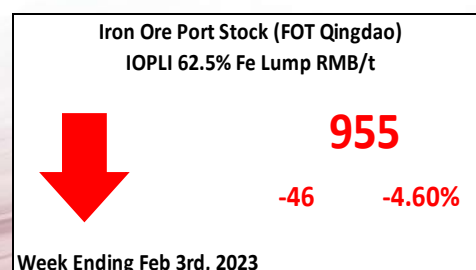
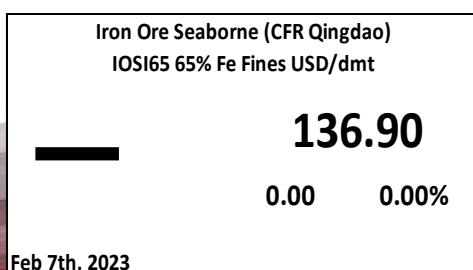
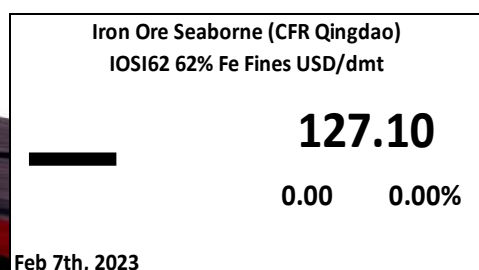
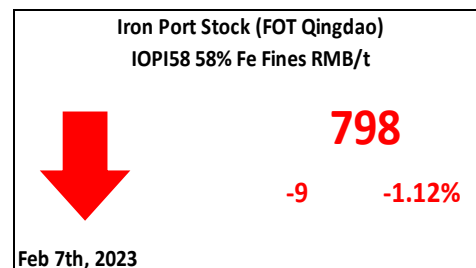
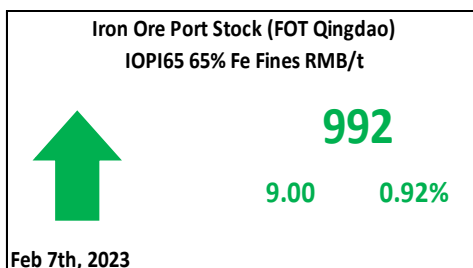
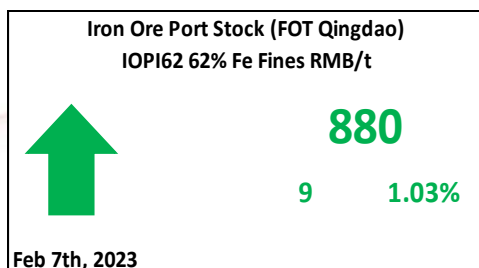


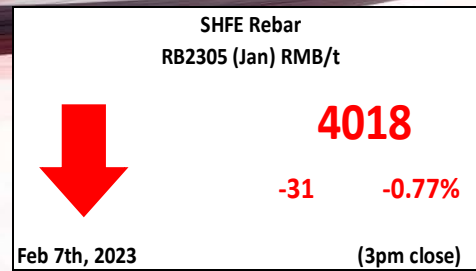
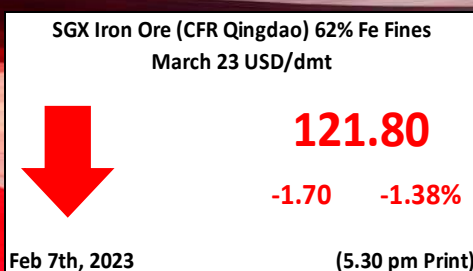
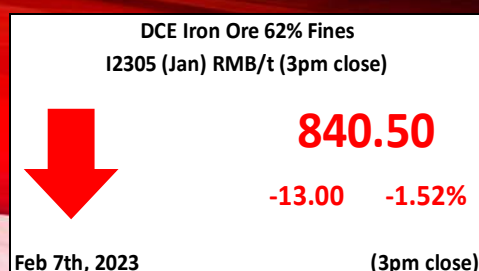


