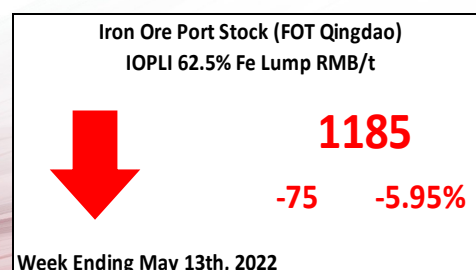
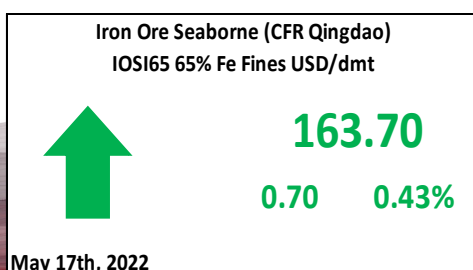
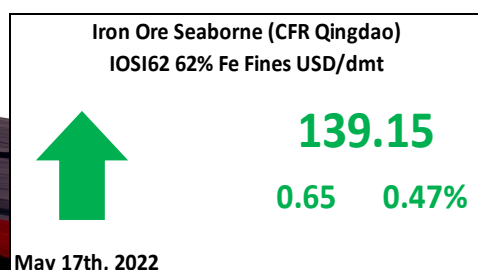
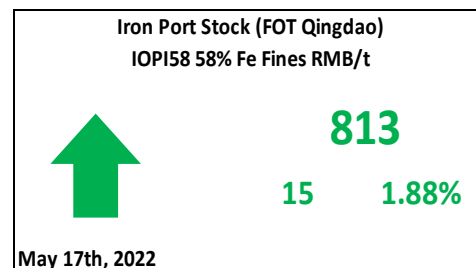
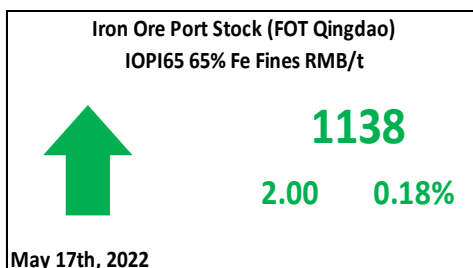
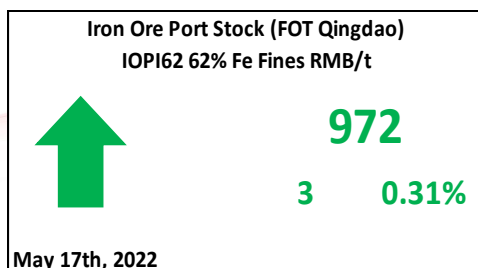


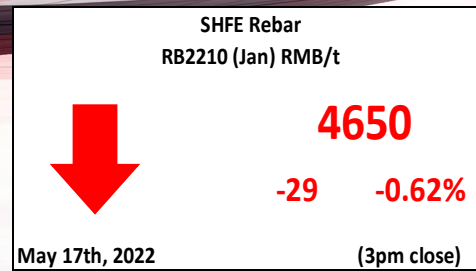
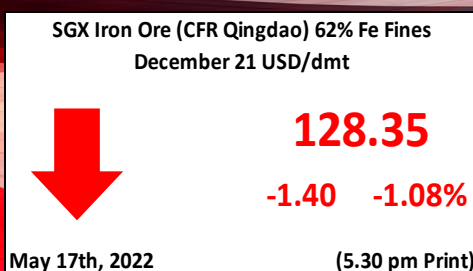
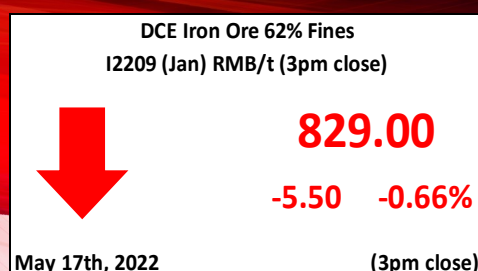


## MMi Dashboard

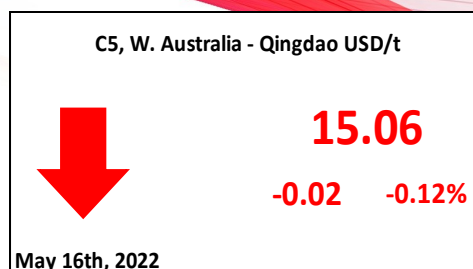
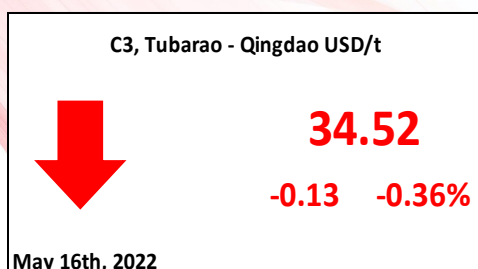
## Iron Ore Price Indices



