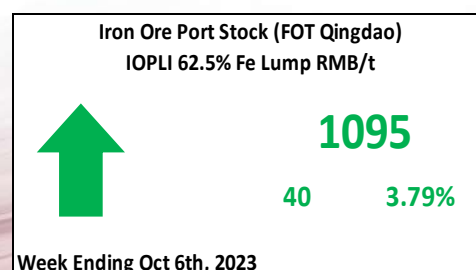
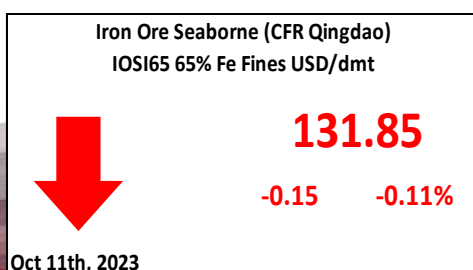
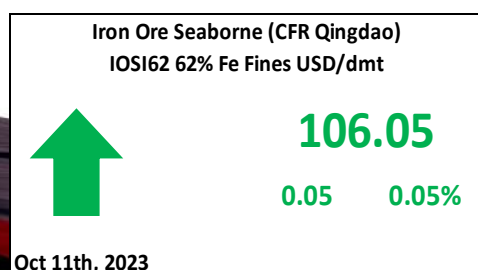
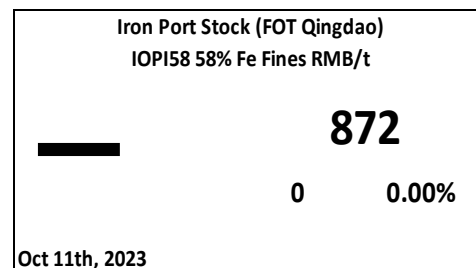
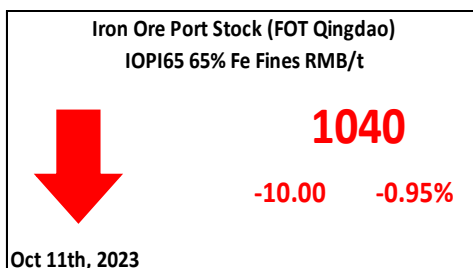
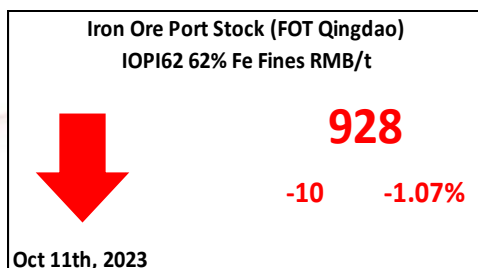


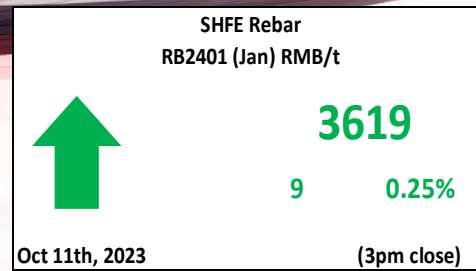
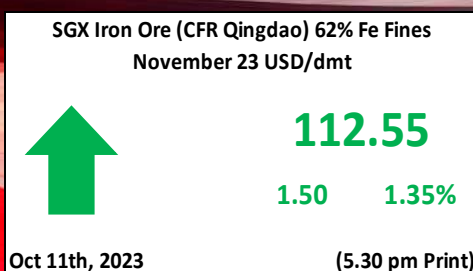
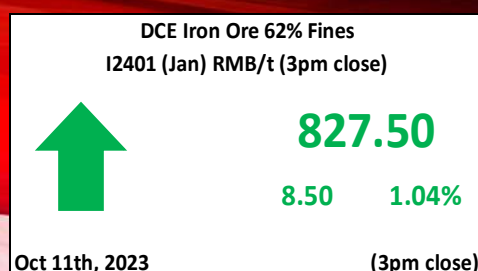


