Metals Market Index MMi

MMi Dashboard

Iron Ore Price Indices

Iron Ore Port Stock (FOT Qingdao) IOPI62 62% Fe Fines RMB/t	939	24	2.57%	Mar 31st, 2023
Iron Ore Port Stock (FOT Qingdao) IOPI65 65% Fe Fines RMB/t	1051	23.57	2.29%	Mar 31st, 2023
Iron Port Stock (FOT Qingdao) IOPI58 58% Fe Fines RMB/t	822	6	0.78%	Mar 31st, 2023
Iron Ore Seaborne (CFR Qingdao) IOSI62 62% Fe Fines USD/dmt	144.75	3.18	2.25%	Mar 31st, 2023
Iron Ore Seaborne (CFR Qingdao) IOSI65 65% Fe Fines USD/dmt	148.80	3.88	2.68%	Mar 31st, 2023
Iron Ore Port Stock (FOT Qingdao) IOPLI 62.5% Fe Lump RMB/t	1015	20	2.01%	Week Ending Mar 31st, 2023

Exchange Traded Contracts

DCE Iron Ore 62% Fines I2305 (Jan) RMB/t (3pm close)	907.00	1.50	0.17%	Mar 31st, 2023 (3pm close)
SGX Iron Ore (CFR Qingdao) 62% Fe Fines April 23 USD/dmt	125.50	-0.05	-0.04%	Mar 31st, 2023 (5.30 pm Print)
SHFE Rebar RB2305 (Jan) RMB/t	4161	-6	-0.14%	Mar 31st, 2023 (3pm close)

Freight Rates

C3, Tubarao - Qingdao USD/t	20.88	0.05	0.24%	Mar 30th, 2023
C5, W. Australia - Qingdao USD/t	7.89	0.06	0.83%	Mar 30th, 2023

Steel Price

Steel Rebar (China Domestic) RMB/t	4260	50	1.19%	Week Ending Mar 31st, 2023

Inventory Levels

Iron Ore Inventory at Chinese Ports (35) million tonnes	131.02	-1.48	-1.12%	Week Ending Mar 31st, 2023
Steel Inventory in China million tonnes	17.31	-0.53	-2.95%	Week Ending Mar 31st, 2023

Steel Price

Steel HRC (China Domestic) RMB/t	4350	50	1.16%	Week Ending Mar 31st, 2023

IRON ORE PORT STOCK INDEX (IOPI)

Mar 31st, 2023		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne [1]						
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low [2]	High [2]	Price	Change	Change %	MTD	YTD	Low [2]	High [2]
IOPI62	62% Fe Fines	938.93	24	2.6%	869	880	858	892	127.51	3.60	2.9%	120.06	120.58	117.93	122.93
IOPI58	58% Fe Fines	822	6	0.8%	813	798	761	793	112.37	1.18	1.1%	113.29	110.17	105.29	110.04
IOPI65	65% Fe Fines	1050.63	24	2.3%	981	992	970	1003	143.15	3.64	2.6%	136.05	136.43	133.84	138.73

IRON ORE SEABORNE INDEX (IOSI)

Mar 31st, 2023		CFR Qingdao, USD/dry tonne						
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low [2]	High [2]
IOSI62	62% Fe Fines	144.75	3.18	2.25%	111.80	123.37	83.90	159.45
IOSI65	65% Fe Fines	148.80	3.88	2.68%	122.20	139.90	94.45	185.82

MARKET COMMENTARY

DCE iron ore futures rose by 1.17% in the day, the main contract closed 907.some traders quotation is still stronger, and steel mills purchased on demand. total transactions remained insipid. PBF at Shandong port dealt 922 yuan/mt; increased 7 yuan/mt over yesterday. SSF at Shandong port dealt 790 yuan/mt; PBF at Tangshan port dealt 932 yuan/mt; the increased 10 yuan/mt over yesterday. he inventory of 35 ports tracked by SMM totaled 131.02 million tons, down 1.48 million tons from last week and 12.61 million tons from the same period last year. As of now, the inventory of 35 ports has decreased for five consecutive periods. The daily average port dredging volume of imported mines in this period increased by 133000 tons to 304700 tons on a weekly basis. This week, the production of molten iron from the blast furnace rose to a high level in the same period, with fundamentals supporting the rigid demand for raw materials, and steel mills were highly motivated to dredge ports. Port inventories continue to decline. In addition, China's manufacturing PMI for March, announced today, was 51.5, slightly lower than expected but higher than market expectations, which also supported mineral prices.

IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending Mar 31st, 2023		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne [3]						
Index	Fe Content	Price	W-o-W	Change %	MTD	YTD	Low [2]	High [2]	Price	W-o-W	Change %	MTD	YTD	Low [2]	High [2]
IOPLI62	62.5% Fe Lump	1015	20	2.0%	920	1033	770	1405	132.31	3.65	2.84%	118.08	138.23	94.72	199.13

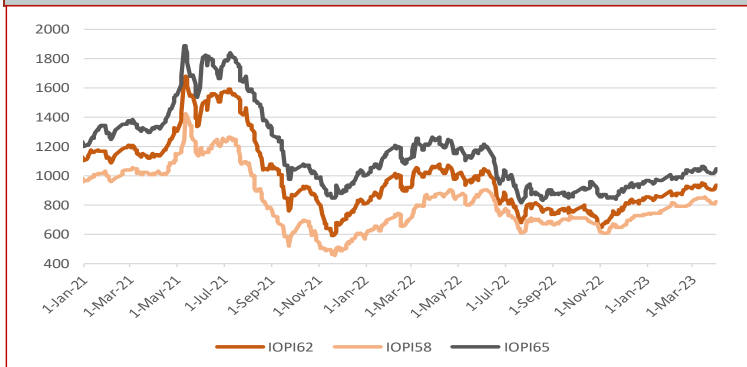
IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

Week Ending Mar 31st, 2023				RMB/tonne (excluding tax) [3]				USD/tonne (excluding tax) [3]			
Province	Region	Product	Basis	This week	Change %	Low [2]	High [2]	This week	Change %	Low [2]	High [2]
Hebei	Hanxing	66% Fe Concentrate	Dry	1037	-6.3%	779	1645	150.80	-6.48%	110.31	255.69
Hebei	Qian'an	65% Fe Concentrate	Dry	1100	1.4%	780	1630	159.96	1.21%	110.51	251.57
Liaoning	Anshan	65% Fe Concentrate	Wet	835	-1.2%	620	1310	121.42	-1.35%	87.40	202.32
Shandong	Zibo	65% Fe Concentrate	Dry	1054	-7.0%	800	1752	153.27	-7.13%	117.19	272.32

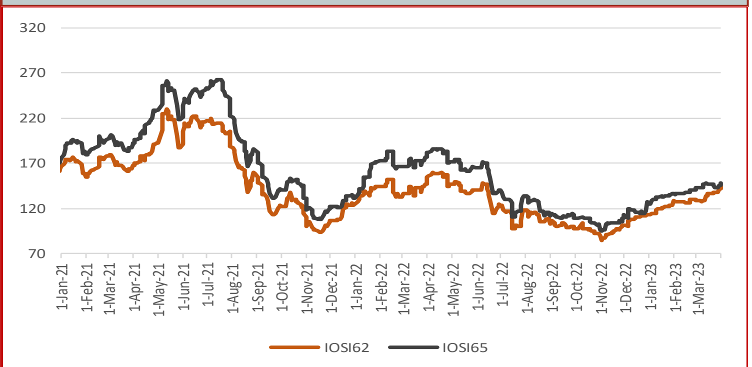
Week Ending Mar 31st, 2023	This week	Change %	Low [2]	High [2]
China Mines Concentrate Composite Index RMB/WT	966.69	-1.74%	706.36	1511.22

[1] Exchange rate applied: RMB/USD = 6.7522 [2] Last 12 months
[3] Weekly exchange rate applied: RMB/USD =6.8651

IRON ORE PORT INDEX, FOT QINGDAO (RMB/WT)



IRON ORE SEABORNE INDEX, CFR QINGDAO (USD/DMT)



IRON ORE PORT STOCK INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Mar 31st, 2023		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne						
Index	Fe Content	December	January	February	March	MTD	QTD	YTD	December	January	February	March	MTD	QTD	YTD
IOPI62	62% Fe Fines	822	856	892	924	869	881	880	109.43	117.00	121.64	124.91	120.06	120.90	120.58
IOPI58	58% Fe Fines	711	751	799	832	813	792	798	95.17	103.34	109.79	113.41	113.29	109.35	110.17
IOPI65	65% Fe Fines	935	968	1003	1036	981	993	992	124.90	132.80	137.36	140.49	136.05	136.72	136.43

IRON ORE SEABORNE INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Mar 31st, 2023		CFR Qingdao, USD/dry tonne						
Index	Fe Content	December	January	February	March	MTD	QTD	YTD
IOSI62	62% Fe Fines	108.92	119.76	127.73	134.77	111.80	111.62	123.37
IOSI65	65% Fe Fines	116.83	132.39	138.06	145.14	122.20	122.46	139.90

FREIGHT RATES

Mar 30th, 2023		FREIGHT RATES - DRY BULK US$/wet tonne				
Route	Designation		Change	Change %	Low [2]	High [2]
W. Australia - Qingdao	C5	7.89	0.06	0.83%	3.57	16.77
Tubarao - Qingdao	C3	20.88	0.05	0.24%	6.70	36.40

IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

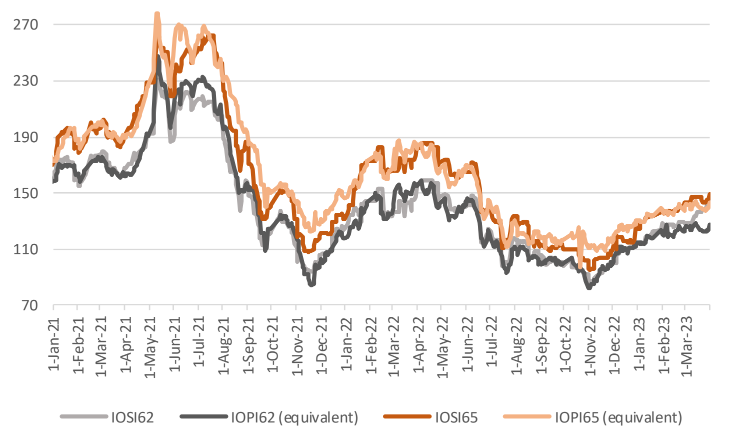
Week Ending Mar 31st, 2023		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne [1]						
Index	Fe Content	December	January	February	March	MTD	QTD	YTD	December	January	February	March	MTD	QTD	YTD
IOPLI62	62.5% Fe Lump	922	964	988	1012	920	918	1033	117.06	126.47	129.95	131.15	118.52	118.76	138.13

IRON ORE INDEX PREMIUMS/DISCOUNTS

Mar 31st, 2023		PORT STOCK INDEX (RMB/WT)	
Index	Fe Content	Spread to IOPI62	% Spread to IOPI62
IOPI58	58% Fe Fines	-117	-12.45%
IOPI65	65% Fe Fines	112	11.90%

Mar 31st, 2023		SEABORNE INDEX (USD/DMT)	
Index	Fe Content	Spread to IOSI62	% Spread to IOSI62
IOSI65	65% Fe Fines	4.05	2.80%

IRON ORE INDEX COMPARISONS (USD/DMT)



CHINA DOMESTIC COMPOSITE MINES INDEX (RMB/Wet Tonne, including VAT)

IRON ORE BRAND SPOT PRICE ASSESMENTS

Mar 31st, 2023	PORT STOCK INDEX (RMB/WT)		
	Price	Change	Diff to IOPI62
Roy Hill	882	24	-57
SIMEC Fines	812	24	-127
PB Fines	906	23	-33
Newman Fines	908	24	-31
MAC Fines	889	24	-50
Jimblebar Blended Fines	804	24	-135
Carajas Fines	1120	24	181
Brazilian SSF	904	24	-35
Brazilian Blend Fines	920	24	-19
RTX Fines	822	24	-117
West Pilbara Fines	850	24	-89

Mar 31st, 2023	SEABORNE INDEX (USD/DMT)		
	Price	Change	Diff to IOSI62
Roy Hill	140.25	3.20	-4.50
SIMEC Fines	136.75	3.20	-8.00
PB Fines	141.00	3.20	-3.75
Newman Fines	143.90	3.20	-0.85
MAC Fines	141.00	3.20	-3.75
Jimblebar Blended Fines	133.40	3.20	-11.35
Carajas Fines	174.30	3.20	29.55
Brazilian SSF	148.50	3.20	3.75
Brazilian Blend Fines	150.15	3.20	5.40
RTX Fines	134.65	3.20	-10.10
West Pilbara Fines	139.00	3.20	-5.75

Mar 31st, 2023	PORT STOCK INDEX (RMB/WT)		
	Price	Change	Diff to IOPI58
SSF	822	6	0
FMG Blended Fines	832	6	10
Robe River	833	6	11
Western Fines	836	6	14
Atlas Fines	829	6	7
Yandi	814	6	-8

IRON ORE INDEX NORMALISATION DIFFERENTIALS

Port Stock Index Product Differentials (RMB/wet tonne)

	Applicable range	Value	Change
1% Fe	High Grade Fe 60 - 63%	5.00	0.00
	High Grade Fe 63 - 64%	5.00	0.00
	High Grade Fe 64 - 65%	5.00	0.00
	High Grade Fe 65 - 65.5%	5.00	0.00
	Low Grade Fe	14.00	-3.00
1% Alumina	High Fe Grade Al <2.25%	35.00	6.00
	High Fe Grade Al 2.25-4%	10.00	0.00
	Low Fe Grade Al <2.25%	50.00	6.00
	Low Fe Grade Al 2.25-4%	13.00	-7.00
1% Silica	High Fe Grade Si <4%	12.00	0.00
	High Fe Grade Si 4-6.5%	20.00	5.00
	Low Fe Grade	5.00	-4.00
0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	5.00	0.00
	High Fe Grade 0.115%<P<0.15%	5.00	0.00
	Low Fe Grade 0.09<P<0.1%	5.00	0.00

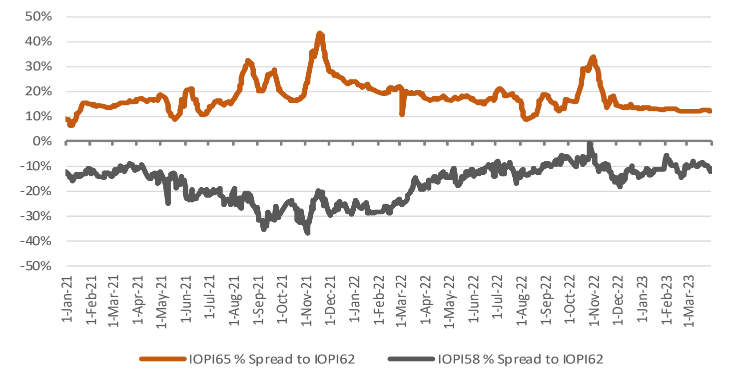
Seaborne Index Product Differentials (USD/dry tonne)

