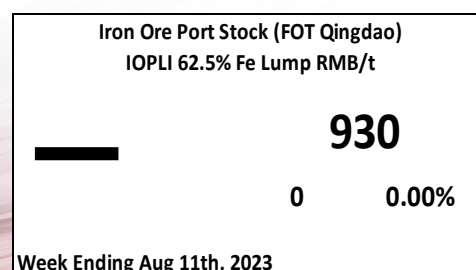
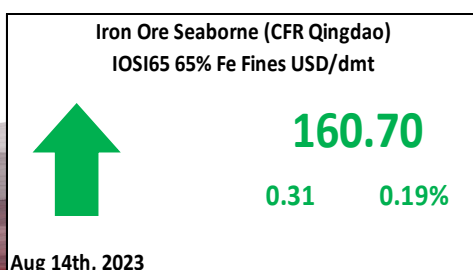
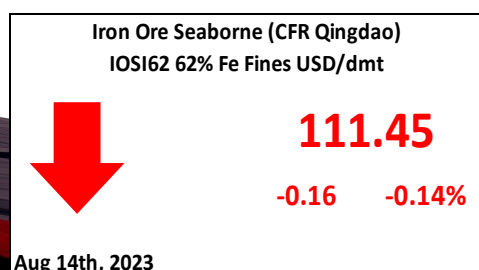
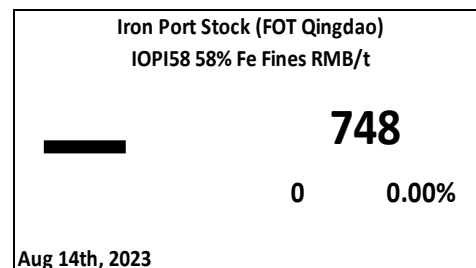
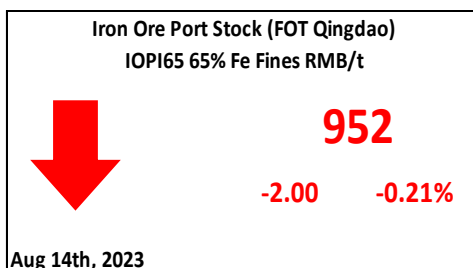
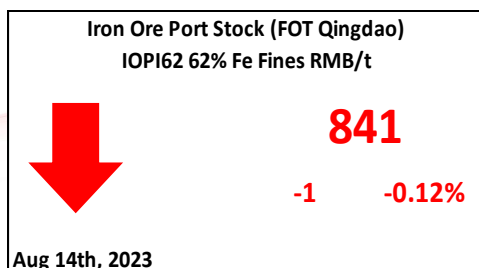


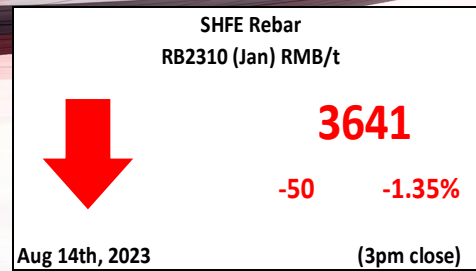
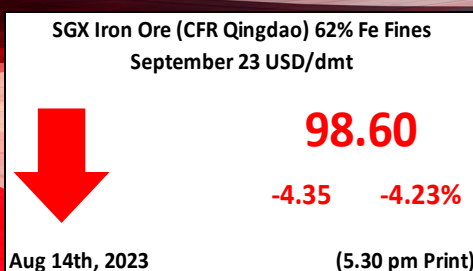
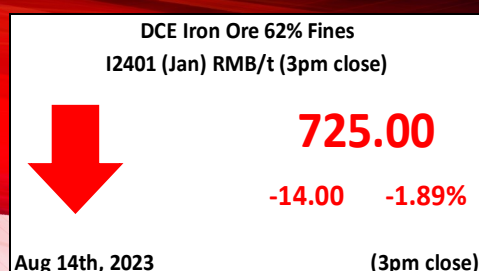


