

MONTHLY FERROUS ANALYTICS

NOVEMBER 2022

China mills' margins recover in Nov as steel prices rebound

Chinese steelmakers' margins turned positive in November 2022, after prices for finished steel rallied following the introduction of a raft of stimulus measures and an easing in the country's Covid-19 curbs.

The net margin proxy for rebar producers increased by 38.86 yuan (\$5.58) per tonne month on month to 10.94 yuan per tonne on a daily average basis in November, while that for hot-rolled coil producers jumped by 147.71 yuan per tonne to 134.12 yuan per

HRC margins outperformed those for rebar producers, with the seasonal slowdown taking a greater toll on demand for construction steel. The premium for eastern China HRC prices over rebar prices was 215 yuan per tonne on November 30, widening from 60 yuan per tonne on October 31.

Hot metal costs continued to dip in November, decreasing by \$3.44 per tonne month on month to \$380.46 per tonne on a daily average basis, following a decline of \$2.25 per tonne in October. The improved demand outlook underpinned iron ore prices last month, but prices for seaborne coking coal struggled to rise amid thin tradina.

Scrap prices followed finished steel higher in November but

remained a cheaper option than hot metal. Discounts of domestic heavy scrap prices against hot metal costs widened to \$36.18 per tonne on a daily average basis last month, from \$34.93 per tonne in the previous month.

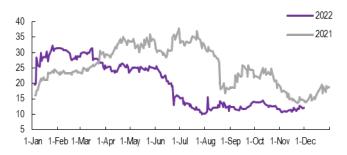
Analyst comments

Fastmarkets forecasts better margins for Chinese steelmakers in December but does not expect a significant recovery yet. Iron ore prices continued to rise at the start of December, but we anticipate a correction during the month because the fundamentals outweigh sentiment. Indeed, the market is bullish for iron ore prices on expectations of a recovery in steel demand. Actual demand for both steel and iron ore, however, remains weak. For steel, any recovery in demand is likely to take place late in the first quarter after the Spring Festival, so the near-term positive outlook for demand for now is speculative. Steelmakers facing weak margins are not enthusiastic enough to ramp up production at this time, which will result in the average iron ore price for December being lower than that of November. Meanwhile, steel prices are expected to rise modestly in December while mills look to regain some margin amid reduced steel supply.

	Unit	Monthly average	Previous month average	Change	November maximum	November minimum	Current quarterly average	Previous quarterly average
Iron Ore								
Iron Ore 65% Fe Fines/62% Fe Fines Differential	Usd/tonne	11.45	13.15	▼ 1.70	12.83	10.62	12.26	12.36
Iron ore 66% Fe Concentrates/65% Fe Fines Differential	Usd/tonne	0.22	0.55	▼0.33	0.64	-0.28	0.39	4.23
Hot Metal								
Hot metal cost (Iron ore 62% Fe fines, PHCC)	Usd/tonne	380.46	383.89	▼3.44	393.09	363.86	382.09	408.18
East China Domestic HRC / Hot Metal Spread	Usd/tonne	89.75	86.37	▲ 3.38	102.39	80.90	88.38	102.20
East China Domestic Rebar / Hot Metal Spread	Usd/tonne	74.57	84.64	▼10.07	87.33	62.18	78.65	114.41
Scrap								
South Korea import HMS 1&2 VS South Korea import H2	Usd/tonne	15.06	24.40	▼9.34	25.77	0.37	19.73	30.22
Vietnam import HMS1&2 VS Vietnam import H2	Usd/tonne	8.75	14.38	▼5.63	15.00	2.50	11.56	11.54
China steel scrap premium over hot metal	Usd/tonne	-36.18	-34.93	▼ 1.25	-25.76	-56.85	-35.65	-20.78
Steel billet spread (Steel billet import cfr SE Asia VS scrap HMS cfr Vietnam)	Usd/tonne	145.70	139.85	▲ 5.86	160.00	136.60	142.35	151.42
Steel scrap Shindachi Premium over steel scrap H2 fob Japan	Usd/tonne	15.23	21.68	▼6.44	19.81	7.13	18.91	31.28
Steel Mills Margin								
China steel mills' Rebar Margin Proxy	Yuan/tonne	10.94	-27.92	▲38.86	82.70	-86.30	-4.81	181.29
China steel mills' HRC Margin Proxy	Yuan/tonne	134.12	-13.59	▲ 147.71	202.70	18.70	74.24	86.94

IRON ORE SPREAD

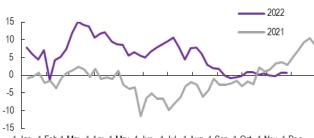
Iron Ore 65% Fe Fines/62% Fe Fines Differential, usd/tonne



The differential indicates the price competitiveness between seaborne Brazilian high-grade iron ore fines and seaborne mid-grade iron ore fines driven by the fundamental supply and demand of the two products.

Formula: Fastmarkets' Iron ore 65% Fe Brazii-origin fines, cfr Qingdao, \$/tonne - Fastmarkets' Iron ore 62% Fe fines, cfr Qingdao, \$/tonne

Iron ore 66% Fe Concentrates/65% Fe Fines Differential, usd/tonne



1-Jan 1-Feb 1-Mar 1-Apr 1-May 1-Jun 1-Jul 1-Aug 1-Sep 1-Oct 1-Nov 1-Dec

Formula: Fastmarkets' Iron ore 66% Fe concentrate, cfr Qingdao, \$/tonne - Fastmarkets' Iron ore 65% Fe Brazil-origin fines,

The differential indicates the price competitiveness between seaborne iron ore concentrates and seaborne Brazilian high-grade iron ore fines driven by the fundamental supply and demand of the two products.