MMi Dashboard

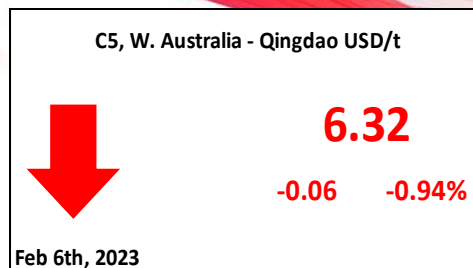
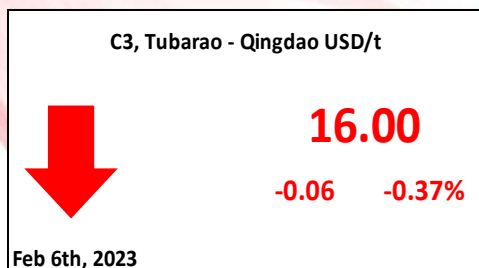
Iron Ore Price Indices



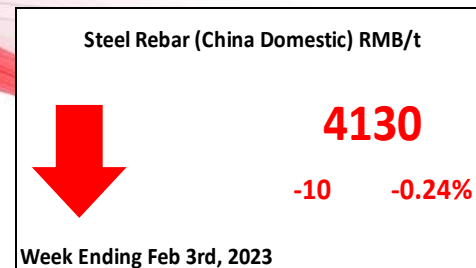
Exchange Traded Contracts



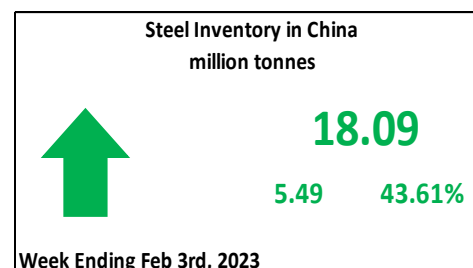
Freight Rates



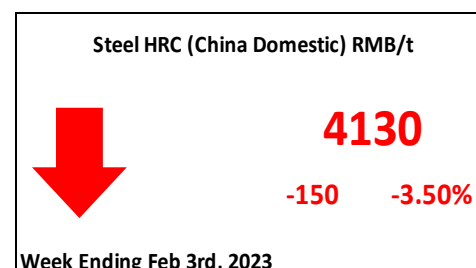
Steel Price



Inventory Levels



Steel Price



IRON ORE PORT STOCK INDEX (IOPI)

Feb 7th, 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	880	9	1.0%	780	862	643	1083	120.58	0.87	0.7%	104.11	119.92	82.29	159.06
IOPI58	58% Fe Fines	798	-9	-1.1%	696	734	604	907	110.17	-1.67	-1.5%	93.43	102.42	77.29	134.15
IOPI65	65% Fe Fines	992	9	0.9%	906	1014	811	1265	136.43	0.81	0.6%	121.40	141.71	108.78	187.25

IRON ORE SEABORNE INDEX (IOSI)

MARKET COMMENTARY

Feb 7th, 2023		CFR Qingdao, USD/dry tonne						
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low ²	High ²
IOSI62	62% Fe Fines	127.10	0.00	0.00%	105.61	122.13	83.90	159.45
IOSI65	65% Fe Fines	136.90	0.00	0.00%	115.98	139.55	94.45	185.82

DCE iron ore futures fell today, the main contract I2305 closed 840.5an decrease of 0.65% throughout the day. Some traders adopt separate quotations, steel mills purchased on demand. Market wait-and-see sentiment increased, total transactions remained insipid. PBF at Shandong port dealt 850-865 yuan/mt, the same as yesterday; PBF at Tangshan port dealt 857 yuan/mt, the same as yesterday, decreased 3 yuan/mt over yesterday. In the short term, the supply and demand of iron ore has changed little. The price drive is mainly driven by steels. At present, the demand for steel is still in the off-season, and the downstream demand is slowly recovering. However, the stock of steel mills is not high, and the production pressure of steel mills is not high. However, the profit is still below the break-even line, and the willingness to purchase iron ore is weak. It is expected that iron ore will still operate in a weak and volatile manner tomorrow.

IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending Feb 3rd, 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	955	-46	-4.6%	892	1037	770	1405	126.78	-6.00	-4.52%	114.49	139.19	95.00	199.00

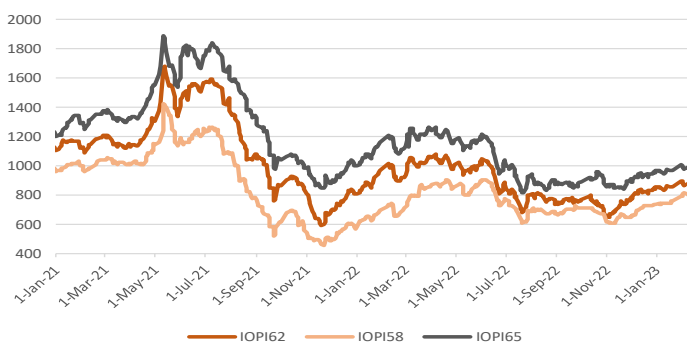
IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

