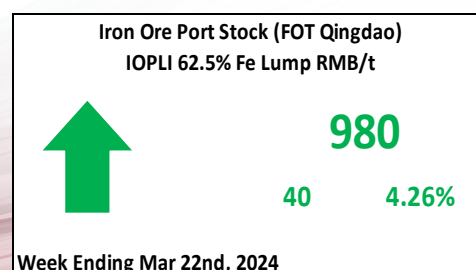
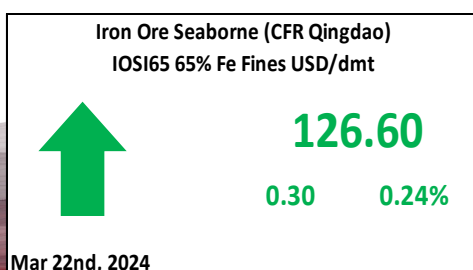
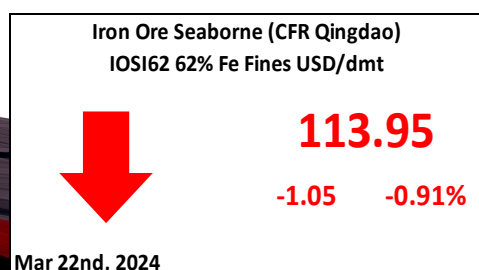
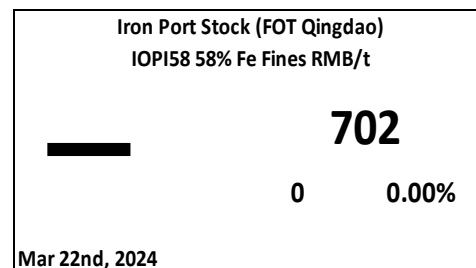
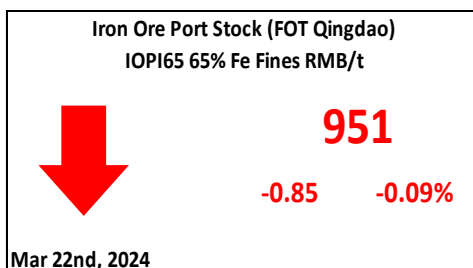
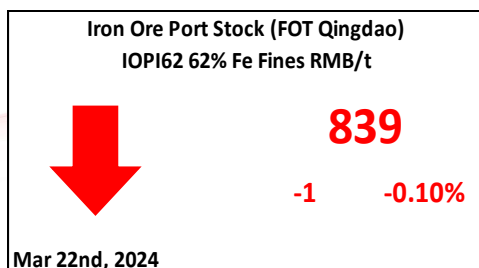


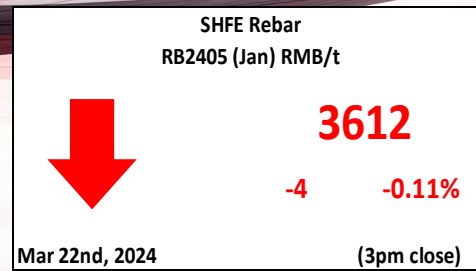
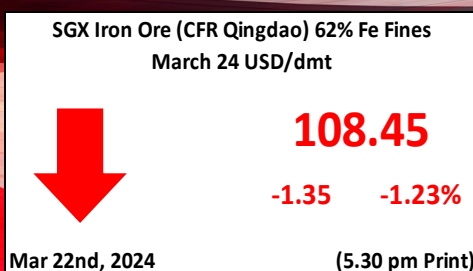
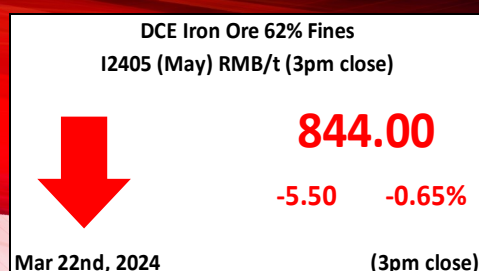


