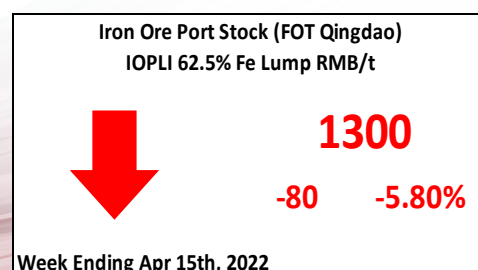
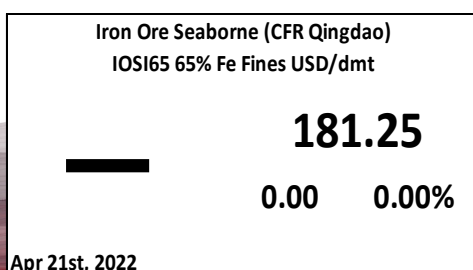
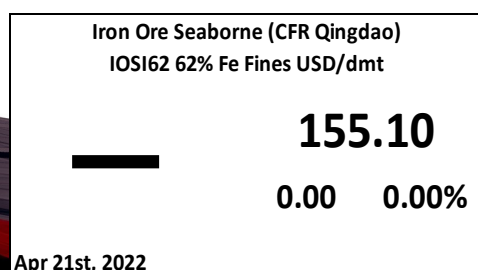
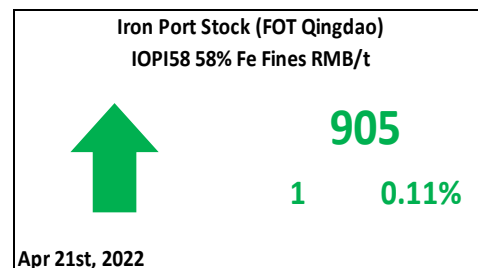
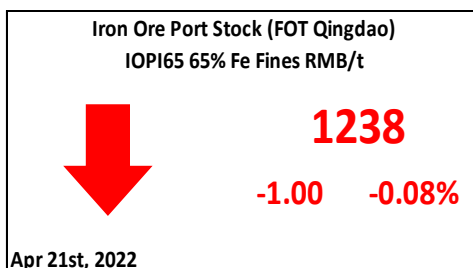
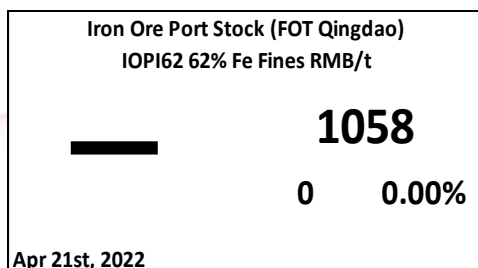


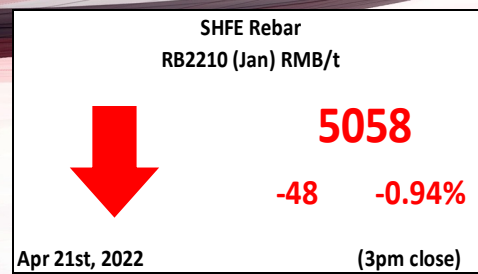
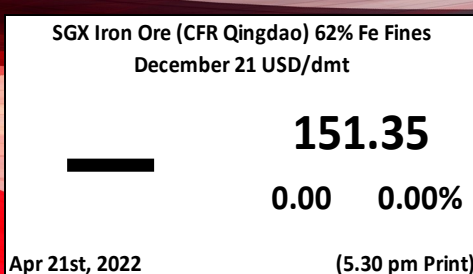
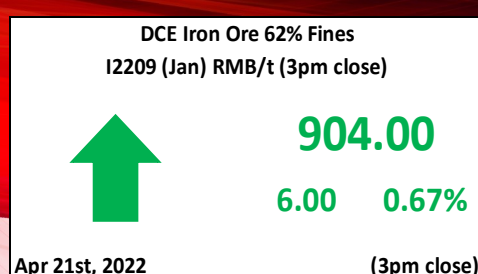