Week Ending Feb 3rd, 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	1084	2.5%	779	1645	160.72	2.49%	110.31	255.69
Hebei	Qian'an	65% Fe Concentrate	Dry	1085	1.4%	780	1630	160.87	1.43%	110.51	251.57
Liaoning	Anshan	65% Fe Concentrate	Wet	790	3.9%	620	1310	117.13	3.98%	87.40	202.32
Shandong	Zibo	65% Fe Concentrate	Dry	1107	2.4%	800	1752	164.13	2.44%	117.19	272.32

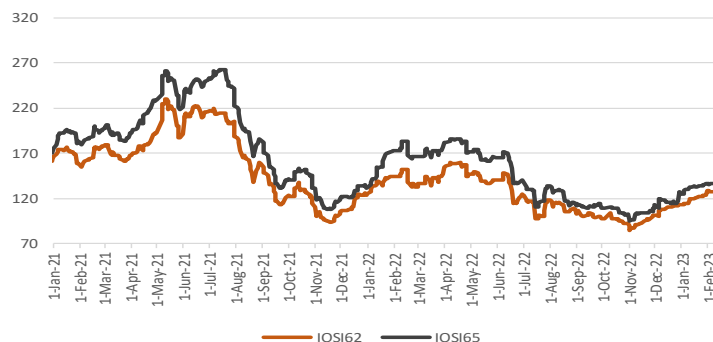
Week Ending Feb 3rd, 2023		This week	Change %	Low ²	High ²
China Mines Concentrate Composite Index RMB/WT		954.44	1.74%	706.36	1511.22

¹ Exchange rate applied: RMB/USD = 6.7522 ² Last 12 months
³ Weekly exchange rate applied: RMB/USD = 6.77208

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

Feb 7th, 2023		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne						
Index	Fe Content	October	November	December	January	MTD	QTD	YTD	October	November	December	January	MTD	QTD	YTD
IOPI62	62% Fe Fines	736	714	822	856	780	779	862	95.56	92.18	109.43	117.00	104.11	104.39	119.92
IOPI58	58% Fe Fines	683	635	711	751	696	694	734	89.34	82.39	95.17	103.34	93.43	93.57	102.42
IOPI65	65% Fe Fines	918	865	935	968	906	907	1014	120.08	112.37	124.90	132.80	121.40	122.16	141.71

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

FREIGHT RATES

Feb 7th, 2023		CFR Qingdao, USD/dry tonne							Feb 6th, 2023						
Index	Fe Content	October	November	December	January	MTD	QTD	YTD	FREIGHT RATES - DRY BULK US\$/wet tonne						
IOSI62	62% Fe Fines	95.80	93.05	108.92	119.76	105.61	106.21	122.13	Route	Designation	Change	Change %	Low ²	High ²	
IOSI65	65% Fe Fines	106.70	102.40	116.83	132.39	115.98	117.14	139.55	W. Australia - Qingdao	C5	6.32	-0.06	-0.94%	3.57	16.77
									Tubarao - Qingdao	C3	16.00	-0.06	-0.37%	6.70	36.40

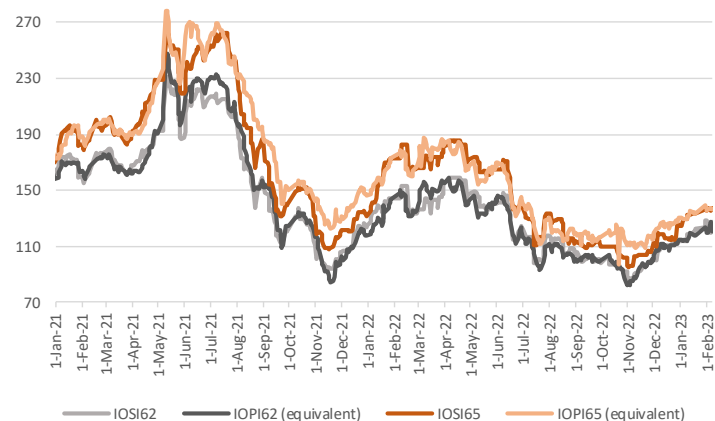
IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending Feb 3rd, 2023		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne ¹						
Index	Fe Content	October	November	December	January	MTD	QTD	YTD	October	November	December	January	MTD	QTD	YTD
IOPLI62	62.5% Fe Lump	877	811	922	964	892	894	1037	109.81	100.83	117.06	126.47	114.49	115.47	139.19