MMi Dashboard

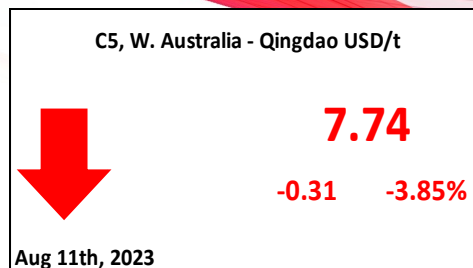
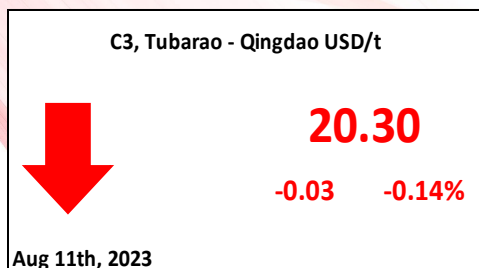
Iron Ore Price Indices



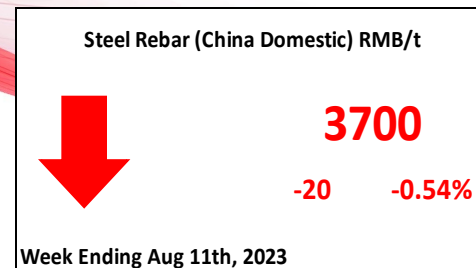
Exchange Traded Contracts



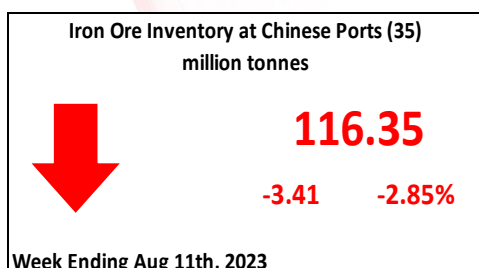
Freight Rates



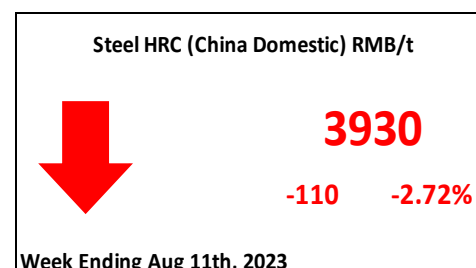
Steel Price



Inventory Levels



Steel Price



IRON ORE PORT STOCK INDEX (IOPI)

Aug 14th, 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	841	-1	-0.1%	869	880	858	892	109.09	-0.26	-0.2%	120.06	120.58	117.93	122.93
IOPI58	58% Fe Fines	748	0	0.0%	813	798	761	793	97.67	-0.11	-0.1%	113.29	110.17	105.29	110.04
IOPI65	65% Fe Fines	952	-2	-0.2%	981	992	970	1003	123.99	-0.37	-0.3%	136.05	136.43	133.84	138.73

IRON ORE SEABORNE INDEX (IOSI)

MARKET COMMENTARY

Aug 14th, 2023		CFR Qingdao, USD/dry tonne						
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low ²	High ²
IOSI62	62% Fe Fines	111.45	-0.16	-0.14%	113.50	121.81	83.90	146.75
IOSI65	65% Fe Fines	160.70	0.31	0.19%	128.90	140.17	94.45	160.70

DCE iron ore futures declined by 0.41% today, the main contract closed at 725. The traders' willingness to ship is general. The steel mills are not active to purchase. The overall trading sentiment of the market is less. PBF at Shandong port deal 828 yuan/mt, decrease 13 yuan/mt. PBF at Tangshan port deal 840 yuan/mt. From a supply side perspective, the total global iron ore shipments recorded by SMM decreased by 3.8% month on month to 29.75 million tons; Among them, the volume of shipments from Australia has slightly decreased, while shipments from Brazil have rebounded. Due to the fading impact of typhoon weather, the efficiency of port operations has increased, and the arrival volume of major ports in China has significantly increased. On the demand side, the current level control policy is uncertain, and steel mills have a high production enthusiasm under good profit margins. The current supply and demand pattern supports ore prices, but considering that this week is during the mid month macro data release period, market sentiment may be affected by news, and it is expected that iron ore prices will mainly fluctuate in the short term.

IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending Aug 11th, 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	930	0	0.0%	933	1018	770	1026	116.23	-0.31	-0.26%	119.99	135.19	95.00	137.00

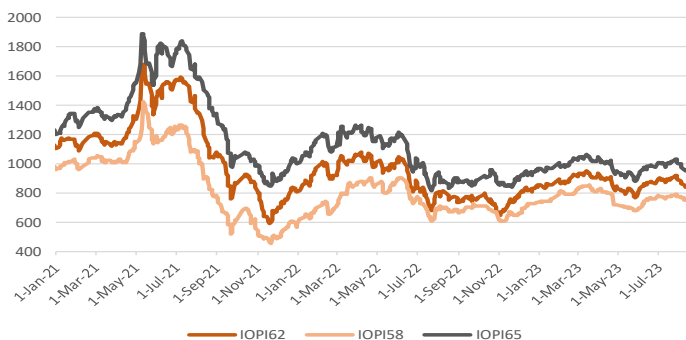
IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

Week Ending Aug 11th, 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	958	-5.0%	779	1645	133.91	-5.18%	110.31	255.69
Hebei	Qian'an	65% Fe Concentrate	Dry	1075	-1.4%	780	1630	150.27	-1.60%	110.51	251.57
Liaoning	Anshan	65% Fe Concentrate	Wet	810	0.0%	620	1310	113.22	-0.23%	87.40	202.32
Shandong	Zibo	65% Fe Concentrate	Dry	965	-5.6%	800	1752	134.89	-5.80%	117.19	272.32

Week Ending Aug 11th, 2023		This week	Change %	Low ²	High ²
China Mines Concentrate Composite Index RMB/WT		931.88	-2.39%	706.36	1511.22

¹ Exchange rate applied: RMB/USD = 6.7522 ² Last 12 months
³ Weekly exchange rate applied: RMB/USD = 6.87528

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

Aug 14th, 2023		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne						
Index	Fe Content	April	May	June	July	MTD	QTD	YTD	April	May	June	July	MTD	QTD	YTD
IOPI62	62% Fe Fines	879	804	863	896	869	881	880	118.84	106.85	112.38	116.58	120.06	120.90	120.58
IOPI58	58% Fe Fines	782	698	748	777	813	792	798	106.43	93.21	97.98	101.68	113.29	109.35	110.17
IOPI65	65% Fe Fines	991	916	975	1008	981	993	992	134.47	122.23	127.41	131.57	136.05	136.72	136.43

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

FREIGHT RATES

Aug 14th, 2023		CFR Qingdao, USD/dry tonne							Aug 11th, 2023							
Index	Fe Content	April	May	June	July	MTD	QTD	YTD	Route		Designation	Change	Change %	Low ²	High ²	
IOSI62	62% Fe Fines	144.76	108.53	110.54	108.57	112.14	113.26	121.81	W. Australia - Qingdao		C5	7.74	-0.31	-3.85%	3.57	16.77
IOSI65	65% Fe Fines	147.67	127.20	135.30	147.39	122.86	128.59	140.17	Tubarao - Qingdao		C3	20.30	-0.03	-0.14%	6.70	36.40

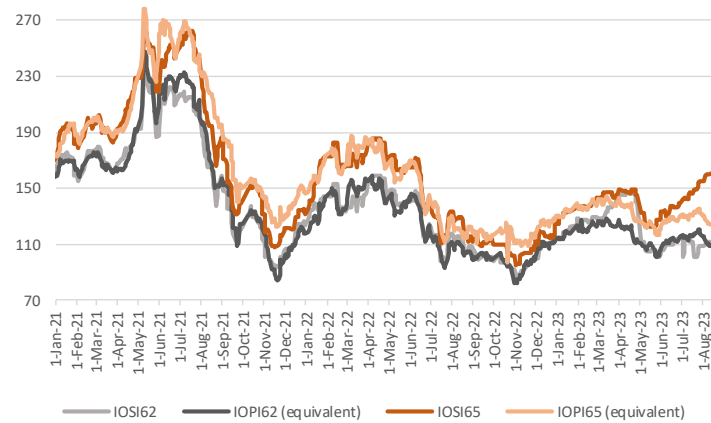
IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending Aug 11th, 2023		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne ¹						
Index	Fe Content	April	May	June	July	MTD	QTD	YTD	April	May	June	July	MTD	QTD	YTD
IOPLI62	62.5% Fe Lump	983	919	969	980	925	931	1032	132.68	117.67	121.33	122.51	119.39	120.02	137.99