# MMi Dashboard

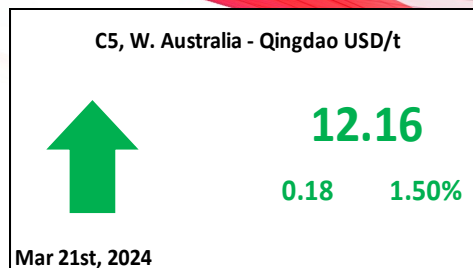
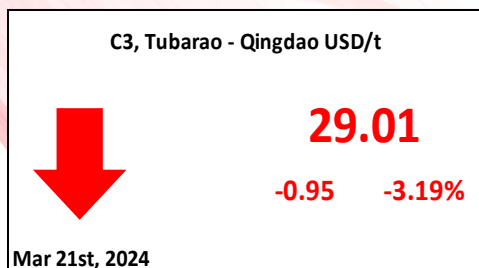
## Iron Ore Price Indices



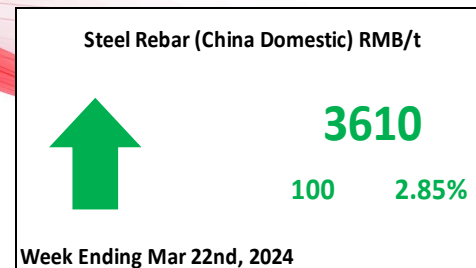
## Exchange Traded Contracts



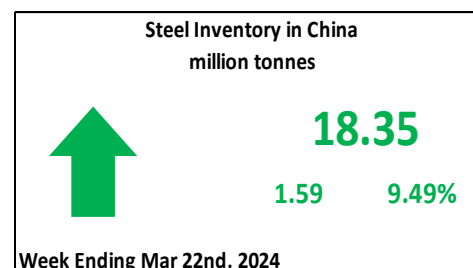
## Freight Rates



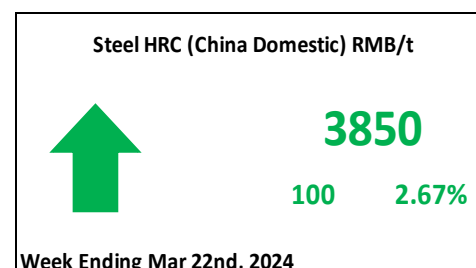
## Steel Price



## Inventory Levels



## Steel Price



## IRON ORE PORT STOCK INDEX (IOPI)

Mar 22nd, 2024		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne <sup>1</sup>						
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low <sup>2</sup>	High <sup>2</sup>	Price	Change	Change %	MTD	YTD	Low <sup>2</sup>	High <sup>2</sup>
IOPI62	62% Fe Fines	839	-0.8	-0.10%	880	895	770	1063	109.93	-0.16	-0.1%	116.38	121.03	100.95	140.24
IOPI58	58% Fe Fines	702	0.0	0.00%	785	781	680	963	92.30	-0.04	0.0%	104.50	106.10	89.86	128.13
IOPI65	65% Fe Fines	951	-0.9	-0.09%	996	1026	881	1175	125.06	-0.17	-0.1%	132.21	139.47	116.19	155.37

## IRON ORE SEABORNE INDEX (IOSI)

## MARKET COMMENTARY

Mar 22nd, 2024		CFR Qingdao, USD/dry tonne							DCE iron ore opened high and then fell, rising again in the afternoon and closing strong after a day of fluctuations. The main contract, I2405, closed at 844, up 1.5% for the day. Traders followed the market and made shipments, with some having speculative demands. Steel mills made purchases for replenishing inventory; overall, the market had a moderate trading atmosphere. PBF at Shandong port dealt 825-830 yuan/mt; decreased 0-5 yuan/mt over yesterday. PBF at Tangshan port dealt 830-835 yuan/mt; decreased 10 yuan/mt over yesterday. As of March 22, the total inventory of 35 tracked ports by SMM reached 139.69 million tons, an increase of 0.54 million tons compared to the previous period, and an increase of 7.19 million tons compared to the same period last year. The daily average processing volume of							
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low <sup>2</sup>	High <sup>2</sup>								
IOSI62	62% Fe Fines	113.95	-1.05	-0.91%	116.42	116.42	99.20	146.75								
IOSI65	65% Fe Fines	126.60	0.30	0.24%	130.60	130.60	115.45	171.65								

