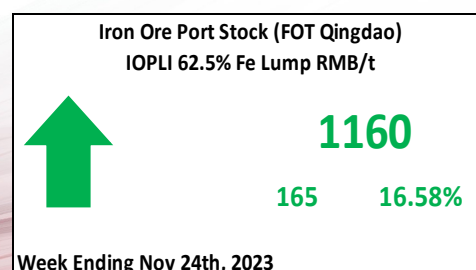
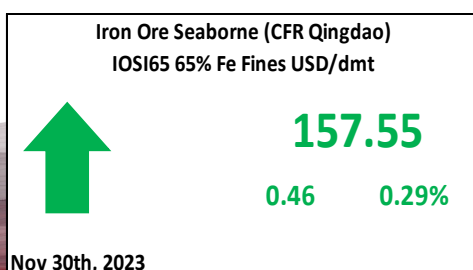
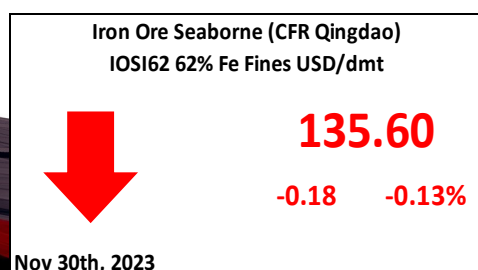
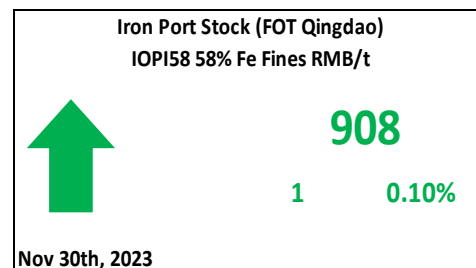
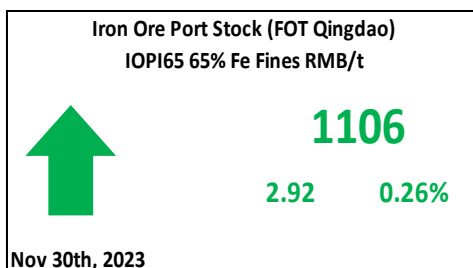
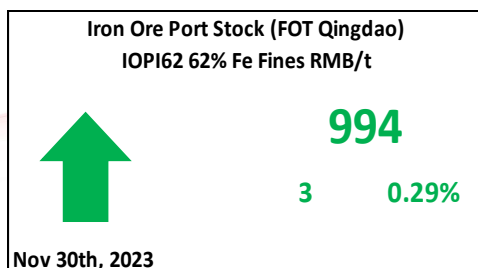


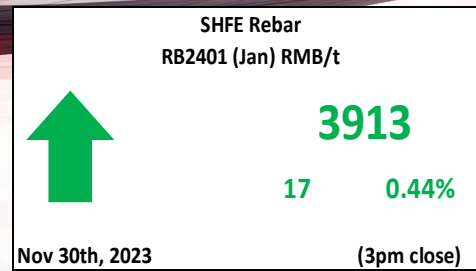
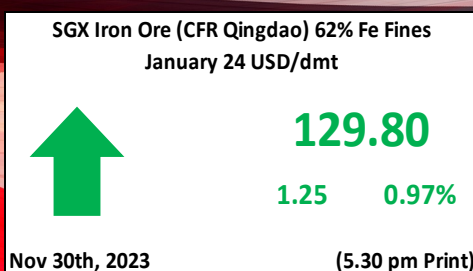
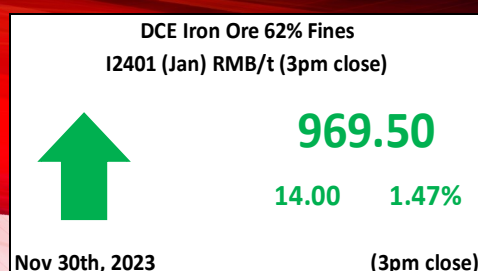