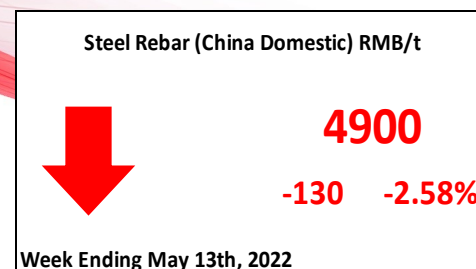
## Exchange Traded Contracts



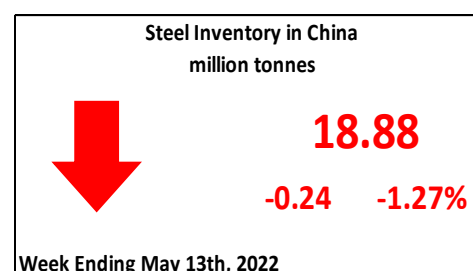
## Freight Rates



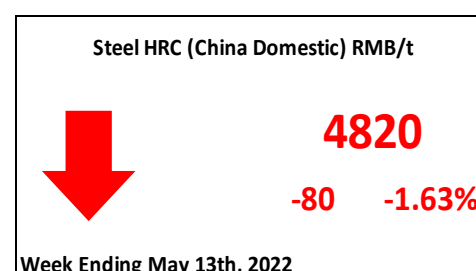
## Steel Price



## Inventory Levels



## Steel Price



## IRON ORE PORT STOCK INDEX (IOPI)

May 17th, 2022		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	972	3	0.3%	973	974	587	1616	133.82	0.46	0.3%	135.46	142.10	84.25	236.73
IOPI58	58% Fe Fines	813	15	1.9%	826	769	454	1403	112.51	2.18	2.0%	115.60	112.47	64.78	207.23
IOPI65	65% Fe Fines	1138	2	0.2%	1139	1162	843	1843	157.355	0.32	0.2%	159.24	170.39	122.83	270.24

## IRON ORE SEABORNE INDEX (IOSI)

## MARKET COMMENTARY

May 17th, 2022		CFR Qingdao, USD/dry tonne							DCE iron ore futures open higher and go lower, an increase of 0.91% throughout the day; the main contract closed 829. the quotation in the morning was decreased by 10-15 yuan/mt from over yesterday, some traders were negative to sell, steel mills purchased on demand. total transactions is few. According to SMM tracking data, a total of 71 ships arrived at China's major ports from September 9 to May 15, and the cargo arrival volume is estimated to be 30.84 million tons, which is 950,000 tons less than the previous period and 466,000 tons less than the same period last year. During this period, Australian outbound shipments decreased by 320,000 tons to 18.8 million tons, an increase of 2.72 million tons compared with the same period last year. Brazil's outbound shipments decreased by 510,000 tons to 5.72 million tons, an increase of 50,000 tons compared with the same period last year. The amount of imported ore to Hong Kong in this period decreased slightly compared with the previous month, while the overall shipments from Australia and Brazil decreased slightly. The arrival volume of China has not reached its peak, and the port inventory has been greatly destocked, which gives certain support to the mine price. Today, the press conference of the National Development and Reform Commission mentioned "do a good job in the supply and price stability of mineral products" and other news; superimposed stable domestic demand, ore price pressure shock operation.
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low <sup>2</sup>	High <sup>2</sup>	
IOSI62	62% Fe Fines	139.15	0.65	0.47%	143.90	144.24	93.75	227.85	
IOSI65	65% Fe Fines	163.70	0.70	0.43%	168.63	170.31	108.20	262.95	

## IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending May 13th, 2022		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	1185	-75	-6.0%	1185	1228	730	1868	158.47	-19.69	-11.05%	158.47	172.74	101.31	262.13

