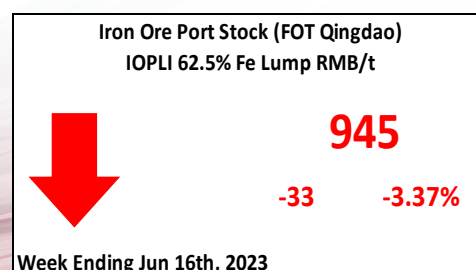
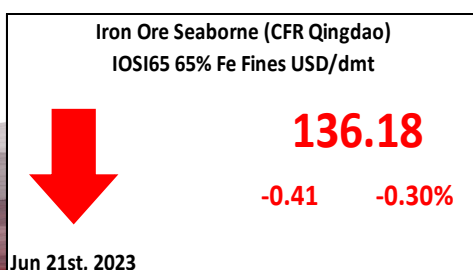
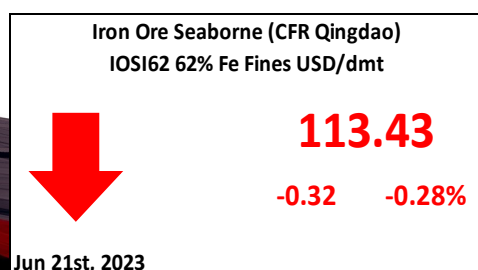
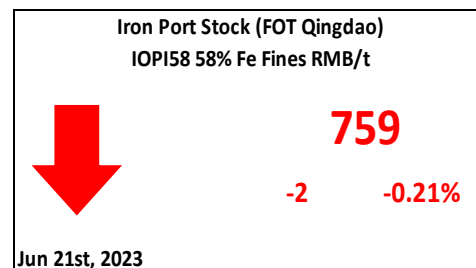
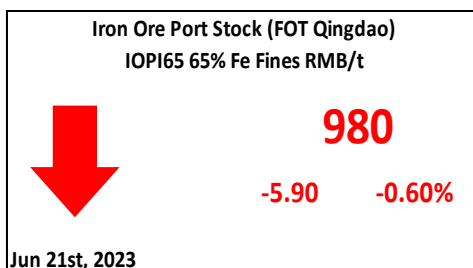
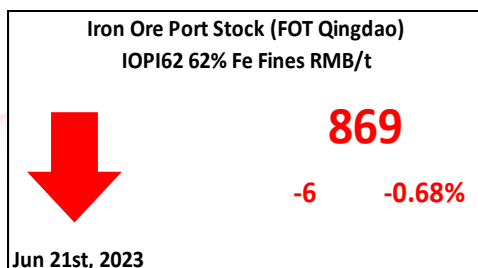


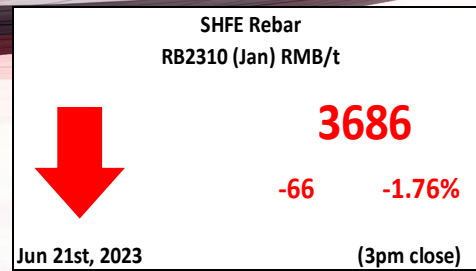
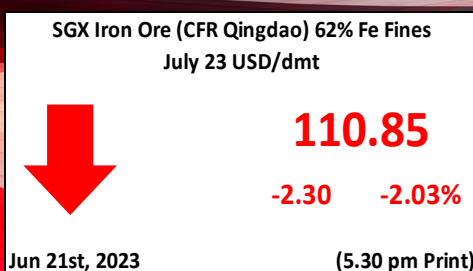
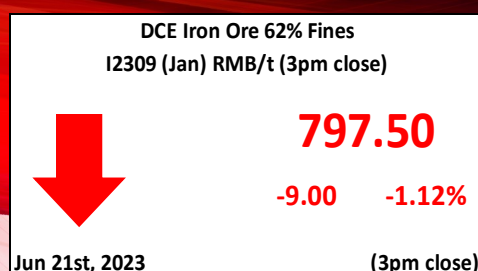


# MMi Dashboard

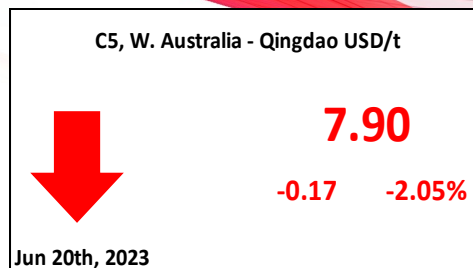
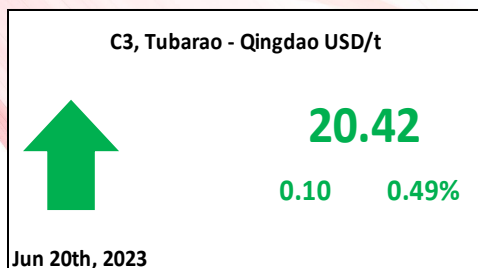
## Iron Ore Price Indices



