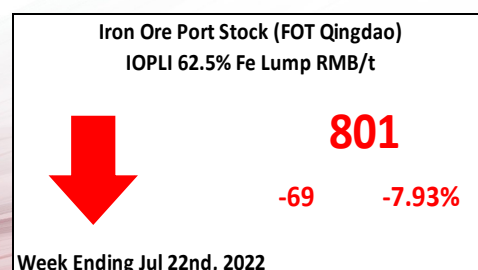
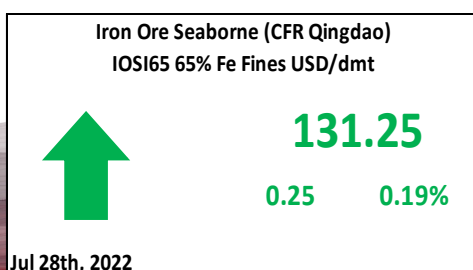
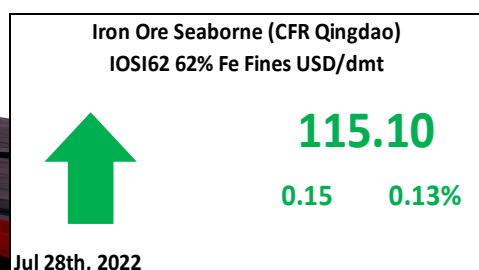
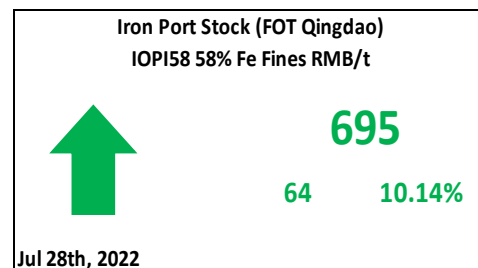
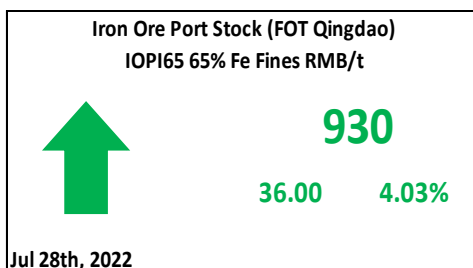
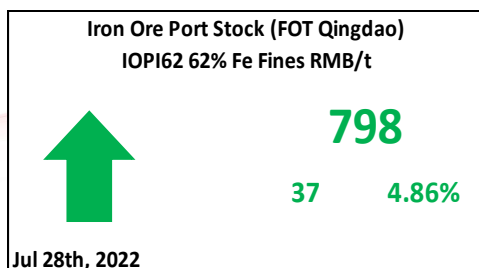


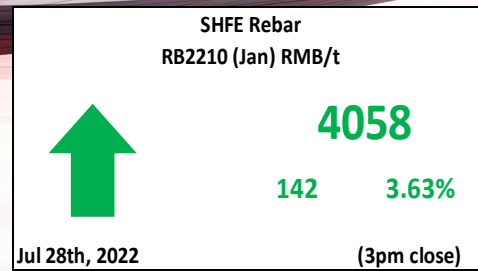
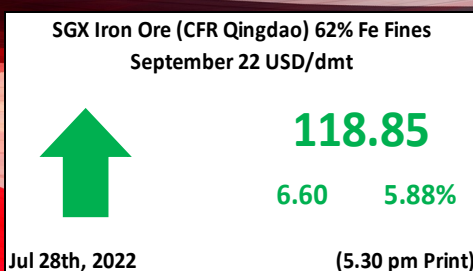
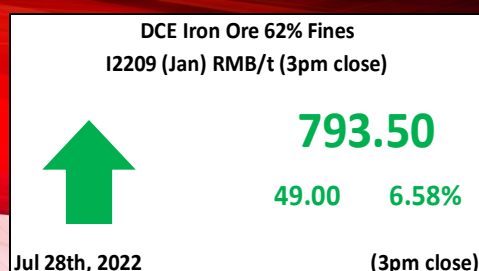