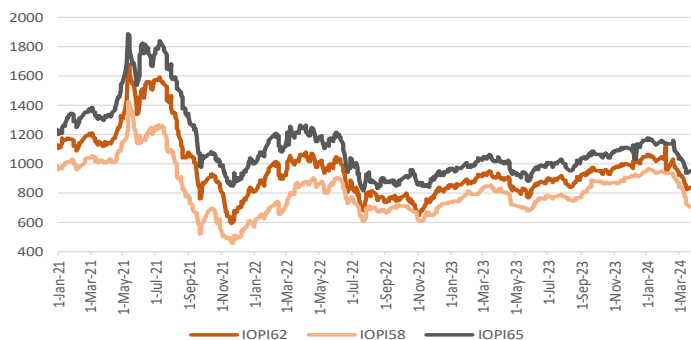
## IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending Mar 22nd, 2024		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne <sup>3</sup>						
Index	Fe Content	Price	W-o-W	Change %	MTD	YTD	Low <sup>2</sup>	High <sup>2</sup>	Price	W-o-W	Change %	MTD	YTD	Low <sup>2</sup>	High <sup>2</sup>
IOPLI62	62.5% Fe Lump	980	40	4.3%	994	1041	903	1210	123.66	5.19	4.38%	126.95	136.27	114.47	153.57

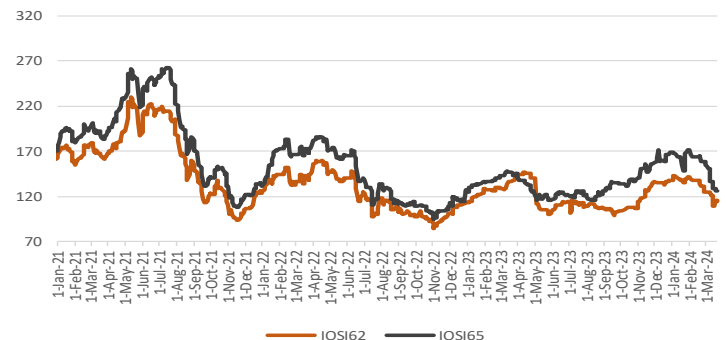
## IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

Week Ending Mar 22nd, 2024				RMB/tonne (excluding tax) <sup>3</sup>				USD/tonne (excluding tax) <sup>3</sup>			
Province	Region	Product	Basis	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>
Hebei	Hanxing	66% Fe Concentrate	Dry	967	-7.9%	779	1645	136.26	-7.91%	110.31	255.69
Hebei	Qian'an	65% Fe Concentrate	Dry	1030	1.0%	780	1630	145.14	0.97%	102.16	251.57
Liaoning	Anshan	65% Fe Concentrate	Wet	725	-8.2%	620	1310	102.16	-8.24%	87.40	202.32
Shandong	Zibo	65% Fe Concentrate	Dry	1000	-8.6%	800	1752	140.91	-8.60%	0.00	272.32
Week Ending Mar 22nd, 2024				This week	Change %	Low <sup>2</sup>	High <sup>2</sup>	<sup>1</sup> Exchange rate applied: RMB/USD = 6.7522 <sup>2</sup> Last 12 months <sup>3</sup> Weekly exchange rate applied: RMB/USD = 6.87528			
China Mines Concentrate Composite Index RMB/WT				895.22	-4.46%	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

Mar 22nd, 2024		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne						
Index	Fe Content	November	December	January	February	MTD	QTD	YTD	November	December	January	February	MTD	QTD	YTD
IOPI62	62% Fe Fines	988	1017	1041	992	880	874	895	129.07	133.85	137.08	130.57	115.32	115.83	120.56
IOPI58	58% Fe Fines	884	924	949	908	785	779	781	116.42	122.63	126.09	120.39	103.33	103.96	105.35
IOPI65	65% Fe Fines	1100	1124	1152	1108	996	992	1026	144.10	148.34	152.20	146.16	131.20	131.91	139.19

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

## FREIGHT RATES

Mar 22nd, 2024		CFR Qingdao, USD/dry tonne							Mar 21st, 2024						
Index	Fe Content	November	December	January	February	MTD	QTD	YTD	FREIGHT RATES - DRY BULK US\$/wet tonne						
Index	Fe Content	November	December	January	February	MTD	QTD	YTD	Route	Designation	Change	Change %	Low <sup>2</sup>	High <sup>2</sup>	
IOSI62	62% Fe Fines	124.61	135.51	139.58	134.03	112.14	115.18	116.42	W. Australia - Qingdao	C5	12.16	0.18	1.50%	3.57	16.77
IOSI65	65% Fe Fines	150.46	161.63	164.44	162.36	122.86	129.04	130.60	Tubarao - Qingdao	C3	29.01	-0.95	-3.19%	6.70	36.40