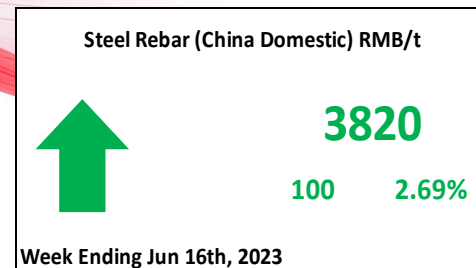
## Exchange Traded Contracts



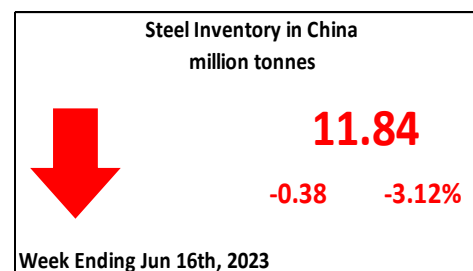
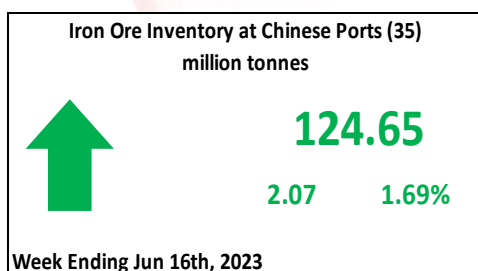
## Freight Rates



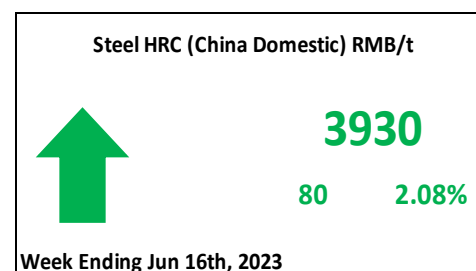
## Steel Price



## Inventory Levels



## Steel Price



## IRON ORE PORT STOCK INDEX (IOPI)

Jun 21st, 2023		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	869	-6	-0.7%	869	880	858	892	112.64	-1.11	-1.0%	120.06	120.58	117.93	122.93
IOPI58	58% Fe Fines	759	-2	-0.2%	813	798	761	793	98.99	-0.49	-0.5%	113.29	110.17	105.29	110.04
IOPI65	65% Fe Fines	980	-6	-0.6%	981	992	970	1003	127.60	-1.15	-0.9%	136.05	136.43	133.84	138.73

## IRON ORE SEABORNE INDEX (IOSI)

## MARKET COMMENTARY

Jun 21st, 2023		CFR Qingdao, USD/dry tonne							DCE iron ore futures fall today by 0.99%, the main contract I2309 closed 797.5, some traders were negative to sell, and quotation is still stronger; Some steel mills tended to be wait-and-see, and purchasing enthusiasm is not high, total transactions remained insipid. PBF at Shandong port dealt 845-855 yuan/mt; decreased 0-5 yuan/mt over yesterday. As a whole, near the Dragon Boat Festival holiday, some steel mills still have stage replenishment demand, but the demand for building materials is poor, and most steel mills are weak in replenishment. Superimposed pressure on production is expected to gradually fall, and the sustainability of iron ore demand remains to be seen. In addition, the market sentiment for macro policies has weakened, and iron ore has continued to be weak and volatile in the near future.							
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low <sup>2</sup>	High <sup>2</sup>								
IOSI62	62% Fe Fines	113.43	-0.32	-0.28%	114.08	122.97	83.90	146.75								
IOSI65	65% Fe Fines	136.18	-0.41	-0.30%	125.65	139.27	94.45	149.10								

## IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending Jun 16th, 2023		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	945	-33	-3.4%	928	1023	770	1030	118.37	-4.77	-3.88%	120.00	137.50	94.72	137.80