MMi Dashboard

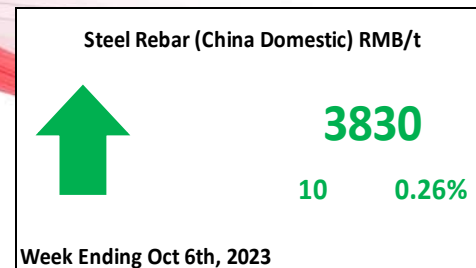
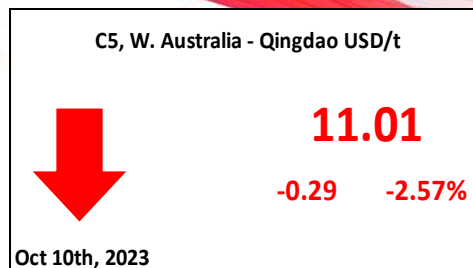
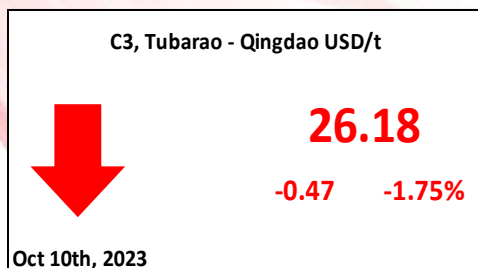
Iron Ore Price Indices



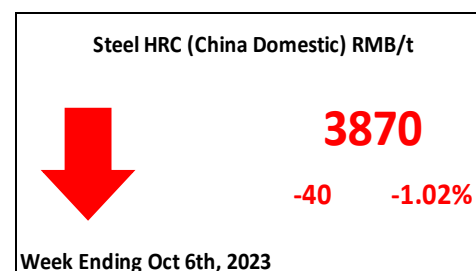
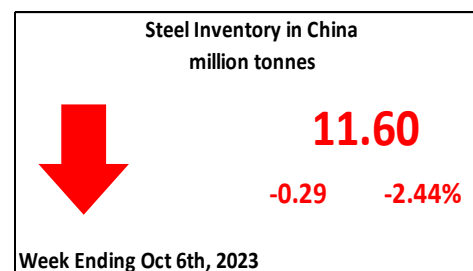
Exchange Traded Contracts



Freight Rates



Inventory Levels



Steel Price

Steel Price

IRON ORE PORT STOCK INDEX (IOPI)

Oct 11th, 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	928	-10	-1.1%	869	880	858	892	120.61	-1.34	-1.1%	120.06	120.58	117.93	122.93
IOPI58	58% Fe Fines	872	0	0.0%	813	798	761	793	114.35	0.00	0.0%	113.29	110.17	105.29	110.04
IOPI65	65% Fe Fines	1040	-10	-1.0%	981	992	970	1003	135.62	-1.34	-1.0%	136.05	136.43	133.84	138.73

IRON ORE SEABORNE INDEX (IOSI)

Oct 11th, 2023		CFR Qingdao, USD/dry tonne							MARKET COMMENTARY							
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low ²	High ²	DCE iron ore futures rose by 1.04 % today, the main contract closed at 827.5. The steel mills are active to purchase. The overall trading sentiment of the market is general. PBF at Shandong port deal 913 yuan/mt. From the news, there is a proposal from the State owned Assets Supervision and Administration Commission (SASAC) in the industrial chain to ensure power supply and increase coal production and supply. As the heating season approaches, market sentiment fluctuates slightly but is later digested. The iron ore market first fell in the afternoon and then rose. Based on the blast furnace data tracked by SMM, the operating rate of the blast furnace is 91.53%, a decrease of 1.63% compared to the previous period before the holiday. The utilization rate of blast furnace production capacity is 92.88%, a decrease of 1% compared to the previous period. The daily average iron production of the sample steel plant was 2.2079 million tons, a decrease of 38100 tons compared to the previous period. Considering that the three rounds of increase in coke prices are still unclear, there is still a possibility of an increase in the number of steel plant maintenance. It is expected that the operating rate of blast furnaces will decrease in the future, and support for ore prices will continue to weaken. The current macroeconomic policies and steel mill profits are the main risk points, and it is expected that prices may shift downward in the short term.							
IOSI62	62% Fe Fines	106.05	0.05	0.05%	113.41	113.41	83.90	146.75								
IOSI65	65% Fe Fines	131.85	-0.15	-0.11%	124.34	124.34	94.45	147.55								

IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending Oct 6th, 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	1095	40	3.8%	941	1018	770	1055	137.12	5.52	4.19%	120.38	134.87	94.72	137.26