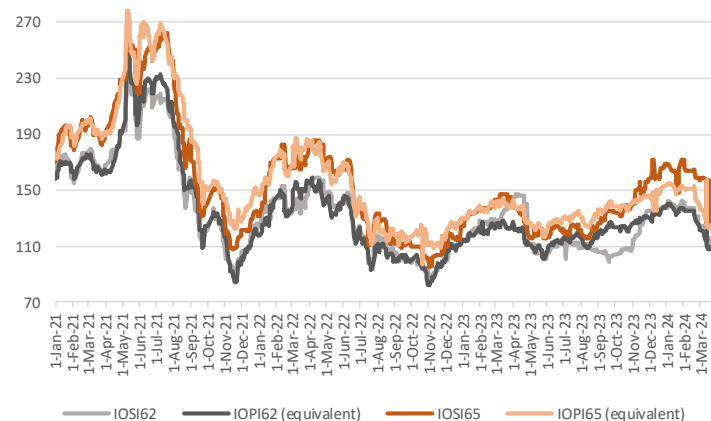
## IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending Mar 22nd, 2024		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne <sup>1</sup>						
Index	Fe Content	November	December	January	February	MTD	QTD	YTD	November	December	January	February	MTD	QTD	YTD
IOPLI62	62.5% Fe Lump	1155	1177	1170	1093	933	989	1017	145.07	149.11	148.20	138.12	119.96	126.47	134.98

## IRON ORE INDEX PREMIUMS/DISCOUNTS

Mar 22nd, 2024		PORT STOCK INDEX (RMB/WT)				Mar 22nd, 2024		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	-138		-16.38%		IOSI65	65% Fe Fines	12.65		11.10%	
IOPI65	65% Fe Fines	112		13.31%							

## IRON ORE INDEX COMPARISONS (USD/DMT)



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



## IRON ORE BRAND SPOT PRICE ASSESSMENTS

Mar 22nd, 2024				Mar 22nd, 2024			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	782	-2	-57	Roy Hill	109.50	-1.00	-4.45
SIMEC Fines	711	-2	-128	SIMEC Fines	106.00	-1.00	-7.95
PB Fines	808	-2	-31	PB Fines	110.25	-1.00	-3.70
Newman Fines	808	-2	-31	Newman Fines	113.15	-1.00	-0.80
MAC Fines	789	-2	-50	MAC Fines	110.25	-1.00	-3.70
Jimblebar Blended Fines	704	-2	-135	Jimblebar Blended Fines	102.65	-1.00	-11.30
Carajas Fines	1019	-2	180	Carajas Fines	143.55	-1.00	29.60
Brazilian SSF	802	-2	-37	Brazilian SSF	117.75	-1.00	3.80
Brazilian Blend Fines	821	-2	-18	Brazilian Blend Fines	119.35	-1.00	5.40
RTX Fines	722	-2	-117	RTX Fines	103.85	-1.00	-10.10
West Pilbara Fines	750	-2	-89	West Pilbara Fines	108.25	-1.00	-5.70

Mar 22nd, 2024			
PORT STOCK INDEX (RMB/WT)			
	Price	Change	Diff to IOPI58
SSF	700	-2	-2
FMG Blended Fines	709	-2	7
Robe River	709	-2	7
Western Fines	712	-2	10
Atlas Fines	706	-2	4
Yandi	693	-2	-9