# MMi Dashboard

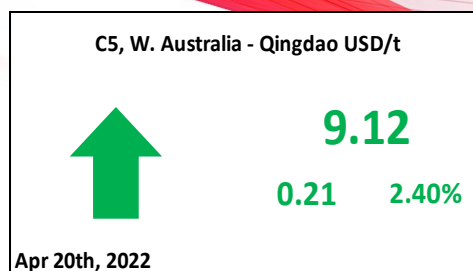
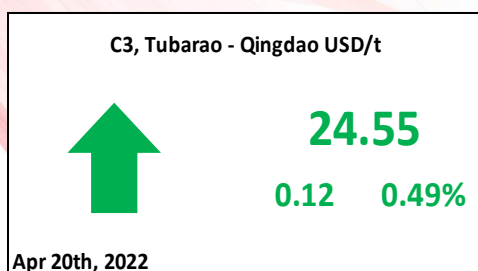
## Iron Ore Price Indices



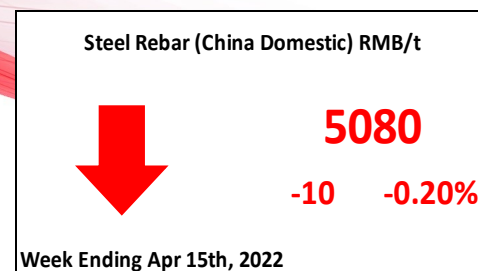
## Exchange Traded Contracts



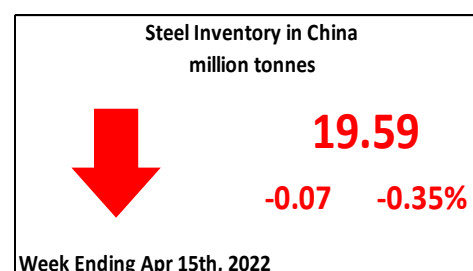
## Freight Rates



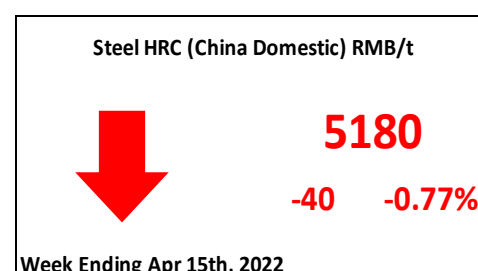
## Steel Price



## Inventory Levels



## Steel Price



## IRON ORE PORT STOCK INDEX (IOPI)

Apr 21st, 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	1058	0	0.0%	1047	972	587	1680	154.57	-0.25	-0.2%	153.74	142.96	84.25	247.30
IOPI58	58% Fe Fines	905	1	0.1%	882	754	454	1421	133.06	-0.06	0.0%	130.22	111.14	64.78	210.83
IOPI65	65% Fe Fines	1238	-1	-0.1%	1224	1164	843	1894	181.58	-0.44	-0.2%	180.46	172.06	122.83	278.61

## IRON ORE SEABORNE INDEX (IOSI)

## MARKET COMMENTARY

Apr 21st, 2022		CFR Qingdao, USD/dry tonne							DCE iron ore futures continued to fluctuate in a day, the main contract closed 904. The spot quotation in the morning almost kept steady. Market wait-and-see sentiment increased, some traders quotation is still stronger, steel mills purchased on demand, total transactions is few. PBF at Shandong port dealt 980-990 yuan/mt; decreased 5-15 yuan/mt over yesterday. MACF at Tianjin port dealt 980-985 yuan/mt, the same as yesterday. BHP also released its first quarter production and sales report today, with production down 10% from the previous quarter. Year-over-year flat. The second quarter is the final of BHP's financial year and shipments are set to increase. Considering that the production and sales of other mines declined significantly in the first quarter, it is expected that the shipping volume will increase in the second quarter, combined with the impact of domestic crude steel production reduction and the epidemic, domestic demand does not change much, and iron ore supply is relatively loose, which will benefit the mine price.							
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low <sup>2</sup>	High <sup>2</sup>								
IOSI62	62% Fe Fines	155.10	0.00	0.00%	157.60	143.87	93.75	230.50								
IOSI65	65% Fe Fines	181.25	0.00	0.00%	183.97	170.17	108.20	262.95								

## IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending Apr 15th, 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	1300	-80	-5.8%	1362	1224	730	1868	183.94	-11.57	-5.92%	192.86	173.00	101.31	262.13