IRON ORE INDEX PREMIUMS/DISCOUNTS

Aug 14th, 2023		PORT STOCK INDEX (RMB/WT)		Aug 14th, 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	-93	-11.06%	IOSI65	65% Fe Fines	49.25	44.19%
IOPI65	65% Fe Fines	111	13.20%				

IRON ORE INDEX COMPARISONS (USD/DMT)



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



IRON ORE BRAND SPOT PRICE ASSESSMENTS

Aug 14th, 2023				Aug 14th, 2023			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	784	-1	-57	Roy Hill	106.95	-0.15	-4.50
SIMEC Fines	713	-1	-128	SIMEC Fines	103.45	-0.15	-8.00
PB Fines	810	-1	-31	PB Fines	107.70	-0.15	-3.75
Newman Fines	810	-1	-31	Newman Fines	111.60	0.90	0.15
MAC Fines	791	-1	-50	MAC Fines	107.70	-0.15	-3.75
Jimblebar Blended Fines	706	-1	-135	Jimblebar Blended Fines	100.10	-0.15	-11.35
Carajas Fines	1021	-1	180	Carajas Fines	141.00	-0.15	29.55
Brazilian SSF	804	-1	-37	Brazilian SSF	115.20	-0.15	3.75
Brazilian Blend Fines	823	-1	-18	Brazilian Blend Fines	116.85	-0.10	5.40
RTX Fines	724	-1	-117	RTX Fines	101.35	-0.10	-10.10
West Pilbara Fines	752	-1	-89	West Pilbara Fines	105.70	-0.15	-5.75

Aug 14th, 2023			
PORT STOCK INDEX (RMB/WT)			
	Price	Change	Diff to IOPI58
SSF	748	0	0
FMG Blended Fines	757	0	9
Robe River	758	0	10
Western Fines	761	0	13
Atlas Fines	755	0	7
Yandi	741	0	-7

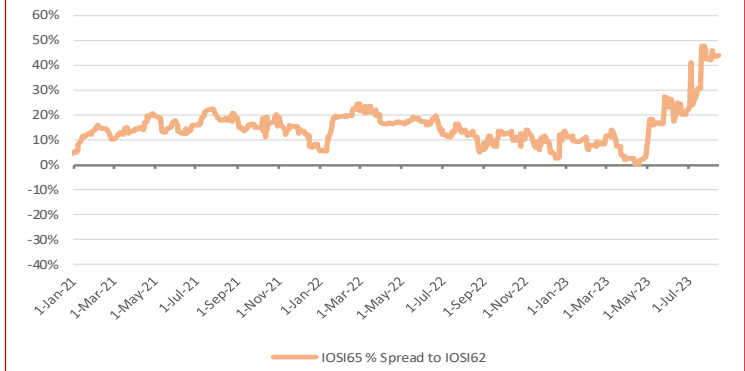
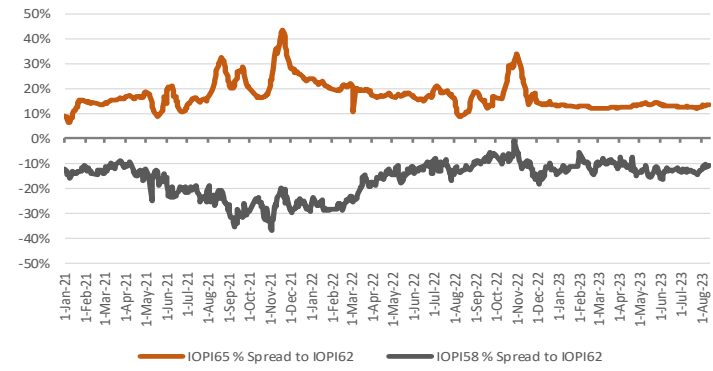
IRON ORE INDEX NORMALISATION DIFFERENTIALS

