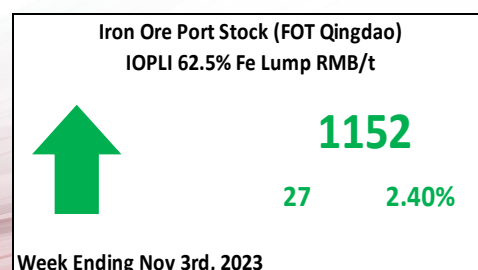
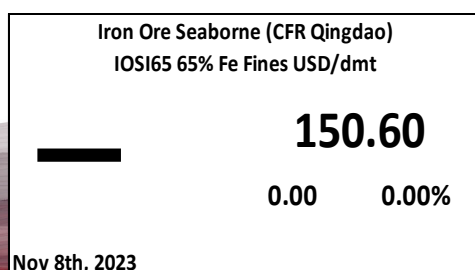
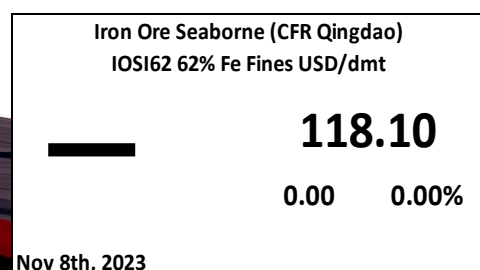
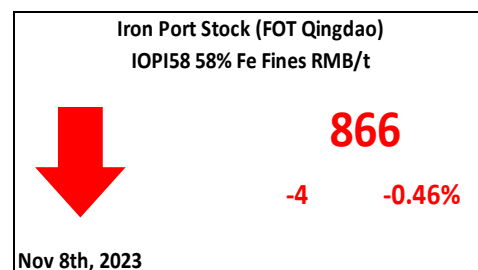
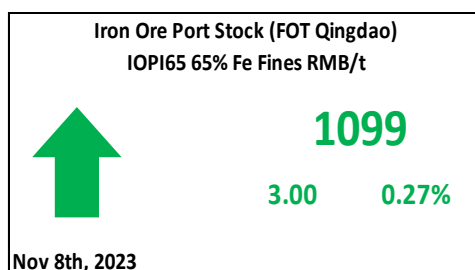
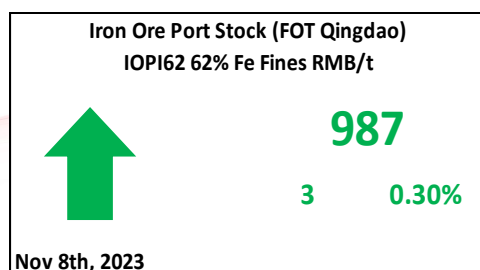


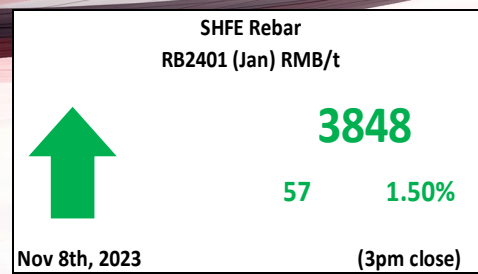
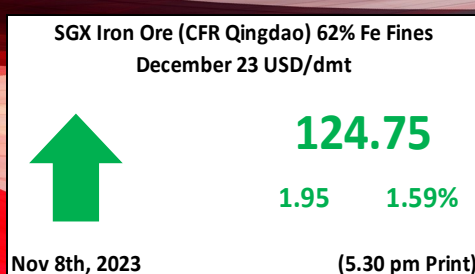
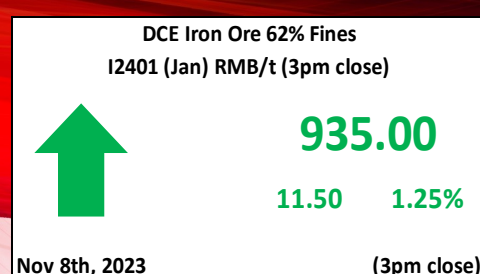