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

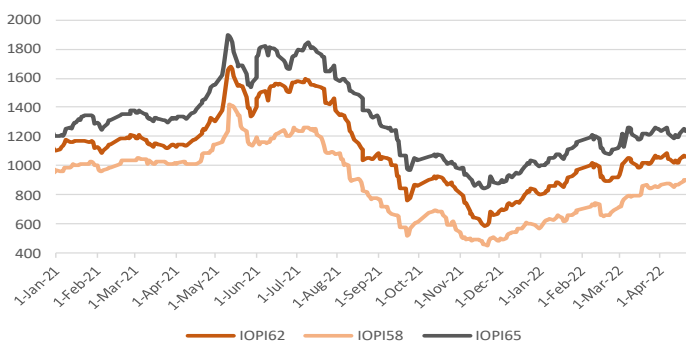
Week Ending Apr 15th, 2022				RMB/tonne (excluding tax) <sup>3</sup>				USD/tonne (excluding tax) <sup>3</sup>			
Province	Region	Product	Basis	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>
Hebei	Hanxing	66% Fe Concentrate	Dry	1190	1.7%	779	1645	186.74	1.67%	110.31	255.69
Hebei	Qian'an	65% Fe Concentrate	Dry	1150	-4.2%	780	1630	180.46	-4.20%	110.51	251.57
Liaoning	Anshan	65% Fe Concentrate	Wet	1020	0.0%	620	1310	160.06	-0.03%	87.40	202.32
Shandong	Zibo	65% Fe Concentrate	Dry	1201	1.4%	800	1752	188.46	1.32%	122.55	272.32

Week Ending Apr 15th, 2022

	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>
China Mines Concentrate Composite Index RMB/WT	1096.35	0.41%	706.36	1511.22

<sup>1</sup> Exchange rate applied: RMB/USD = 6.4934 <sup>2</sup> Last 12 months  
<sup>3</sup> Weekly exchange rate applied: RMB/USD 6.37256

## 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

Apr 21st, 2022		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne						
Index	Fe Content	December	January	February	March	MTD	QTD	YTD	December	January	February	March	MTD	QTD	YTD
IOPI62	62% Fe Fines	770	886	946	1020	1047	1047	972	112.01	129.82	139.07	150.42	153.74	153.74	142.96
IOPI58	58% Fe Fines	560	646	696	812	882	882	754	81.21	94.58	102.36	120.15	130.22	130.22	111.14
IOPI65	65% Fe Fines	962	1079	1139	1219	1224	1224	1164	141.30	159.15	168.36	180.56	180.46	180.46	172.06

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

## FREIGHT RATES

Apr 21st, 2022		CFR Qingdao, USD/dry tonne							Apr 20th, 2022							
Index	Fe Content	December	January	February	March	MTD	QTD	YTD	Route		Designation	Change	Change %	Low <sup>2</sup>	High <sup>2</sup>	
IOSI62	62% Fe Fines	115.86	137.61	142.80	141.23	157.60	157.60	143.87	W. Australia - Qingdao		C5	9.12	0.21	2.40%	3.57	16.77
IOSI65	65% Fe Fines	127.26	155.72	172.28	171.21	183.97	183.97	170.17	Tubarao - Qingdao		C3	24.55	0.12	0.49%	6.70	36.40

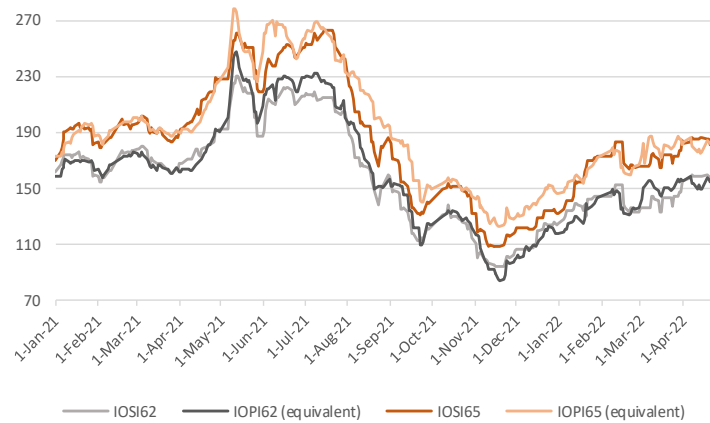
## IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending Apr 15th, 2022		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne <sup>1</sup>						
Index	Fe Content	December	January	February	March	MTD	QTD	YTD	December	January	February	March	MTD	QTD	YTD
IOPLI62	62.5% Fe Lump	877	1049	1145	1355	1362	1362	1224	147.90	147.80	161.53	191.90	192.86	173.00	173.00