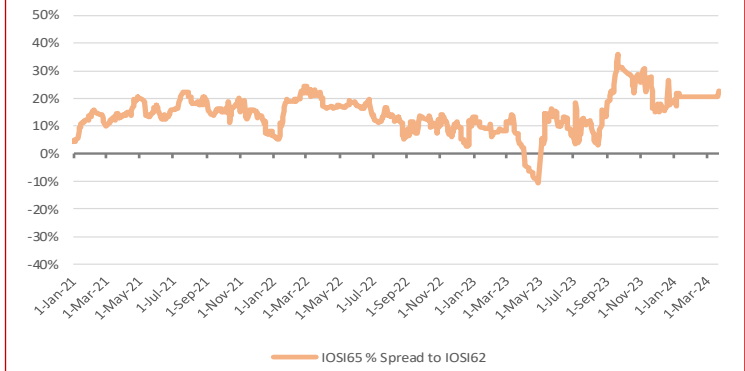
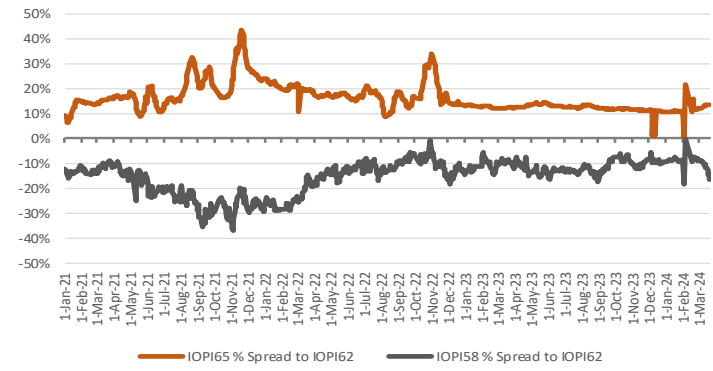
## IRON ORE INDEX NORMALISATION DIFFERENTIALS

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%	18.00	-5.00	1% Fe	High Grade Fe 60 - 63%	2.25	-0.25
	High Grade Fe 63 - 64%	75.00	0.00		High Grade Fe 63 - 64%	3.00	0.00
	High Grade Fe 64 - 65%	75.00	0.00		High Grade Fe 64 - 65%	3.00	0.00
	High Grade Fe 65 - 65.5%	75.00	0.00		High Grade Fe 65 - 65.5%	3.00	0.00
1% Alumina	Low Grade Fe	23.00	4.00	1% Alumina	High Fe Grade Al <2.25%	2.50	0.00
	High Fe Grade Al <2.25%	19.00	-6.00		High Fe Grade Al 2.25-4%	2.25	0.00
	High Fe Grade Al 2.25-4%	5.00	0.00				
	Low Fe Grade Al <2.25%	23.00	3.00				
1% Silica	Low Fe Grade Al 2.25-4%	25.00	5.00	1% Silica	High Fe Grade Si <4%	2.75	0.00
	High Fe Grade Si <4%	15.00	-2.00		High Fe Grade Si 4 - 6.5%	2.75	0.00
0.01% Phosphorus	High Fe Grade Si 4-6.5%	30.00	0.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	1.00	0.00
	Low Fe Grade	23.00	5.00		High Fe Grade 0.115%<P<0.15%	2.25	0.25
	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				

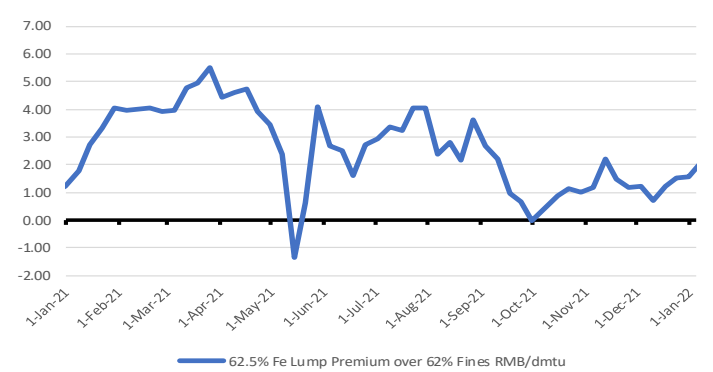
## Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

Port	Value	Change	Port	Value	Change	Port	Value	Change	Port	Value	Change
Bayuquan	-50.00	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	-10.00	-10.00	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	-40.00	0.00