MMi Dashboard

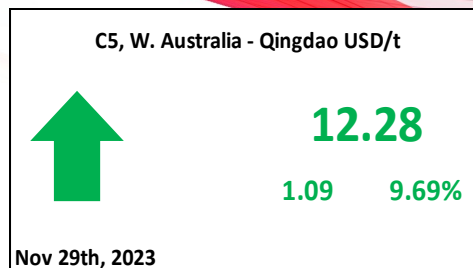
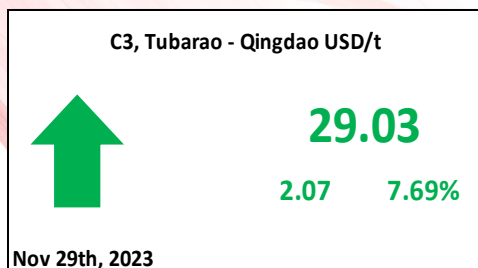
Iron Ore Price Indices



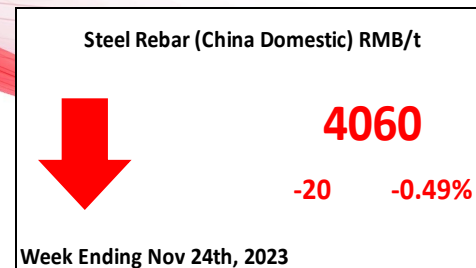
Exchange Traded Contracts



Freight Rates



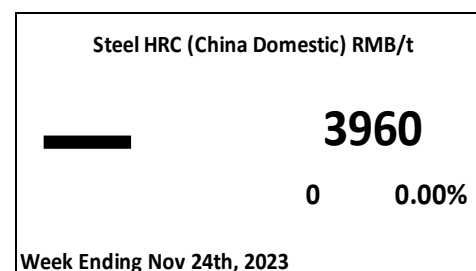
Steel Price



Inventory Levels



Steel Price



IRON ORE PORT STOCK INDEX (IOPI)

Nov 30th, 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	994	2.9	0.29%	855	879	768	1003	130.87	0.42	0.3%	113.22	119.47	99.18	131.57
IOPI58	58% Fe Fines	908	0.9	0.10%	759	762	650	908	120.47	0.15	0.1%	101.13	103.94	84.02	120.47
IOPI65	65% Fe Fines	1106	2.9	0.26%	972	1013	881	1114	146.00	0.42	0.3%	129.23	138.41	115.00	146.65

IRON ORE SEABORNE INDEX (IOSI)

MARKET COMMENTARY

Nov 30th, 2023		CFR Qingdao, USD/dry tonne							DCE iron ore futures rose today by 1.36%, the main contract I2401 closed 969.5, some traders were active to sell, some steel mills tended to be wait-and-see, and purchased on demand, total transactions is poor. PBF at Shandong port dealt 385 yuan/mt, increased 5 yuan/mt over yesterday. SSF at Tangshan port dealt 873 yuan/mt. Although terminal demand has entered the off-season, the apparent demand for finished products announced today is still acceptable. This indicates that the demand for steel is full of toughness. In addition, although the inventory of building materials has started to accumulate, the magnitude is relatively small, and overall, the steel is still in a state of destocking, still showing a steady off-season. The market has sufficient information on black series. And there are strong expectations for the important meeting and winter storage in December, with the overall rebound of the black series and the largest increase in iron ore. In the later stage, when the fundamentals weaken, it is expected that there may be insufficient upward momentum for iron ore, and the short-term trend will continue to fluctuate at high levels.							
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low ²	High ²								
IOSI62	62% Fe Fines	135.60	-0.18	-0.13%	113.95	113.95	99.20	146.75								
IOSI65	65% Fe Fines	157.55	0.46	0.29%	126.83	126.83	109.60	157.55								

IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending Nov 24th, 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	1160	165	16.6%	959	1024	842	1160	146.30	22.06	17.76%	122.20	134.92	105.17	146.00

IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

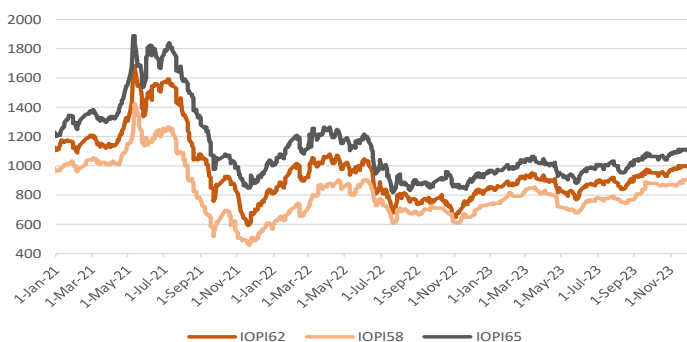
Week Ending Nov 24th, 2023				RMB/tonne (excluding tax) ³				USD/tonne (excluding tax) ³			
Province	Region	Product	Basis	This week	Change %	Low ²	High ²	This week	Change %	Low ²	High ²
Hebei	Hanxing	66% Fe Concentrate	Dry	1155	2.1%	779	1645	161.93	2.12%	110.31	255.69
Hebei	Qian'an	65% Fe Concentrate	Dry	1175	2.2%	780	1630	164.73	2.17%	110.51	251.57
Liaoning	Anshan	65% Fe Concentrate	Wet	870	2.4%	620	1310	121.97	2.35%	87.40	202.32
Shandong	Zibo	65% Fe Concentrate	Dry	1224	1.7%	800	1752	171.60	1.66%	0.00	272.32

Week Ending Nov 24th, 2023

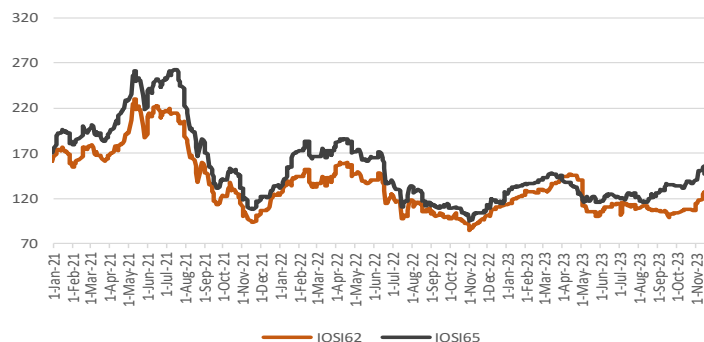
	This week	Change %	Low ²	High ²
China Mines Concentrate Composite Index RMB/WT	1058.13	-8.86%	706.36	1511.22

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

Nov 30th, 2023		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne						
Index	Fe Content	August	September	October	November	MTD	QTD	YTD	August	September	October	November	MTD	QTD	YTD
IOPI62	62% Fe Fines	873	945	947	988	855	850	879	113.28	122.79	123.14	129.07	113.22	112.79	119.47
IOPI58	58% Fe Fines	759	838	869	884	759	754	762	99.13	109.67	113.94	116.42	101.13	100.72	103.94
IOPI65	65% Fe Fines	985	1057	1059	1100	972	969	1013	128.31	137.74	138.13	144.10	129.23	129.08	138.41

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

FREIGHT RATES

Nov 30th, 2023		CFR Qingdao, USD/dry tonne							Nov 29th, 2023						
Index	Fe Content	August	September	October	November	MTD	QTD	YTD	FREIGHT RATES - DRY BULK US\$/wet tonne						
									Route	Designation	Change	Change %	Low ²	High ²	
IOSI62	62% Fe Fines	109.02	104.25	106.44	124.61	112.14	112.98	113.95	W. Australia - Qingdao	C5	12.28	1.09	9.69%	3.57	16.77
IOSI65	65% Fe Fines	119.61	132.40	135.69	150.46	122.86	125.72	126.83	Tubarao - Qingdao	C3	29.03	2.07	7.69%	6.70	36.40

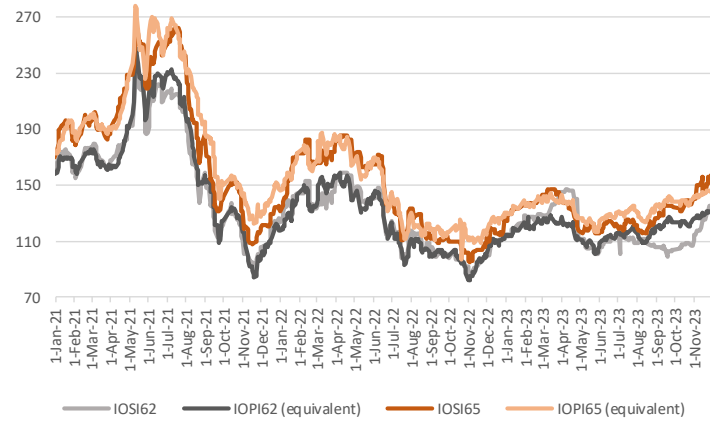
IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending Nov 24th, 2023		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne ¹						
Index	Fe Content	August	September	October	November	MTD	QTD	YTD	August	September	October	November	MTD	QTD	YTD
IOPLI62	62.5% Fe Lump	951	1043	1113	1155	933	955	1017	118.96	130.25	139.38	145.07	119.96	122.06	134.98