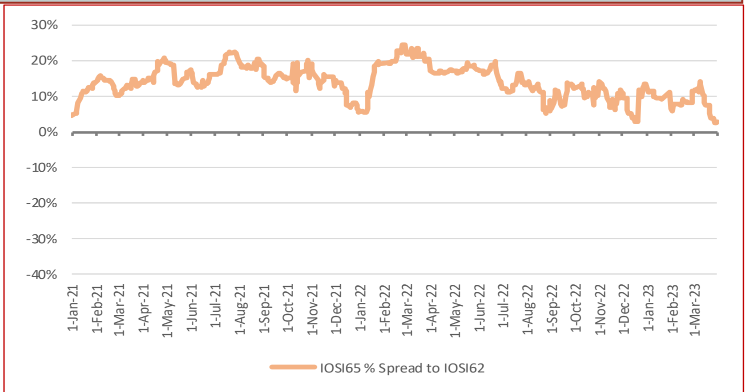
	Applicable range	Value	Change
1% Fe	High Grade Fe 60 - 63%	1.75	0.00
	High Grade Fe 63 - 64%	2.00	-0.50
	High Grade Fe 64 - 65%	2.00	-0.50
	High Grade Fe 65 - 65.5%	2.00	-0.50
1% Alumina	High Fe Grade Al <2.25%	1.75	-0.75
	High Fe Grade Al 2.25-4%	0.75	-0.50
1% Silica	High Fe Grade Si <4%	2.75	-0.25
	High Fe Grade Si 4 - 6.5%	2.25	0.50
0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	0.75	-0.25
	High Fe Grade 0.115%<P<0.15%	5.00	0.00

Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

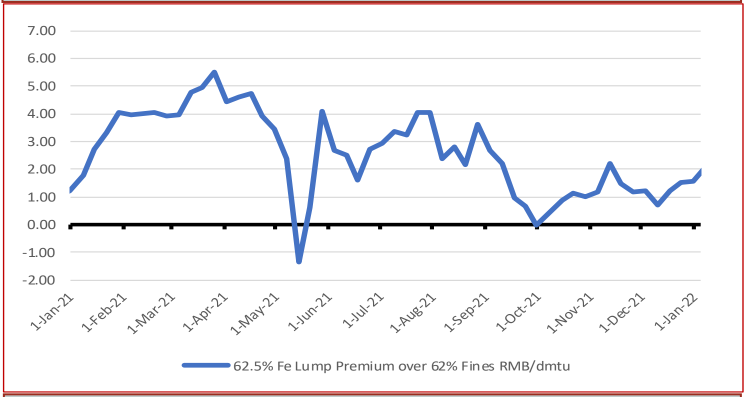
Port	Value	Change	Port	Value	Change	Port	Value	Change	Port	Value	Change
Bayuquan	-100.00	0.00	Fangcheng	-25.00	0.00	Lanshan	0.00	0.00	Rizhao	0.00	0.00
Beilun	0.00	0.00	Jiangyin	-30.00	0.00	Lianyungang	0.00	0.00	Shekou	0.00	0.00
Caofeidian	-10.00	0.00	Jingtang	-10.00	0.00	Majishan	0.00	0.00	Taicang	-30.00	0.00
Dalian	0.00	0.00	Lanqiao	0.00	0.00	Qingdao	0.00	0.00	Tianjin	-15.00	-15.00