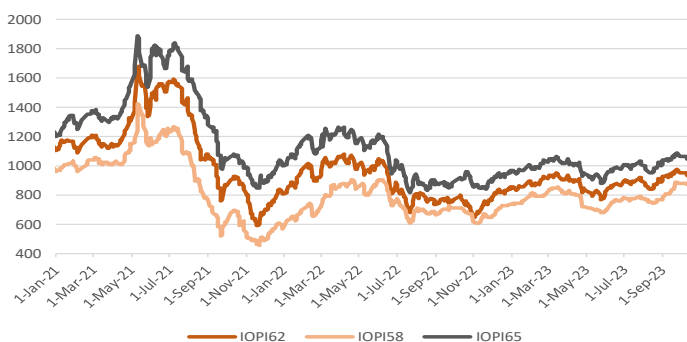
IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

Week Ending Oct 6th, 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	1099	3.1%	779	1645	153.21	3.39%	110.31	255.69
Hebei	Qian'an	65% Fe Concentrate	Dry	1120	1.4%	780	1630	156.14	1.65%	110.51	251.57
Liaoning	Anshan	65% Fe Concentrate	Wet	815	1.9%	620	1310	113.62	2.17%	87.40	202.32
Shandong	Zibo	65% Fe Concentrate	Dry	1207	3.3%	800	1752	168.27	3.64%	117.19	272.32

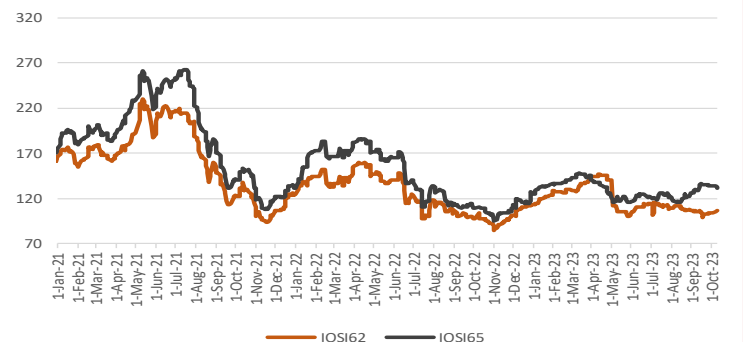
Week Ending Oct 6th, 2023	This week	Change %	Low ²	High ²
China Mines Concentrate Composite Index RMB/WT	1009.24	1.93%	706.36	1511.22

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

Oct 11th, 2023		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne						
Index	Fe Content	June	July	August	September	MTD	QTD	YTD	June	July	August	September	MTD	QTD	YTD
IOPI62	62% Fe Fines	863	896	873	945	869	881	880	112.38	116.58	113.28	122.79	120.06	120.90	120.58
IOPI58	58% Fe Fines	748	777	759	838	813	792	798	97.98	101.68	99.13	109.67	113.29	109.35	110.17
IOPI65	65% Fe Fines	975	1008	985	1057	981	993	992	127.41	131.57	128.31	137.74	136.05	136.72	136.43

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

Oct 11th, 2023		CFR Qingdao, USD/dry tonne							FREIGHT RATES						
Index	Fe Content	June	July	August	September	MTD	QTD	YTD	FREIGHT RATES - DRY BULK US\$/wet tonne						
Index	Fe Content	June	July	August	September	MTD	QTD	YTD	Route	Designation	Change	Change %	Low ²	High ²	
IOSI62	62% Fe Fines	110.54	108.57	109.02	104.25	112.14	112.43	113.41	W. Australia - Qingdao	C5	11.01	-0.29	-2.57%	3.57	16.77
IOSI65	65% Fe Fines	135.30	147.39	119.61	132.40	122.86	123.56	124.34	Tubarao - Qingdao	C3	26.18	-0.47	-1.75%	6.70	36.40

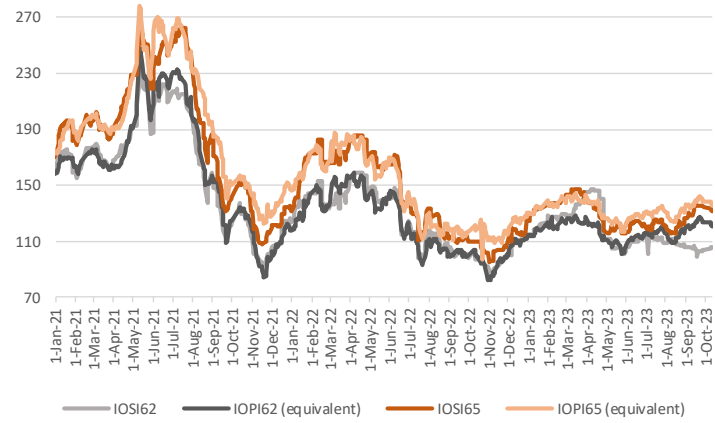
IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending Oct 6th, 2023		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne ¹						
Index	Fe Content	June	July	August	September	MTD	QTD	YTD	June	July	August	September	MTD	QTD	YTD
IOPLI62	62.5% Fe Lump	969	980	951	1043	933	938	1017	121.33	122.51	118.96	130.25	119.96	120.38	134.98