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

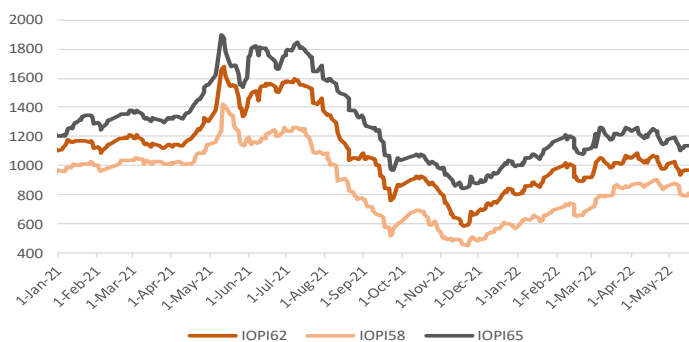
Week Ending May 13th, 2022				RMB/tonne (excluding tax) <sup>3</sup>				USD/tonne (excluding tax) <sup>3</sup>			
Province	Region	Product	Basis	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>
Hebei	Hanxing	66% Fe Concentrate	Dry	1175	2.2%	779	1645	174.58	-0.44%	110.31	255.69
Hebei	Qian'an	65% Fe Concentrate	Dry	1005	-7.8%	780	1630	149.33	-10.16%	110.51	251.57
Liaoning	Anshan	65% Fe Concentrate	Wet	925	-4.1%	620	1310	137.44	-6.60%	87.40	202.32
Shandong	Zibo	65% Fe Concentrate	Dry	1155	0.0%	800	1752	171.61	-2.56%	122.55	272.32

Week Ending May 13th, 2022

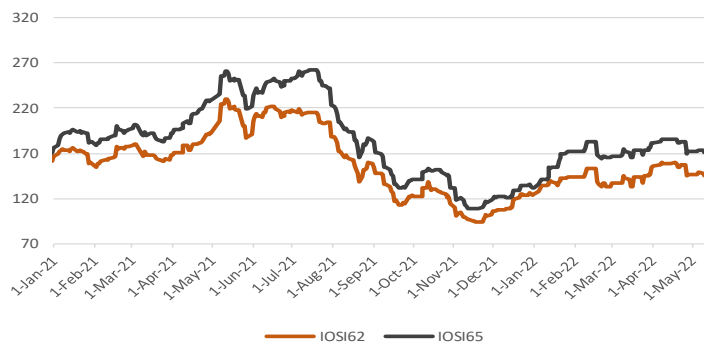
	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>
China Mines Concentrate Composite Index RMB/WT	1015.19	-3.68%	706.36	1511.22

<sup>1</sup> Exchange rate applied: RMB/USD = 6.411864 <sup>2</sup> Last 12 months  
<sup>3</sup> Weekly exchange rate applied: RMB/USD 6.73026

## 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

May 17th, 2022		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne						
Index	Fe Content	January	February	March	April	MTD	QTD	YTD	January	February	March	April	MTD	QTD	YTD
IOPI62	62% Fe Fines	886	946	1020	1030	973	1012	974	129.82	139.07	150.42	150.00	135.46	145.33	142.10
IOPI58	58% Fe Fines	646	696	812	874	826	859	769	94.58	102.36	120.15	128.09	115.60	124.08	112.47
IOPI65	65% Fe Fines	1079	1139	1219	1206	1139	1184	1162	159.15	168.36	180.56	176.31	159.24	170.82	170.39

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

## FREIGHT RATES

May 17th, 2022		CFR Qingdao, USD/dry tonne							May 16th, 2022							
Index	Fe Content	January	February	March	April	MTD	QTD	YTD	Route		Designation	Change	Change %	Low <sup>2</sup>	High <sup>2</sup>	
IOSI62	62% Fe Fines	137.61	142.80	141.23	155.13	143.90	151.38	144.24	W. Australia - Qingdao		C5	15.06	-0.02	-0.12%	3.57	16.77
IOSI65	65% Fe Fines	155.72	172.28	171.21	181.23	168.63	177.03	170.31	Tubarao - Qingdao		C3	34.52	-0.13	-0.36%	6.70	36.40

