 99.5-99.9% fob China	\$/t	20 Feb	1,400	1,450	18 Feb	+20
Oxide 99.5-99.9% cif Europe	\$/kg	3 Feb	1.70	2.10	2 Jan	+0.10
<b>Dysprosium</b>						
Metal min 99% fob China	\$/kg	24 Feb	300	305	21 Feb	nc
Dysprosium oxide min 99.5% fob China	\$/kg	24 Feb	235	240	21 Feb	nc
Oxide min 99.5% cif Europe	\$/kg	3 Feb	230	280	2 Jan	nc
<b>Europium</b>						
Metal min 99.9% fob China	\$/kg	5 Feb	265	275	2 Jan	nc
Oxide min 99.99% fob China	\$/kg	5 Feb	25.50	28.50	2 Jan	nc
<b>Erbium</b>						
Oxide min 99.5% cif Europe	\$/kg	3 Feb	41.00	45.00	2 Jan	+1.00
<b>Ferro-dysprosium</b>						
min 80% Dy fob China	\$/kg	24 Feb	232	237	21 Feb	nc
<b>Gadolinium</b>						
Metal min 99% fob China	\$/kg	24 Feb	41.00	46.00	21 Feb	nc
Oxide min 99.99% fob China	\$/t	24 Feb	25,000	26,000	21 Feb	nc
Oxide min 99.999% fob China	\$/t	20 Feb	26,500	28,500	18 Feb	+1,000
<b>Holmium</b>						
Oxide min 99.5% fob China	\$/t	24 Feb	64,000	65,000	21 Feb	nc
<b>Lanthanum</b>						
Metal min 99% fob China	\$/kg	20 Feb	4.80	5.10	18 Feb	nc
Metal min 99.9% C 0.03% max. Fe 0.2% max fob China	\$/kg	20 Feb	6.70	6.90	18 Feb	nc
Oxide 99.5-99.9% fob China	\$/t	20 Feb	950	1,000	18 Feb	nc
Oxide min 99.999% fob China	\$/kg	20 Feb	2.60	2.80	18 Feb	nc
<b>Lutetium</b>						
Oxide min 99.99% fob China	\$/kg	18 Feb	710	740	11 Feb	nc
<b>Mischmetal</b>						
35% La 65% Ce fob China	\$/kg	5 Feb	5.30	5.60	2 Jan	nc
Low Zn and Mg fob China	\$/kg	5 Feb	24	27	2 Jan	nc
<b>Neodymium</b>						
Metal min 99% fob China	\$/kg	24 Feb	77.50	78.00	21 Feb	+0.55
Oxide 99.5-99.9% fob China	\$/t	24 Feb	63,200	64,200	21 Feb	+1,000
Metal 99% cif Europe	\$/kg	3 Feb	71.00	76.00	2 Jan	nc
Oxide 99.5-99.9% cif Europe	\$/kg	3 Feb	57.00	60.00	2 Jan	+0.50
<b>Praseodymium</b>						
Metal min 99% fob China	\$/kg	24 Feb	83.00	83.50	21 Feb	+0.50
Oxide 99.5-99.9% fob China	\$/t	24 Feb	64,300	65,300	21 Feb	+600
<b>Praseodymium-Neodymium</b>						
Metal min 99% fob China	\$/kg	24 Feb	76.20	76.70	21 Feb	+1.20
Praseodymium-Neodymium oxide min 99% fob China	\$/t	24 Feb	62,000	62,500	21 Feb	+1,000
<b>Samarium</b>						
Metal min 99% fob China	\$/kg	20 Feb	12.00	12.50	18 Feb	nc
Oxide min 99.5% fob China	\$/kg	20 Feb	1.95	2.20	18 Feb	nc
<b>Terbium</b>						
Metal min 99.9% fob China	\$/kg	24 Feb	1,070	1,090	21 Feb	+20
Oxide min 99.99% fob China	\$/kg	24 Feb	855	870	21 Feb	+10
Oxide min 99.99% cif Europe	\$/kg	3 Feb	830	890	2 Jan	+30
<b>Ytterbium</b>						
Oxide min 99.99% fob China	\$/t	18 Feb	12,600	14,800	11 Feb	nc
<b>Yttrium</b>						
Metal min 99.9% fob China	\$/kg	18 Feb	32.00	34.50	11 Feb	nc
Oxide min 99.999% fob China	\$/t	20 Feb	5,800	6,000	18 Feb	nc
Oxide 99.999% cif Europe	\$/kg	3 Feb	5.90	6.40	2 Jan	nc

China domestic ex-works prices						
Element	units	Date	Low	High	± Date	±