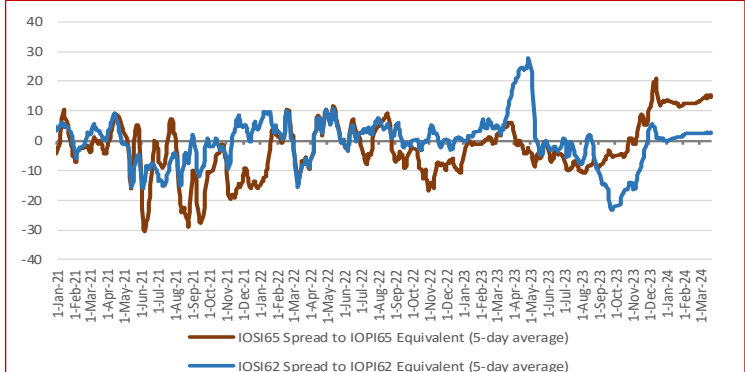
IRON ORE INDEX PREMIUMS/DISCOUNTS



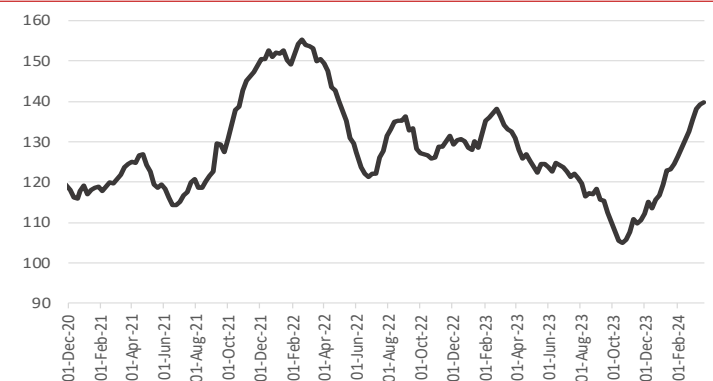
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



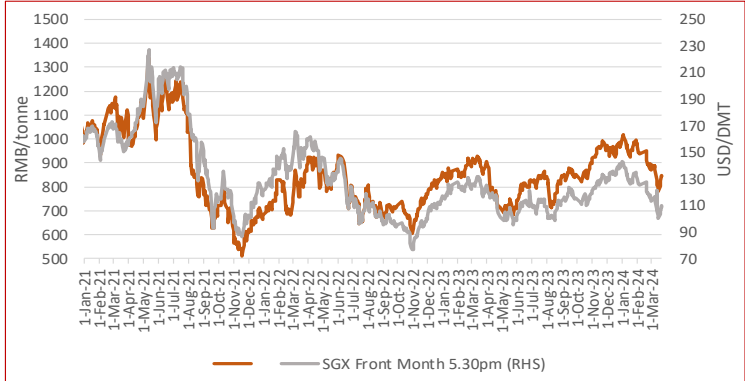
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



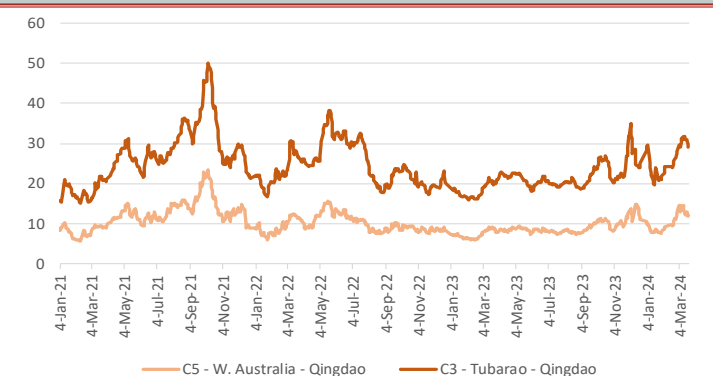
IRON ORE PORT INVENTORIES (MILLION TONNES)

Week Ending Mar 22nd, 2024				
Province	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>
Jingtang	14.22	3.42%	8.41	19.20
Qingdao	23.02	-3.11%	9.41	26.24
Caofeidian	15.39	4.06%	7.56	16.29
Tianjin	9.80	0.82%	6.49	12.97
Rizhao	17.74	2.37%	9.44	19.26
<b>Total (35 Ports)</b>	<b>139.69</b>	<b>0.39%</b>	<b>98.80</b>	<b>155.39</b>