MMi Dashboard

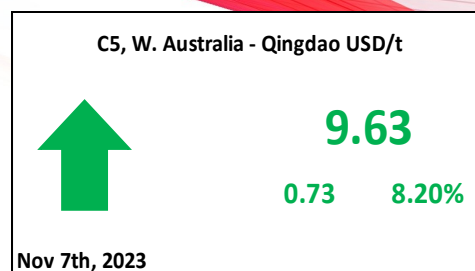
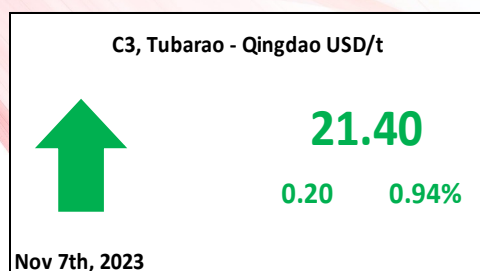
Iron Ore Price Indices



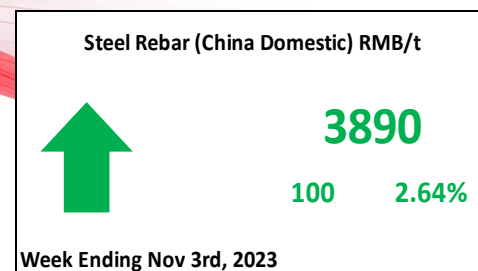
Exchange Traded Contracts



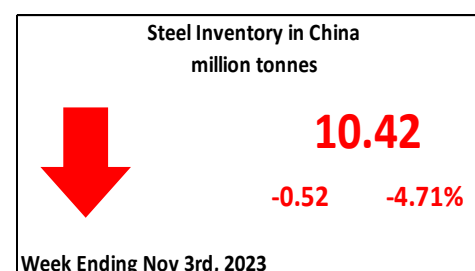
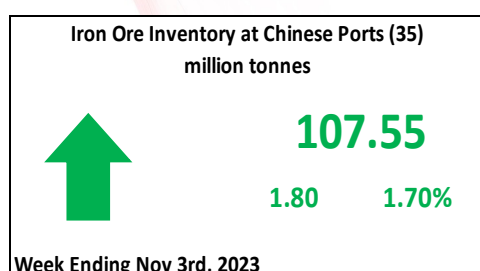
Freight Rates



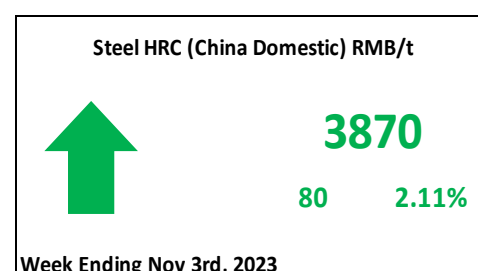
Steel Price



Inventory Levels



Steel Price



IRON ORE PORT STOCK INDEX (IOPI)

Nov 8th, 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	987	3.0	0.30%	869	880	858	892	128.53	0.41	0.3%	120.06	120.58	117.93	122.93
IOPI58	58% Fe Fines	866	-4.0	-0.46%	813	798	761	793	113.54	-0.54	-0.5%	113.29	110.17	105.29	110.04
IOPI65	65% Fe Fines	1099	3.0	0.27%	981	992	970	1003	143.54	0.41	0.3%	136.05	136.43	133.84	138.73

IRON ORE SEABORNE INDEX (IOSI)

MARKET COMMENTARY

Nov 8th, 2023		CFR Qingdao, USD/dry tonne							DCE iron ore futures rose by 1.03 % today, the main contract closed at 935. The steel mills are not active to purchase. The overall trading sentiment of the market is less. PBF at Shandong port deal 963-965 yuan/mt. PBF at Tangshan port deal 985-990 yuan/mt. Today, the false news related to the rescue of real estate difficulties has once again affected market sentiment, leading to a resurgence of bullish confidence and a rapid increase in the end of the day. However, in the absence of new deterministic positive stimuli and loose fundamentals, it is expected that false news will be quickly digested. According to SMM's statistics on blast furnace operation, due to internal adjustments, poor profits, and staggered production, the operating rate has significantly decreased this week. The strong mining price has led to a fear of high positions leaving the market. In the short term, it is necessary to pay attention to changes in the production of molten iron from steel mills and fluctuations in news. It is expected that the mining price will continue to operate mainly in a volatile manner.						
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low ²	High ²							
IOSI62	62% Fe Fines	118.10	0.00	0.00%	113.16	113.16	90.70	146.75							
IOSI65	65% Fe Fines	150.60	0.00	0.00%	125.40	125.40	102.10	150.60							