IRON ORE INDEX PREMIUMS/DISCOUNTS

Nov 30th, 2023		PORT STOCK INDEX (RMB/WT)				Nov 30th, 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	-86		-8.69%	IOSI65	65% Fe Fines	21.95		16.19%		
IOPI65	65% Fe Fines	112		11.23%							

IRON ORE INDEX COMPARISONS (USD/DMT)



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



IRON ORE BRAND SPOT PRICE ASSESSMENTS

Nov 30th, 2023				Nov 30th, 2023			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	937	3	-57	Roy Hill	131.10	-0.15	-4.50
SIMEC Fines	869	3	-125	SIMEC Fines	127.60	-0.15	-8.00
PB Fines	960	3	-34	PB Fines	131.85	-0.15	-3.75
Newman Fines	964	3	-30	Newman Fines	134.75	-0.10	-0.85
MAC Fines	944	3	-50	MAC Fines	131.85	-0.15	-3.75
Jimblebar Blended Fines	860	3	-134	Jimblebar Blended Fines	124.25	-0.10	-11.35
Carajas Fines	1175	3	181	Carajas Fines	165.15	-0.15	29.55
Brazilian SSF	961	3	-33	Brazilian SSF	139.35	-0.15	3.75
Brazilian Blend Fines	974	3	-20	Brazilian Blend Fines	140.95	-0.20	5.35
RTX Fines	878	3	-116	RTX Fines	125.45	-0.20	-10.15
West Pilbara Fines	905	3	-89	West Pilbara Fines	129.85	-0.15	-5.75

Nov 30th, 2023			
PORT STOCK INDEX (RMB/WT)			
	Price	Change	Diff to IOPI58
SSF	908	1	0
FMG Blended Fines	919	1	11
Robe River	920	1	12
Western Fines	923	1	15
Atlas Fines	916	1	8
Yandi	900	1	-8

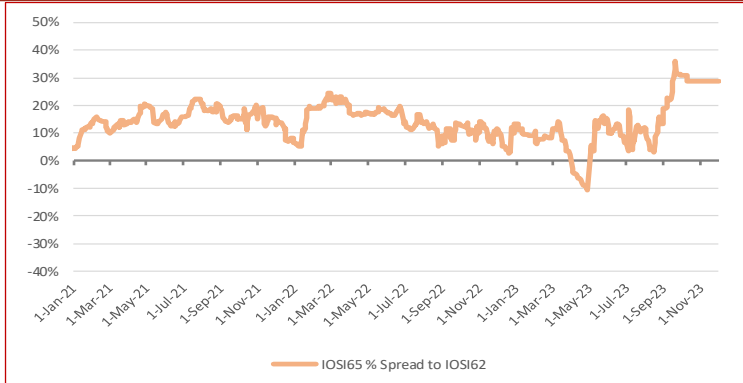
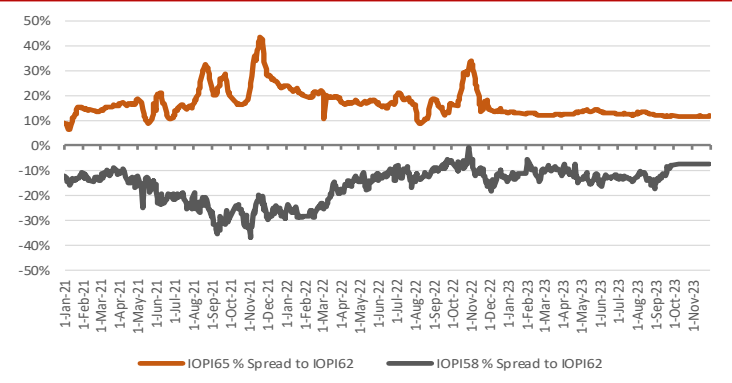
IRON ORE INDEX NORMALISATION DIFFERENTIALS