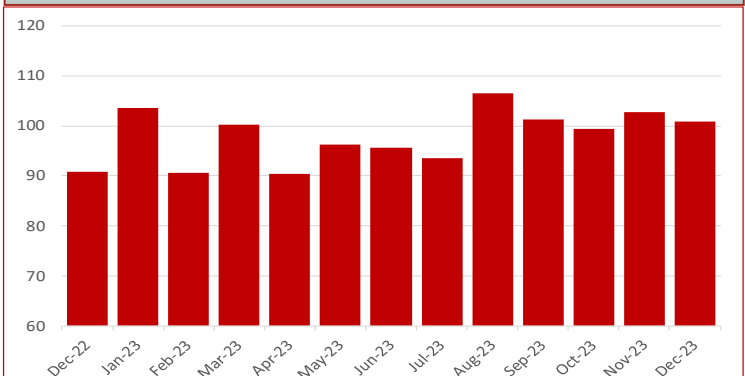
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	Mar 22nd, 3pm close			Mar 22nd, 5:30pm		
Contract	12405	Change	Change %	Mar. 24	Change	Change %
Closing Price	844.00	-5.50	-0.65%	108.45	-1.35	-1.23%
Vol traded ('000 lots)	34.99	-8.93	-20.34%	8.44	-2.93	-25.74%
Open positions ('000 lots)	39.54	-1.23	-3.02%	30.75	0.23	0.76%
Day Low	827.5	15.50	1.91%	105.70	1.50	1.44%
Day High	849.5	-2.50	-0.29%	109.45	-1.05	-0.95%

DRY BULK FREIGHT RATES (USD/MT)



TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)



STEEL SPOT MARKET PRICES—CHINA

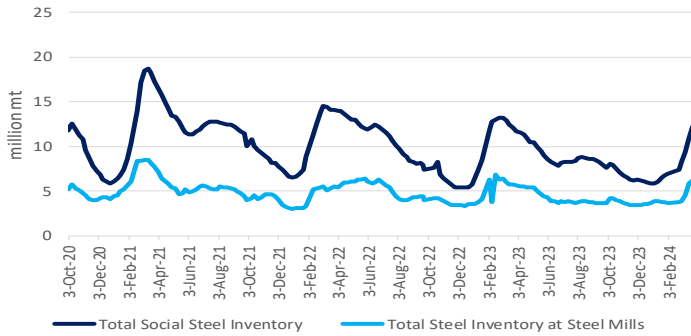
Product	2024/3/22	Change	Change %
ReBar HRB400 φ18mm	3,610	100	2.85%
Wirerod Q300 φ6.5mm	3,870	100	2.65%
HRC Q235/SS400 5.5mm*1500*C	3,850	100	2.67%
CRC SPCC/ST12 1.0mm*1250*2500	4,550	-10	-0.22%
Medium & Heavy Plate Q235B 20mm	3,880	20	0.52%
GI ST02Z 1.0mm*1000*C	4,700	30	0.64%
Colour Coated Plate	6,550	-50	-0.76%

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	113.95	5	Mmi CFR Equivalent index for 1st Feb
Coke	2,120	-110	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	2,750	-50	steel scrap (6mm) in Zhangjiagang, excl. tax
Billet Cost	2,861	-58	Q234, incl. tax
Rebar cost - Blast furnace	3,459	-66	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	71	156	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	3,531	-66	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	309	176	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