IRON ORE PORT LUMP INDEX (IOPLI)

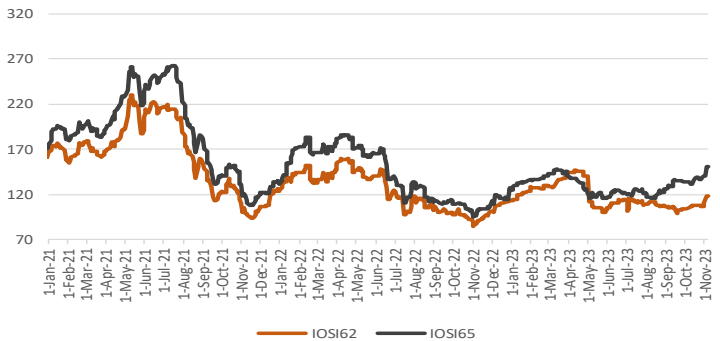
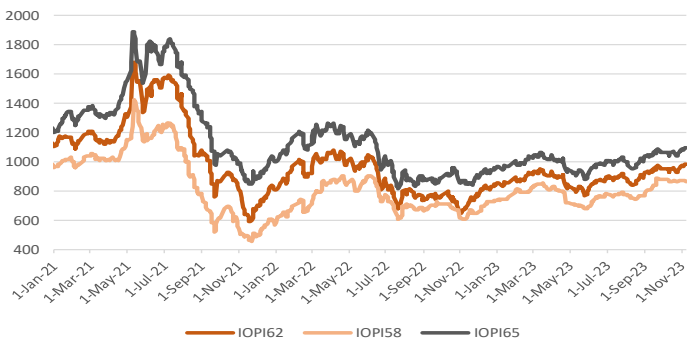
Week Ending Nov 3rd, 2023		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne ³						
Index	Fe Content	Price	W-o-W	Change %	MTD	YTD	Low ²	High ²	Price	W-o-W	Change %	MTD	YTD	Low ²	High ²
IOPLI62	62.5% Fe Lump	1152	27	2.4%	955	1023	770	1152	144.34	3.47	2.46%	122.17	134.89	94.72	144.34

IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

Week Ending Nov 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	1068	0.2%	779	1645	148.78	0.19%	110.31	255.69
Hebei	Qian'an	65% Fe Concentrate	Dry	1115	1.8%	780	1630	155.32	1.83%	110.51	251.57
Liaoning	Anshan	65% Fe Concentrate	Wet	810	1.3%	620	1310	112.84	1.25%	87.40	202.32
Shandong	Zibo	65% Fe Concentrate	Dry	1136	0.2%	800	1752	158.25	0.18%	117.19	272.32
Week Ending Nov 3rd, 2023				This week	Change %	Low ²	High ²	¹ Exchange rate applied: RMB/USD = 6.7522 ² Last 12 months ³ Weekly exchange rate applied: RMB/USD = 6.87528			
China Mines Concentrate Composite Index RMB/WT				993.59	1.11%	706.36	1511.22				

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

Nov 8th, 2023		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne						
Index	Fe Content	July	August	September	October	MTD	QTD	YTD	July	August	September	October	MTD	QTD	YTD
IOPI62	62% Fe Fines	896	873	945	947	869	881	880	116.58	113.28	122.79	123.14	120.06	120.90	120.58
IOPI58	58% Fe Fines	777	759	838	869	813	792	798	101.68	99.13	109.67	113.94	113.29	109.35	110.17
IOPI65	65% Fe Fines	1008	985	1057	1059	981	993	992	131.57	128.31	137.74	138.13	136.05	136.72	136.43

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

FREIGHT RATES

Nov 8th, 2023		CFR Qingdao, USD/dry tonne							Nov 7th, 2023						
Index	Fe Content	July	August	September	October	MTD	QTD	YTD	Route	Designation	Change	Change %	Low ²	High ²	
IOSI62	62% Fe Fines	108.57	109.02	104.25	106.44	112.14	112.28	113.16	W. Australia - Qingdao	C5	9.63	0.73	8.20%	3.57	16.77
IOSI65	65% Fe Fines	147.39	119.61	132.40	135.69	122.86	124.48	125.40	Tubarao - Qingdao	C3	21.40	0.20	0.94%	6.70	36.40