IRON ORE INDEX PREMIUMS/DISCOUNTS

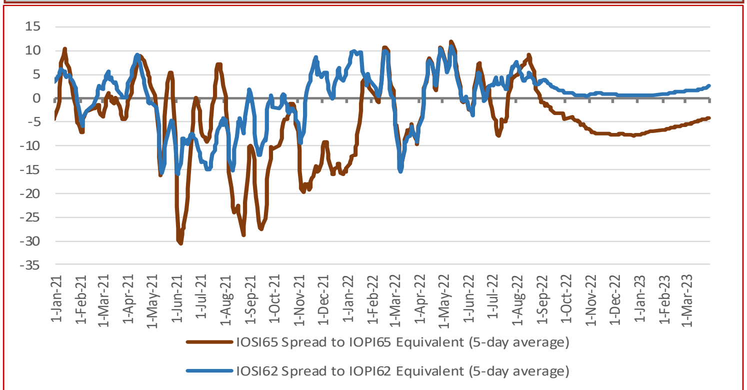




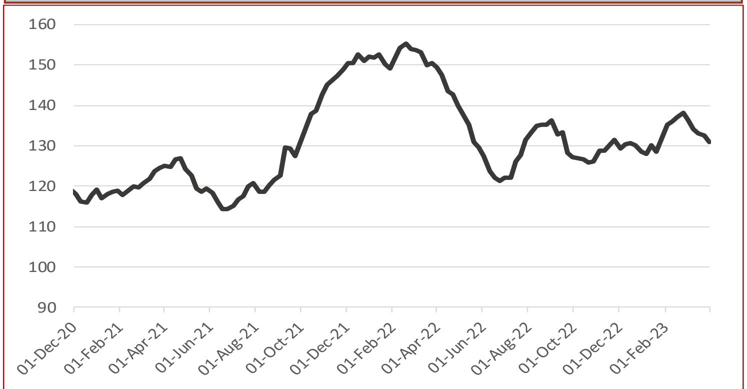
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



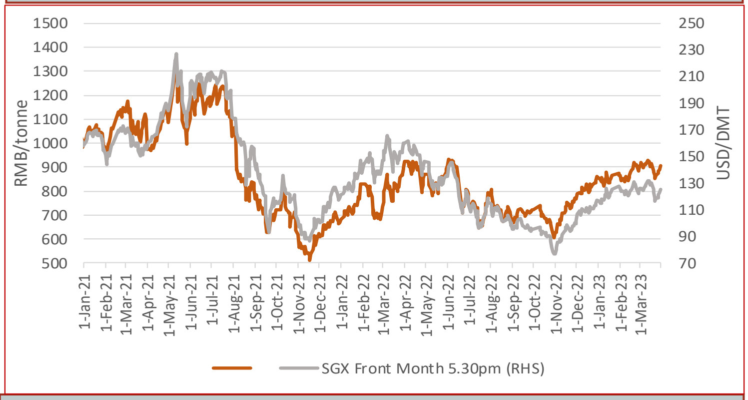
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



IRON ORE PORT INVENTORIES (MILLION TONNES)

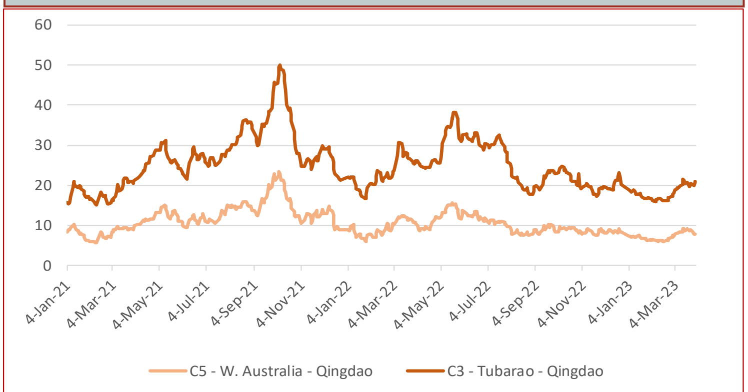
Week Ending Mar 31st, 2023

Province	This week	Change %	Low [2]	High [2]
Jingtang	13.16	1.46%	9.84	19.20
Qingdao	24.75	-1.98%	9.41	26.24
Caofeidian	11.90	-2.70%	9.05	16.29
Tianjin	9.78	-1.31%	7.14	12.97
Rizhao	17.72	-6.39%	9.44	19.26
Total (35 Ports)	131.02	-1.12%	98.80	155.39

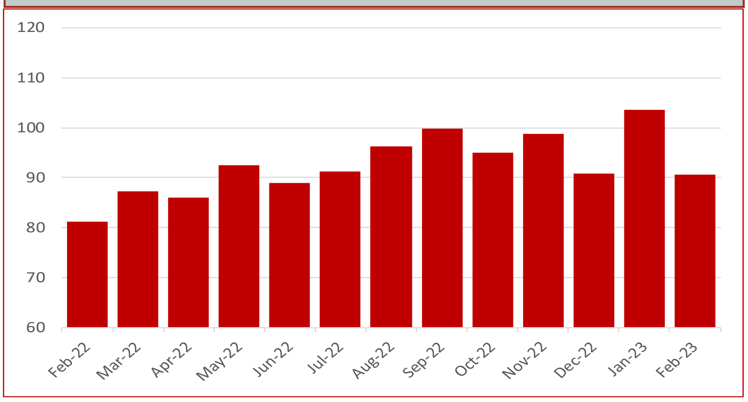
IRON ORE FUTURES CONTRACTS

	DCE (RMB/WMT)			SGX (USD/DMT)		
Closing Date	Mar 31st, 3pm close			Mar 31st, 5:30pm		
Contract	I2305	Change	Change %	Apr. 23	Change	Change %
Closing Price	907.00	1.50	0.17%	125.50	-0.05	-0.04%
Vol traded ('000 lots)	38.53	-7.71	-16.67%	2.83	-0.25	-8.10%
Open positions ('000 lots)	53.25	-2.20	-3.96%	24.15	-0.29	-1.20%
Day Low	905.0	16.50	1.86%	125.50	2.90	2.37%
Day High	914.5	6.50	0.72%	127.40	0.40	0.31%