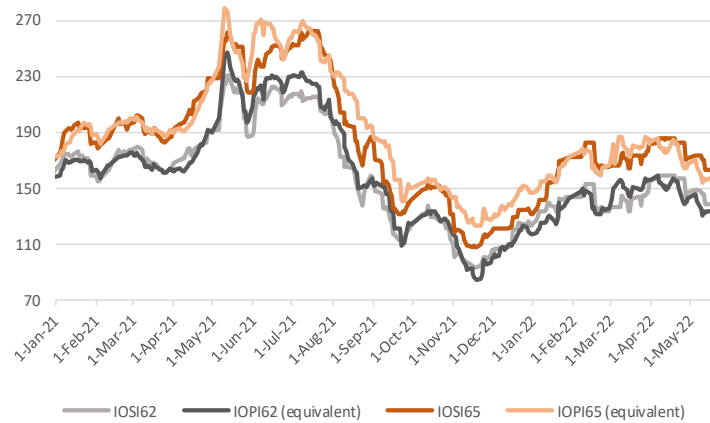
## IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending May 13th, 2022		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne <sup>1</sup>						
Index	Fe Content	January	February	March	April	MTD	QTD	YTD	January	February	March	April	MTD	QTD	YTD
IOPLI62	62.5% Fe Lump	1049	1145	1355	1328	1185	1304	1228	147.80	161.53	191.90	187.99	158.47	182.21	172.74

## IRON ORE INDEX PREMIUMS/DISCOUNTS

May 17th, 2022		PORT STOCK INDEX (RMB/WT)		May 17th, 2022		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	-159	-16.36%	IOSI65	65% Fe Fines	24.55	17.64%
IOPI65	65% Fe Fines	166	17.08%				

## IRON ORE INDEX COMPARISONS (USD/DMT)



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



## IRON ORE BRAND SPOT PRICE ASSESSMENTS

May 17th, 2022				May 17th, 2022			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	912	3	-60	Roy Hill	134.65	0.65	-4.50
SIMEC Fines	847	4	-125	SIMEC Fines	131.15	0.65	-8.00
PB Fines	939	3	-33	PB Fines	135.40	0.65	-3.75
Newman Fines	958	3	-14	Newman Fines	138.30	0.65	-0.85
MAC Fines	915	3	-57	MAC Fines	135.40	0.65	-3.75
Jimblebar Blended Fines	835	3	-137	Jimblebar Blended Fines	127.80	0.65	-11.35
Carajas Fines	1151	3	179	Carajas Fines	168.70	0.65	29.55
Brazilian SSF	938	3	-34	Brazilian SSF	142.90	0.65	3.75
Brazilian Blend Fines	949	2	-23	Brazilian Blend Fines	144.55	0.65	5.40
RTX Fines	856	3	-116	RTX Fines	129.05	0.65	-10.10
West Pilbara Fines	883	3	-89	West Pilbara Fines	133.40	0.65	-5.75

May 17th, 2022			
PORT STOCK INDEX (RMB/WT)			
	Price	Change	Diff to IOPI58
SSF	813	15	0
FMG Blended Fines	822	15	9
Robe River	818	15	5
Western Fines	827	15	14
Atlas Fines	820	15	7
Yandi	807	15	-6

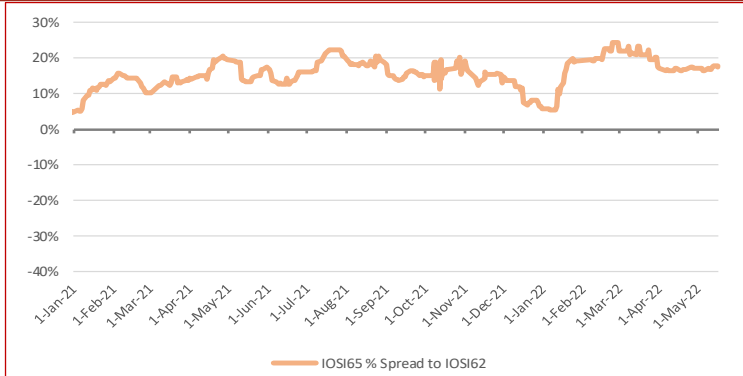
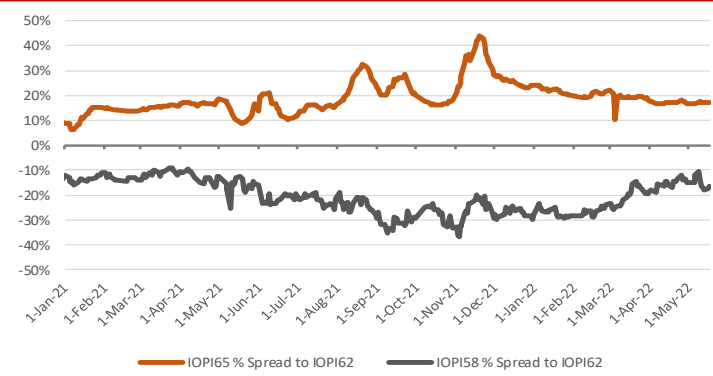
## IRON ORE INDEX NORMALISATION DIFFERENTIALS