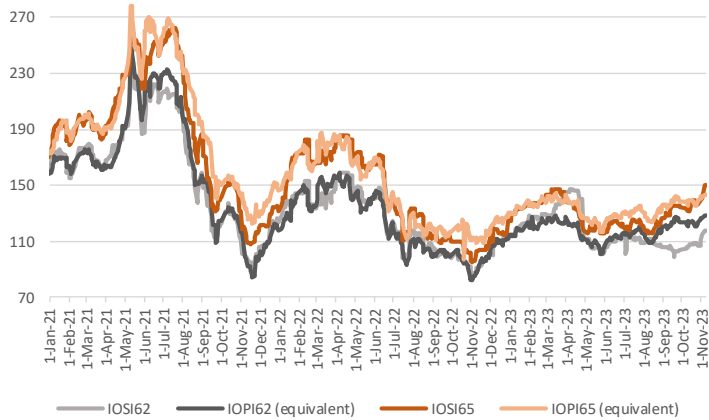
IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending Nov 3rd, 2023		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne ¹						
Index	Fe Content	July	August	September	October	MTD	QTD	YTD	July	August	September	October	MTD	QTD	YTD
IOPLI62	62.5% Fe Lump	980	951	1043	1113	933	951	1017	122.51	118.96	130.25	139.38	119.96	122.03	134.98

IRON ORE INDEX PREMIUMS/DISCOUNTS

Nov 8th, 2023		PORT STOCK INDEX (RMB/WT)		Nov 8th, 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	-121	-12.26%	IOSI65	65% Fe Fines	32.50	27.52%
IOPI65	65% Fe Fines	112	11.35%				

IRON ORE INDEX COMPARISONS (USD/DMT)



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



IRON ORE BRAND SPOT PRICE ASSESSMENTS

Nov 8th, 2023	PORT STOCK INDEX (RMB/WT)			Nov 8th, 2023	SEABORNE INDEX (USD/DMT)		
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	929	2	-58	Roy Hill	113.60	0.00	-4.50
SIMEC Fines	861	2	-126	SIMEC Fines	110.10	0.00	-8.00
PB Fines	952	2	-35	PB Fines	114.35	0.00	-3.75
Newman Fines	956	2	-31	Newman Fines	117.25	0.00	-0.85
MAC Fines	936	2	-51	MAC Fines	114.35	0.00	-3.75
Jimblebar Blended Fines	852	2	-135	Jimblebar Blended Fines	106.75	0.00	-11.35
Carajas Fines	1167	2	180	Carajas Fines	147.65	0.00	29.55
Brazilian SSF	953	3	-34	Brazilian SSF	121.85	0.00	3.75
Brazilian Blend Fines	966	2	-21	Brazilian Blend Fines	123.50	0.00	5.40
RTX Fines	870	2	-117	RTX Fines	108.00	0.00	-10.10
West Pilbara Fines	897	2	-90	West Pilbara Fines	112.35	0.00	-5.75

Nov 8th, 2023	PORT STOCK INDEX (RMB/WT)		
	Price	Change	Diff to IOPI58
SSF	866	-4	0
FMG Blended Fines	877	-4	11
Robe River	878	-4	12
Western Fines	881	-4	15
Atlas Fines	874	-4	8
Yandi	858	-4	-8

