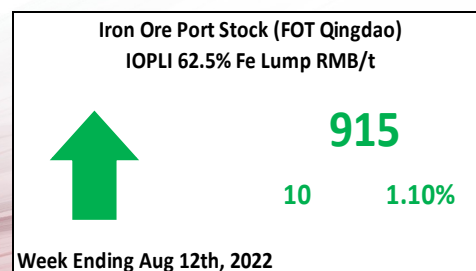
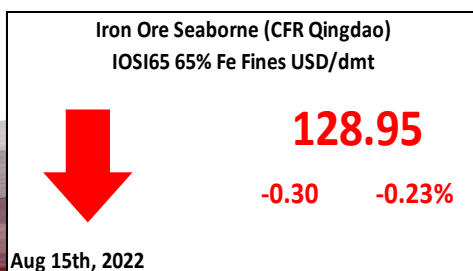
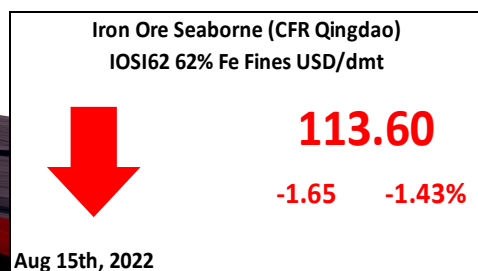
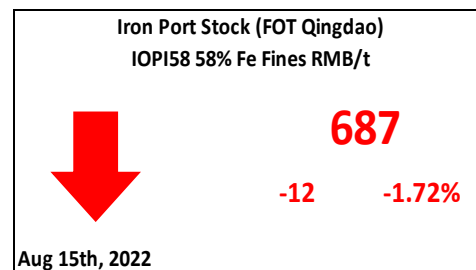
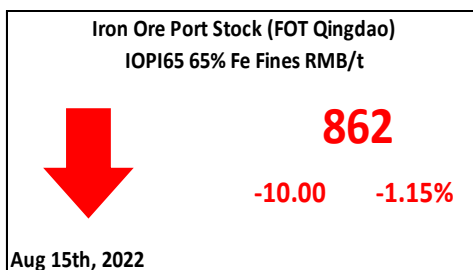
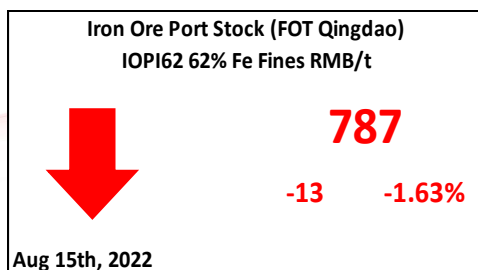


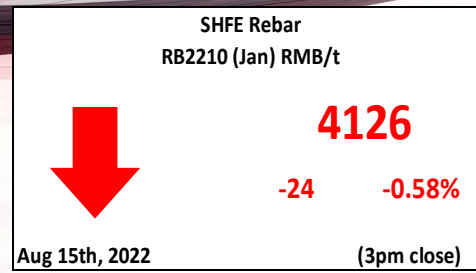
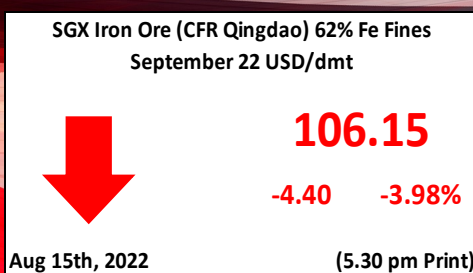
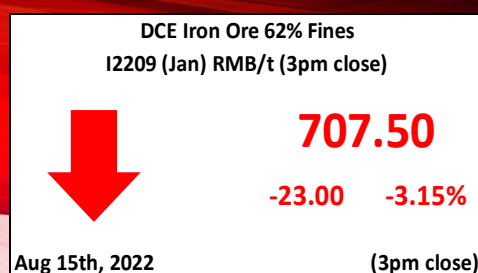