IRON ORE INDEX PREMIUMS/DISCOUNTS

Oct 11th, 2023		PORT STOCK INDEX (RMB/WT)				Oct 11th, 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	-56		-6.03%		IOSI65	65% Fe Fines	25.80		24.33%	
IOPI65	65% Fe Fines	112		12.07%							

IRON ORE INDEX COMPARISONS (USD/DMT)



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



IRON ORE BRAND SPOT PRICE ASSESSMENTS

Oct 11th, 2023				Oct 11th, 2023			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	871	-10	-57	Roy Hill	101.55	0.05	-4.50
SIMEC Fines	802	-10	-126	SIMEC Fines	98.05	0.05	-8.00
PB Fines	895	-10	-33	PB Fines	102.30	0.05	-3.75
Newman Fines	897	-10	-31	Newman Fines	105.20	0.05	-0.85
MAC Fines	878	-10	-50	MAC Fines	102.30	0.05	-3.75
Jimblebar Blended Fines	793	-10	-135	Jimblebar Blended Fines	94.70	0.05	-11.35
Carajas Fines	1109	-10	181	Carajas Fines	135.60	0.05	29.55
Brazilian SSF	893	-11	-35	Brazilian SSF	109.80	0.05	3.75
Brazilian Blend Fines	909	-10	-19	Brazilian Blend Fines	111.45	0.05	5.40
RTX Fines	811	-10	-117	RTX Fines	95.95	0.05	-10.10
West Pilbara Fines	839	-10	-89	West Pilbara Fines	100.30	0.05	-5.75

Oct 11th, 2023			
PORT STOCK INDEX (RMB/WT)			
	Price	Change	Diff to IOPI58
SSF	872	0	0
FMG Blended Fines	883	0	11
Robe River	884	0	12
Western Fines	887	0	15
Atlas Fines	880	0	8
Yandi	864	0	-8

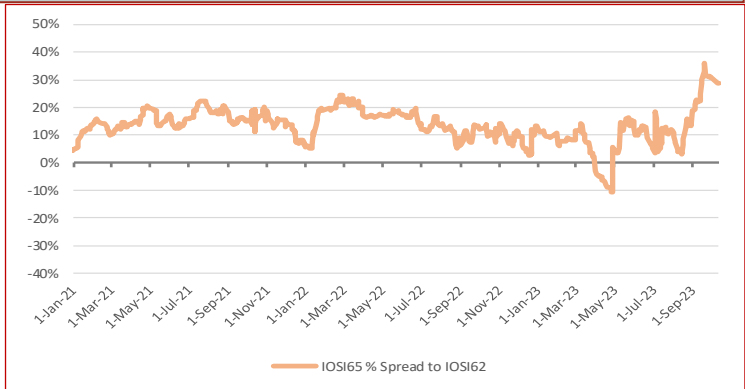
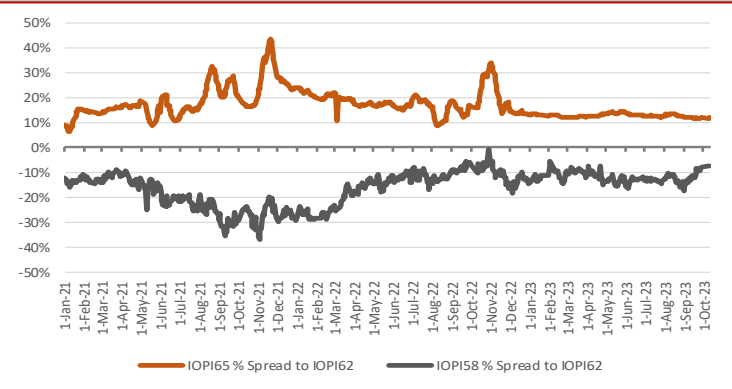
IRON ORE INDEX NORMALISATION DIFFERENTIALS