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%	38.00	0.00	1% Fe	High Grade Fe 60 - 63%	6.50	0.00
	High Grade Fe 63 - 64%	56.00	0.00		High Grade Fe 63 - 64%	0.25	0.00
	High Grade Fe 64 - 65%	56.00	0.00		High Grade Fe 64 - 65%	0.25	0.00
	High Grade Fe 65 - 65.5%	56.00	0.00		High Grade Fe 65 - 65.5%	0.25	0.00
1% Alumina	Low Grade Fe	62.00	0.00	1% Alumina	High Fe Grade Al <2.25%	5.25	0.00
	High Fe Grade Al <2.25%	5.00	0.00		High Fe Grade Al 2.25-4%	7.25	0.00
	High Fe Grade Al 2.25-4%	38.00	0.00				
	Low Fe Grade Al <2.25%	100.00	0.00				
1% Silica	Low Fe Grade Al 2.25-4%	15.00	0.00	1% Silica	High Fe Grade Si <4%	5.25	0.00
	High Fe Grade Si <4%	5.00	0.00		High Fe Grade Si 4 - 6.5%	8.00	0.00
	High Fe Grade Si 4-6.5%	30.00	0.00				
0.01% Phosphorus	Low Fe Grade	5.00	0.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	3.25	0.00
	High Fe Grade 0.09%<P<0.115%	9.00	0.00		High Fe Grade 0.115%<P<0.15%	3.50	0.00
	High Fe Grade 0.115%<P<0.15%	9.00	0.00		Low Fe Grade 0.09%<P<0.1%	9.00	0.00

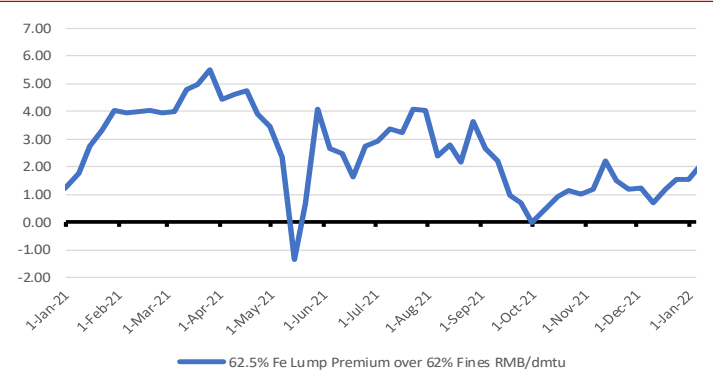
## Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

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	0.00	0.00	Jingtang	0.00	0.00	Majishan	0.00	0.00	Taicang	-40.00	0.00
Dalian	0.00	0.00	Lanqiao	0.00	0.00	Qingdao	0.00	0.00	Tianjin	-20.00	0.00

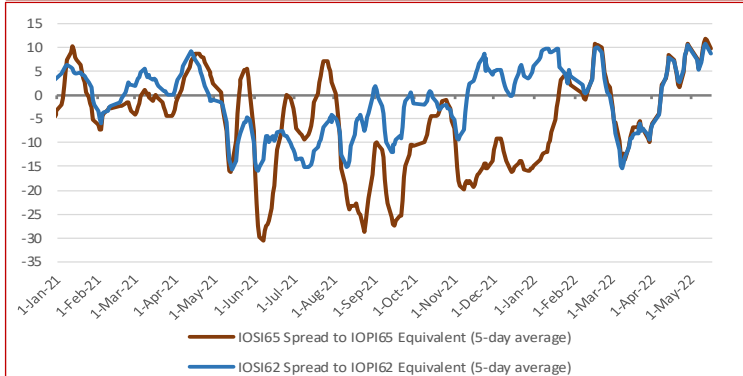
IRON ORE INDEX PREMIUMS/DISCOUNTS



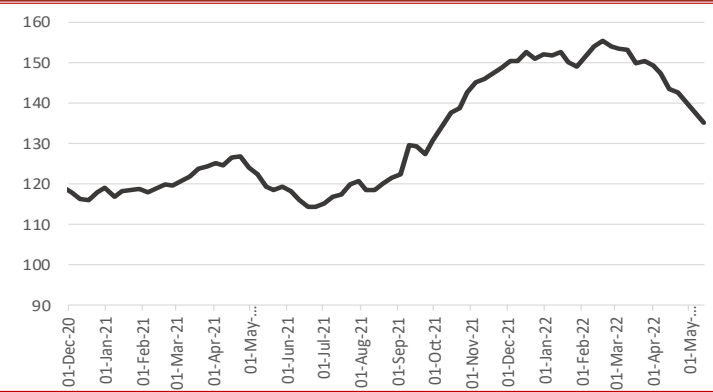
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