MMi Dashboard

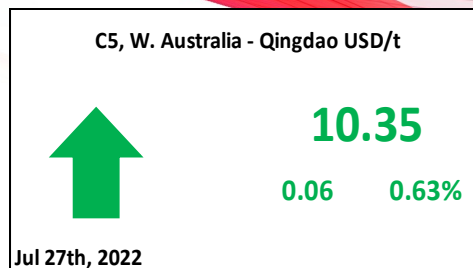
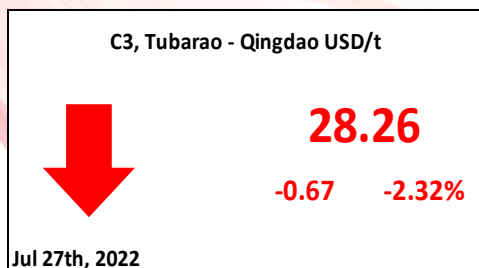
Iron Ore Price Indices



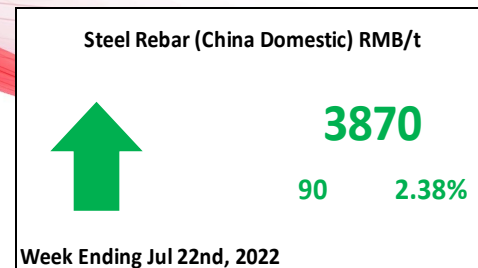
Exchange Traded Contracts



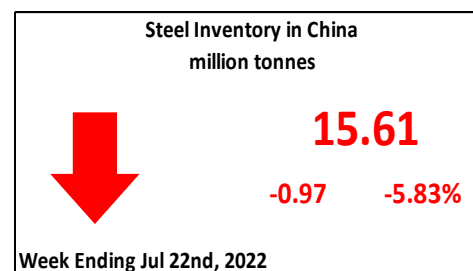
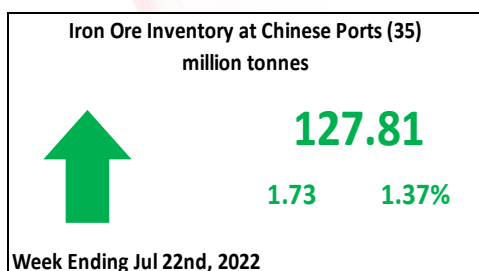
Freight Rates



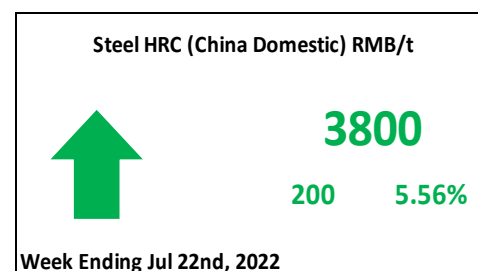
Steel Price



Inventory Levels



Steel Price



IRON ORE PORT STOCK INDEX (IOPI)

Jul 28th, 2022		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne ¹						
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low ²	High ²	Price	Change	Change %	MTD	YTD	Low ²	High ²
IOPI62	62% Fe Fines	798	37	4.9%	768	938	587	1465	109.87	5.77	5.5%	105.82	134.52	84.25	212.85
IOPI58	58% Fe Fines	695	64	10.1%	681	770	454	1094	96.22	9.64	11.1%	94.42	110.75	64.78	160.14
IOPI65	65% Fe Fines	930	36	4.0%	914	1113	811	1685	128.709	5.72	4.7%	126.64	160.48	111.38	245.43

IRON ORE SEABORNE INDEX (IOSI)

MARKET COMMENTARY

Jul 28th, 2022		CFR Qingdao, USD/dry tonne						
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low ²	High ²
IOSI62	62% Fe Fines	115.10	0.15	0.13%	109.66	137.27	93.75	215.00
IOSI65	65% Fe Fines	131.25	0.25	0.19%	124.13	161.15	108.20	262.95

DCE iron ore was shocked and kept upward all the day. The main contract closed at 793.5, increased of 7.16%. Traders are actively motivated to ship. Speculative demand increases. Steel mills are mainly on the sidelines, and market turnover continues to pick up. PBF at Shandong port dealt 772,780 yuan/mt, increase 25.50 yuan/mt than yesterday. PBF at Tangshan port dealt 780,805 yuan/mt, increase 40.55 yuan/mt. From a macro perspective, the recent fall in the US dollar index, coupled with the meeting held by the Political Bureau of the CPC Central Committee, proposed to improve the stability of the industrial chain, supporting the continued rebound in iron ore prices. From the fundamental point of view, the apparent demand of steel mills has improved and the profits have increased, but the sustainability of profits remains to be observed. The low inventory of raw materials in steel mills has boosted the demand for raw materials. In terms of overseas supply, the output of FMS iron ore in the second quarter reached 46.8 million tons, an increase of 8% month on month, and the Simandou large iron ore project made a new breakthrough. It is expected that the supply side easing situation will continue. On the whole, the mining price will continue to

IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending Jul 22nd, 2022		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne ³						
Index	Fe Content	Price	W-o-W	Change %	MTD	YTD	Low ²	High ²	Price	W-o-W	Change %	MTD	YTD	Low ²	High ²
IOPLI62	62.5% Fe Lump	801	-69	-7.9%	910	1177	730	1810	105.56	-9.87	-8.55%	121.02	162.86	101.31	253.74

IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

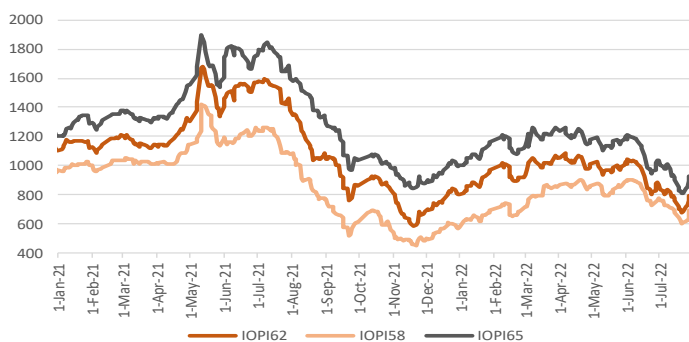
Week Ending Jul 22nd, 2022				RMB/tonne (excluding tax) ³				USD/tonne (excluding tax) ³			
Province	Region	Product	Basis	This week	Change %	Low ²	High ²	This week	Change %	Low ²	High ²
Hebei	Hanxing	66% Fe Concentrate	Dry	917	-6.7%	779	1645	135.85	-7.05%	110.31	255.69
Hebei	Qian'an	65% Fe Concentrate	Dry	865	-8.0%	780	1630	128.15	-8.31%	110.51	251.57
Liaoning	Anshan	65% Fe Concentrate	Wet	740	-5.1%	620	1310	109.63	-5.47%	87.40	202.32
Shandong	Zibo	65% Fe Concentrate	Dry	940	-7.3%	800	1752	139.26	-7.63%	122.55	272.32

Week Ending Jul 22nd, 2022

	This week	Change %	Low ²	High ²
China Mines Concentrate Composite Index RMB/WT	823.96	-4.03%	706.36	1511.22

¹ Exchange rate applied: RMB/USD = 6.7522 ² Last 12 months
³ Weekly exchange rate applied: RMB/USD = 6.7501

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

Jul 28th, 2022		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne						
Index	Fe Content	March	April	May	June	MTD	QTD	YTD	March	April	May	June	MTD	QTD	YTD
IOPI62	62% Fe Fines	1020	1030	981	934	768	768	938	150.42	150.00	136.86	130.13	105.82	105.82	134.52
IOPI58	58% Fe Fines	812	874	841	823	681	681	770	120.15	128.09	118.11	115.45	94.42	94.42	110.75
IOPI65	65% Fe Fines	1219	1206	1152	1086	914	914	1113	180.56	176.31	161.44	151.89	126.64	126.64	160.48

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

FREIGHT RATES

Jul 28th, 2022		CFR Qingdao, USD/dry tonne							FREIGHT RATES - DRY BULK US\$/wet tonne						
Index	Fe Content	March	April	May	June	MTD	QTD	YTD	Route	Designation	Change	Change %	Low ²	High ²	
IOSI62	62% Fe Fines	141.23	155.13	141.17	131.96	109.66	109.66	137.27	W. Australia - Qingdao	C5	10.35	0.06	0.63%	3.57	16.77
IOSI65	65% Fe Fines	171.21	181.23	166.30	154.17	124.13	124.13	161.15	Tubarao - Qingdao	C3	28.26	-0.67	-2.32%	6.70	36.40