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%	12.00	-2.00	1% Fe	High Grade Fe 60 - 63%	3.25	0.25
	High Grade Fe 63 - 64%	5.00	0.00		High Grade Fe 63 - 64%	2.75	0.00
	High Grade Fe 64 - 65%	5.00	0.00		High Grade Fe 64 - 65%	2.75	0.00
	High Grade Fe 65 - 65.5%	5.00	0.00		High Grade Fe 65 - 65.5%	2.75	0.00
1% Alumina	Low Grade Fe	10.00	-1.00	1% Alumina	High Fe Grade Al <2.25%	0.25	0.00
	High Fe Grade Al <2.25%	30.00	3.00		High Fe Grade Al 2.25-4%	0.50	0.25
	High Fe Grade Al 2.25-4%	5.00	0.00				
	Low Fe Grade Al <2.25%	22.00	0.00				
1% Silica	Low Fe Grade Al 2.25-4%	45.00	0.00	1% Silica	High Fe Grade Si <4%	0.25	0.00
	High Fe Grade Si <4%	19.00	4.00		High Fe Grade Si 4 - 6.5%	3.75	0.00
0.01% Phosphorus	High Fe Grade Si 4-6.5%	29.00	-2.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	1.25	0.25
	Low Fe Grade	5.00	0.00		High Fe Grade 0.115%<P<0.15%	2.50	0.25
	High Fe Grade 0.09%<P<0.115%	5.00	0.00		Low Fe Grade 0.09%<P<0.1%	5.00	0.00

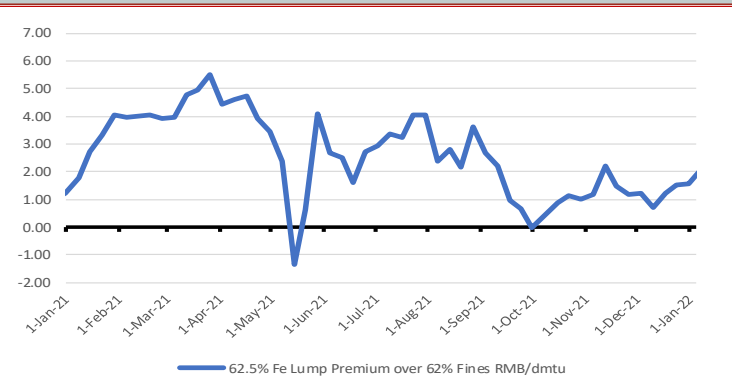
Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

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	-5.00	0.00	Jingtang	-5.00	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	-15.00	0.00

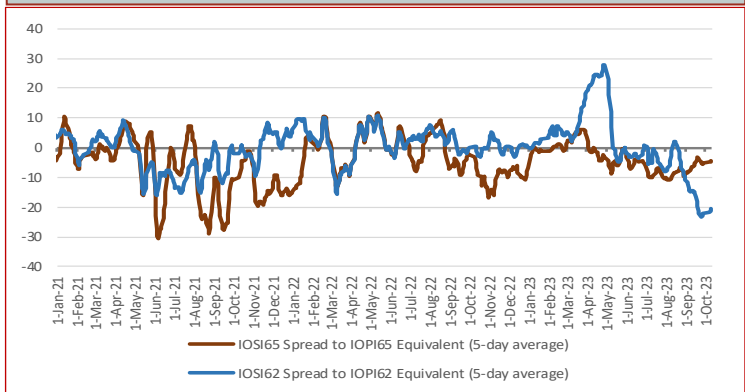
IRON ORE INDEX PREMIUMS/DISCOUNTS



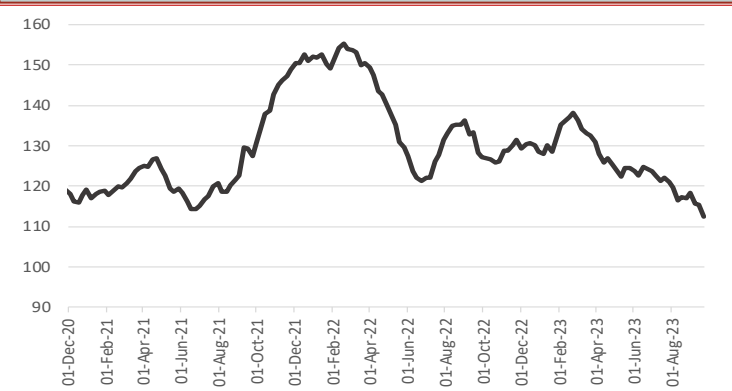
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