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%	14.00	-1.00	1% Fe	High Grade Fe 60 - 63%	2.00	0.00
	High Grade Fe 63 - 64%	25.00	0.00		High Grade Fe 63 - 64%	7.00	0.00
	High Grade Fe 64 - 65%	25.00	0.00		High Grade Fe 64 - 65%	7.00	0.00
	High Grade Fe 65 - 65.5%	25.00	0.00		High Grade Fe 65 - 65.5%	7.00	0.00
1% Alumina	Low Grade Fe	19.00	2.00	1% Alumina	High Fe Grade Al <2.25%	3.25	0.00
	High Fe Grade Al <2.25%	22.00	1.00		High Fe Grade Al 2.25-4%	1.25	0.00
	High Fe Grade Al 2.25-4%	10.00	-7.00				
	Low Fe Grade Al <2.25%	20.00	0.00				
1% Silica	Low Fe Grade Al 2.25-4%	9.00	4.00	1% Silica	High Fe Grade Si <4%	7.00	0.00
	High Fe Grade Si <4%	7.00	2.00		High Fe Grade Si 4 - 6.5%	4.50	0.00
	High Fe Grade Si 4-6.5%	5.00	0.00				
0.01% Phosphorus	Low Fe Grade	14.00	0.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	1.50	0.00
	High Fe Grade 0.09%<P<0.115%	5.00	0.00		High Fe Grade 0.115%<P<0.15%	6.00	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

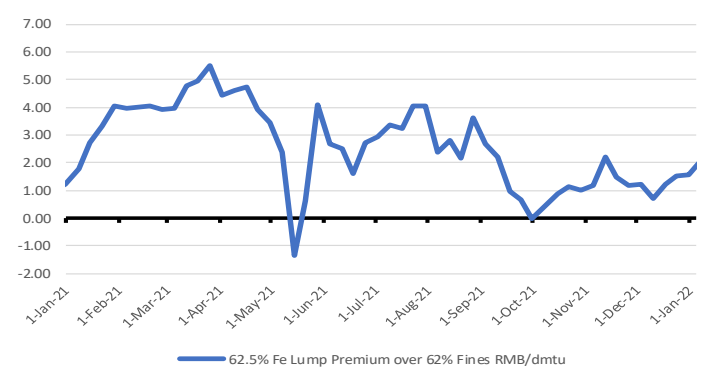
Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

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	0.00	0.00	Jingtang	0.00	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	0.00

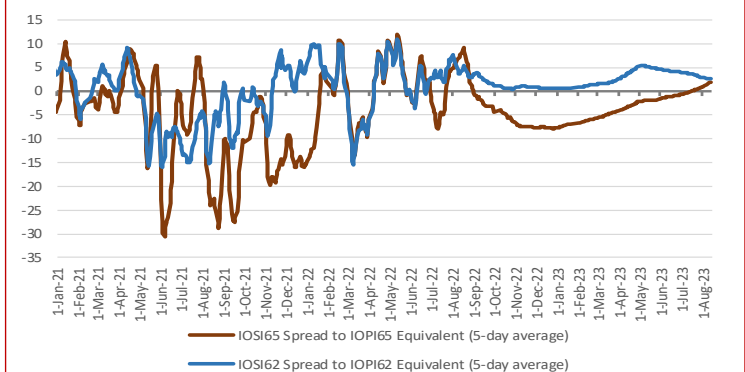
IRON ORE INDEX PREMIUMS/DISCOUNTS



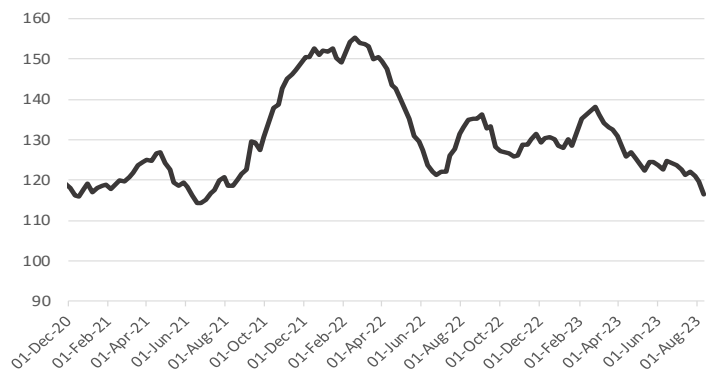
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