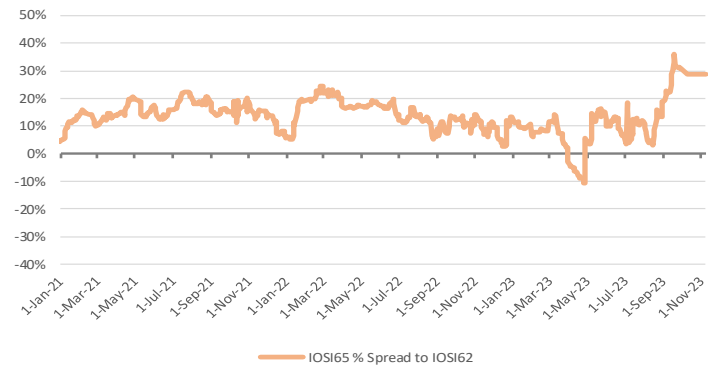
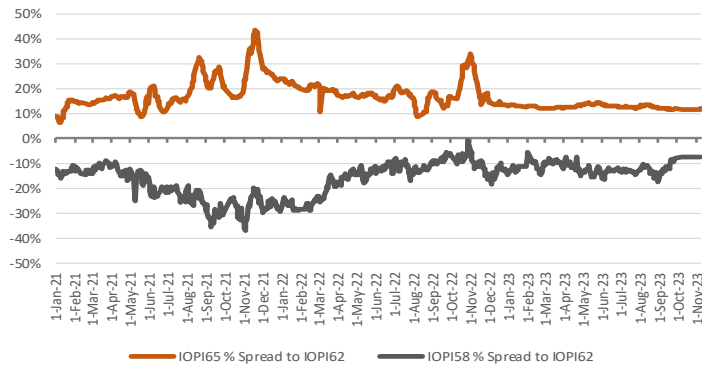
IRON ORE INDEX NORMALISATION DIFFERENTIALS

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%	6.00	0.00	1% Fe	High Grade Fe 60 - 63%	3.50	-1.00
	High Grade Fe 63 - 64%	15.00	0.00		High Grade Fe 63 - 64%	2.75	0.00
	High Grade Fe 64 - 65%	15.00	0.00		High Grade Fe 64 - 65%	2.75	0.00
	High Grade Fe 65 - 65.5%	15.00	0.00		High Grade Fe 65 - 65.5%	2.75	0.00
	Low Grade Fe	16.00	0.00	1% Alumina	High Fe Grade Al <2.25%	2.25	0.00
1% Alumina	High Fe Grade Al <2.25%	5.00	0.00		High Fe Grade Al 2.25-4%	1.75	0.50
	High Fe Grade Al 2.25-4%	11.00	0.00		High Fe Grade Si <4%	0.25	0.00
	Low Fe Grade Al <2.25%	32.00	0.00		High Fe Grade Si 4 - 6.5%	3.00	0.25
	Low Fe Grade Al 2.25-4%	8.00	0.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	0.25	0.00
1% Silica	High Fe Grade Si <4%	12.00	0.00		High Fe Grade 0.115%<P<0.15%	0.25	-0.25
	High Fe Grade Si 4 - 6.5%	11.00	0.00				
	Low Fe Grade	8.00	0.00				
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				

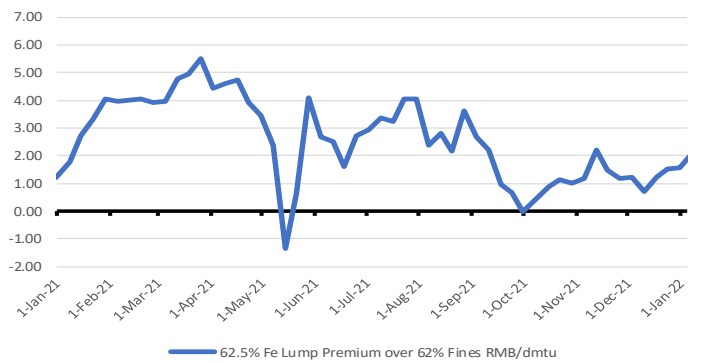
Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

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	-20.00	0.00	Lianyungang	0.00	0.00	Shekou	0.00	0.00
Caofeidian	-15.00	0.00	Jingtang	-15.00	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	-30.00	0.00