IRON ORE INDEX PREMIUMS/DISCOUNTS

Feb 7th, 2023		PORT STOCK INDEX (RMB/WT)		Feb 7th, 2023		SEABORNE INDEX (USD/DMT)	
Index	Fe Content	Spread to IOPI62	% Spread to IOPI62	Index	Fe Content	Spread to IOSI62	% Spread to IOSI62
IOPI58	58% Fe Fines	-82	-9.32%	IOSI65	65% Fe Fines	9.80	7.71%
IOPI65	65% Fe Fines	112	12.73%				

IRON ORE INDEX COMPARISONS (USD/DMT)



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



IRON ORE BRAND SPOT PRICE ASSESSMENTS

Feb 7th, 2023				Feb 7th, 2023			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	823	9	-57	Roy Hill	122.60	0.00	-4.50
SIMEC Fines	752	9	-128	SIMEC Fines	119.10	0.00	-8.00
PB Fines	848	9	-32	PB Fines	123.35	0.00	-3.75
Newman Fines	849	9	-31	Newman Fines	126.25	0.00	-0.85
MAC Fines	830	9	-50	MAC Fines	123.35	0.00	-3.75
Jimblebar Blended Fines	745	9	-135	Jimblebar Blended Fines	115.75	0.00	-11.35
Carajas Fines	1060	9	180	Carajas Fines	156.65	0.00	29.55
Brazilian SSF	844	9	-36	Brazilian SSF	130.85	0.00	3.75
Brazilian Blend Fines	861	9	-19	Brazilian Blend Fines	132.50	0.00	5.40
RTX Fines	763	9	-117	RTX Fines	117.00	0.00	-10.10
West Pilbara Fines	791	9	-89	West Pilbara Fines	121.35	0.00	-5.75

Feb 7th, 2023			
PORT STOCK INDEX (RMB/WT)			
	Price	Change	Diff to IOPI58
SSF	798	-9	0
FMG Blended Fines	808	-9	10
Robe River	809	-9	11
Western Fines	812	-9	14
Atlas Fines	805	-9	7
Yandi	790	-9	-8

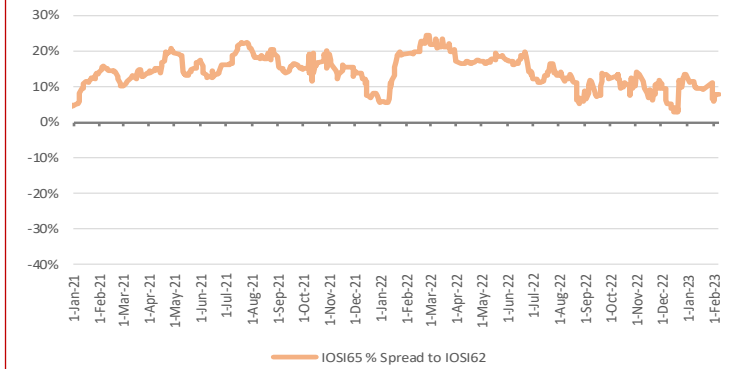
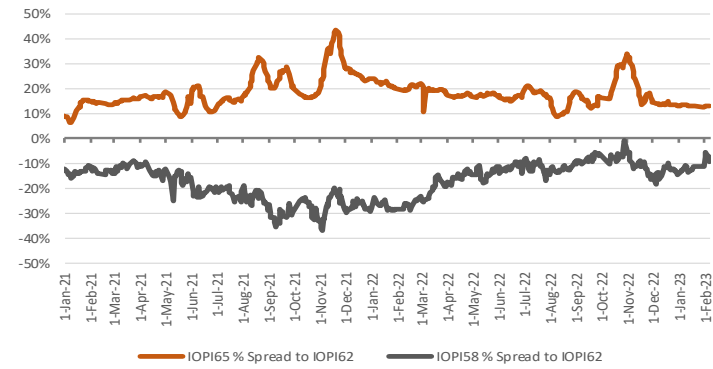
IRON ORE INDEX NORMALISATION DIFFERENTIALS