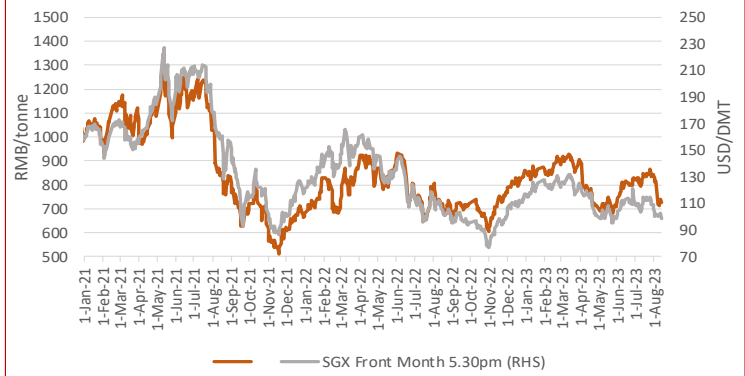
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



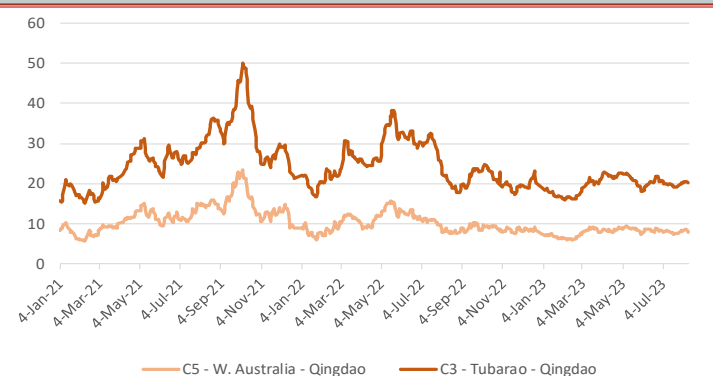
IRON ORE PORT INVENTORIES (MILLION TONNES)

Week Ending Aug 11th, 2023				
Province	This week	Change %	Low ²	High ²
Jingtang	11.92	-3.64%	9.84	19.20
Qingdao	24.26	-1.18%	9.41	26.24
Caofeidian	10.68	-3.70%	9.05	16.29
Tianjin	8.73	4.80%	7.14	12.97
Rizhao	13.52	-4.52%	9.44	19.26
Total (35 Ports)	116.35	-2.85%	98.80	155.39

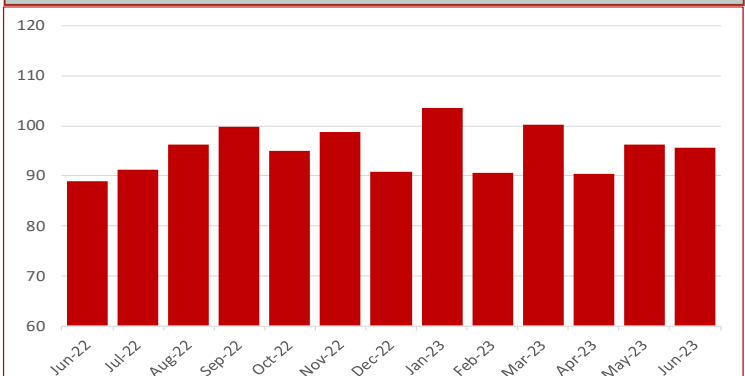
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	Aug 14th, 3pm close			Aug 14th, 5:30pm		
Contract	I2401	Change	Change %	Sep. 23	Change	Change %
Closing Price	725.00	-14.00	-1.89%	98.60	-4.35	-4.23%
Vol traded ('000 lots)	53.53	-12.59	-19.04%	4.62	-1.17	-20.18%
Open positions ('000 lots)	65.77	0.31	0.48%	33.67	0.18	0.55%
Day Low	720.0	2.50	0.35%	99.90	-0.65	-0.65%
Day High	739.5	-1.00	-0.14%	103.45	-0.05	-0.05%

DRY BULK FREIGHT RATES (USD/MT)



TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)