DRY BULK FREIGHT RATES (USD/MT)



TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)



STEEL SPOT MARKET PRICES—CHINA

Steel Spot Market RMB/tonne

Product	2023/3/31	Change	Change %
ReBar HRB400 ϕ18mm	4,260	50	1.19%
Wirerod Q300 ϕ6.5mm	4,470	50	1.13%
HRC Q235/SS400 5.5mm*1500*C	4,350	50	1.16%
CRC SPCC/ST12 1.0mm*1250*2500	4,790	20	0.42%
Medium & Heavy Plate Q235B 20mm	4,470	40	0.90%
GI ST02Z 1.0mm*1000*C	5,120	20	0.39%
Colour Coated Plate	7,500	0	0.00%

CHINESE STEEL MILL PROFITABILITY

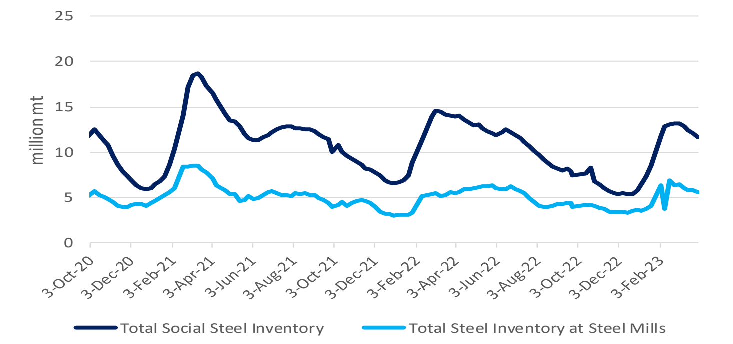
SMM Tracking of Steel Mill P&L - Rebar and Hot-rolled Coil (RMB/tonne)

Category	Price	Change (WoW)	Note
MMi (Fe 62%), USD/mt exluding tax	144.75	7	Mmi CFR Equivalent index for 1st Feb
Coke	2,960	0	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	3,120	0	steel scrap (6mm) in Zhangjiagang, exl. tax
Billet Cost	3,638	10	Q234, incl. tax
Rebar cost - Blast furnace	4,145	11	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	35	19	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	4,154	14	based on actual weight, incl. tax
Hot-rolled coil proft - Blast furnace	186	36	based on Shanghai prices, incl. tax

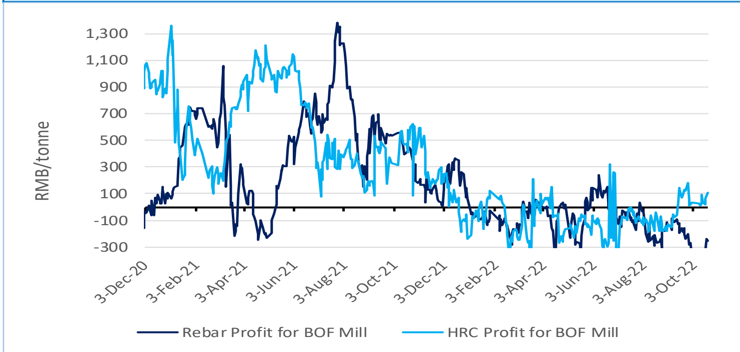
Note: 1. Costs in the table are caluclated based on todays market prices and facout our management, sales, financial and depreciations fe