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%	10.00	0.00	1% Fe	High Grade Fe 60 - 63%	3.50	0.00
	High Grade Fe 63 - 64%	7.00	2.00		High Grade Fe 63 - 64%	2.75	0.00
	High Grade Fe 64 - 65%	7.00	2.00		High Grade Fe 64 - 65%	2.75	0.00
	High Grade Fe 65 - 65.5%	7.00	2.00		High Grade Fe 65 - 65.5%	2.75	0.00
1% Alumina	Low Grade Fe	26.00	-2.00	1% Alumina	High Fe Grade Al <2.25%	8.00	0.00
	High Fe Grade Al <2.25%	19.00	0.00		High Fe Grade Al 2.25-4%	1.00	0.25
	High Fe Grade Al 2.25-4%	13.00	-3.00				
	Low Fe Grade Al <2.25%	76.00	4.00				
1% Silica	Low Fe Grade Al 2.25-4%	32.00	-5.00	1% Silica	High Fe Grade Si <4%	1.50	0.50
	High Fe Grade Si <4%	5.00	0.00		High Fe Grade Si 4 - 6.5%	5.00	0.00
0.01% Phosphorus	High Fe Grade Si <4%	5.00	0.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	0.25	0.00
	High Fe Grade 0.09%<P<0.115%	5.00	0.00		High Fe Grade 0.115%<P<0.15%	1.25	0.50
	High Fe Grade 0.115%<P<0.15%	5.00	0.00		Low Fe Grade 0.09<P<0.1%		
	Low Fe Grade 0.09<P<0.1%	5.00	0.00				

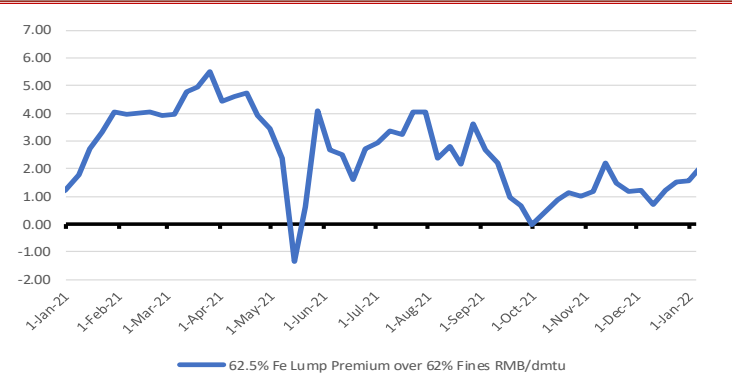
Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

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	-10.00	0.00	Jingtang	-10.00	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

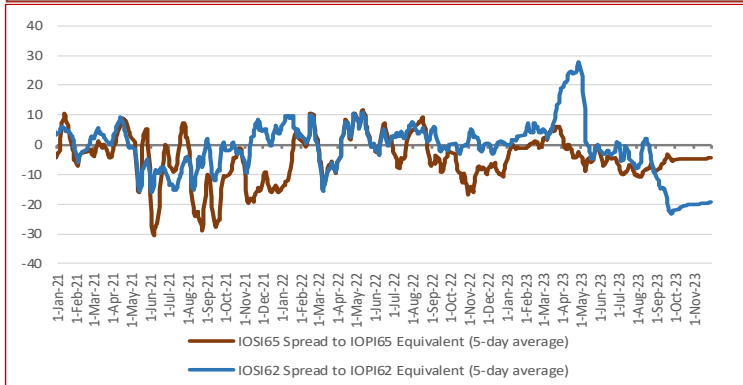
IRON ORE INDEX PREMIUMS/DISCOUNTS



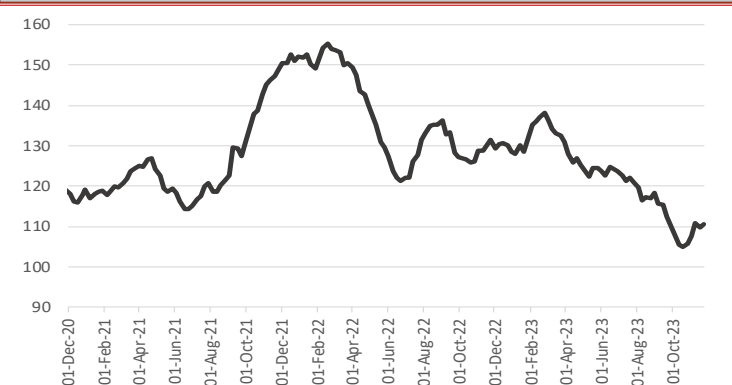
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



