

MONTHLY FERROUS ANALYTICS

OCTOBER 2022

Chinese mills suffer losses in October as steel prices slump

Chinese steelmakers' margins turned negative in October 2022, with prices for finished steel slipping to their lowest in more than two years amid a bearish demand outlook, and with no stimulus from the Chinese Communist Party Congress. The net margin proxy for rebar producers dropped by 147.33 yuan (\$20.37) per tonne month on month to -27.92 yuan per tonne on a daily average basis in October, while that for hot-rolled coil producers fell by 84.67 yuan per tonne to -13.59 yuan per tonne.

On October 31, eastern China rebar prices slumped to 3,550 yuan per tonne, while HRC prices were 3,600-3,620 yuan per tonne. Rebar underperformed HRC last month due to weaker consumption of construction steel in the peak season, and the forthcoming seasonal slowdown.

Widespread bearishness pulled iron ore prices lower in October, while supply concerns underpinned prices for coke and coking coal. Hot metal costs dipped by \$2.25 per tonne month on month to \$383.89 per tonne on a daily average basis, following a decline of \$12.25 per tonne in September. The decline in hot metal costs was much smaller than in finished steel prices, leading to deeper losses at mills.

Following the sharp decline in rebar prices, scrap prices fell

more than hot metal costs, making scrap cheaper than hot metal again. Domestic heavy scrap prices fell to a three-month low of 2,580-2,780 yuan per tonne on October 28.

Steel prices stemmed their decline in early November, after falling for most of October. Deeper losses at mills, and the coming smog-prone heating season, have increased expectations of more production cuts. But sustained weak demand will keep steel prices subdued, market participants said.

Analyst comment:

The expected recovery in steel demand in October did not materialize so, with the seasonal slowdown in January/February, we have little reason to expect an uptick in the first quarter of 2023. So Fastmarkets has downgraded its price forecast for Chinese flat and long steels. We have also downgraded our steelmaking raw materials forecasts but there is more upside potential to these. Coking coal prices should remain stable, while the current iron ore price forecast is lower than before. But the premium for high-grade iron ore fines and pellet may retain support due to further sintering production cuts lasting to mid-March. Fastmarkets expects margins to remain under pressure.

	Unit	Monthly average	Previous month average	Change	October maximum	October minimum	Current quarterly average	Previous quarterly average
Iron Ore								
Iron Ore 65% Fe Fines/62% Fe Fines Differential	Usd/tonne	13.15	12.38	▲ 0.78	14.41	11.74	13.15	12.36
Iron ore 66% Fe Concentrates/65% Fe Fines Differential	Usd/tonne	0.55	0.06	▲ 0.49	0.85	0.07	0.55	4.23
Hot Metal								
Hot metal cost (Iron ore 62% Fe fines, PHCC)	Usd/tonne	383.89	386.14	▼ 2.25	393.87	362.76	383.89	408.18
East China Domestic HRC / Hot Metal Spread	Usd/tonne	86.37	107.22	▼ 20.85	100.92	77.40	86.37	102.20
East China Domestic Rebar / Hot Metal Spread	Usd/tonne	84.64	113.33	▼ 28.68	107.76	70.09	84.64	114.41
Scrap								
South Korea import HMS 1&2 VS South Korea import H2	Usd/tonne	24.40	23.21	▲1.19	37.06	15.79	24.40	30.22
Vietnam import HMS1&2 VS Vietnam import H2	Usd/tonne	14.38	6.00	▲ 8.38	17.50	10.00	14.38	11.54
China steel scrap premium over hot metal	Usd/tonne	-34.93	5.41	▼ 40.34	-25.61	-41.04	-34.93	-20.78
Steel billet spread (Steel billet import cfr SE Asia VS scrap HMS cfr Vietnam)	Usd/tonne	139.85	136.98	▲ 2.87	142.00	138.50	139.85	151.42
Steel scrap Shindachi Premium over steel scrap H2 fob Japan	Usd/tonne	21.68	26.12	▼ 4.45	32.67	15.24	21.68	31.28
Steel Mills Margin								
China steel mills' Rebar Margin Proxy	Yuan/tonne	-27.92	119.41	▼ 147.33	123.60	-162.05	-27.92	181.29
China steel mills' HRC Margin Proxy	Yuan/tonne	-13.59	71.08	▼84.67	68.60	-102.05	-13.59	86.94

IRON ORE SPREAD

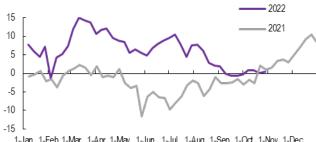
Iron Ore 65% Fe Fines/62% Fe Fines Differential, usd/tonne



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

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,

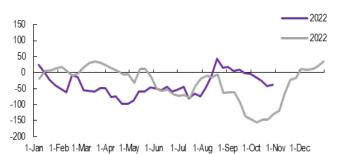


Formula: Fastmarkets' Steel reinforcing bar (rebar) domestic, ex-whs Eastern China, ¥/tonne (converted to usd/tonne) - Hot metal cost

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

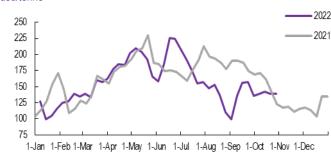
China steel scrap premium over hot metal, usd/tonne



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

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.

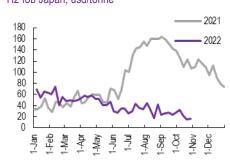
Vietnam import HMS1&2/Vietnam import H2 Differential, usd/tonne



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 182 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

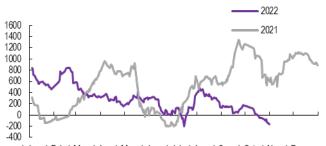


*Formula: Fastmarkets' Steel scrap Shindachi export, fob main port Japan, ¥/tonne (converted to usd/tonne) - Fastmarkets' Steel scrap H2 export, fob main port Japan, ¥/tonne (converted to usd/tonne)

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

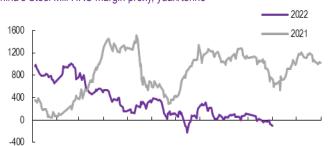
China's Steel Mill rebar margin proxy, yuan/tonne



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 reinforcing bar (rebar) domestic, ex-whs Eastern China, \(\formall \) (none - 1.6'Fastmarkets' Iron ore 62% Fe fines, fot Qingdao, \(\formall \) (wet tonne - 0.5'China Domestic Coke price - 0ther costs (1250\(\formall \) (1250\(\formall \) (none)

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, ¥/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 HRC producing steel mills with portside purchased iron ore and domestic coke

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