2. The cost refers to average cost in the industry based on SMM's survey of small, medium and large mills in China

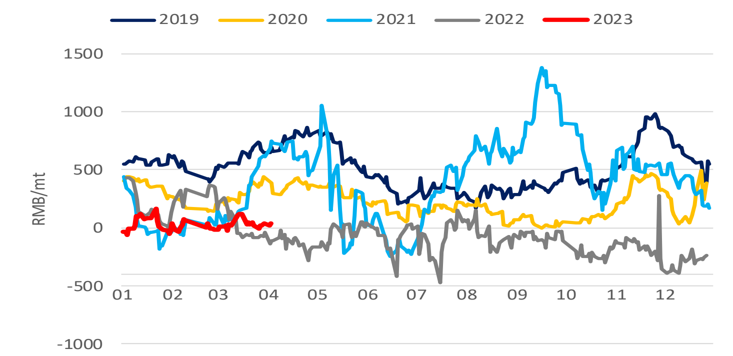
CHINESE STEEL INVENTORIES



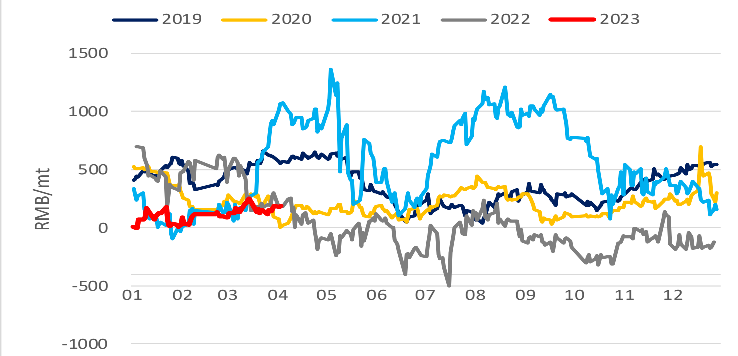
CHINESE STEEL MILL PROFITABILITY



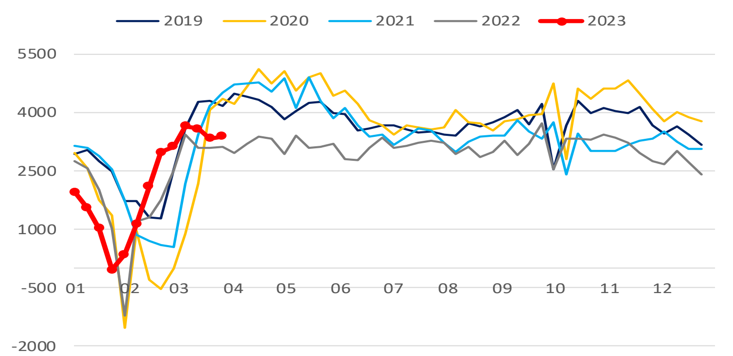
CHINESE STEEL MILL PROFITABILITY—Rebar



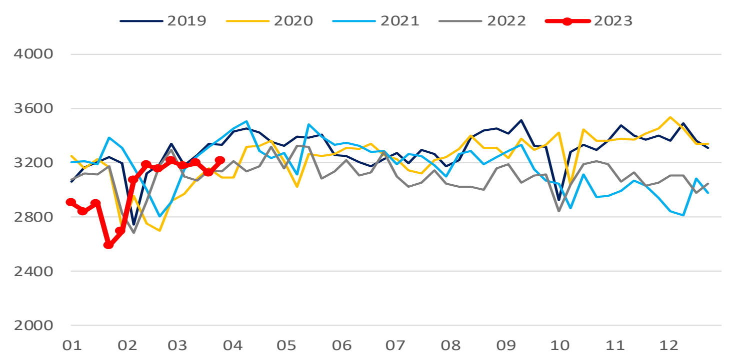
CHINESE STEEL MILL PROFITABILITY—Hot-rolled Coil



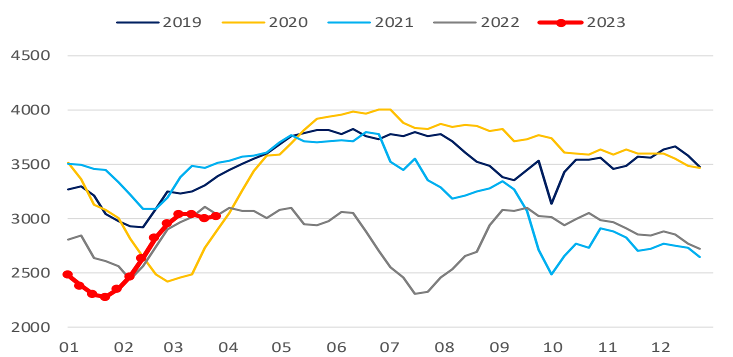
CHINESE STEEL CONSUMPTION—Rebar



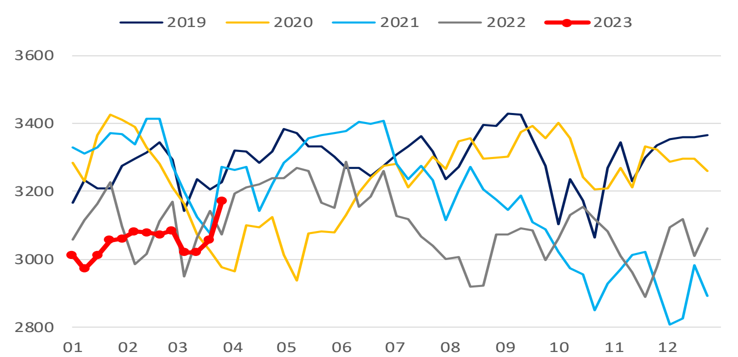
CHINESE STEEL CONSUMPTION—Hot-rolled Coil



CHINESE STEEL PRODUCTION—Rebar



CHINESE STEEL PRODUCTION—Hot-rolled Coil



IRON ORE INDEX SPECIFICATIONS, COMPILATION RATIONALE AND DATA EXCLUSIONS

Iron Ore Index Specifications (Port and Seaborne)

	65% Fe Fines	62% Fe Fines	58% Fe Fines	62.5% Fe Lump
Fe %	65.00	62.00	58.00	62.50
Alumina %	1.40	2.25	2.25	1.50
Silica%	1.50	4.00	5.50	3.50
Phosphorus %	0.06	0.09	0.05	0.08
Sulphur %	0.01	0.02	0.02	0.02
Moisture %	8.00	8.00	9.00	4.00
Sizing	Granular size below 10mm for at least 90% of cargo; maximum of 40% below 150 micron			Size below 6.3mm max 15% Size above 31.15mm max 25%
Pricing Point	Qingdao Port (FOT and CFR respectively)			FOT Qingdao Port
Timing (Seaborne)	Loading within 4 weeks, Delivery within 8 weeks			Delivery within 2 weeks
Payment Terms	L/C at sight			L/C at sight or CAD