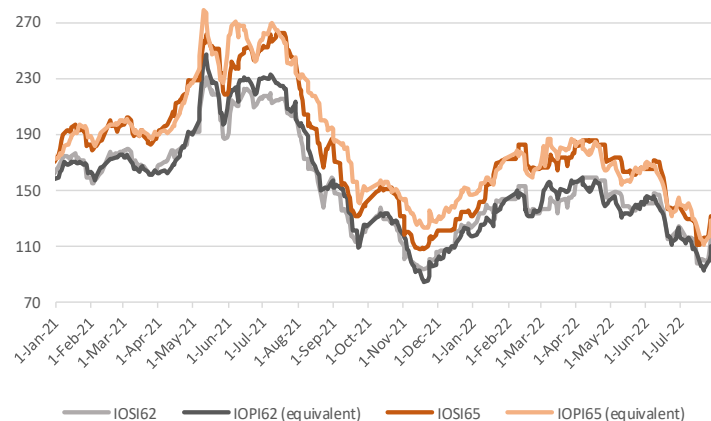
IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending Jul 22nd, 2022		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne ¹						
Index	Fe Content	March	April	May	June	MTD	QTD	YTD	March	April	May	June	MTD	QTD	YTD
IOPLI62	62.5% Fe Lump	1355	1328	1232	1189	910	910	1177	191.90	187.99	164.53	159.78	121.02	121.02	162.86

IRON ORE INDEX PREMIUMS/DISCOUNTS

PORT STOCK INDEX (RMB/WT)				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	-103	-12.91%	IOSI65	65% Fe Fines	16.15	14.03%
IOPI65	65% Fe Fines	132	16.54%				

IRON ORE INDEX COMPARISONS (USD/DMT)



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



IRON ORE BRAND SPOT PRICE ASSESSMENTS

Jul 28th, 2022	PORT STOCK INDEX (RMB/WT)			Jul 28th, 2022	SEABORNE INDEX (USD/DMT)		
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	739	37	-59	Roy Hill	110.60	0.15	-4.50
SIMEC Fines	669	38	-129	SIMEC Fines	107.10	0.15	-8.00
PB Fines	767	36	-31	PB Fines	111.35	0.15	-3.75
Newman Fines	784	38	-14	Newman Fines	114.25	0.15	-0.85
MAC Fines	741	37	-57	MAC Fines	111.35	0.15	-3.75
Jimblebar Blended Fines	660	37	-138	Jimblebar Blended Fines	103.75	0.15	-11.35
Carajas Fines	976	37	178	Carajas Fines	144.65	0.15	29.55
Brazilian SSF	760	37	-38	Brazilian SSF	118.85	0.15	3.75
Brazilian Blend Fines	778	37	-20	Brazilian Blend Fines	120.50	0.15	5.40
RTX Fines	681	38	-117	RTX Fines	105.00	0.15	-10.10
West Pilbara Fines	710	37	-88	West Pilbara Fines	109.35	0.15	-5.75

Jul 28th, 2022	PORT STOCK INDEX (RMB/WT)		
	Price	Change	Diff to IOPI58
SSF	695	64	0
FMG Blended Fines	703	65	8
Robe River	699	64	4
Western Fines	707	65	12
Atlas Fines	701	64	6
Yandi	689	63	-6

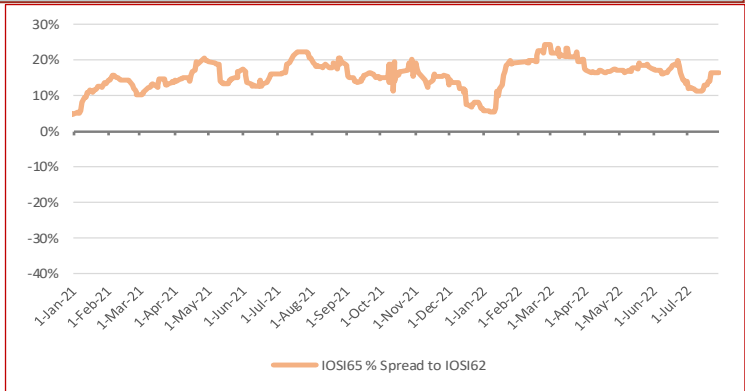
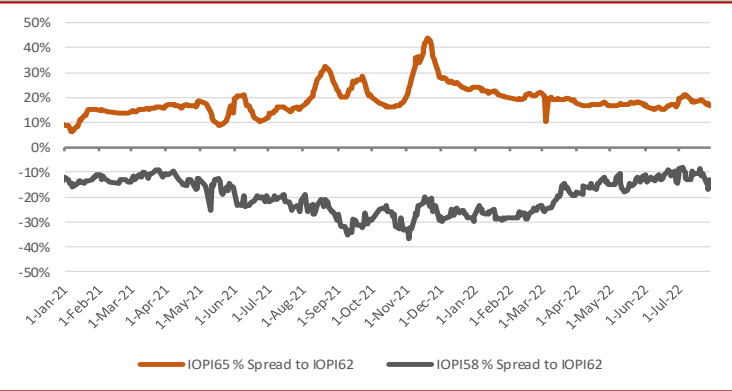
IRON ORE INDEX NORMALISATION DIFFERENTIALS