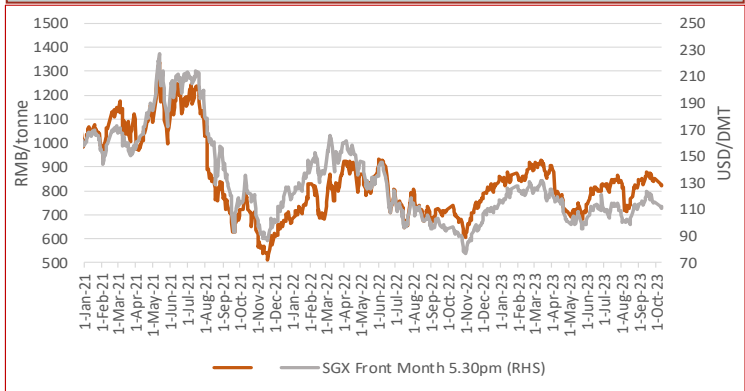
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



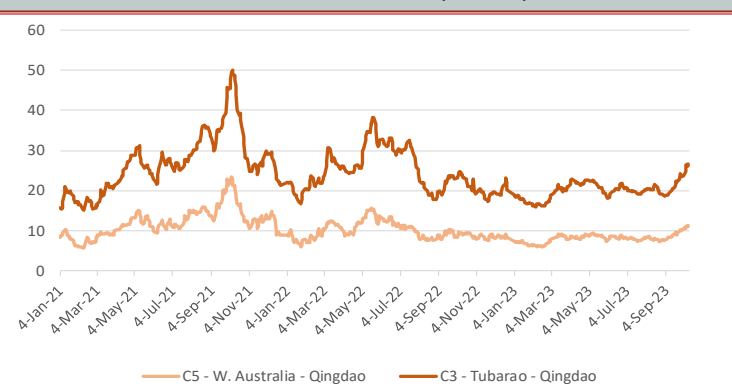
IRON ORE PORT INVENTORIES (MILLION TONNES)

Week Ending Oct 6th, 2023				
Province	This week	Change %	Low ²	High ²
Jingtang	11.05	0.27%	9.84	19.20
Qingdao	23.76	-1.25%	9.41	26.24
Caofeidian	10.44	-8.82%	9.05	16.29
Tianjin	7.49	-1.83%	7.14	12.97
Rizhao	12.59	-2.70%	9.44	19.26
Total (35 Ports)	112.55	-2.49%	98.80	155.39

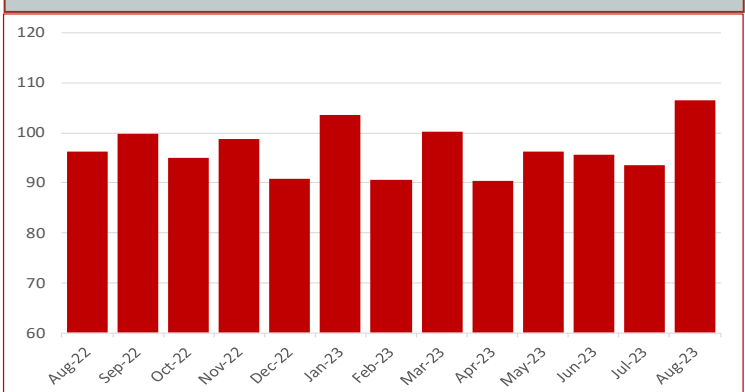
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	Oct 11th, 3pm close			Oct 11th, 5:30pm		
Contract	12401	Change	Change %	Nov. 23	Change	Change %
Closing Price	827.50	8.50	1.04%	112.55	1.50	1.35%
Vol traded ('000 lots)	47.83	-2.59	-5.14%	7.66	-2.96	-27.90%
Open positions ('000 lots)	74.88	1.81	2.47%	37.30	-0.93	-2.42%
Day Low	816.0	3.50	0.43%	110.65	1.40	1.28%
Day High	831.0	-0.50	-0.06%	112.85	-0.05	-0.04%

DRY BULK FREIGHT RATES (USD/MT)



TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)