Iron Ore Index Compilation Rationale and Data Exclusions

MMi iron ore indices are compiled from data provided by companies that are part of the iron ore supply chain and involved in spot market transactions. The indices are calculated using detailed transaction-level data submitted to MMi by these companies. This data is normalised to the appropriate specifications and screened to remove outliers before volume-weighted average prices are calculated from the remaining core set of data.

For more details on MMi's iron ore methodology please download the guide published on our website at: www.mmiprices.com

Data Exclusions*

	62%	58%	65%
Port Index	0	0	0
Seaborne index	0		0
Lump Index 62.5	0		

* Number of price submissions for iron ore indices that were excluded from index calculations today as they were anomalous and could not be verified

IRON ORE DOMESTIC CONCENTRATE INDEX CALCULATION METHODOLOGY

The compilation method for price index generally refers to the compilation method of CPI price index and other price indices, breakdown the price data and calculate the average value according to a certain method, taking the vertical axis as the regional composite index (average of different grade index) and the horizontal axis as the grade composite index (average of different regional index), a total composite index for domestic ore can be output ultimately. The process system is also adopted in the calculation i.e. each sub-index can be obtained as well.

AVERAGE IRON ORE SPECIFICATIONS APPLIED FOR BRAND PRICE ASSESSMENTS

PORT STOCK BRANDS

Mar 31st, 2023	Specifications applied for 62% brand assessments				
	Fe	Alumina	Silica	Phos	Moisture
Roy Hill	60.88%	2.35%	4.45%	0.055%	9.26%
SIMEC Fines	60.00%	2.30%	6.30%	0.060%	6.00%
PB Fines	61.64%	2.31%	3.87%	0.099%	9.45%
Newman Fines	62.49%	2.31%	3.98%	0.090%	7.72%
MAC Fines	60.43%	2.38%	4.64%	0.078%	7.57%
Jimblebar Blended Fines	60.87%	2.95%	4.53%	0.111%	7.32%
Carajas Fines	64.90%	1.39%	1.82%	0.080%	7.78%
Brazilian SSF	62.00%	1.00%	6.50%	0.040%	6.00%
Brazilian Blend Fines	62.56%	1.58%	4.79%	0.091%	8.72%
RTX Fines	61.00%	3.10%	4.50%	0.135%	7.50%
West Pilbara Fines	60.10%	2.30%	4.70%	0.075%	8.50%

Mar 31st, 2023	Specifications applied for 58% brand assessments				
	Fe	Alumina	Silica	Phos	Moisture
SSF	56.49%	3.20%	6.19%	0.065%	9.18%
FMG Blended Fines	58.20%	2.43%	5.54%	0.057%	8.29%
Robe River	56.44%	3.16%	5.73%	0.042%	8.44%
Western Fines	57.88%	2.87%	7.50%	0.062%	7.45%
Atlas Fines	58.00%	1.85%	5.50%	0.090%	9.00%
Yandi	56.87%	1.58%	6.41%	0.042%	9.53%

SEABORNE BRANDS

	Specifications applied for 62% brand assessments				
	Fe	Alumina	Silica	Phos	Moisture
Roy Hill	60.70%	2.30%	4.90%	0.055%	8.00%
SIMEC Fines	60.00%	2.30%	6.30%	0.060%	6.00%
PB Fines 62%	62.00%	2.60%	4.30%	0.090%	9.50%
Newman Fines	62.30%	2.40%	4.30%	0.095%	8.00%
MAC Fines	60.80%	2.35%	4.40%	0.075%	7.80%
Jimblebar Blended Fines	60.50%	3.10%	4.80%	0.120%	7.80%
Carajas Fines	65.10%	1.50%	1.70%	0.080%	8.50%
Brazilian SSF	62.00%	1.00%	6.50%	0.040%	6.00%
Brazilian Blend Fines	63.00%	1.50%	5.00%	0.070%	7.00%
RTX Fines	61.00%	3.10%	4.50%	0.135%	7.50%
West Pilbara Fines	60.10%	2.30%	4.70%	0.075%	8.50%

BLOOMBERG TICKERS

	PORT STOCK INDICES	
	FOT Qingdao (RMB/wet tonne)	CFR Qingdao Equivalent (USD/dry tonne)
IOPI62	IRCNQ001	IRCNQ004
IOPI58	IRCNQ002	IRCNQ005
IOPI65	IRCNQ003	IRCNQ006
IOPLI62	IRCN0036	IRCN0037

	SEABORNE INDICES
	CFR Qingdao (USD/DMT)
IOSI62	IRCN0034
IOSI65	IRCN0035

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