Port Stock Index Product Differentials (RMB/wet tonne)				Seaborne Index Product Differentials (USD/dry tonne)			
	Applicable range	Value	Change		Applicable range	Value	Change
1% Fe	High Grade Fe 60 - 63%	5.00	0.00	1% Fe	High Grade Fe 60 - 63%	1.75	0.00
	High Grade Fe 63 - 64%	5.00	-5.00		High Grade Fe 63 - 64%	2.00	0.00
	High Grade Fe 64 - 65%	5.00	-5.00		High Grade Fe 64 - 65%	2.00	0.00
	High Grade Fe 65 - 65.5%	5.00	-5.00		High Grade Fe 65 - 65.5%	2.00	0.00
1% Alumina	Low Grade Fe	35.00	4.00	1% Alumina	High Fe Grade Al <2.25%	1.00	0.00
	High Fe Grade Al <2.25%	99.00	0.00		High Fe Grade Al 2.25-4%	0.25	0.00
	High Fe Grade Al 2.25-4%	5.00	0.00				
	Low Fe Grade Al <2.25%	30.00	-5.00				
1% Silica	Low Fe Grade Al 2.25-4%	42.00	6.00	1% Silica	High Fe Grade Si <4%	2.25	0.00
	High Fe Grade Si <4%	23.00	0.00		High Fe Grade Si 4 - 6.5%	0.25	0.00
0.01% Phosphorus	High Fe Grade Si 4-6.5%	25.00	-5.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	0.75	0.00
	Low Fe Grade	42.00	5.00		High Fe Grade 0.115%<P<0.15%	4.25	0.00
	High Fe Grade 0.09%<P<0.115%	11.00	0.00				
	High Fe Grade 0.115%<P<0.15%	11.00	0.00				
	Low Fe Grade 0.09%<P<0.1%	5.00	0.00				

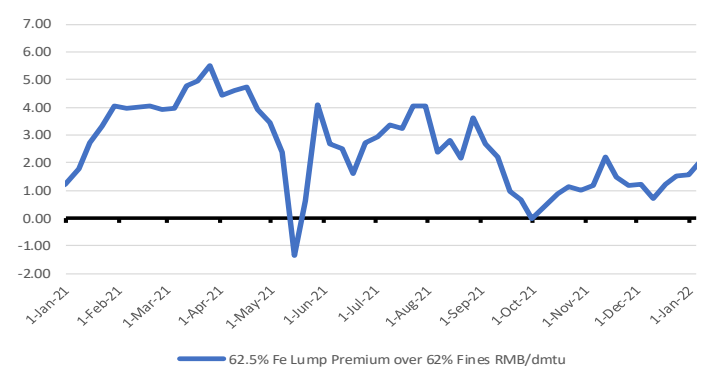
Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

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	5.00	0.00	Jingtang	-20.00	0.00	Majishan	0.00	0.00	Taichang	-30.00	0.00
Dalian	0.00	0.00	Lanqiao	0.00	0.00	Qingdao	0.00	0.00	Tianjin	-10.00	0.00

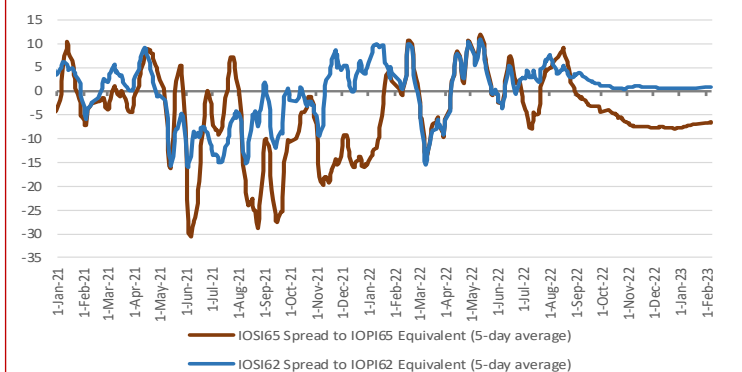
IRON ORE INDEX PREMIUMS/DISCOUNTS



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



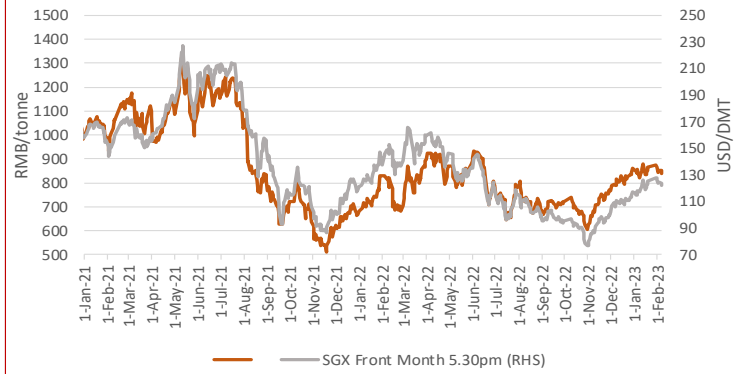
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