STEEL SPOT MARKET PRICES—CHINA

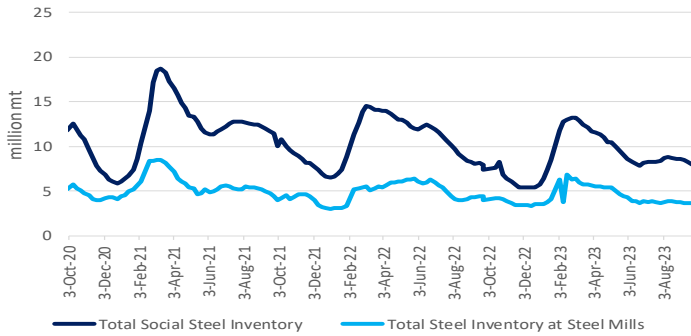
Steel Spot Market RMB/tonne			
Product	2023/10/6	Change	Change %
ReBar HRB400 φ18mm	3,830	10	0.26%
Wirerod Q300 φ6.5mm	4,000	0	0.00%
HRC Q235/SS400 5.5mm*1500*C	3,870	-40	-1.02%
CRC SPCC/ST12 1.0mm*1250*2500	4,900	60	1.24%
Medium & Heavy Plate Q235B 20mm	3,890	-30	-0.77%
GI ST02Z 1.0mm*1000*C	5,100	20	0.39%
Colour Coated Plate	7,000	0	0.00%

CHINESE STEEL MILL PROFITABILITY

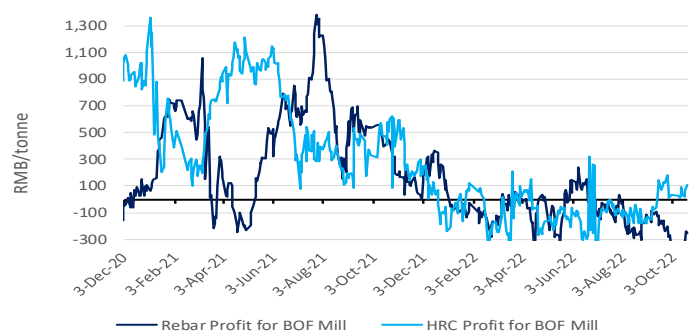
SMM Tracking of Steel Mill P&L - Rebar and Hot-rolled Coil (RMB/tonne)			
Category	Price	Change (WoW)	Note
MMi (Fe 62%), USD/mt excluding tax	103.20	-1	Mmi CFR Equivalent index for 1st Feb
Coke	2,450	110	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	2,970	50	steel scrap (6mm) in Zhangjiagang, excl. tax
Billet Cost	3,256	99	Q234, incl. tax
Rebar cost - Blast furnace	3,905	112	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	-185	-122	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	3,954	113	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	-84	-113	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