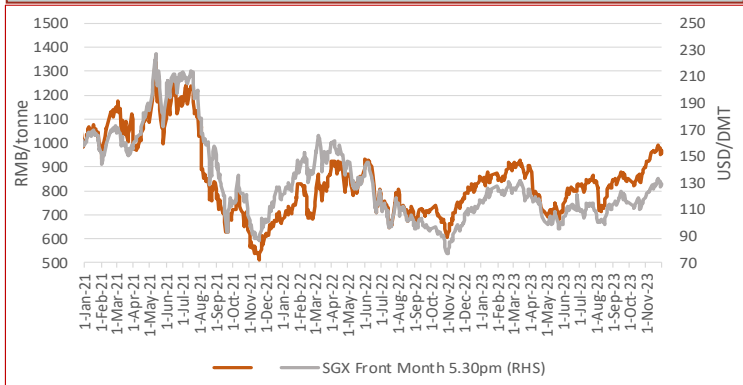
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



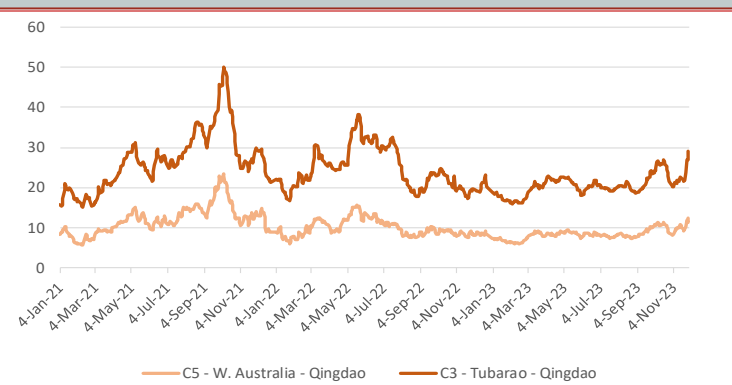
IRON ORE PORT INVENTORIES (MILLION TONNES)

Week Ending Nov 24th, 2023				
Province	This week	Change %	Low ²	High ²
Jingtang	8.88	3.02%	8.41	19.20
Qingdao	23.27	16.76%	9.41	26.24
Caofeidian	8.55	-6.46%	7.56	16.29
Tianjin	7.66	16.24%	6.49	12.97
Rizhao	12.94	5.89%	9.44	19.26
Total (35 Ports)	110.49	0.58%	98.80	155.39

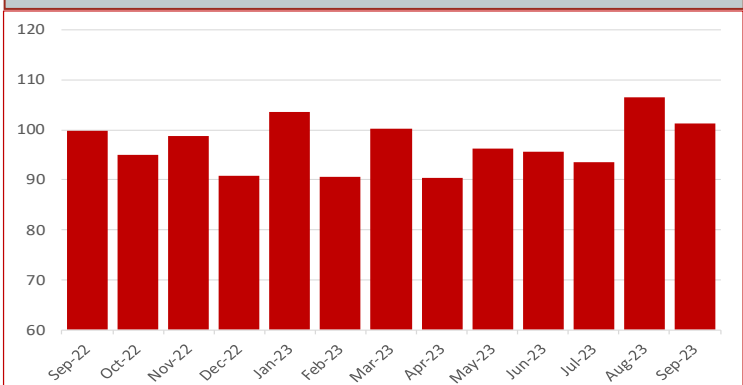
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	Nov 30th, 3pm close			Nov 30th, 5:30pm		
Contract	12401	Change	Change %	Jan. 24	Change	Change %
Closing Price	969.50	14.00	1.47%	129.80	1.25	0.97%
Vol traded ('000 lots)	29.32	8.23	39.04%	7.28	0.59	8.80%
Open positions ('000 lots)	55.14	-2.53	-4.39%	42.50	8.94	26.63%
Day Low	941.5	-7.50	-0.79%	126.05	-1.45	-1.14%
Day High	975.0	10.50	1.09%	130.10	-0.50	-0.38%