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

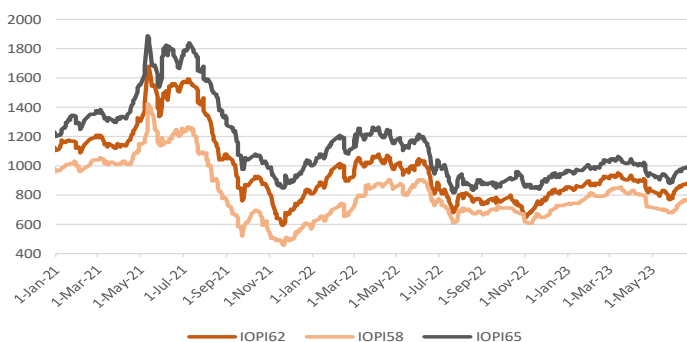
Week Ending Jun 16th, 2023				RMB/tonne (excluding tax) <sup>3</sup>				USD/tonne (excluding tax) <sup>3</sup>			
Province	Region	Product	Basis	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>
Hebei	Hanxing	66% Fe Concentrate	Dry	992	6.9%	779	1645	138.91	6.45%	110.31	255.69
Hebei	Qian'an	65% Fe Concentrate	Dry	1020	0.5%	780	1630	142.84	0.07%	110.51	251.57
Liaoning	Anshan	65% Fe Concentrate	Wet	725	0.0%	620	1310	101.53	-0.42%	87.40	202.32
Shandong	Zibo	65% Fe Concentrate	Dry	1004	7.8%	800	1752	140.59	7.39%	117.19	272.32

Week Ending Jun 16th, 2023

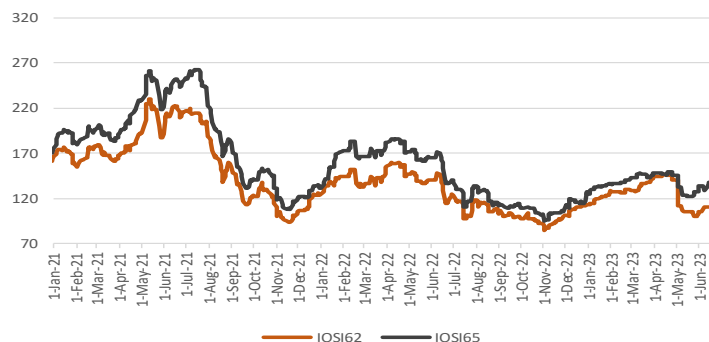
	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>
China Mines Concentrate Composite Index RMB/WT	901.17	2.93%	706.36	1511.22

<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

## 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

Jun 21st, 2023		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne						
Index	Fe Content	February	March	April	May	MTD	QTD	YTD	February	March	April	May	MTD	QTD	YTD
IOPI62	62% Fe Fines	892	924	879	804	869	881	880	121.64	124.91	118.84	106.85	120.06	120.90	120.58
IOPI58	58% Fe Fines	799	832	782	698	813	792	798	109.79	113.41	106.43	93.21	113.29	109.35	110.17
IOPI65	65% Fe Fines	1003	1036	991	916	981	993	992	137.36	140.49	134.47	122.23	136.05	136.72	136.43

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

## FREIGHT RATES

Jun 21st, 2023		CFR Qingdao, USD/dry tonne							Jun 20th, 2023				FREIGHT RATES - DRY BULK US\$/wet tonne			
Index	Fe Content	February	March	April	May	MTD	QTD	YTD	Route	Designation	Change	Change %	Low <sup>2</sup>	High <sup>2</sup>		
IOSI62	62% Fe Fines	127.73	134.77	144.76	108.53	112.14	113.75	122.97	W. Australia - Qingdao	C5	7.90	-0.17	-2.05%	3.57	16.77	
IOSI65	65% Fe Fines	138.06	145.14	147.67	127.20	122.86	125.56	139.27	Tubarao - Qingdao	C3	20.42	0.10	0.49%	6.70	36.40	

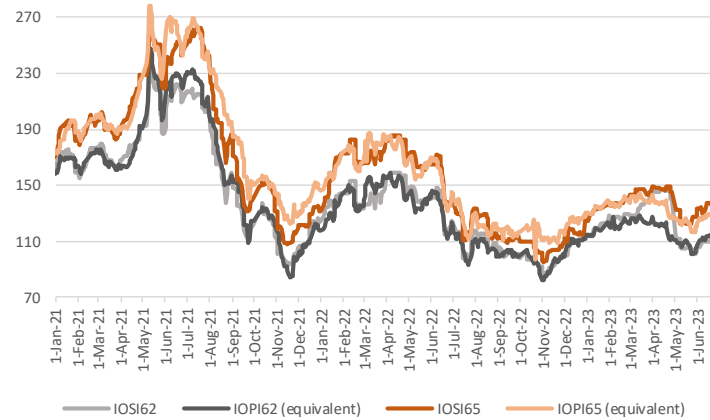
## IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending Jun 16th, 2023		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne <sup>1</sup>						
Index	Fe Content	February	March	April	May	MTD	QTD	YTD	February	March	April	May	MTD	QTD	YTD
IOPLI62	62.5% Fe Lump	988	1012	983	919	925	925	1032	129.95	131.15	132.68	117.67	119.39	120.04	137.99