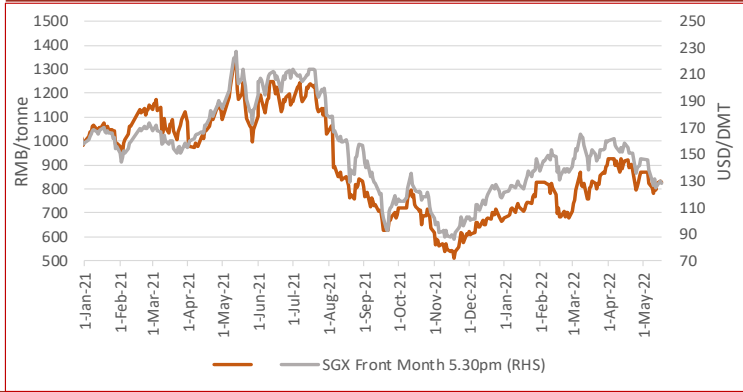
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



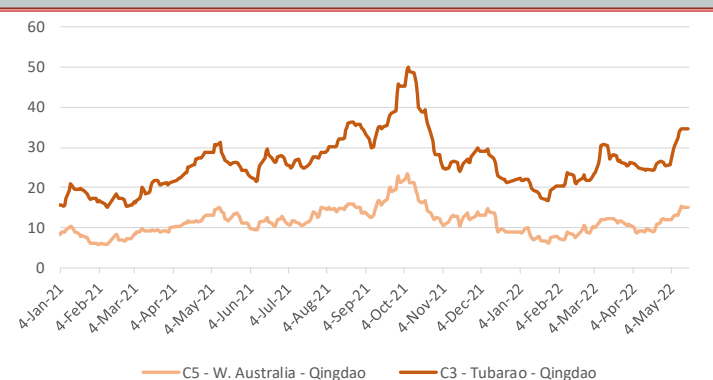
IRON ORE PORT INVENTORIES (MILLION TONNES)

Week Ending May 13th, 2022				
Province	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>
Jingtang	13.92	-3.93%	12.26	19.20
Qingdao	22.28	-4.62%	9.41	26.24
Caofeidian	14.43	-11.42%	11.25	16.29
Tianjin	10.08	5.22%	7.14	12.97
Rizhao	16.01	-2.08%	9.44	19.26
<b>Total (35 Ports)</b>	<b>135.11</b>	<b>-3.55%</b>	<b>98.80</b>	<b>155.39</b>

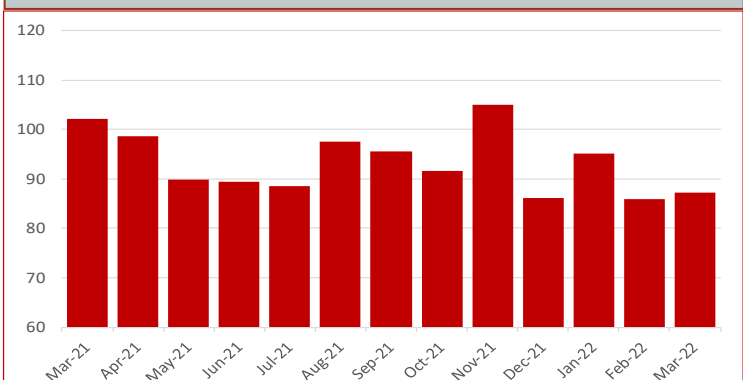
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	May 17th, 3pm close			May 17th, 5:30pm		
Contract	12209	Change	Change %	Nov. 21	Change	Change %
Closing Price	829.00	-5.50	-0.66%	128.35	-1.40	-1.08%
Vol traded ('000 lots)	51.45	-8.35	-13.96%	3.14	0.19	6.44%
Open positions ('000 lots)	65.55	-1.82	-2.70%	22.24	0.25	1.15%
Day Low	821.0	15.00	1.86%	126.90	1.70	1.36%
Day High	849.0	13.00	1.56%	131.05	-0.35	-0.27%

DRY BULK FREIGHT RATES (USD/MT)



TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)