IRON ORE PORT INVENTORIES (MILLION TONNES)

Week Ending Feb 3rd, 2023				
Province	This week	Change %	Low ²	High ²
Jingtang	11.77	1.29%	9.84	19.20
Qingdao	26.04	3.13%	9.41	26.24
Caofeidian	11.29	0.62%	9.05	16.29
Tianjin	11.49	7.48%	7.14	12.97
Rizhao	18.93	4.99%	9.44	19.26
Total (35 Ports)	135.31	5.36%	98.80	155.39

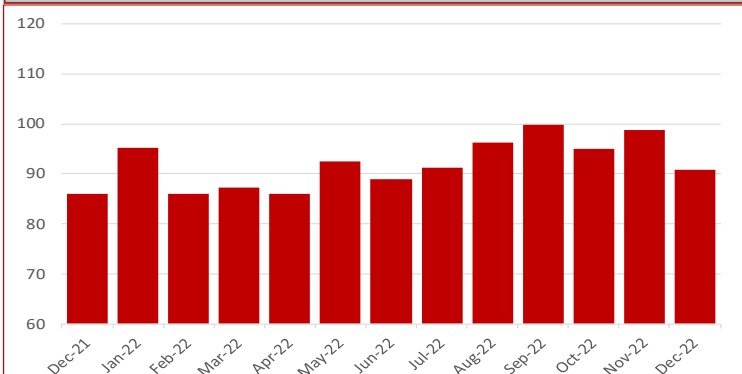
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	Feb 7th, 3pm close			Feb 7th, 5:30pm		
Contract	12305	Change	Change %	Mar. 23	Change	Change %
Closing Price	840.50	-13.00	-1.52%	121.80	-1.70	-1.38%
Vol traded ('000 lots)	81.55	8.77	12.05%	5.37	1.21	29.16%
Open positions ('000 lots)	83.88	-0.43	-0.51%	33.36	0.37	1.13%
Day Low	828.5	-6.50	-0.78%	120.30	-0.85	-0.70%
Day High	853.0	-5.00	-0.58%	123.35	-1.65	-1.32%

DRY BULK FREIGHT RATES (USD/MT)



TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)



STEEL SPOT MARKET PRICES—CHINA

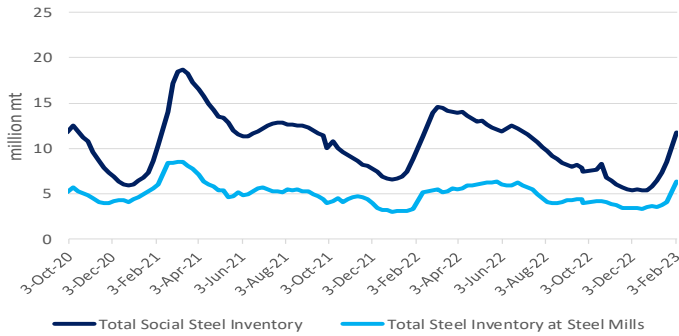
Product	2023/2/3	Change	Change %
ReBar HRB400 φ18mm	4,130	-10	-0.24%
Wirerod Q300 φ6.5mm	4,380	-20	-0.45%
HRC Q235/SS400 5.5mm*1500*C	4,130	-150	-3.50%
CRC SPCC/ST12 1.0mm*1250*2500	4,580	10	0.22%
Medium & Heavy Plate Q235B 20mm	4,240	30	0.71%
GI ST02Z 1.0mm*1000*C	4,810	30	0.63%
Colour Coated Plate	7,500	0	0.00%