STEEL SPOT MARKET PRICES—CHINA

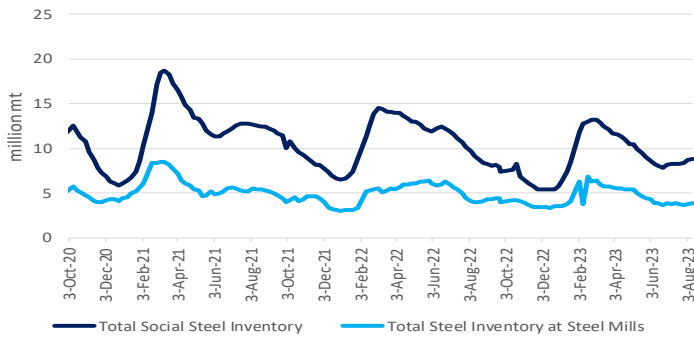
Product	2023/8/11	Change	Change %
ReBar HRB400 φ18mm	3,700	-20	-0.54%
Wirerod Q300 φ6.5mm	3,930	-20	-0.51%
HRC Q235/SS400 5.5mm*1500*C	3,930	-110	-2.72%
CRC SPCC/ST12 1.0mm*1250*2500	4,680	0	0.00%
Medium & Heavy Plate Q235B 20mm	4,000	-30	-0.74%
GI ST02Z 1.0mm*1000*C	5,010	0	0.00%
Colour Coated Plate	7,000	0	0.00%

CHINESE STEEL MILL PROFITABILITY

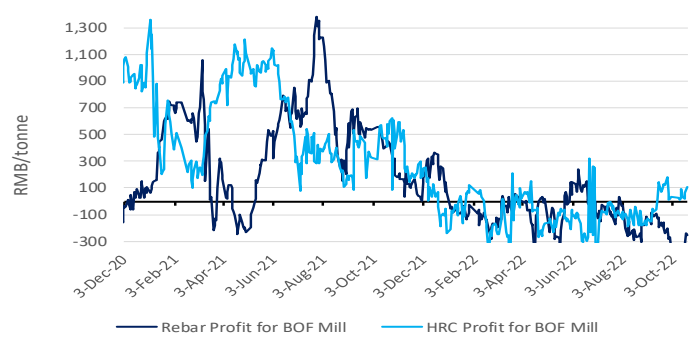
SMM Tracking of Steel Mill P&L - Rebar and Hot-rolled Coil (RMB/tonne)			
Category	Price	Change (WoW)	Note
MMi (Fe 62%), USD/mt excluding tax	111.61	3	Mmi CFR Equivalent index for 1st Feb
Coke	2,450	0	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	2,920	-60	steel scrap (6mm) in Zhangjiagang, excl. tax
Billet Cost	3,245	-65	Q234, incl. tax
Rebar cost - Blast furnace	3,701	-73	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	-101	13	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	3,720	-75	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	180	-15	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