## IRON ORE INDEX PREMIUMS/DISCOUNTS

Jun 21st, 2023		PORT STOCK INDEX (RMB/WT)				Jun 21st, 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	-110		-12.65%		IOSI65	65% Fe Fines	22.75		20.06%	
IOPI65	65% Fe Fines	112		12.86%							

## IRON ORE INDEX COMPARISONS (USD/DMT)



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



## IRON ORE BRAND SPOT PRICE ASSESSMENTS

Jun 21st, 2023				Jun 21st, 2023			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	810	-8	-59	Roy Hill	108.90	-0.35	-4.53
SIMEC Fines	739	-8	-130	SIMEC Fines	105.40	-0.35	-8.03
PB Fines	835	-8	-34	PB Fines	109.70	-0.30	-3.73
Newman Fines	836	-8	-33	Newman Fines	112.55	-0.30	-0.88
MAC Fines	817	-8	-52	MAC Fines	109.65	-0.35	-3.78
Jimblebar Blended Fines	732	-8	-137	Jimblebar Blended Fines	102.05	-0.30	-11.38
Carajas Fines	1047	-8	178	Carajas Fines	142.95	-0.35	29.52
Brazilian SSF	831	-8	-38	Brazilian SSF	117.20	-0.30	3.77
Brazilian Blend Fines	848	-8	-21	Brazilian Blend Fines	118.80	-0.30	5.37
RTX Fines	750	-8	-119	RTX Fines	103.30	-0.35	-10.13
West Pilbara Fines	778	-8	-91	West Pilbara Fines	107.65	-0.35	-5.78

Jun 21st, 2023			
PORT STOCK INDEX (RMB/WT)			
	Price	Change	Diff to IOPI58
SSF	759	-1	0
FMG Blended Fines	768	-1	9
Robe River	769	-1	10
Western Fines	772	-1	13
Atlas Fines	766	-1	7
Yandi	752	-1	-7

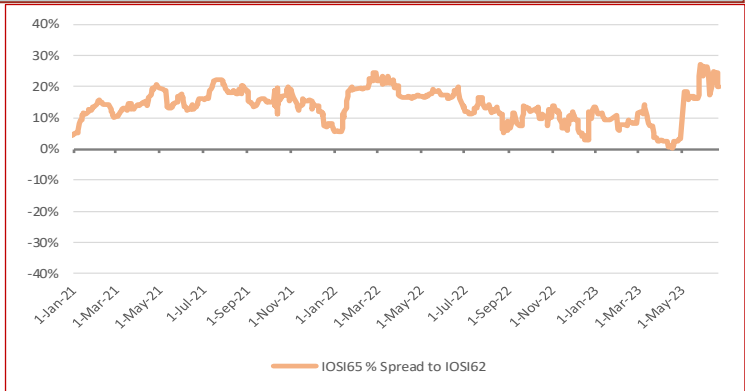
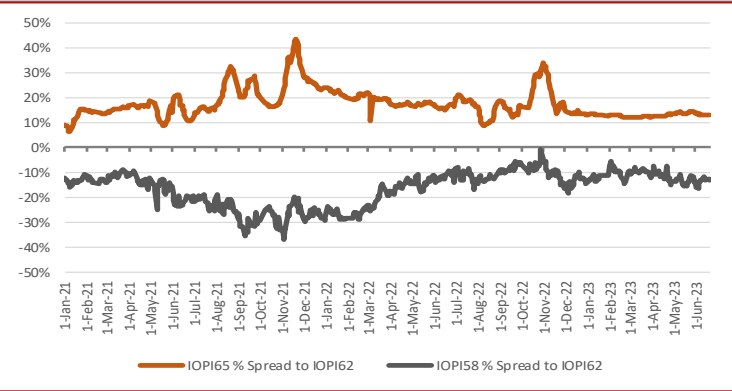
## IRON ORE INDEX NORMALISATION DIFFERENTIALS