HOT METAL COST

Hot metal cost, usd/tonne



Formula: 1.6'Fastmarkets' Iron ore 62% Fe fines, cfr Qingdao, \$/tonne + 0.77* Fastmarkets Premium hard coking coal, cfr Jingtang, \$/tonne The cost of hot metal in the blast furnace steelmaking route in China with imported mid-grade iron ore fines and imported premium hard coking coal.

East China Domestic HRC/Hot metal spread, usd/tonne



Formula: Fastmarkets' Steel hot-rolled coil domestic, ex-whs Eastern China, ¥/tonne (converted to usd/tonne) - Hot metal cost

The spread between China's domestic hot-rolled coil price in the eastern region and the cost of hot metal indicates the profitability of HRC producing steel mills.

East China Domestic Rebar/Hot metal spread, usd/tonne

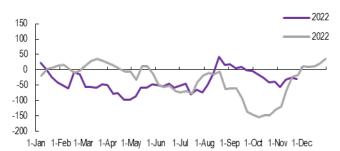


Formula: Fastmarkets' Steel reinforcing bar (rebar) domestic, ex-whs Eastern China, $\frac{1}{2}$ /tonne (converted to usd/tonne) - Hot metal cost

The spread between China's domestic reinforcing bar price in the eastern region and the cost of hot metal indicates the profitability of rebar producing steel mills.

SCRAP

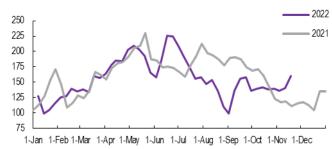
China steel scrap premium over hot metal, usd/tonne



Formula: Fastmarkets' Steel scrap heavy scrap domestic, delivered mill China, ¥/tonne (converted to \$/tonne) - Hot metal cost

The premium indicates the price competitiveness between China's domestic steel heavy scrap and the cost of hot metal.

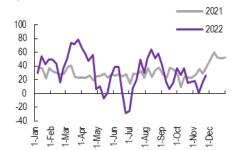
Steel billet spread (Steel billet import cfr SE Asia VS scrap HMS cfr Vietnam), usd/tonne



Formula: Fastmarkets' Steel billet import, cfr Southeast Asia, \$/tonne - Fastmarkets' Steel scrap HMS 1&2 (80:20), cfr Vietnam, \$/tonne

The spread indicates the price competitiveness between Southeast Asia imported steel billet and Vietnam imported recycled steel

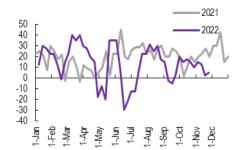
South Korea import HMS 1&2/South Korea import H2 Differential, usd/tonne



Formula: Fastmarkets' Steel scrap HMS 18.2 (80:20) deep-sea origin import, cfr South Korea, \$/tonne - Fastmarkets' Steel scrap H2 Japan origin import, cfr main port South Korea, \$/tonne (converted to usd/tonne)

The premium for deep-sea origin HMS 182 scrap over Japan-origin H2 scrap on a cfr South Korea basis shows which material is more competitive for Korean steelmakers to purchase.

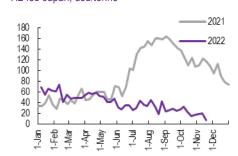
Vietnam import HMS1&2/Vietnam import H2 Differential, usd/tonne



Formula: Fastmarkets' Steel scrap HMS 1&2 (80:20), cfr Vietnam, \$/tonne - Fastmarkets' Steel scrap H2 Japan-origin import, cfr Vietnam, \$/tonne

The premium for deep-sea origin HMS 18.2 scrap over Japan-origin H2 scrap on a cfr Vietnam basis shows which material is more competitive for Vietnamese steelmakers to purchase.

Steel scrap Shindachi premium over steel scrap H2 fob Japan, usd/tonne

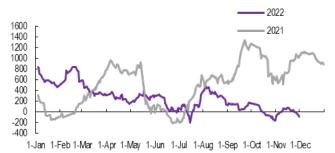


*Formula: Fastmarkets' Steel scrap Shindachi export, fob main port Japan, #/tonne (converted to usd/tonne) - Fastmarkets' Steel scrap H2 export, fob main port Japan, #/tonne (converted to usd/tonne)

The premium for Japan export Shindachi over Japan export H2 shows how competitive high-grade busheling scrap prices are compared with those for the base-grade heavy scrap material.

STEEL MILLS MARGIN

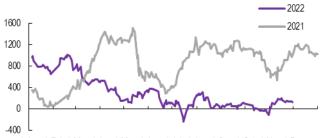
China's Steel Mill rebar margin proxy, yuan/tonne



Formula: Fastmarkets' Steel reinforcing bar (rebar) domestic, ex-whs Eastern China, ¥/tonne - 1.6*Fastmarkets' Iron ore 62% Fe fines, fot Qingdao, ¥/wet tonne - 0.5*China Domestic Coke price - Other costs (1250¥/tonne).

The profitability of China's rebar producing steel mills with portside purchased iron ore and domestic coke

China's Steel Mill HRC margin proxy, yuan/tonne



1-Jan 1-Feb 1-Mar 1-Apr 1-May 1-Jun 1-Jul 1-Aug 1-Sep 1-Oct 1-Nov 1-Dec

Formula: Fastmarkets' Steel hot-rolled coil domestic, ex-whs Eastern China, Wlonne - 1.6*Fastmarkets' Iron ore 62% Fe fines, fot Qlingdao, Wwet tonne - 0.5*China Domestic Coke price - Other costs (1250Wlonne)

The profitability of China's HRC producing steel mills with portside purchased iron ore and domestic coke

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