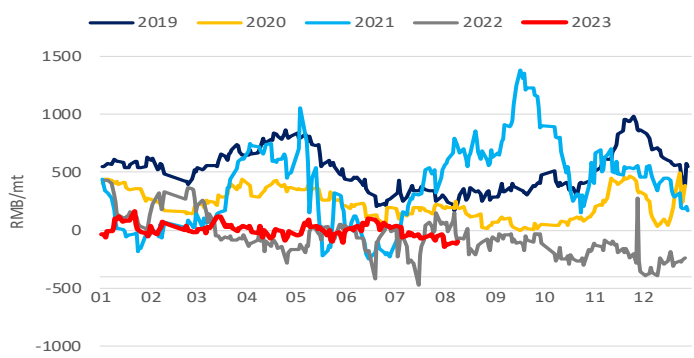
CHINESE STEEL INVENTORIES



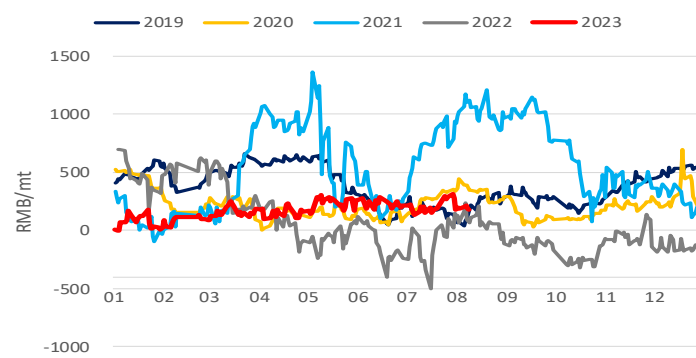
CHINESE STEEL MILL PROFITABILITY



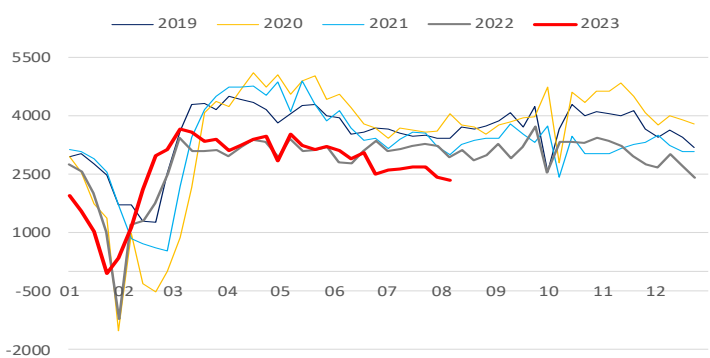
CHINESE STEEL MILL PROFITABILITY—Rebar



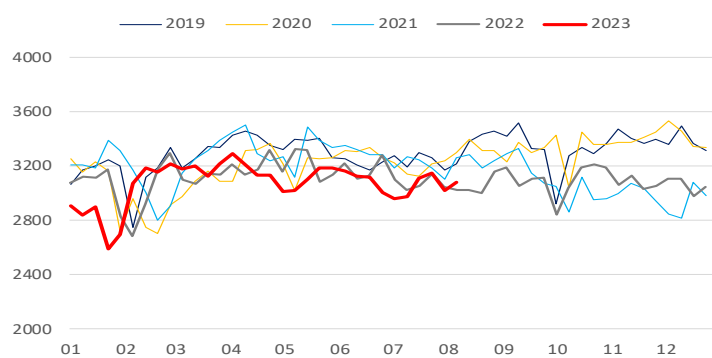
CHINESE STEEL MILL PROFITABILITY—Hot-rolled Coil



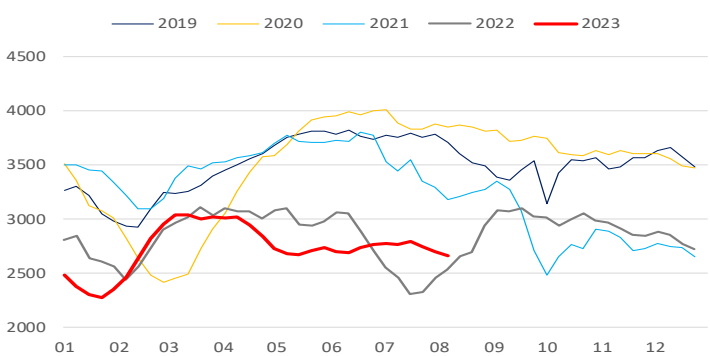
CHINESE STEEL CONSUMPTION—Rebar



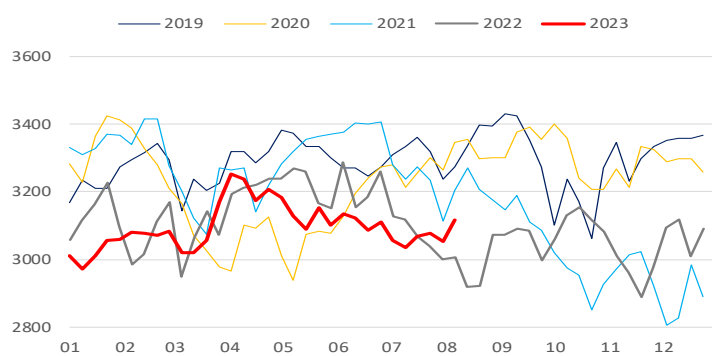
CHINESE STEEL CONSUMPTION—Hot-rolled Coil



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	<p>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.</p> <p>For more details on MMi's iron ore methodology please download the guide published on our website at: www.mmiprices.com</p>
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					
Aug 14th, 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%
Aug 14th, 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		IRCN0034
IOPI58	IRCNQ002		IRCNQ005		IRCN0035
IOPI65	IRCNQ003		IRCNQ006		
IOPLI62	IRCN0036		IRCN0037		

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