MMi Dashboard

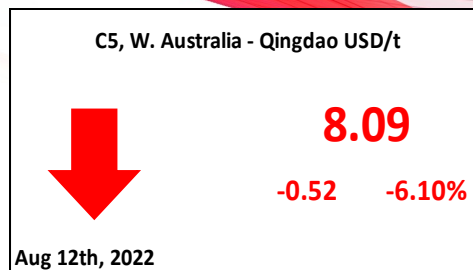
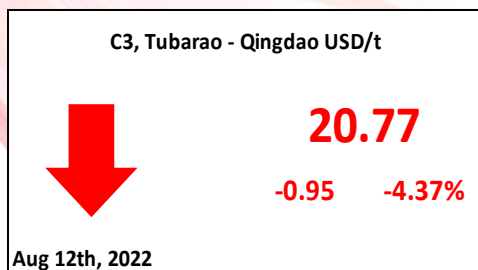
Iron Ore Price Indices



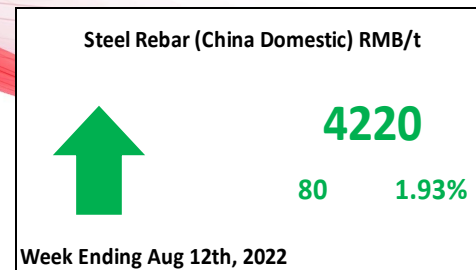
Exchange Traded Contracts



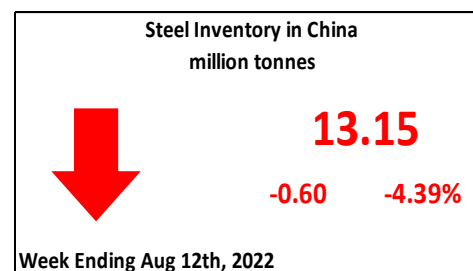
Freight Rates



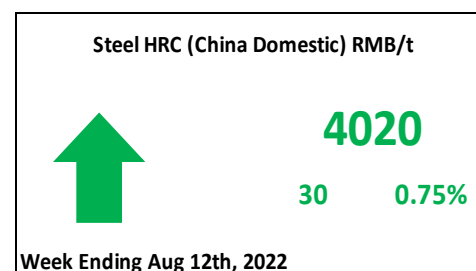
Steel Price



Inventory Levels



Steel Price



IRON ORE PORT STOCK INDEX (IOPI)

Aug 15th, 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	787	-13	-1.6%	801	927	587	1177	108.31	-1.85	-1.7%	109.99	132.53	84.25	170.56
IOPI58	58% Fe Fines	687	-12	-1.7%	696	764	454	911	95.07	-1.73	-1.8%	96.19	109.56	64.78	134.15
IOPI65	65% Fe Fines	862	-10	-1.1%	888	1095	811	1495	119.008	-1.42	-1.2%	122.44	157.44	111.38	217.77

IRON ORE SEABORNE INDEX (IOSI)

Aug 15th, 2022		CFR Qingdao, USD/dry tonne							MARKET COMMENTARY							
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low ²	High ²	DCE iron ore futures fell today, the main contract 2301 closed 707.5, an decrease of 2.88% throughout the day, some traders were negative to sell, steel mills purchased on demand, total transactions remained insipid. PBF at Shandong port dealt 764-775 yuan/m, decreased 5-10 yuan/mt from last week. SSF at Shandong port dealt 640 yuan/mt from last week, PBF at Tangshan port dealt 775 yuan/mt, decreased 10 yuan/mt from last week. According to SMM shipping data, the total amount of imported ore arriving at the port last week was 23.62 million tons, an increase of 2.29 million tons over the previous period. During this period, the overseas shipment volume was 29.38 million tons, which was a decrease of 57000 tons last week, a slight decrease compared with the previous week; The continuous increase in the arrival volume in this period is mainly due to the increase in the shipment volume at the end of July. The domestic demand growth is slow, and the port inventory will continue to increase, which is bad for the mine price. Superimposed on the poor real estate data today, it is expected that the mine price will continue to be weak and volatile tomorrow.							
IOSI62	62% Fe Fines	113.60	-1.65	-1.43%	114.87	135.67	93.75	167.90								
IOSI65	65% Fe Fines	128.95	-0.30	-0.23%	129.77	158.90	108.20	197.65								