Port Stock Index Product Differentials (RMB/wet tonne)				Seaborne Index Product Differentials (USD/dry tonne)			
	Applicable range	Value	Change		Applicable range	Value	Change
1% Fe	High Grade Fe 60 - 63%	12.00	0.00	1% Fe	High Grade Fe 60 - 63%	2.25	0.75
	High Grade Fe 63 - 64%	5.00	0.00		High Grade Fe 63 - 64%	5.75	0.00
	High Grade Fe 64 - 65%	5.00	0.00		High Grade Fe 64 - 65%	5.75	0.00
	High Grade Fe 65 - 65.5%	5.00	0.00		High Grade Fe 65 - 65.5%	5.75	0.00
1% Alumina	Low Grade Fe	25.00	0.00	1% Alumina	High Fe Grade Al <2.25%	1.00	0.75
	High Fe Grade Al <2.25%	38.00	0.00		High Fe Grade Al 2.25-4%	1.25	0.00
	High Fe Grade Al 2.25-4%	5.00	0.00				
	Low Fe Grade Al <2.25%	21.00	7.00				
1% Silica	Low Fe Grade Al 2.25-4%	39.00	0.00	1% Silica	High Fe Grade Si <4%	4.25	0.75
	High Fe Grade Si <4%	10.00	0.00		High Fe Grade Si 4 - 6.5%	4.25	0.00
	High Fe Grade Si 4-6.5%	5.00	0.00				
0.01% Phosphorus	Low Fe Grade	19.00	-1.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	0.25	0.00
	High Fe Grade 0.09%<P<0.115%	11.00	1.00		High Fe Grade 0.115%<P<0.15%	10.50	0.75
	High Fe Grade 0.115%<P<0.15%	11.00	1.00				
	Low Fe Grade 0.09<P<0.1%	5.00	0.00				

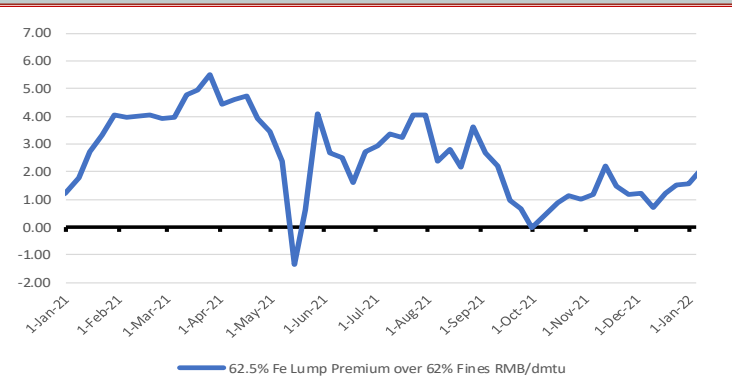
## Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

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	-20.00	0.00	Jingtang	-20.00	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

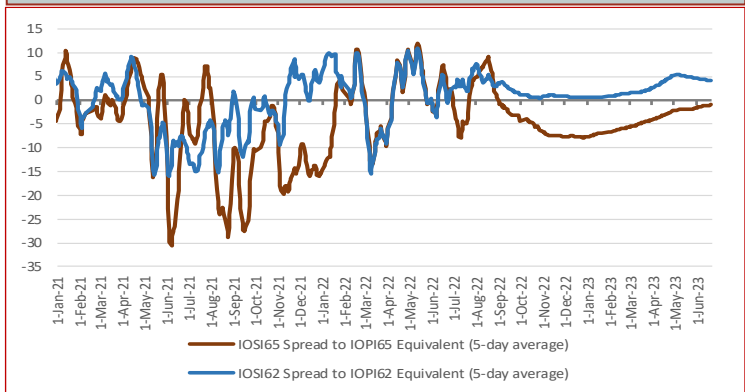
IRON ORE INDEX PREMIUMS/DISCOUNTS



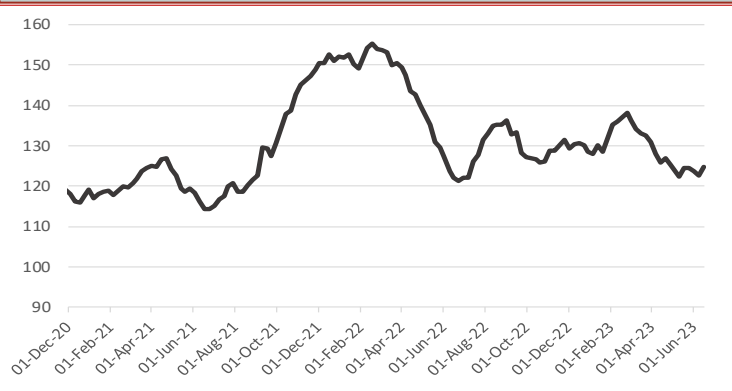
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



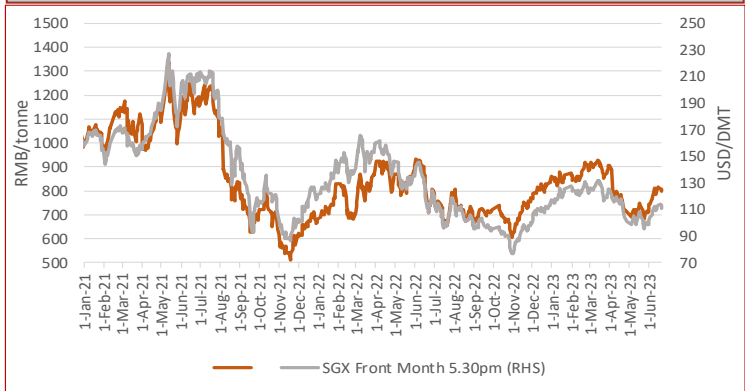
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