## IRON ORE INDEX PREMIUMS/DISCOUNTS

Apr 21st, 2022		PORT STOCK INDEX (RMB/WT)		Apr 21st, 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	-153	-14.46%	IOSI65	65% Fe Fines	26.15	16.86%
IOPI65	65% Fe Fines	180	17.01%				

## IRON ORE INDEX COMPARISONS (USD/DMT)



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



## IRON ORE BRAND SPOT PRICE ASSESSMENTS

Apr 21st, 2022				Apr 21st, 2022			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	997	0	-61	Roy Hill	150.60	0.00	-4.50
SIMEC Fines	934	0	-124	SIMEC Fines	147.10	0.00	-8.00
PB Fines	1023	0	-35	PB Fines	151.35	0.00	-3.75
Newman Fines	1045	0	-13	Newman Fines	154.25	0.00	-0.85
MAC Fines	1001	0	-57	MAC Fines	151.35	0.00	-3.75
Jimblebar Blended Fines	921	0	-137	Jimblebar Blended Fines	143.75	0.00	-11.35
Carajas Fines	1238	0	180	Carajas Fines	184.65	0.00	29.55
Brazilian SSF	1026	0	-32	Brazilian SSF	158.85	0.00	3.75
Brazilian Blend Fines	1034	0	-24	Brazilian Blend Fines	160.50	0.00	5.40
RTX Fines	942	0	-116	RTX Fines	145.00	0.00	-10.10
West Pilbara Fines	968	0	-90	West Pilbara Fines	149.35	0.00	-5.75

Apr 21st, 2022			
PORT STOCK INDEX (RMB/WT)			
	Price	Change	Diff to IOPI58
SSF	905	1	0
FMG Blended Fines	915	1	10
Robe River	910	1	5
Western Fines	920	1	15
Atlas Fines	913	1	8
Yandi	898	1	-7

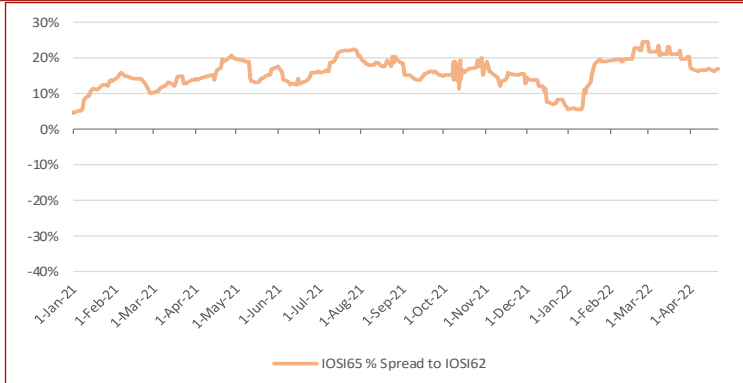
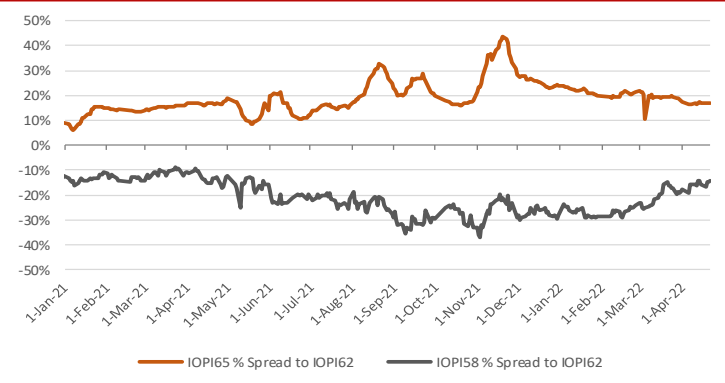
## IRON ORE INDEX NORMALISATION DIFFERENTIALS