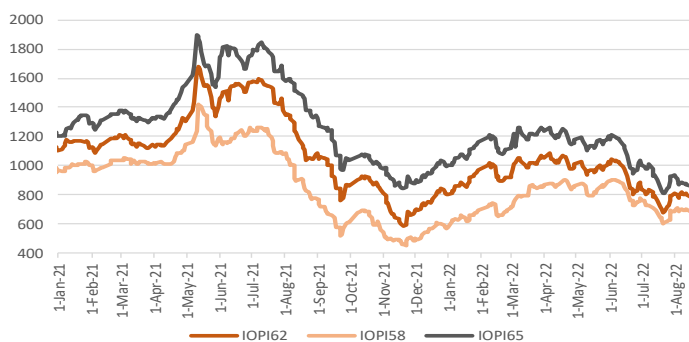
IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending Aug 12th, 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	915	10	1.1%	910	1150	730	1555	121.31	1.37	1.14%	120.62	158.54	101.31	244.28

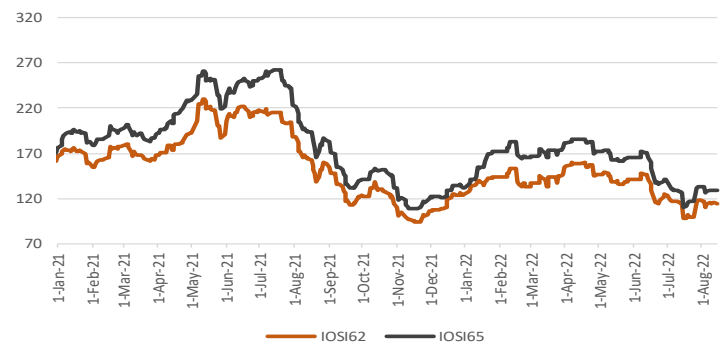
IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

Week Ending Aug 12th, 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	960	0.0%	779	1645	142.38	0.19%	110.31	255.69
Hebei	Qian'an	65% Fe Concentrate	Dry	945	4.4%	780	1630	140.15	0.19%	110.51	251.57
Liaoning	Anshan	65% Fe Concentrate	Wet	735	0.7%	620	1310	109.01	0.88%	87.40	202.32
Shandong	Zibo	65% Fe Concentrate	Dry	983	0.0%	800	1752	145.79	0.19%	122.55	272.32
Week Ending Aug 12th, 2022				This week	Change %	Low ²	High ²	¹ Exchange rate applied: RMB/USD = 6.7522 ² Last 12 months ³ Weekly exchange rate applied: RMB/USD = 6.7556			
China Mines Concentrate Composite Index RMB/WT				851.48	5.52%	706.36	1511.22				

IRON ORE PORT INDEX, FOT QINGDAO (RMB/WT)



IRON ORE SEABORNE INDEX, CFR QINGDAO (USD/DMT)



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

Aug 15th, 2022		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne						
Index	Fe Content	April	May	June	July	MTD	QTD	YTD	May	June	June	July	MTD	QTD	YTD
IOPI62	62% Fe Fines	1030	981	934	770	801	780	927	150.00	136.86	130.13	106.01	109.99	107.38	132.53
IOPI58	58% Fe Fines	874	841	823	682	696	687	764	128.09	118.11	115.45	94.43	96.19	95.04	109.56
IOPI65	65% Fe Fines	1206	1152	1086	915	888	906	1095	176.31	161.44	151.89	126.73	122.44	125.25	157.44