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%	10.00	0.00	1% Fe	High Grade Fe 60 - 63%	3.25	0.00
	High Grade Fe 63 - 64%	46.00	0.00		High Grade Fe 63 - 64%	2.00	0.00
	High Grade Fe 64 - 65%	46.00	0.00		High Grade Fe 64 - 65%	2.00	0.00
	High Grade Fe 65 - 65.5%	46.00	0.00		High Grade Fe 65 - 65.5%	2.00	0.00
1% Alumina	Low Grade Fe	18.00	-1.00	1% Alumina	High Fe Grade Al <2.25%	0.25	0.00
	High Fe Grade Al <2.25%	26.00	5.00		High Fe Grade Al 2.25-4%	1.75	0.25
	High Fe Grade Al 2.25-4%	5.00	5.00				
	Low Fe Grade Al <2.25%	100.00	0.00				
1% Silica	Low Fe Grade Al 2.25-4%	5.00	0.00	1% Silica	High Fe Grade Si <4%	3.50	0.00
	High Fe Grade Si <4%	5.00	0.00		High Fe Grade Si 4 - 6.5%	5.25	0.25
	High Fe Grade Si 4-6.5%	5.00	0.00				
0.01% Phosphorus	Low Fe Grade	14.00	-2.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	2.25	0.25
	High Fe Grade 0.09%<P<0.115%	5.00	0.00		High Fe Grade 0.115%<P<0.15%	3.25	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	-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	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

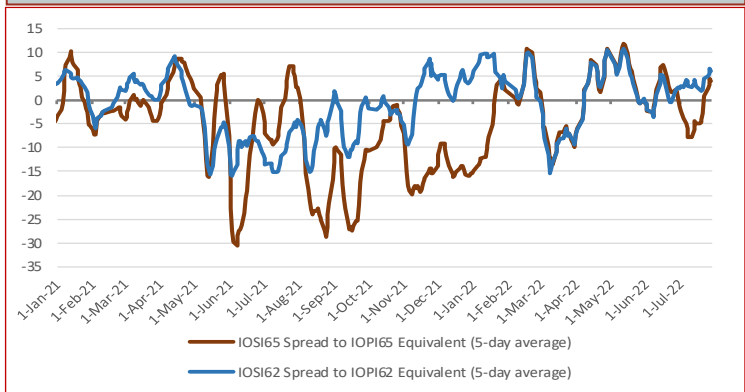
IRON ORE INDEX PREMIUMS/DISCOUNTS



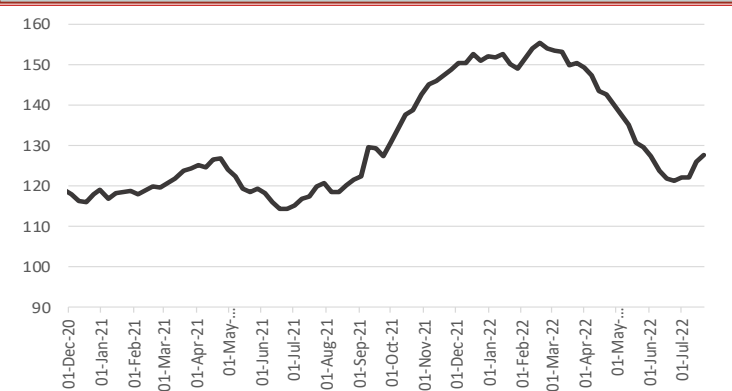
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