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%	50.00	0.00	1% Fe	High Grade Fe 60 - 63%	6.00	0.25
	High Grade Fe 63 - 64%	57.00	0.00		High Grade Fe 63 - 64%	0.75	-0.25
	High Grade Fe 64 - 65%	57.00	0.00		High Grade Fe 64 - 65%	0.75	-0.25
	High Grade Fe 65 - 65.5%	57.00	0.00		High Grade Fe 65 - 65.5%	0.75	-0.25
1% Alumina	Low Grade Fe	100.00	0.00	1% Alumina	High Fe Grade Al <2.25%	5.25	-0.25
	High Fe Grade Al <2.25%	5.00	0.00		High Fe Grade Al 2.25-4%	6.00	0.00
	High Fe Grade Al 2.25-4%	29.00	-5.00				
	Low Fe Grade Al <2.25%	100.00	0.00				
1% Silica	Low Fe Grade Al 2.25-4%	15.00	5.00	1% Silica	High Fe Grade Si <4%	5.50	0.00
	High Fe Grade Si <4%	5.00	0.00		High Fe Grade Si 4 - 6.5%	6.50	0.25
	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%	3.00	0.00
	High Fe Grade 0.09%<P<0.115%	6.00	1.00		High Fe Grade 0.115%<P<0.15%	3.00	0.25
	High Fe Grade 0.115%<P<0.15%	6.00	1.00		Low Fe Grade 0.09<P<0.1%	5.00	0.00

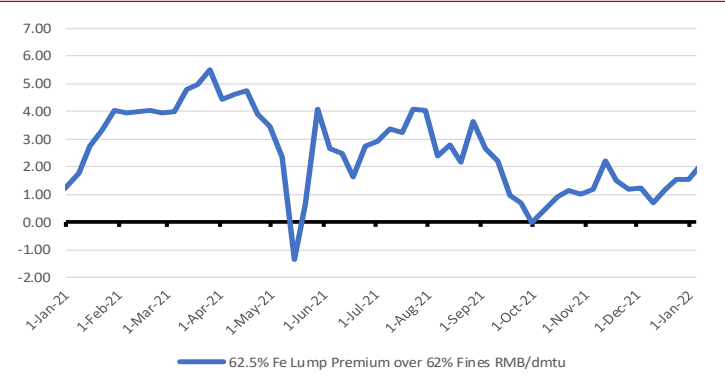
## Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

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	-10.00	0.00	Jingtang	-10.00	0.00	Majishan	0.00	0.00	Taicang	-25.00	0.00
Dalian	0.00	0.00	Lanqiao	0.00	0.00	Qingdao	0.00	0.00	Tianjin	-20.00	0.00

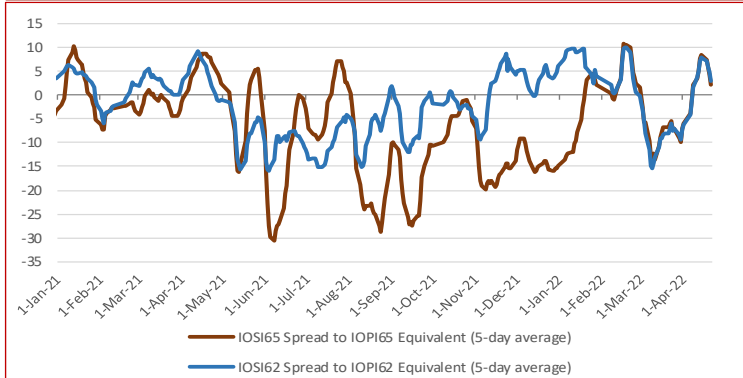
IRON ORE INDEX PREMIUMS/DISCOUNTS



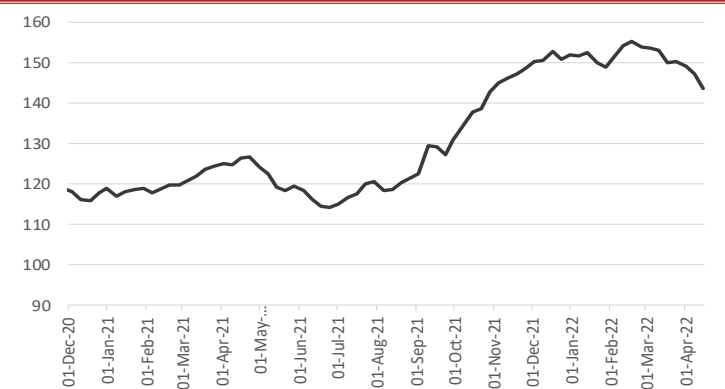
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