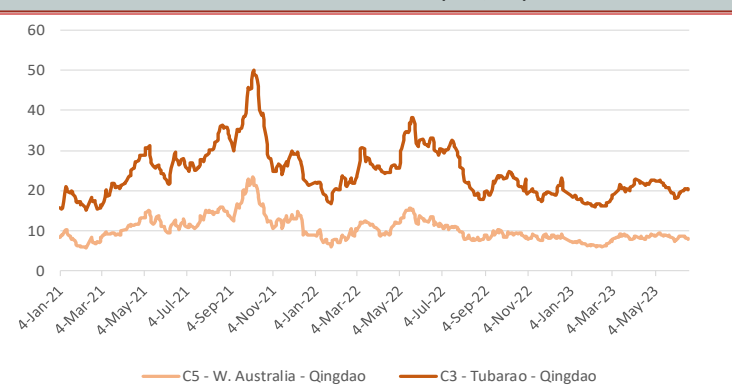
IRON ORE PORT INVENTORIES (MILLION TONNES)

Week Ending Jun 16th, 2023				
Province	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>
Jingtang	12.19	0.16%	9.84	19.20
Qingdao	24.55	0.41%	9.41	26.24
Caofeidian	11.43	-1.30%	9.05	16.29
Tianjin	8.63	1.05%	7.14	12.97
Rizhao	16.63	1.96%	9.44	19.26
<b>Total (35 Ports)</b>	<b>124.65</b>	<b>1.69%</b>	<b>98.80</b>	<b>155.39</b>

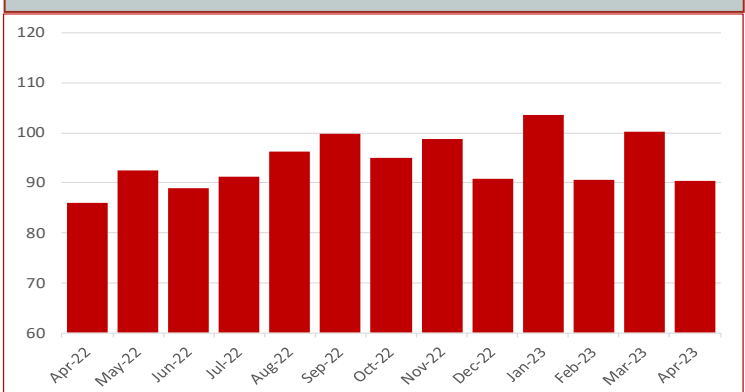
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	Jun 21st, 3pm close			Jun 21st, 5:30pm		
Contract	12309	Change	Change %	Jul. 23	Change	Change %
Closing Price	797.50	-9.00	-1.12%	110.85	-2.30	-2.03%
Vol traded ('000 lots)	89.81	21.76	31.96%	5.80	0.93	19.10%
Open positions ('000 lots)	80.46	-2.14	-2.59%	26.26	-0.58	-2.14%
Day Low	791.5	-7.50	-0.94%	109.55	-2.65	-2.36%
Day High	810.5	-2.00	-0.25%	113.10	-1.20	-1.05%

DRY BULK FREIGHT RATES (USD/MT)



TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)



STEEL SPOT MARKET PRICES—CHINA

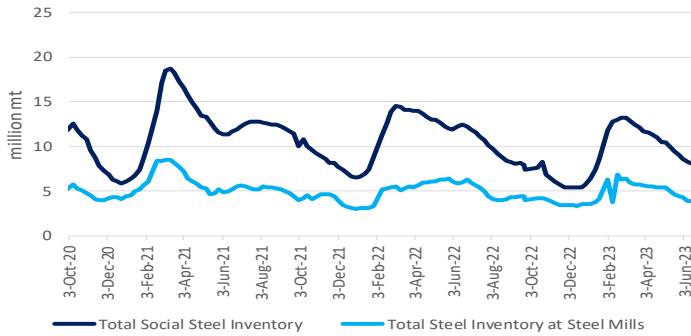
Steel Spot Market RMB/tonne			
Product	2023/6/16	Change	Change %
ReBar HRB400 φ18mm	3,820	100	2.69%
Wirerod Q300 φ6.5mm	4,120	110	2.74%
HRC Q235/SS400 5.5mm*1500*C	3,930	80	2.08%
CRC SPCC/ST12 1.0mm*1250*2500	4,470	30	0.68%
Medium & Heavy Plate Q235B 20mm	4,010	50	1.26%
GI ST02Z 1.0mm*1000*C	4,840	50	1.04%
Colour Coated Plate	6,850	0	0.00%