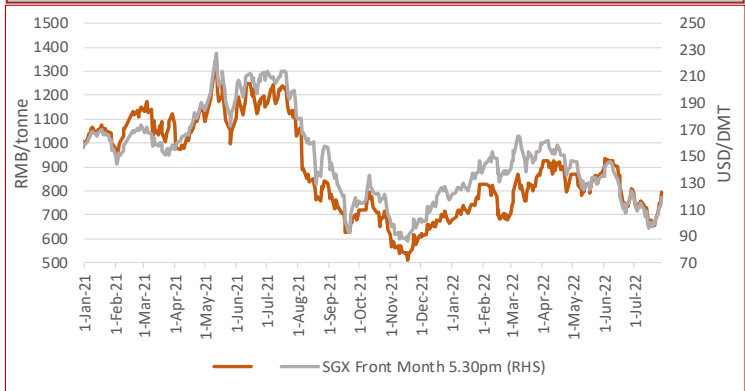
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



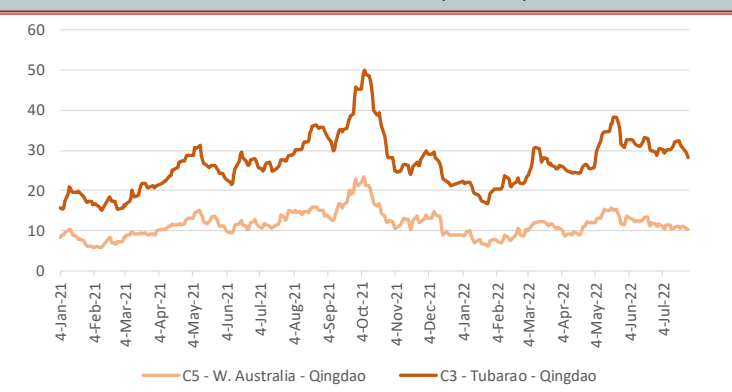
IRON ORE PORT INVENTORIES (MILLION TONNES)

Week Ending Jul 22nd, 2022				
Province	This week	Change %	Low ²	High ²
Jingtang	10.69	0.66%	9.84	19.20
Qingdao	24.06	1.26%	9.41	26.24
Caofeidian	10.26	5.45%	9.05	16.29
Tianjin	9.88	-0.20%	7.14	12.97
Rizhao	15.86	4.00%	9.44	19.26
Total (35 Ports)	127.81	1.37%	98.80	155.39

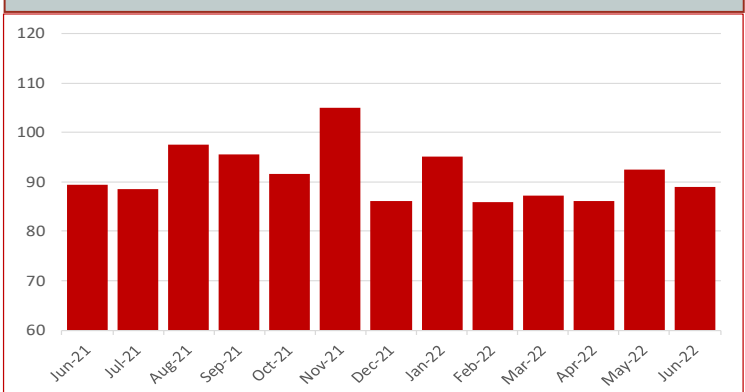
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	Jul 28th, 3pm close			Jul 28th, 5:30pm		
Contract	12209	Change	Change %	Sep. 22	Change	Change %
Closing Price	793.50	49.00	6.58%	118.85	6.60	5.88%
Vol traded ('000 lots)	59.89	7.74	14.85%	5.79	1.20	26.06%
Open positions ('000 lots)	57.78	0.72	1.26%	29.34	1.11	3.94%
Day Low	737.0	14.00	1.94%	111.45	3.05	2.81%
Day High	798.5	42.50	5.62%	119.90	6.70	5.92%

DRY BULK FREIGHT RATES (USD/MT)



TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)