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

Aug 15th, 2022		CFR Qingdao, USD/dry tonne							FREIGHT RATES							
Index	Fe Content	April	May	June	July	MTD	QTD	YTD	Aug 12th, 2022		FREIGHT RATES - DRY BULK US\$/wet tonne					
Index	Fe Content	April	May	June	July	MTD	QTD	YTD	Route	Designation	Change	Change %	Low ²	High ²		
IOSI62	62% Fe Fines	155.13	141.17	131.96	110.07	114.87	111.67	135.67	W. Australia - Qingdao	C5	8.09	-0.52	-6.10%	3.57	16.77	
IOSI65	65% Fe Fines	181.23	166.30	154.17	124.60	129.77	126.33	158.90	Tubarao - Qingdao	C3	20.77	-0.95	-4.37%	6.70	36.40	

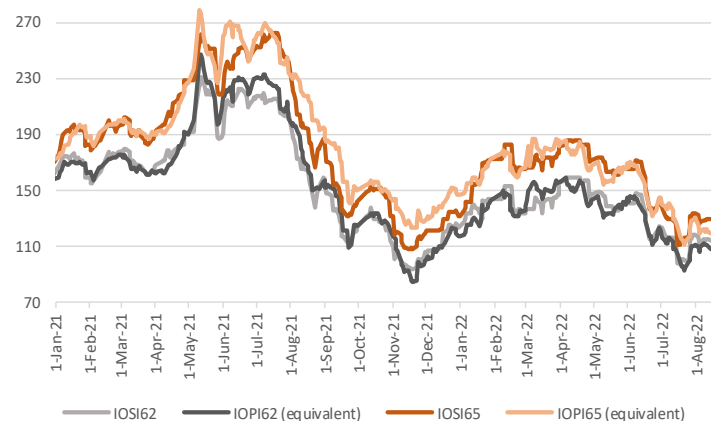
IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending Aug 12th, 2022		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne ¹						
Index	Fe Content	April	May	June	July	MTD	QTD	YTD	April	May	June	July	MTD	QTD	YTD
IOPLI62	62.5% Fe Lump	1328	1232	1189	906	910	906	1150	187.99	164.53	159.78	120.36	120.62	120.29	158.54

IRON ORE INDEX PREMIUMS/DISCOUNTS

Aug 15th, 2022		PORT STOCK INDEX (RMB/WT)				Aug 15th, 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	-100		-12.71%		IOSI65	65% Fe Fines	15.35		13.51%	
IOPI65	65% Fe Fines	75		9.53%							

IRON ORE INDEX COMPARISONS (USD/DMT)



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



IRON ORE BRAND SPOT PRICE ASSESSMENTS

Aug 15th, 2022				Aug 15th, 2022			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	730	-13	-57	Roy Hill	109.10	-1.65	-4.50
SIMEC Fines	658	-13	-129	SIMEC Fines	105.60	-1.65	-8.00
PB Fines	756	-13	-31	PB Fines	109.85	-0.65	-3.75
Newman Fines	755	-13	-32	Newman Fines	112.75	-1.65	-0.85
MAC Fines	737	-13	-50	MAC Fines	109.85	-1.65	-3.75
Jimblebar Blended Fines	651	-13	-136	Jimblebar Blended Fines	102.25	-1.65	-11.35
Carajas Fines	967	-13	180	Carajas Fines	143.15	-1.65	29.55
Brazilian SSF	749	-13	-38	Brazilian SSF	117.35	-1.65	3.75
Brazilian Blend Fines	769	-13	-18	Brazilian Blend Fines	119.00	-1.65	5.40
RTX Fines	670	-13	-117	RTX Fines	103.50	-1.65	-10.10
West Pilbara Fines	699	-13	-88	West Pilbara Fines	107.85	-1.65	-5.75