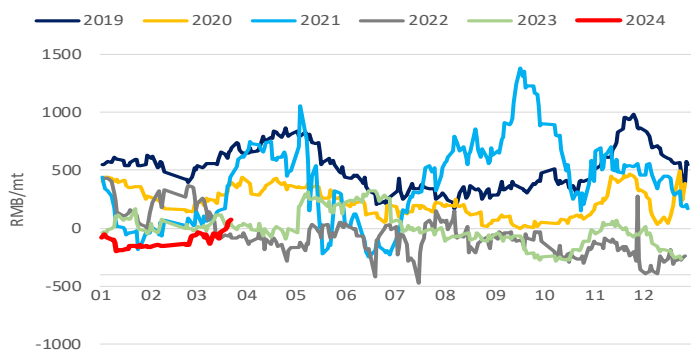
CHINESE STEEL INVENTORIES



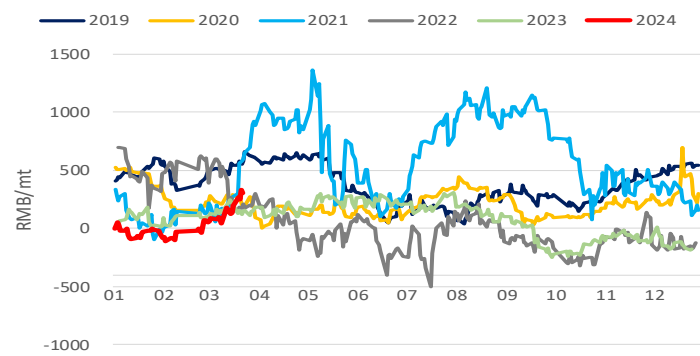
CHINESE STEEL MILL PROFITABILITY



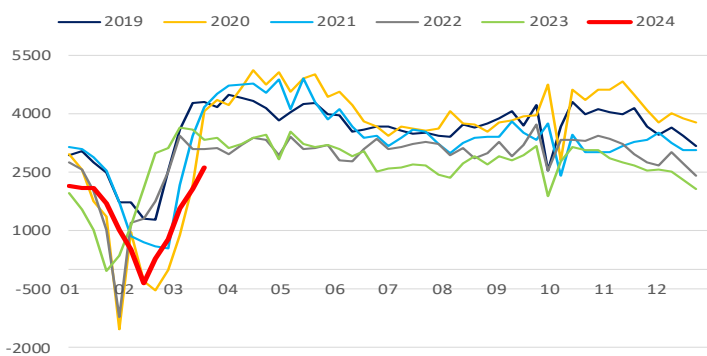
CHINESE STEEL MILL PROFITABILITY—Rebar



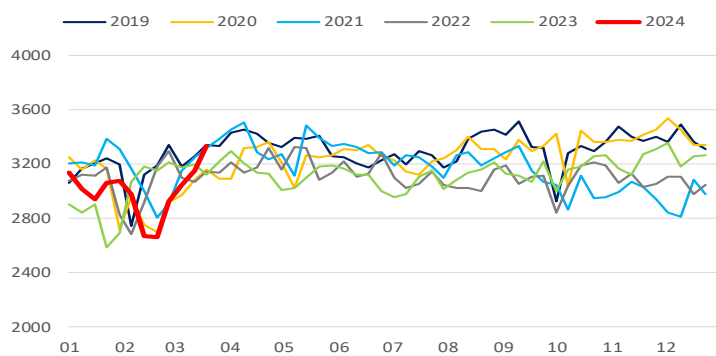
CHINESE STEEL MILL PROFITABILITY—Hot-rolled Coil



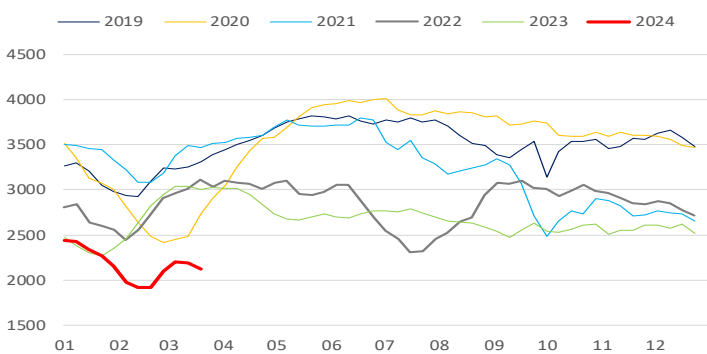
CHINESE STEEL CONSUMPTION—Rebar



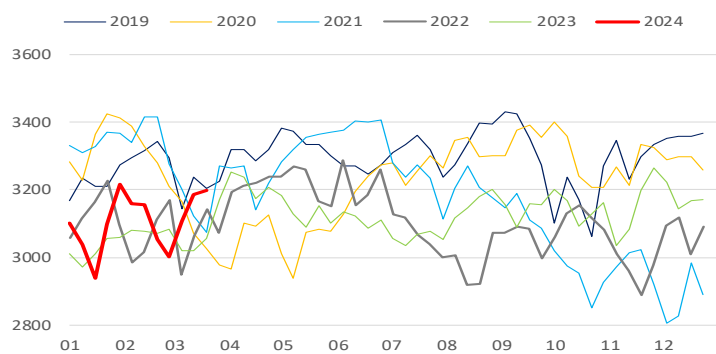
CHINESE STEEL CONSUMPTION—Hot-rolled Coil



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: <a href="http://www.mmiprices.com">www.mmiprices.com</a>																				
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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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					
Mar 22nd, 2024	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%
Mar 22nd, 2024	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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