STEEL SPOT MARKET PRICES—CHINA

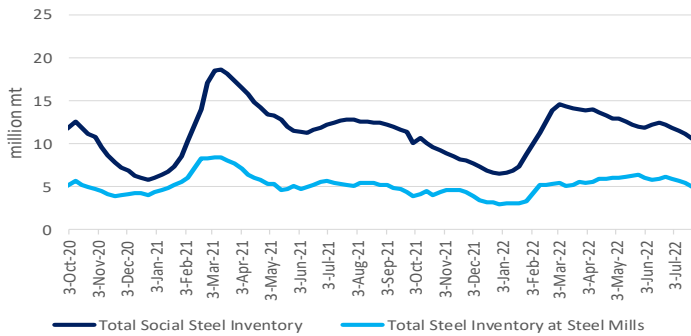
Product	2022/7/22	Change	Change %
ReBar HRB400 φ18mm	3,870	90	2.38%
Wirerod Q300 φ6.5mm	4,340	70	1.64%
HRC Q235/SS400 5.5mm*1500*C	3,800	200	5.56%
CRC SPCC/ST12 1.0mm*1250*2500	4,340	130	3.09%
Medium & Heavy Plate Q235B 20mm	4,100	0	0.00%
GI ST02Z 1.0mm*1000*C	4,700	-30	-0.63%
Colour Coated Plate	7,600	-100	-1.30%

CHINESE STEEL MILL PROFITABILITY

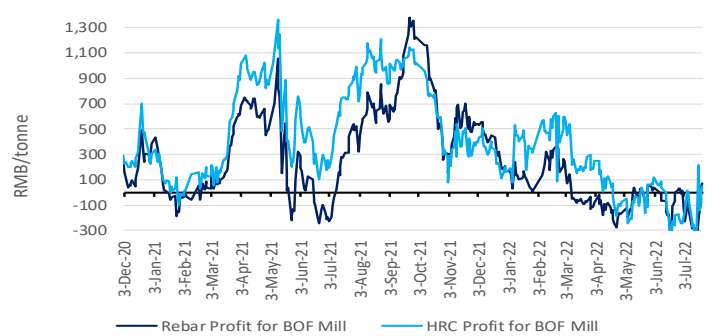
SMM Tracking of Steel Mill P&L - Rebar and Hot-rolled Coil (RMB/tonne)			
Category	Price	Change (WoW)	Note
MMi (Fe 62%), USD/mt excluding tax	138.05	25	Mmi CFR Equivalent index for 1st Feb
Coke	2,800	-440	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	2,670	-100	steel scrap (6mm) in Zhangjiagang, excl. tax
Billet Cost	3,330	-312	Q234, incl. tax
Rebar cost - Blast furnace	3,797	-353	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	73	543	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	3,755	-344	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	45	544	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