Aug 15th, 2022			
PORT STOCK INDEX (RMB/WT)			
	Price	Change	Diff to IOPI58
SSF	687	-12	0
FMG Blended Fines	695	-13	8
Robe River	696	-12	9
Western Fines	699	-12	12
Atlas Fines	693	-12	6
Yandi	681	-11	-6

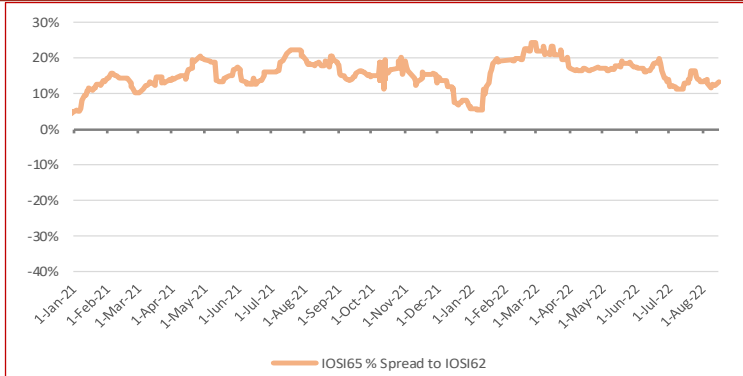
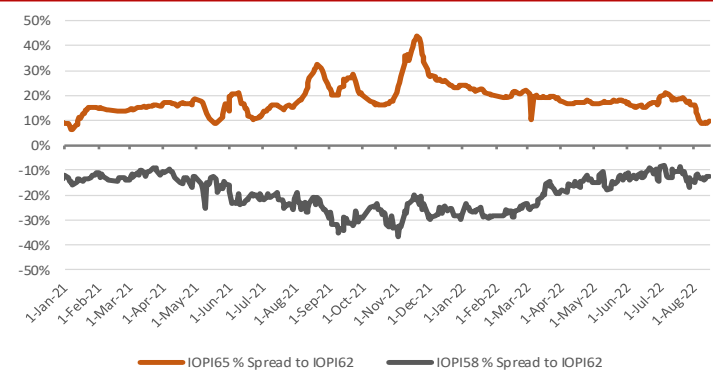
IRON ORE INDEX NORMALISATION DIFFERENTIALS

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%	14.00	0.00	1% Fe	High Grade Fe 60 - 63%	3.25	0.00
	High Grade Fe 63 - 64%	22.00	1.00		High Grade Fe 63 - 64%	1.50	-0.25
	High Grade Fe 64 - 65%	22.00	1.00		High Grade Fe 64 - 65%	1.50	-0.25
	High Grade Fe 65 - 65.5%	22.00	1.00		High Grade Fe 65 - 65.5%	1.50	-0.25
1% Alumina	Low Grade Fe	16.00	0.00	1% Alumina	High Fe Grade Al <2.25%	0.25	0.00
	High Fe Grade Al <2.25%	5.00	0.00		High Fe Grade Al 2.25-4%	2.25	0.00
	High Fe Grade Al 2.25-4%	5.00	-1.00				
	Low Fe Grade Al <2.25%	55.00	-10.00				
1% Silica	Low Fe Grade Al 2.25-4%	5.00	0.00	1% Silica	High Fe Grade Si <4%	2.50	0.00
	High Fe Grade Si <4%	5.00	0.00		High Fe Grade Si 4 - 6.5%	6.00	0.00
0.01% Phosphorus	High Fe Grade Si <4%	5.00	0.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	2.25	0.00
	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				