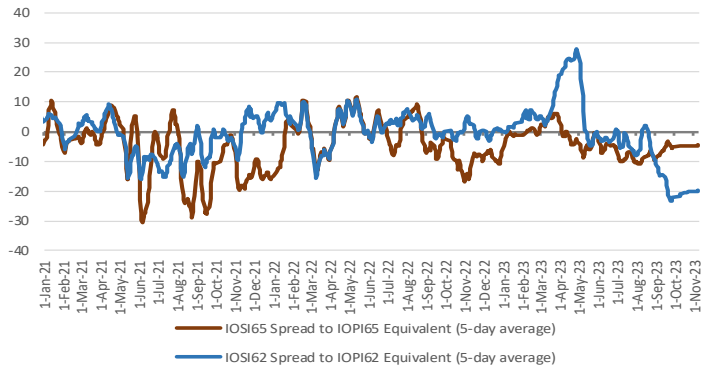
IRON ORE INDEX PREMIUMS/DISCOUNTS



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



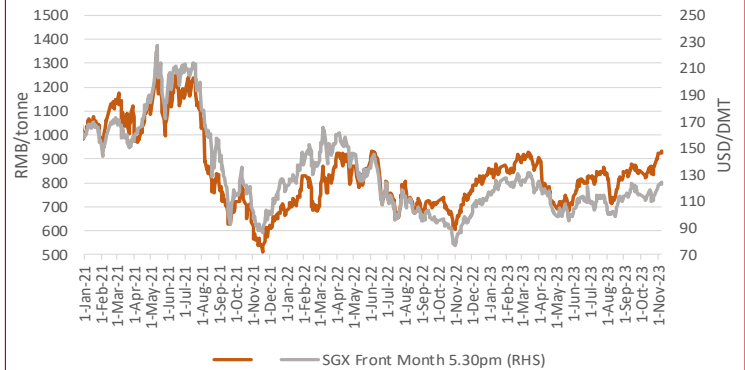
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



IRON ORE PORT INVENTORIES (MILLION TONNES)

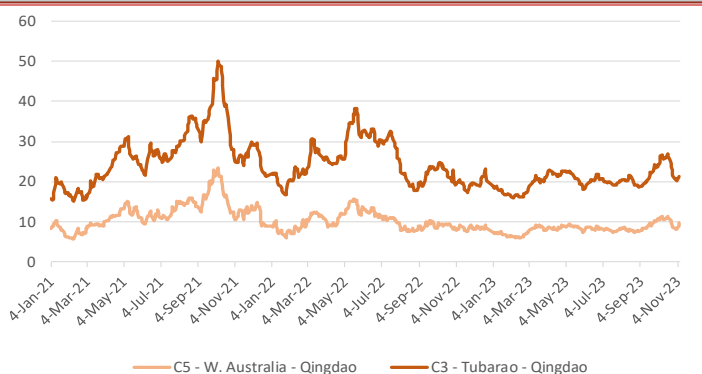
Week Ending Nov 3rd, 2023

Province	This week	Change %	Low ²	High ²
Jingtang	8.64	2.13%	8.46	19.20
Qingdao	22.74	1.65%	9.41	26.24
Caofeidian	8.37	10.71%	7.56	16.29
Tianjin	7.01	-1.13%	6.49	12.97
Rizhao	12.69	5.84%	9.44	19.26
Total (35 Ports)	107.55	1.70%	98.80	155.39

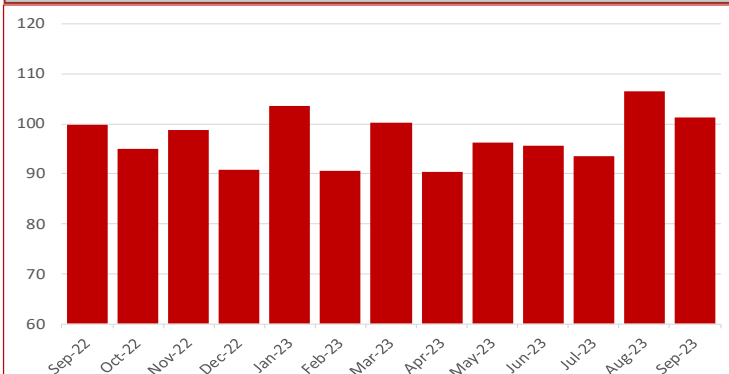
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	Nov 8th, 3pm close			Nov 8th, 5:30pm		
Contract	I2401	Change	Change %	Dec. 23	Change	Change %
Closing Price	935.00	11.50	1.25%	124.75	1.95	1.59%
Vol traded ('000 lots)	51.72	2.71	5.52%	7.85	-0.09	-1.07%
Open positions ('000 lots)	91.42	2.55	2.87%	42.09	0.57	1.36%
Day Low	913.5	-4.00	-0.44%	121.30	-0.90	-0.74%
Day High	935.5	3.00	0.32%	125.00	1.00	0.81%