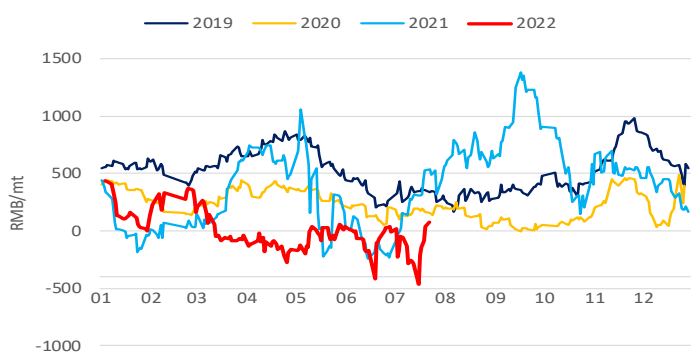
CHINESE STEEL INVENTORIES



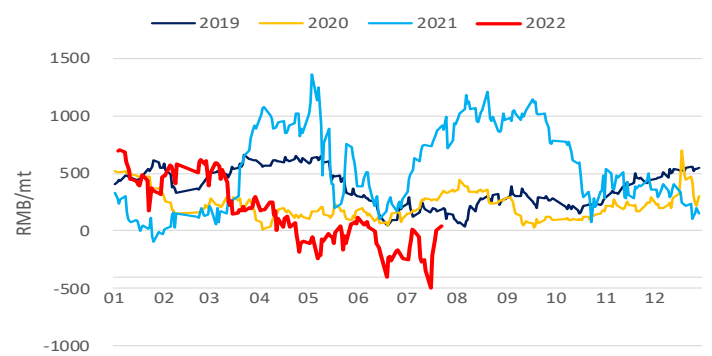
CHINESE STEEL MILL PROFITABILITY



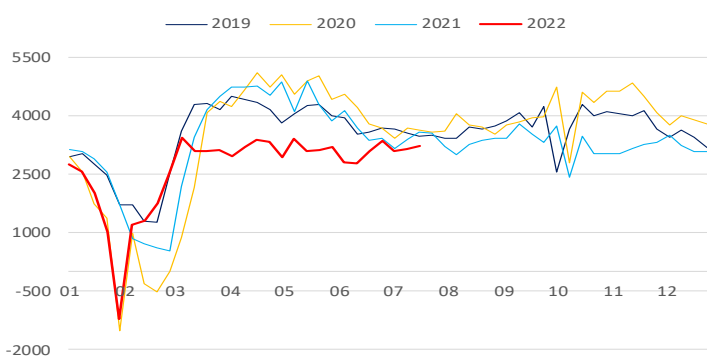
CHINESE STEEL MILL PROFITABILITY—Rebar



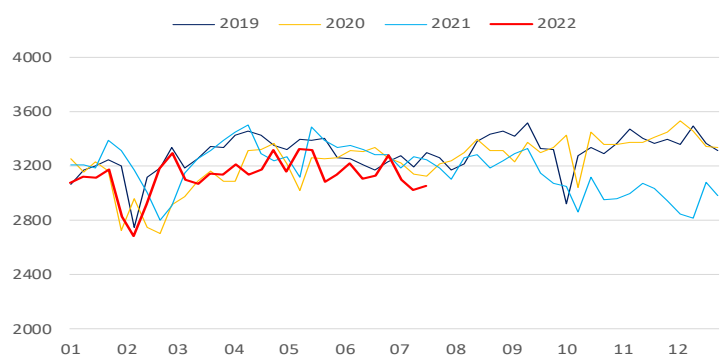
CHINESE STEEL MILL PROFITABILITY—Hot-rolled Coil



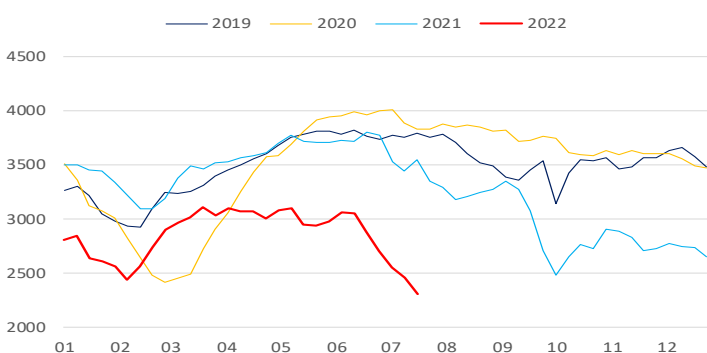
CHINESE STEEL CONSUMPTION—Rebar



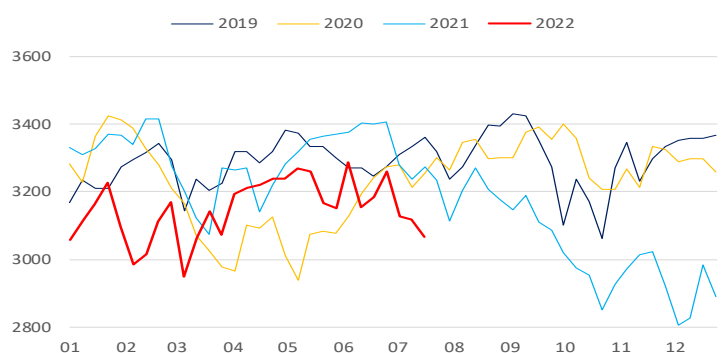
CHINESE STEEL CONSUMPTION—Hot-rolled Coil



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	MMi iron ore indices are compiled from data provided by companies that are part of the iron ore supply chain and involved in spot market transactions. The indices are calculated using detailed transaction-level data submitted to MMi by these companies. This data is normalised to the appropriate specifications and screened to remove outliers before volume-weighted average prices are calculated from the remaining core set of data. For more details on MMi's iron ore methodology please download the guide published on our website at: www.mmiprices.com
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					
Jul 28th, 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%
Jul 28th, 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		

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