CHINESE STEEL MILL PROFITABILITY

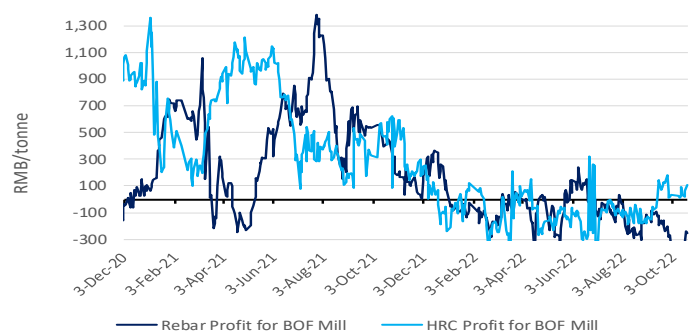
SMM Tracking of Steel Mill P&L - Rebar and Hot-rolled Coil (RMB/tonne)			
Category	Price	Change (WoW)	Note
MMi (Fe 62%), USD/mt excluding tax	110.00	-0	Mmi CFR Equivalent index for 1st Feb
Coke	2,110	0	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	2,930	50	steel scrap (6mm) in Zhangjiagang, excl. tax
Billet Cost	3,164	16	Q234, incl. tax
Rebar cost - Blast furnace	3,609	18	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	101	62	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	3,632	18	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	289	42	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

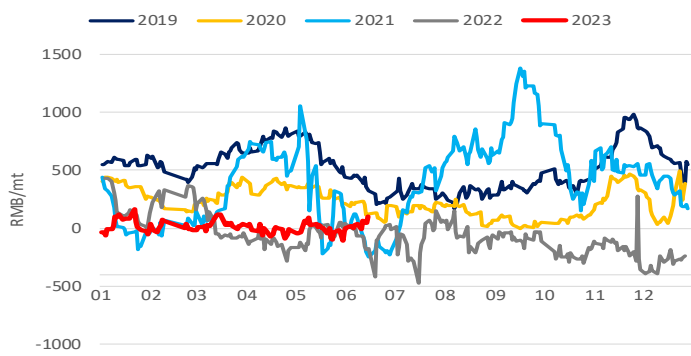
CHINESE STEEL INVENTORIES



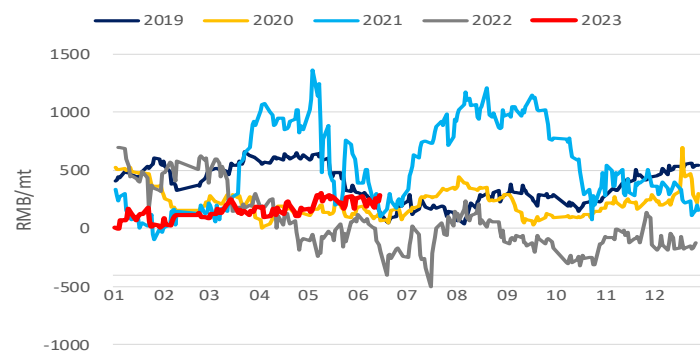
CHINESE STEEL MILL PROFITABILITY



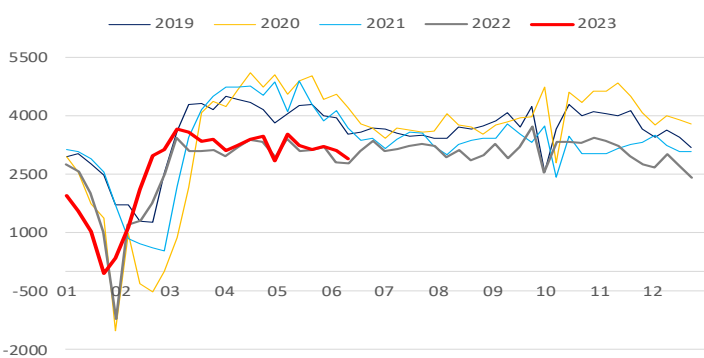
CHINESE STEEL MILL PROFITABILITY—Rebar



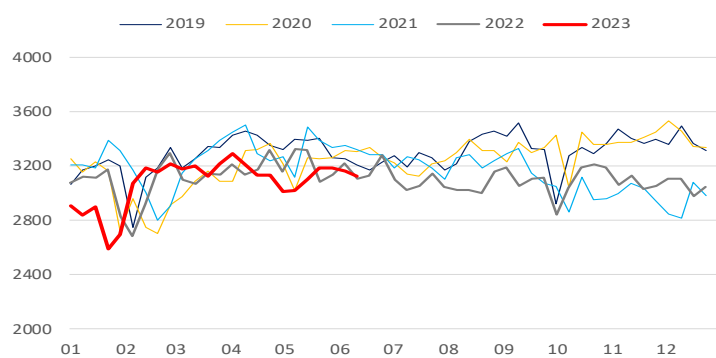
CHINESE STEEL MILL PROFITABILITY—Hot-rolled Coil