STEEL SPOT MARKET PRICES—CHINA

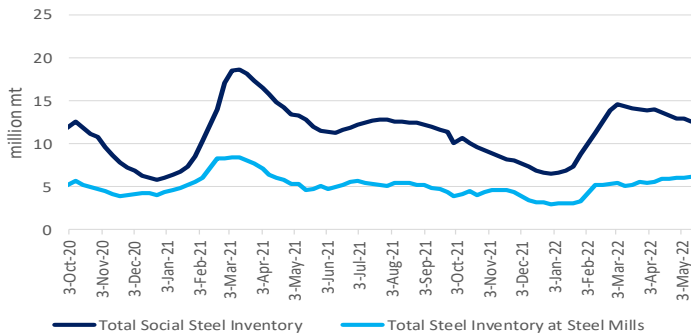
Product	2022/5/13	Change	Change %
ReBar HRB400 φ18mm	4,900	-130	-2.58%
Wirerod Q300 φ6.5mm	5,170	-60	-1.15%
HRC Q235/SS400 5.5mm*1500°C	4,820	-80	-1.63%
CRC SPCC/ST12 1.0mm*1250*2500	5,500	-130	-2.31%
Medium & Heavy Plate Q235B 20mm	5,120	-50	-0.97%
GI ST02Z 1.0mm*1000°C	6,040	-40	-0.66%
Colour Coated Plate	8,300	50	0.61%

CHINESE STEEL MILL PROFITABILITY

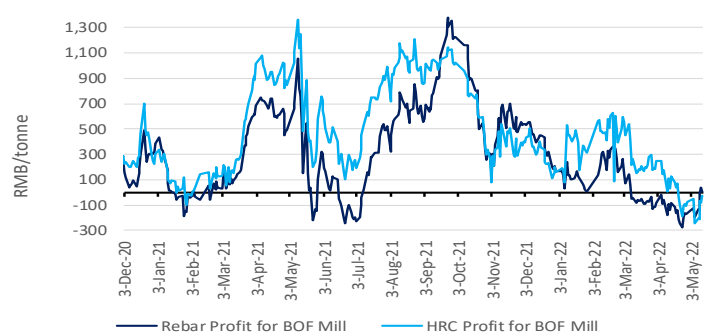
SMM Tracking of Steel Mill P&L - Rebar and Hot-rolled Coil (RMB/tonne)			
Category	Price	Change (WoW)	Note
MMi (Fe 62%), USD/mt excluding tax	138.55	-11	Mmi CFR Equivalent index for 1st Feb
Coke	3,820	-400	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	3,920	-100	steel scrap (6mm) in Zhangjiagang, excl. tax
Billet Cost	4,327	-260	Q234, incl. tax
Rebar cost - Blast furnace	4,923	-294	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	7	204	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	4,845	-287	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	-25	217	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