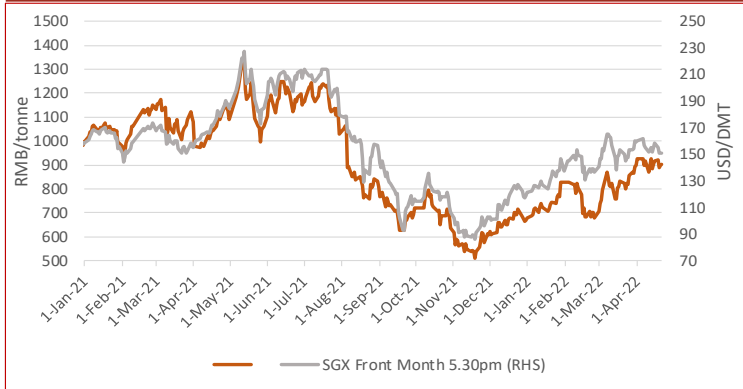
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



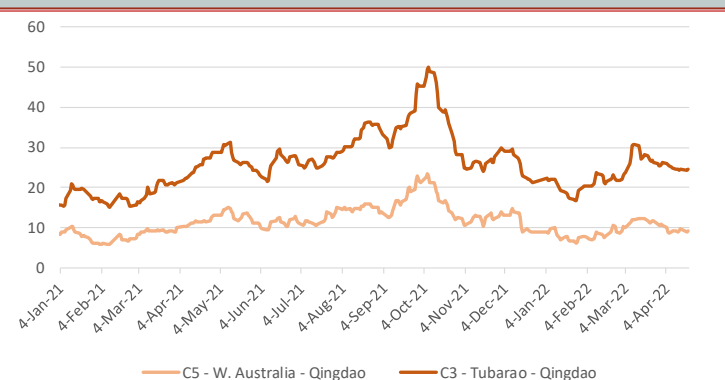
IRON ORE PORT INVENTORIES (MILLION TONNES)

Week Ending Apr 15th, 2022				
Province	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>
Jingtang	14.58	-7.78%	12.26	19.20
Qingdao	24.85	-2.32%	9.41	26.24
Caofeidian	15.93	-0.25%	11.25	16.25
Tianjin	9.87	-2.08%	7.14	12.97
Rizhao	16.21	-0.67%	9.44	19.26
<b>Total (35 Ports)</b>	<b>143.62</b>	<b>-2.56%</b>	<b>98.80</b>	<b>155.39</b>

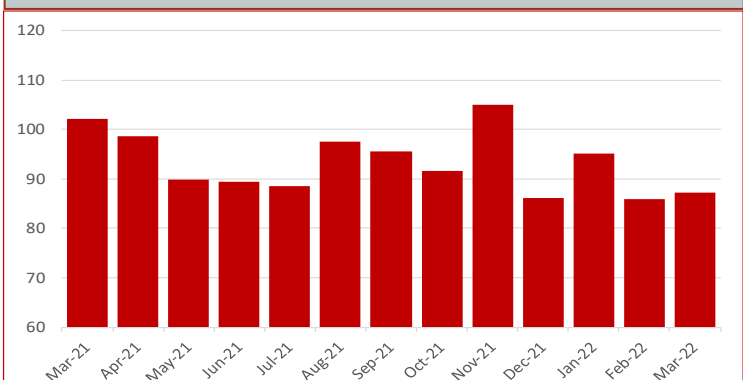
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	Apr 21st, 3pm close			Apr 21st, 5:30pm		
Contract	12209	Change	Change %	Nov. 21	Change	Change %
Closing Price	904.00	6.00	0.67%	151.35	0.00	0.00%
Vol traded ('000 lots)	45.37	-10.18	-18.32%	2.10	-1.08	-33.97%
Open positions ('000 lots)	61.97	-0.92	-1.47%	21.29	-0.13	-0.60%
Day Low	890.0	3.00	0.34%	149.75	0.65	0.44%
Day High	916.0	-3.50	-0.38%	153.50	-0.50	-0.32%

DRY BULK FREIGHT RATES (USD/MT)



TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)