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	2023/11/3	Change	Change %
ReBar HRB400 ϕ 18mm	3,890	100	2.64%
Wirerod Q300 ϕ 6.5mm	4,100	120	3.02%
HRC Q235/SS400 5.5mm*1500*C	3,870	80	2.11%
CRC SPCC/ST12 1.0mm*1250*2500	4,760	0	0.00%
Medium & Heavy Plate Q235B 20mm	3,840	70	1.86%
GI ST02Z 1.0mm*1000*C	5,040	0	0.00%
Colour Coated Plate	6,900	0	0.00%

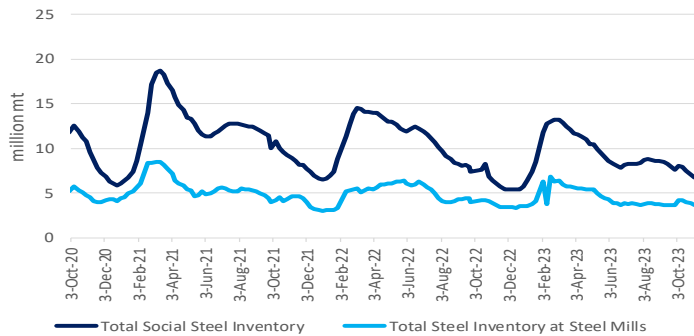
CHINESE STEEL MILL PROFITABILITY

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

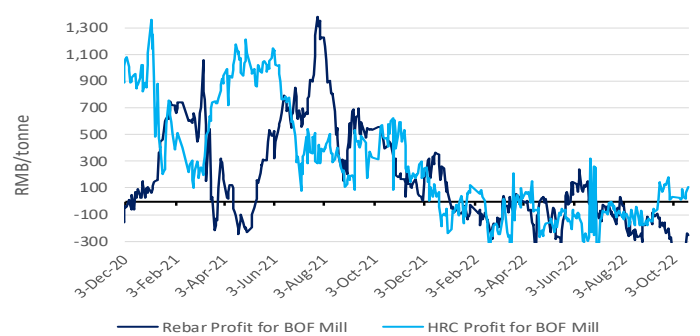
Category	Price	Change (WoW)	Note
MMi (Fe 62%), USD/mt excluding tax	114.52	7	Mmi CFR Equivalent index for 1st Feb
Coke	2,450	-110	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	2,860	0	steel scrap (6mm) in Zhangjiagang, excl. tax
Billet Cost	3,238	-5	Q234, incl. tax
Rebar cost - Blast furnace	3,885	-6	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	-45	146	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	3,940	-7	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	-80	57	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