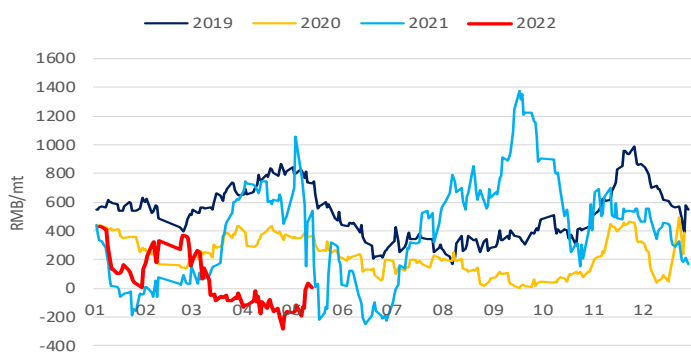
CHINESE STEEL INVENTORIES



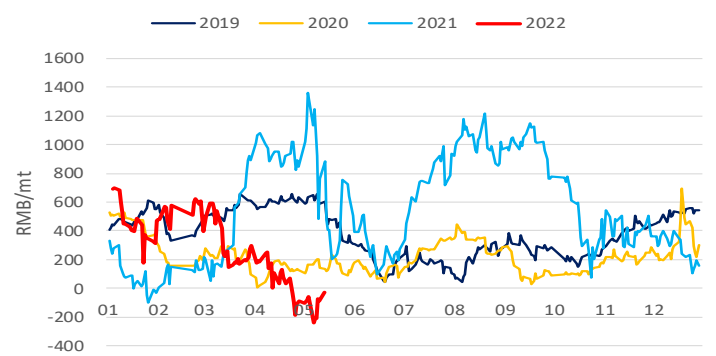
CHINESE STEEL MILL PROFITABILITY



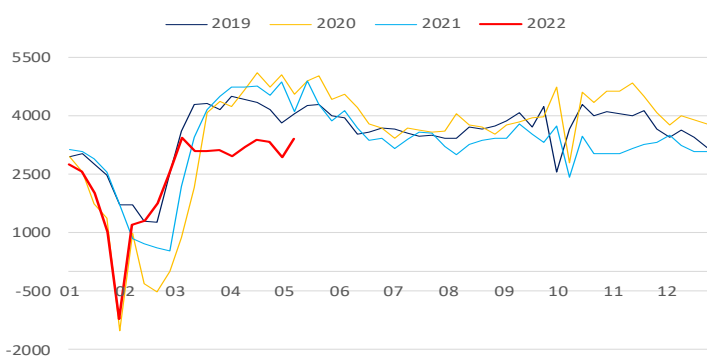
CHINESE STEEL MILL PROFITABILITY—Rebar



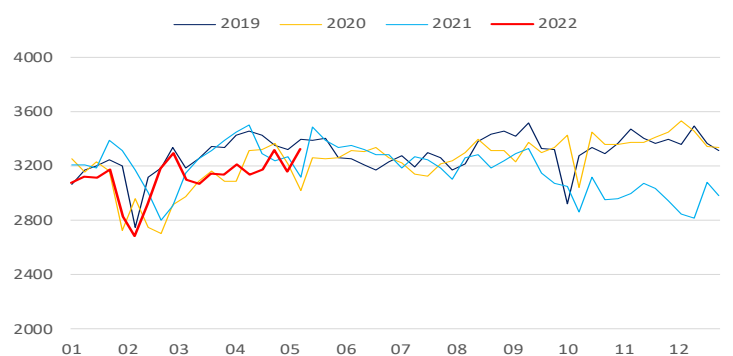
CHINESE STEEL MILL PROFITABILITY—Hot-rolled Coil



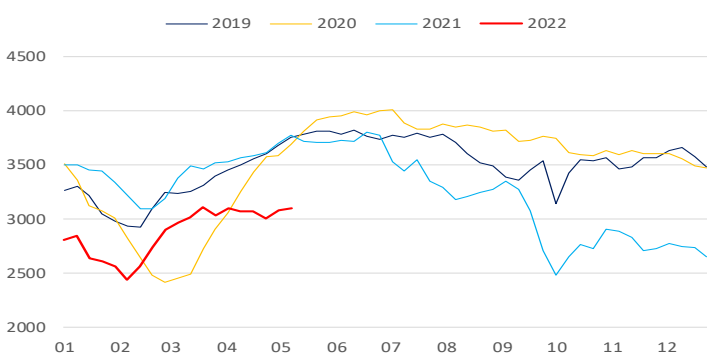
CHINESE STEEL CONSUMPTION—Rebar



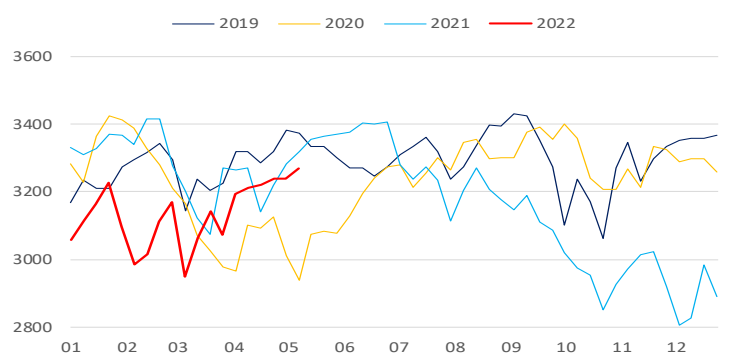
CHINESE STEEL CONSUMPTION—Hot-rolled Coil



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>	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>
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					
May 17th, 2022	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%
May 17th, 2022	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		

## CONTACT US

MMi Singapore Office Details: Level 28, Manulife Tower, 8 Cross Street Singapore. Tel: + 65 6850 7629 E: [prices@mmiprices.com](mailto:prices@mmiprices.com)  
 SMM Singapore Office Details: Level 28, Manulife Tower, 8 Cross Street Singapore. Tel: + 65 6850 7630 E: [service.en@smm.cn](mailto:service.en@smm.cn)  
 SMM Shanghai Office Details: 9th FL, Building 9, Lujiazui Software Park, No.20, Lane 91, Pudong, Shanghai Tel: +86 021 5155 0306 E: [service.en@smm.cn](mailto:service.en@smm.cn)

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