STEEL SPOT MARKET PRICES—CHINA

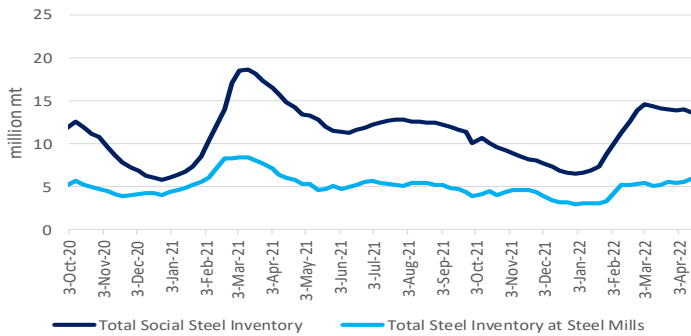
Product	2022/4/15	Change	Change %
ReBar HRB400 φ18mm	5,080	-10	-0.20%
Wirerod Q300 φ6.5mm	5,250	-10	-0.19%
HRC Q235/SS400 5.5mm*1500*C	5,180	-40	-0.77%
CRC SPCC/ST12 1.0mm*1250*2500	5,660	0	0.00%
Medium & Heavy Plate Q235B 20mm	5,250	0	0.00%
GI ST02Z 1.0mm*1000*C	6,020	0	0.00%
Colour Coated Plate	8,250	0	0.00%

CHINESE STEEL MILL PROFITABILITY

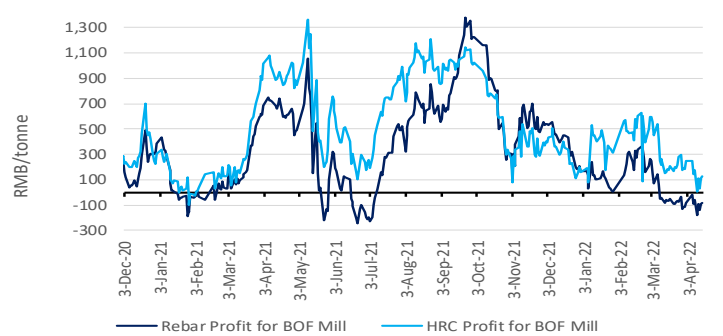
SMM Tracking of Steel Mill P&L - Rebar and Hot-rolled Coil (RMB/tonne)			
Category	Price	Change (WoW)	Note
MMi (Fe 62%), USD/mt excluding tax	158.70	-1	Mmi CFR Equivalent index for 1st Feb
Coke	4,020	200	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	4,020	0	steel scrap (6mm) in Zhangjiagang, excl. tax
Billet Cost	4,504	29	Q234, incl. tax
Rebar cost - Blast furnace	5,123	33	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	-83	-23	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	5,040	34	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	130	-44	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