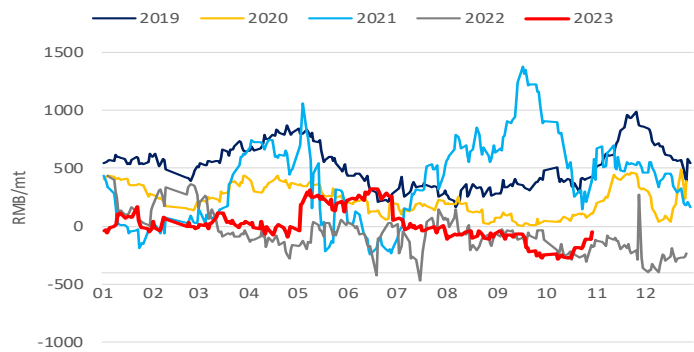
CHINESE STEEL INVENTORIES



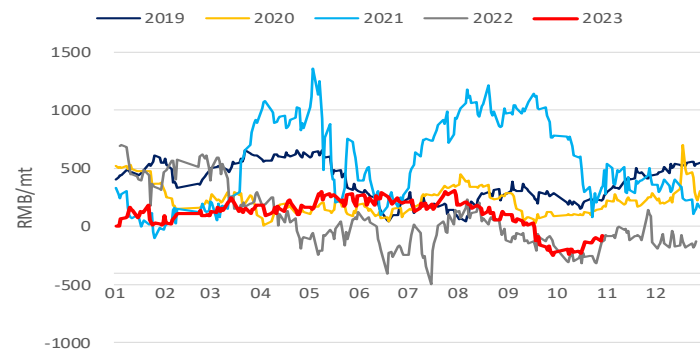
CHINESE STEEL MILL PROFITABILITY



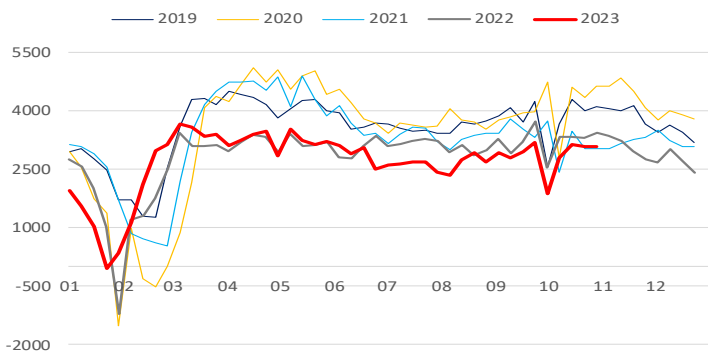
CHINESE STEEL MILL PROFITABILITY—Rebar



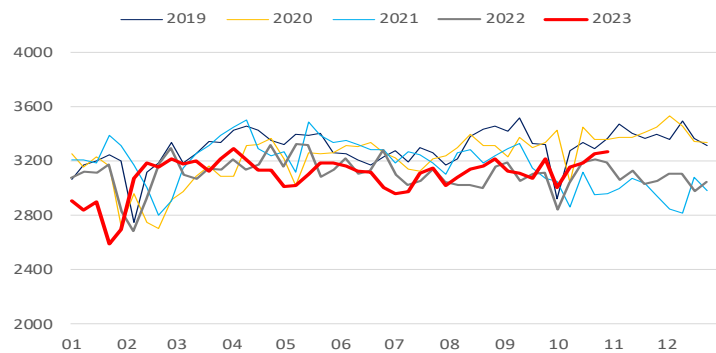
CHINESE STEEL MILL PROFITABILITY—Hot-rolled Coil



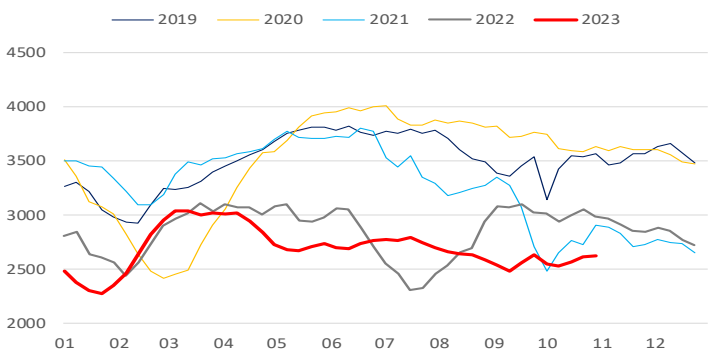
CHINESE STEEL CONSUMPTION—Rebar



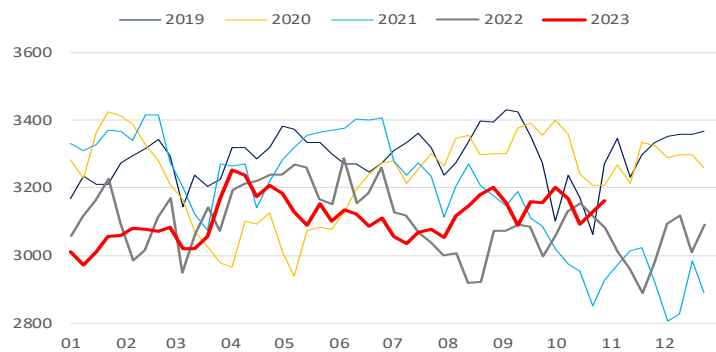
CHINESE STEEL CONSUMPTION—Hot-rolled Coil



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																				
Fe %	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																				
Alumina %	65.00	62.00	58.00	62.50																					
Silica%	1.40	2.25	2.25	1.50																					
Phosphorus %	1.50	4.00	5.50	3.50																					
Sulphur %	0.06	0.09	0.05	0.08																					
Moisture %	0.01	0.02	0.02	0.02																					
	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																					
					<table><tr><th colspan="4">Data Exclusions*</th></tr><tr><td></td><th>62%</th><th>58%</th><th>65%</th></tr><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></table>	Data Exclusions*					62%	58%	65%	Port Index	0	0	0	Seaborne index	0		0	Lump Index 62.5	0		
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						SEABORNE BRANDS					
Nov 8th, 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%
Nov 8th, 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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