DRY BULK FREIGHT RATES (USD/MT)



TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)



STEEL SPOT MARKET PRICES—CHINA

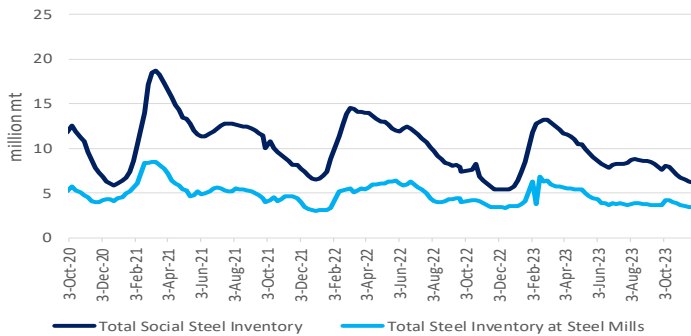
Steel Spot Market RMB/tonne			
Product	2023/11/24	Change	Change %
ReBar HRB400 φ18mm	4,060	-20	-0.49%
Wirerod Q300 φ6.5mm	4,290	-10	-0.23%
HRC Q235/SS400 5.5mm*1500*C	3,960	0	0.00%
CRC SPCC/ST12 1.0mm*1250*2500	4,810	20	0.42%
Medium & Heavy Plate Q235B 20mm	3,980	0	0.00%
GI ST02Z 1.0mm*1000*C	5,060	0	0.00%
Colour Coated Plate	7,000	50	0.72%

CHINESE STEEL MILL PROFITABILITY

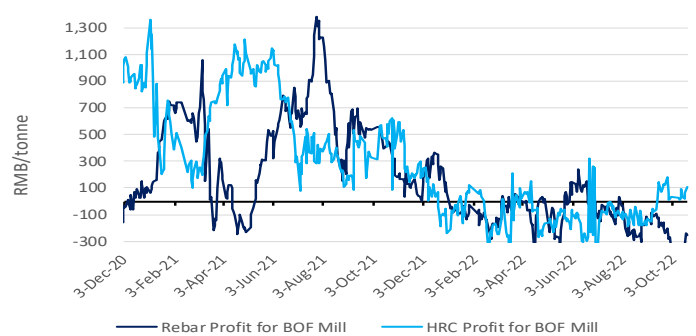
SMM Tracking of Steel Mill P&L - Rebar and Hot-rolled Coil (RMB/tonne)			
Category	Price	Change (WoW)	Note
MMi (Fe 62%), USD/mt excluding tax	118.10	0	Mmi CFR Equivalent index for 1st Feb
Coke	2,560	110	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	2,910	0	steel scrap (6mm) in Zhangjiagang, excl. tax
Billet Cost	3,319	49	Q234, incl. tax
Rebar cost - Blast furnace	3,977	55	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	-7	-65	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	4,038	60	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	-58	-40	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