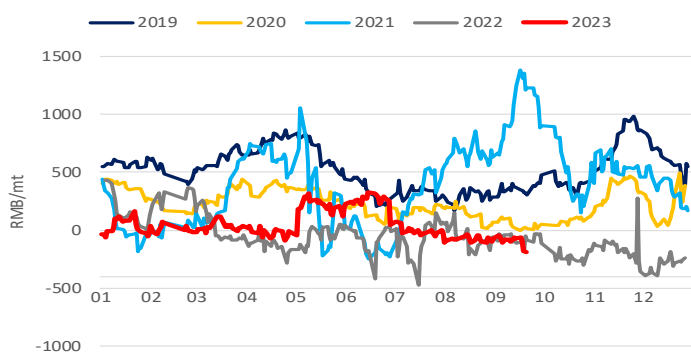
CHINESE STEEL INVENTORIES



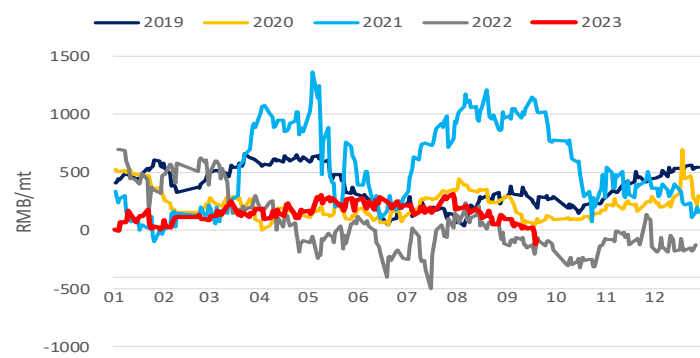
CHINESE STEEL MILL PROFITABILITY



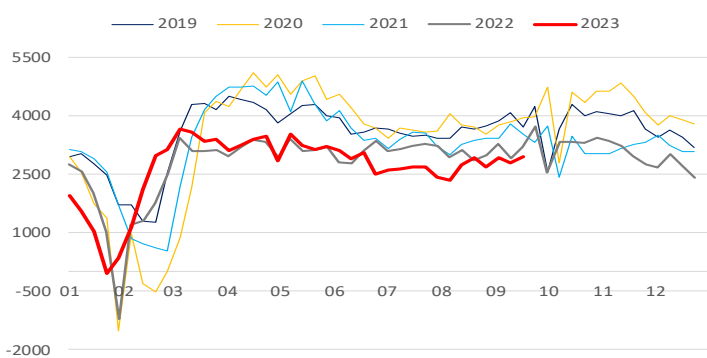
CHINESE STEEL MILL PROFITABILITY—Rebar



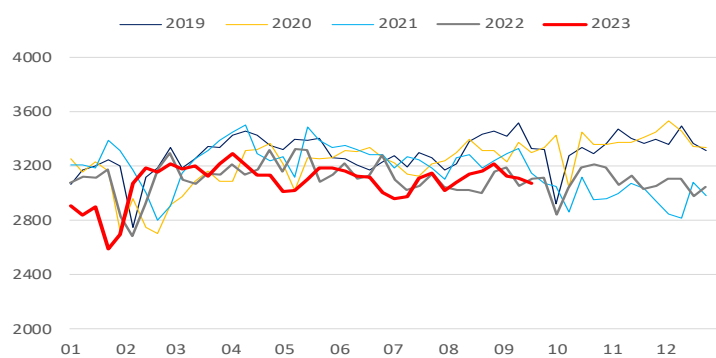
CHINESE STEEL MILL PROFITABILITY—Hot-rolled Coil



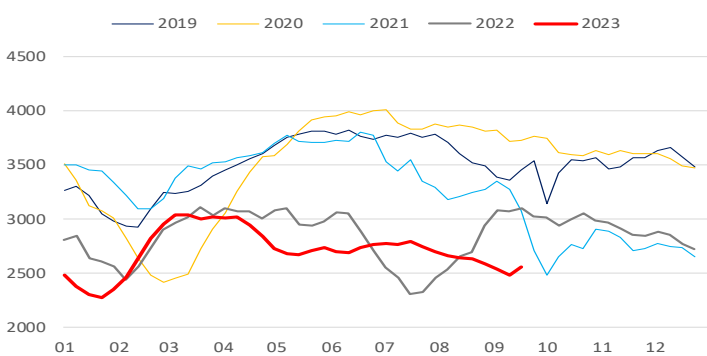
CHINESE STEEL CONSUMPTION—Rebar



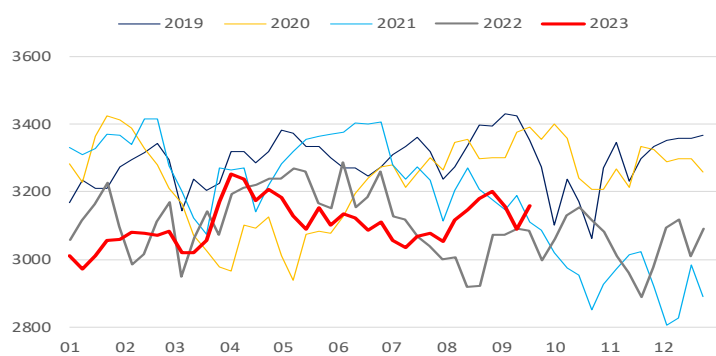
CHINESE STEEL CONSUMPTION—Hot-rolled Coil



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																					
Fe %	65.00	62.00	58.00	62.50	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																				
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%	<table border="1"> <thead> <tr> <th colspan="4">Data Exclusions*</th> </tr> <tr> <th></th> <th>62%</th> <th>58%</th> <th>65%</th> </tr> </thead> <tbody> <tr> <td>Port Index</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Seaborne index</td> <td>0</td> <td></td> <td>0</td> </tr> <tr> <td>Lump Index 62.5</td> <td>0</td> <td></td> <td></td> </tr> </tbody> </table>	Data Exclusions*					62%	58%	65%	Port Index	0	0	0	Seaborne index	0		0	Lump Index 62.5	0		
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	62%	58%	65%																						
Port Index	0	0	0																						
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Lump Index 62.5	0																								
Pricing Point	Qingdao Port (FOT and CFR respectively)			FOT Qingdao Port	* Number of price submissions for iron ore indices that were excluded from index calculations today as they were anomalous and could not be verified																				
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 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					
Oct 11th, 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%
Oct 11th, 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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