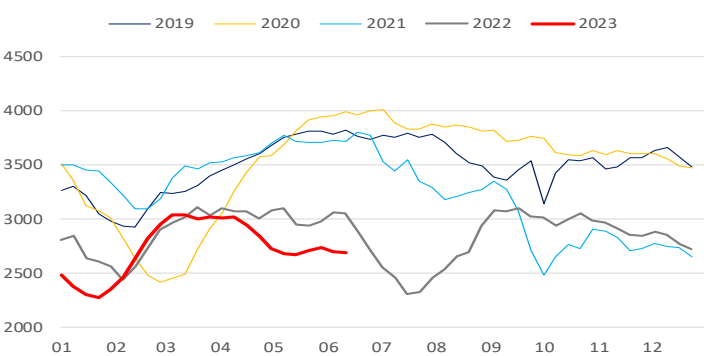
CHINESE STEEL CONSUMPTION—Rebar



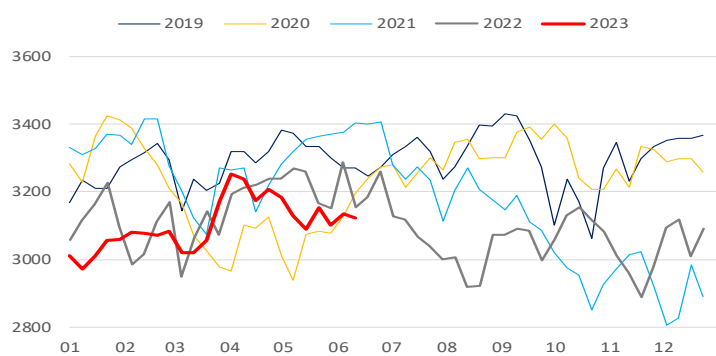
CHINESE STEEL CONSUMPTION—Hot-rolled Coil



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
	<b>65% Fe Fines</b>	<b>62% Fe Fines</b>	<b>58% Fe Fines</b>	<b>62.5% Fe Lump</b>	<p>MMi iron ore indices are compiled from data provided by companies that are part of the iron ore supply chain and involved in spot market transactions. The indices are calculated using detailed transaction-level data submitted to MMi by these companies. This data is normalised to the appropriate specifications and screened to remove outliers before volume-weighted average prices are calculated from the remaining core set of data.</p> <p>For more details on MMi's iron ore methodology please download the guide published on our website at: <a href="http://www.mmiprices.com">www.mmiprices.com</a></p>
Fe %	65.00	62.00	58.00	62.50	
Alumina %	1.40	2.25	2.25	1.50	
Silica%	1.50	4.00	5.50	3.50	
Phosphorus %	0.06	0.09	0.05	0.08	
Sulphur %	0.01	0.02	0.02	0.02	
Moisture %	8.00	8.00	9.00	4.00	
Sizing	Granular size below 10mm for at least 90% of cargo; maximum of 40% below 150 micron		Size below 6.3mm max 15% Size above 31.15mm max 25%		
Pricing Point	Qingdao Port (FOT and CFR respectively)		FOT Qingdao Port		
Timing (Seaborne)	Loading within 4 weeks, Delivery within 8 weeks		Delivery within 2 weeks		
Payment Terms	L/C at sight		L/C at sight or CAD		

Data Exclusions*			
Port Index	62%	58%	65%
Seaborne index	0	0	0
Lump Index 62.5	0		

\* Number of price submissions for iron ore indices that were excluded from index calculations today as they were anomalous and could not be verified

## IRON ORE DOMESTIC CONCENTRATE INDEX CALCULATION METHODOLOGY

The compilation method for price index generally refers to the compilation method of CPI price index and other price indices, breakdown the price data and calculate the average value according to a certain method, taking the vertical axis as the regional composite index (average of different grade index) and the horizontal axis as the grade composite index (average of different regional index), a total composite index for domestic ore can be output ultimately. The process system is also adopted in the calculation i.e. each sub-index can be obtained as well.

## AVERAGE IRON ORE SPECIFICATIONS APPLIED FOR BRAND PRICE ASSESSMENTS

PORT STOCK BRANDS						SEABORNE BRANDS					
Jun 21st, 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%

Jun 21st, 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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