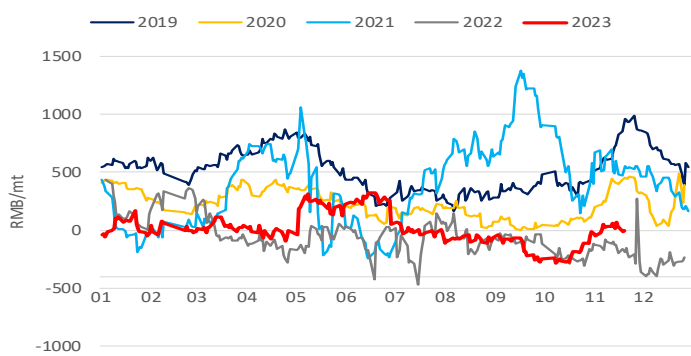
CHINESE STEEL INVENTORIES



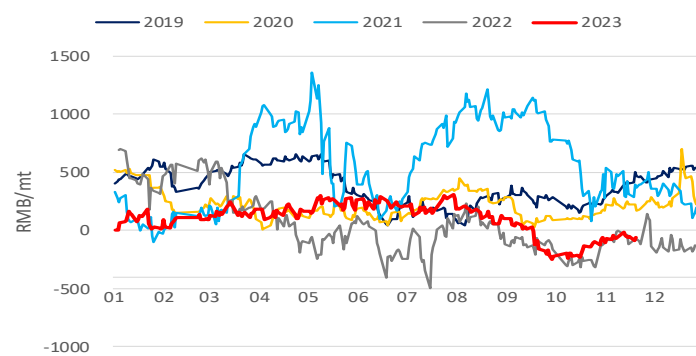
CHINESE STEEL MILL PROFITABILITY



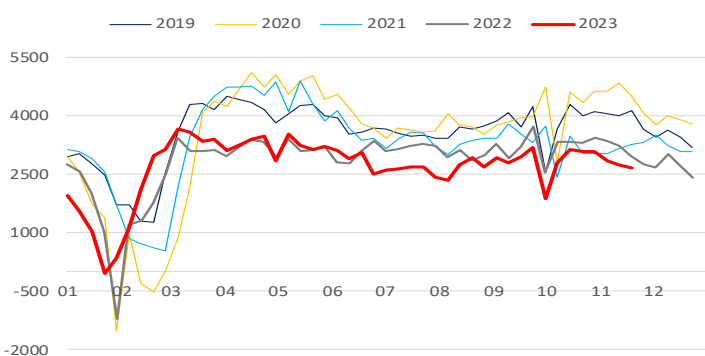
CHINESE STEEL MILL PROFITABILITY—Rebar



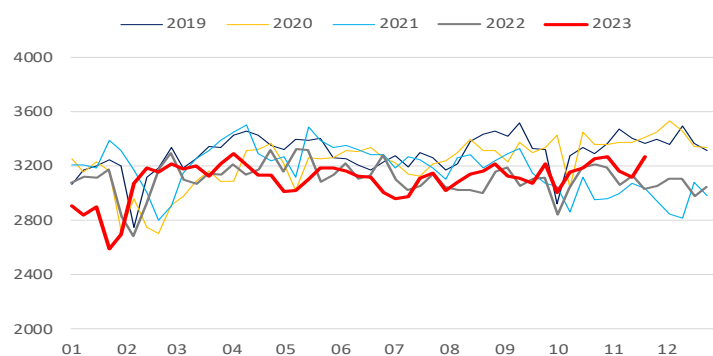
CHINESE STEEL MILL PROFITABILITY—Hot-rolled Coil



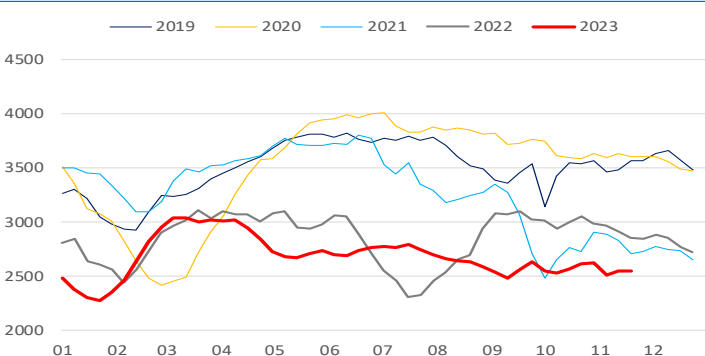
CHINESE STEEL CONSUMPTION—Rebar



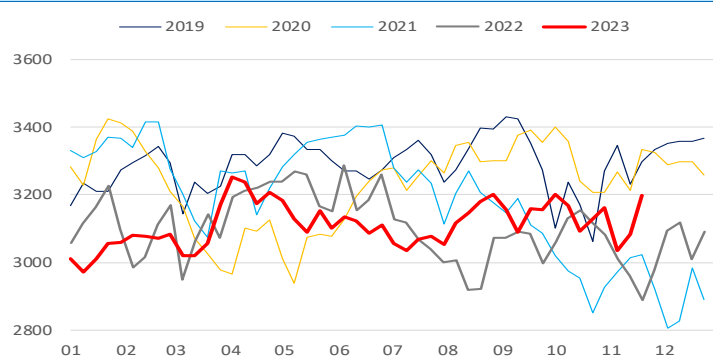
CHINESE STEEL CONSUMPTION—Hot-rolled Coil



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																						
Seaborne index	0		0																						
Lump Index 62.5	0																								
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 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 30th, 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 30th, 2023	Specifications applied for 58% brand assessments						Specifications applied for 58% brand assessments				
	Fe	Alumina	Silica	Phos	Moisture		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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