CHINESE STEEL MILL PROFITABILITY

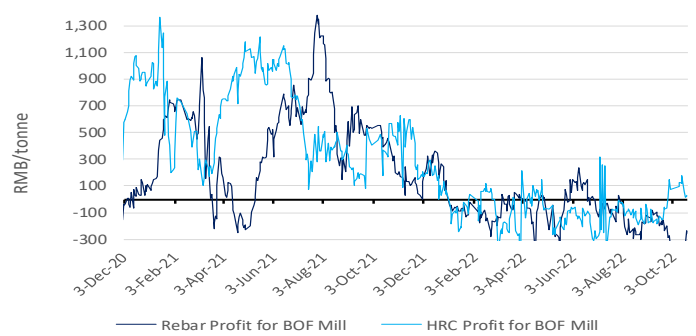
Category	Price	Change (WoW)	Note
MMi (Fe 62%), USD/mt excluding tax	127.70	6	Mmi CFR Equivalent index for 1st Feb
Coke	2,960	0	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	3,120	0	steel scrap (6mm) in Zhangjiagang, ext. tax
Billet Cost	3,585	4	Q234, incl. tax
Rebar cost - Blast furnace	4,275	0	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	-15	-95	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	4,087	8	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	33	-88	based on Shanghai prices, incl. tax

Note: 1. Costs in the table are calculated based on today's market prices and factored our management, sales, financial and depreciations fees.
2. The cost refers to average cost in the industry based on SMM's survey of small, medium and large mills in China

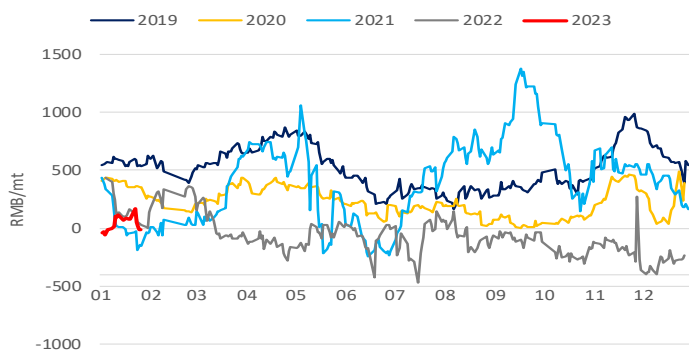
CHINESE STEEL INVENTORIES



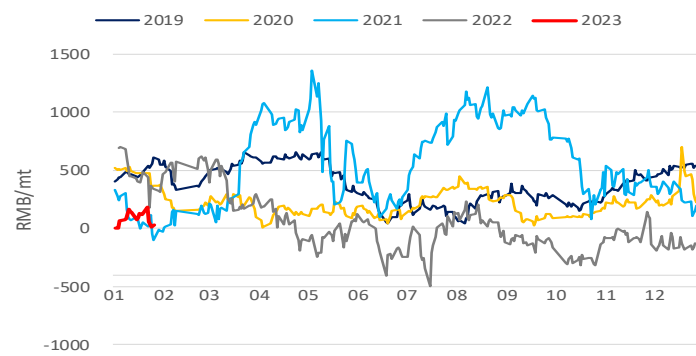
CHINESE STEEL MILL PROFITABILITY



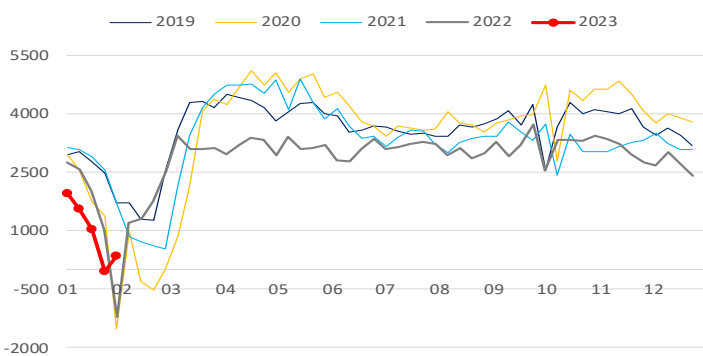
CHINESE STEEL MILL PROFITABILITY—Rebar



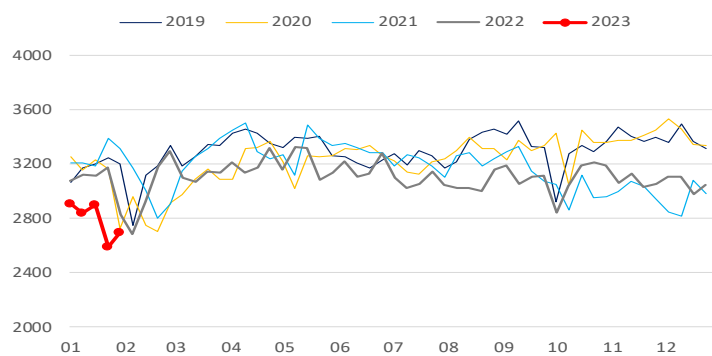
CHINESE STEEL MILL PROFITABILITY—Hot-rolled Coil