<b>Cerium</b>						
Carbonate min 45% REO ex-works	Yn/t	18 Feb	3,200	3,700	11 Feb	nc
Metal min 99.9% C 0.03% max. Fe 0.2% max ex-works	Yn/t	20 Feb	39,000	41,000	18 Feb	nc
Metal min 99% ex-works	Yn/t	20 Feb	26,000	28,000	18 Feb	nc
Oxide 99.5-99.9% ex-works	Yn/t	20 Feb	8,600	9,000	18 Feb	+250
<b>Dysprosium</b>						
Metal min 99% ex-works	Yn/kg	24 Feb	2,200	2,240	21 Feb	nc
Oxide min 99.5% ex-works	Yn/kg	24 Feb	1,720	1,750	21 Feb	+10
<b>Erbium</b>						
Oxide min 99.5% ex-works	Yn/t	20 Feb	292,000	295,000	18 Feb	-2,000
<b>Europium</b>						
Oxide min 99.99% ex-works	Yn/kg	5 Feb	175	185	2 Jan	nc
<b>Ferro-dysprosium</b>						
min 80% Dy ex-works	Yn/kg	24 Feb	1,700	1,730	21 Feb	nc
<b>Ferro-gadolinium</b>						
min 75% Gd ex-works	Yn/t	24 Feb	160,000	163,000	21 Feb	nc
<b>Gadolinium</b>						
Metal min 99% ex-works	Yn/t	24 Feb	300,000	320,000	21 Feb	nc
Oxide 99.5-99.9% ex-works	Yn/t	24 Feb	164,000	167,000	21 Feb	+1,000
Oxide min 99.99% ex-works	Yn/t	24 Feb	183,000	193,000	21 Feb	nc
<b>Holmium</b>						
Oxide min 99.5% ex-works	Yn/t	24 Feb	465,000	470,000	21 Feb	nc
<b>Lanthanum</b>						
Metal min 99% ex-works	Yn/t	20 Feb	24,000	26,000	18 Feb	nc
Metal min 99.9% C 0.03% max. Fe 0.2% max ex-works	Yn/t	20 Feb	39,000	41,000	18 Feb	nc
Oxide min 99.999% ex-works	Yn/t	20 Feb	12,500	14,500	18 Feb	nc
Oxide 99.5-99.9% ex-works	Yn/t	20 Feb	4,200	4,700	18 Feb	nc
Ce chloride min 45% REO ex-works	Yn/t	5 Feb	2,000	2,500	2 Jan	nc
<b>Lutetium</b>						
Oxide min 99.99% ex-works	Yn/kg	18 Feb	5,100	5,300	11 Feb	nc
<b>Mischmetal</b>						
35% La 65% Ce ex-works	Yn/t	5 Feb	26,000	27,000	2 Jan	nc
Low Zn and Mg ex-works	Yn/t	5 Feb	160,000	180,000	2 Jan	nc
<b>Neodymium</b>						
Metal min 99% ex-works	Yn/t	24 Feb	560,000	563,000	21 Feb	+4,000
Oxide 99.5-99.9% ex-works	Yn/t	24 Feb	457,000	462,000	21 Feb	+7,000
<b>Praseodymium</b>						
Metal min 99% ex-works	Yn/t	24 Feb	600,000	603,000	21 Feb	+3,000
Oxide 99.5-99.9% ex-works	Yn/t	24 Feb	465,000	470,000	21 Feb	+5,000
<b>Praseodymium-Neodymium</b>						
Metal min 99% ex-works	Yn/t	24 Feb	550,000	553,000	21 Feb	+8,000
Oxide min 99% ex-works	Yn/t	24 Feb	448,000	451,000	21 Feb	+8,000
<b>Samarium</b>						
Metal min 99% ex-works	Yn/t	20 Feb	85,000	90,000	18 Feb	nc
Oxide min 99.5% ex-works	Yn/t	20 Feb	14,000	16,000	18 Feb	nc
<b>Terbium</b>						
Metal min 99.9% ex-works	Yn/kg	24 Feb	7,750	7,850	21 Feb	+125
Oxide min 99.99% ex-works	Yn/kg	24 Feb	6,200	6,250	21 Feb	+50
<b>Ytterbium</b>						
Oxide min 99.99% ex-works	Yn/t	18 Feb	90,000	105,000	11 Feb	nc
<b>Yttrium</b>						
Metal min 99.9% ex-works	Yn/kg	18 Feb	210.00	225.00	11 Feb	nc
Oxide min 99.999% ex-works	Yn/t	20 Feb	41,000	43,000	18 Feb	nc



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