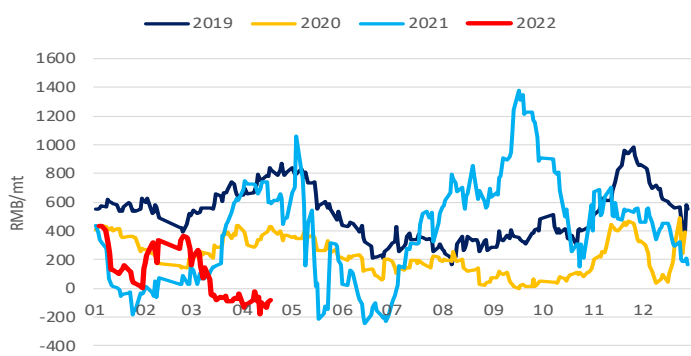
CHINESE STEEL INVENTORIES



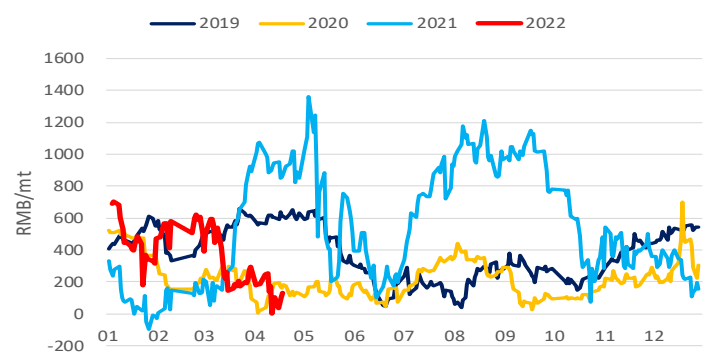
CHINESE STEEL MILL PROFITABILITY



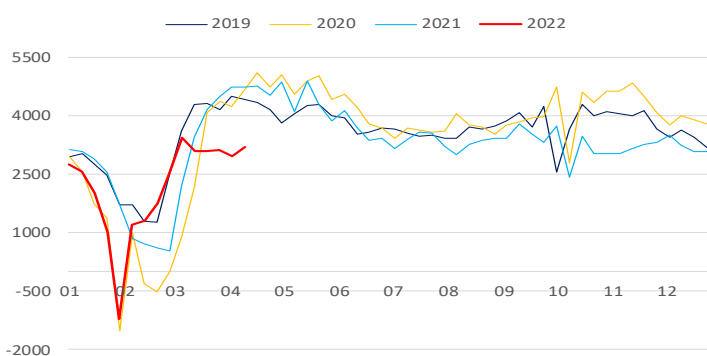
CHINESE STEEL MILL PROFITABILITY—Rebar



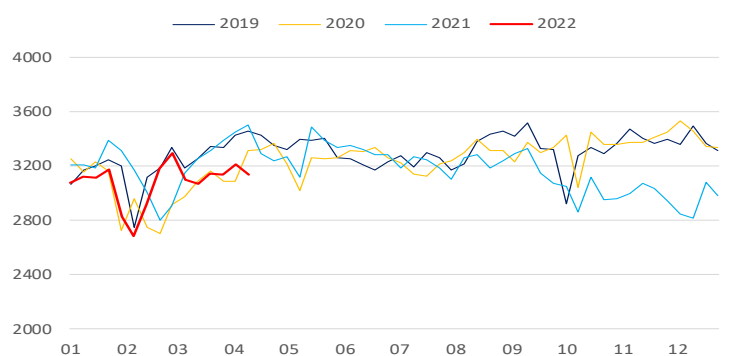
CHINESE STEEL MILL PROFITABILITY—Hot-rolled Coil



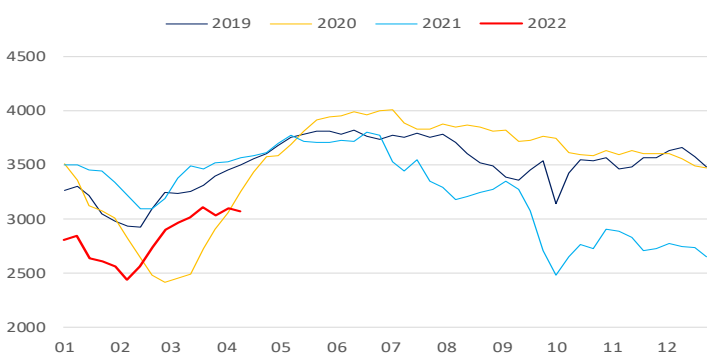
CHINESE STEEL CONSUMPTION—Rebar



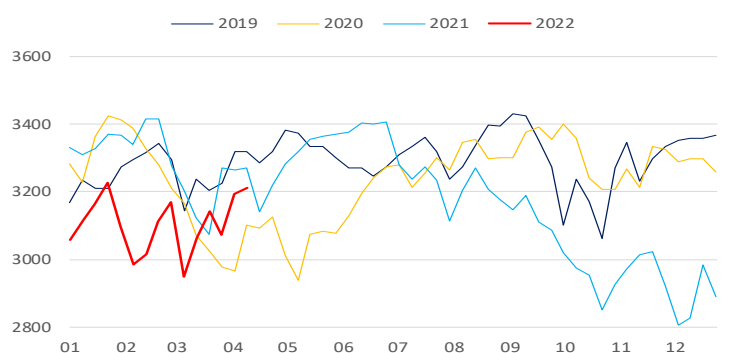
CHINESE STEEL CONSUMPTION—Hot-rolled Coil



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%	
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	
<b>Data Exclusions*</b>					
Port Index	0	0	0	0	
Seaborne index	0			0	
Lump Index 62.5	0				
* Number of price submissions for iron ore indices that were excluded from index calculations today as they were anomalous and could not be verified					

## IRON ORE DOMESTIC CONCENTRATE INDEX CALCULATION METHODOLOGY

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

## AVERAGE IRON ORE SPECIFICATIONS APPLIED FOR BRAND PRICE ASSESSMENTS

PORT STOCK BRANDS						SEABORNE BRANDS					
Apr 21st, 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%
Apr 21st, 2022	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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