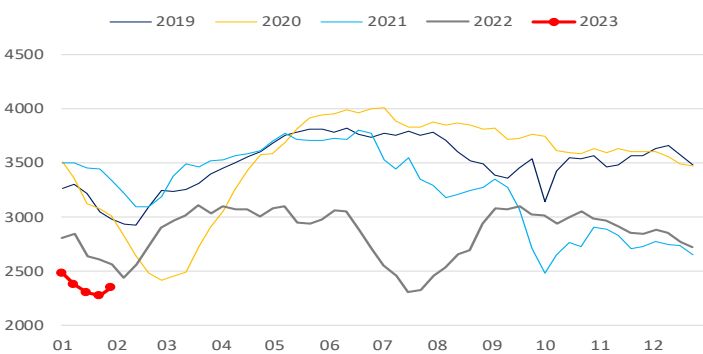
CHINESE STEEL CONSUMPTION—Rebar



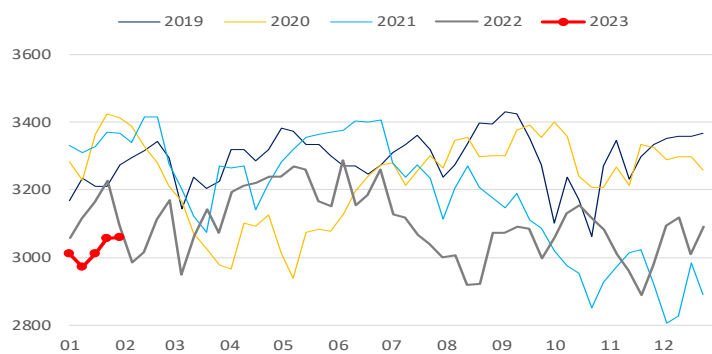
CHINESE STEEL CONSUMPTION—Hot-rolled Coil



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)					Iron Ore Index Compilation Rationale and Data Exclusions
	65% Fe Fines	62% Fe Fines	58% Fe Fines	62.5% Fe Lump	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
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		

Data Exclusions*			
Port Index	62%	58%	65%
Seaborne index	0	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						SEABORNE BRANDS					
Feb 7th, 2023	Specifications applied for 62% brand assessments						Specifications applied for 62% brand assessments				
	Fe	Alumina	Silica	Phos	Moisture		Fe	Alumina	Silica	Phos	Moisture
Roy Hill	60.88%	2.35%	4.45%	0.055%	9.26%	Roy Hill	60.70%	2.30%	4.90%	0.055%	8.00%
SIMEC Fines	60.00%	2.30%	6.30%	0.060%	6.00%	SIMEC Fines	60.00%	2.30%	6.30%	0.060%	6.00%
PB Fines	61.64%	2.31%	3.87%	0.099%	9.45%	PB Fines 62%	62.00%	2.60%	4.30%	0.090%	9.50%
Newman Fines	62.49%	2.31%	3.98%	0.090%	7.72%	Newman Fines	62.30%	2.40%	4.30%	0.095%	8.00%
MAC Fines	60.43%	2.38%	4.64%	0.078%	7.57%	MAC Fines	60.80%	2.35%	4.40%	0.075%	7.80%
Jimblebar Blended Fines	60.87%	2.95%	4.53%	0.111%	7.32%	Jimblebar Blended Fines	60.50%	3.10%	4.80%	0.120%	7.80%
Carajas Fines	64.90%	1.39%	1.82%	0.080%	7.78%	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 SSF	62.00%	1.00%	6.50%	0.040%	6.00%
Brazilian Blend Fines	62.56%	1.58%	4.79%	0.091%	8.72%	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%	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%	West Pilbara Fines	60.10%	2.30%	4.70%	0.075%	8.50%

Feb 7th, 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%

BLOOMBERG TICKERS

PORT STOCK INDICES				SEABORNE INDICES	
	FOT Qingdao (RMB/wet tonne)	CFR Qingdao Equivalent (USD/dry tonne)		CFR Qingdao (USD/DMT)	
IOPI62	IRCNQ001	IRCNQ004	IOSI62	IRCN0034	
IOPI58	IRCNQ002	IRCNQ005	IOSI65	IRCN0035	
IOPI65	IRCNQ003	IRCNQ006			
IOPLI62	IRCN0036	IRCN0037			

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