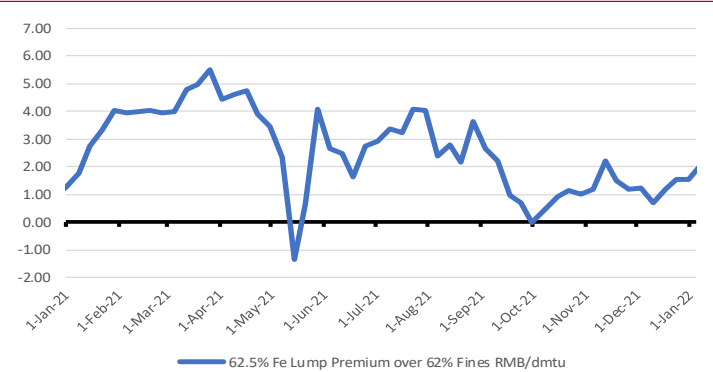
Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

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	-5.00	-15.00	Jingtang	-5.00	-5.00	Majishan	0.00	0.00	Taichang	-40.00	0.00
Dalian	0.00	0.00	Lanqiao	0.00	0.00	Qingdao	0.00	0.00	Tianjin	-20.00	0.00

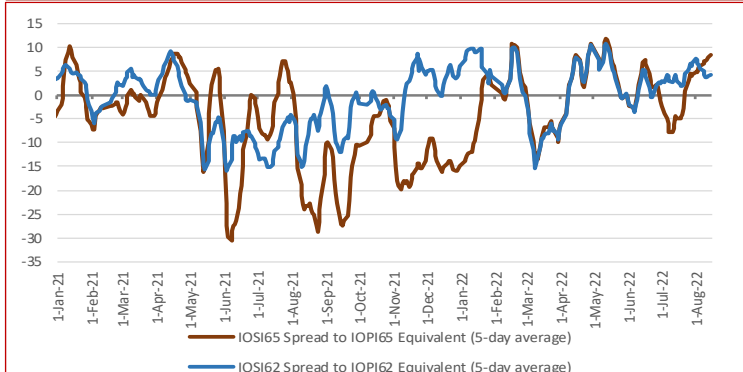
IRON ORE INDEX PREMIUMS/DISCOUNTS



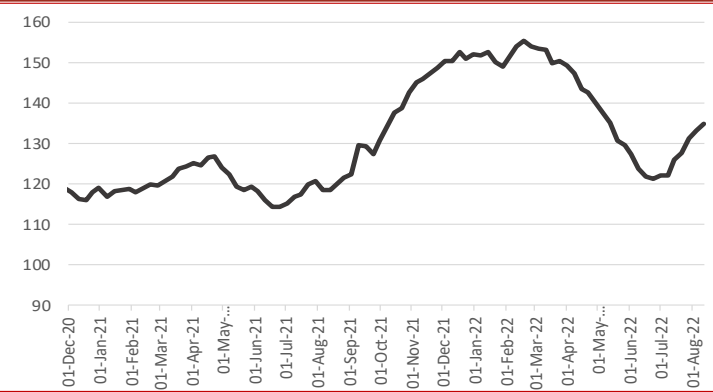
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



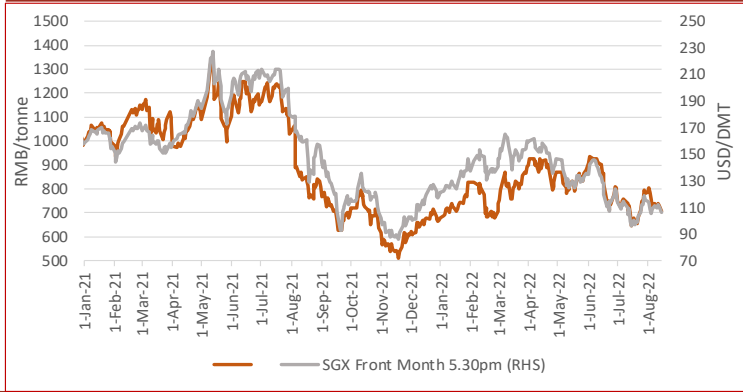
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



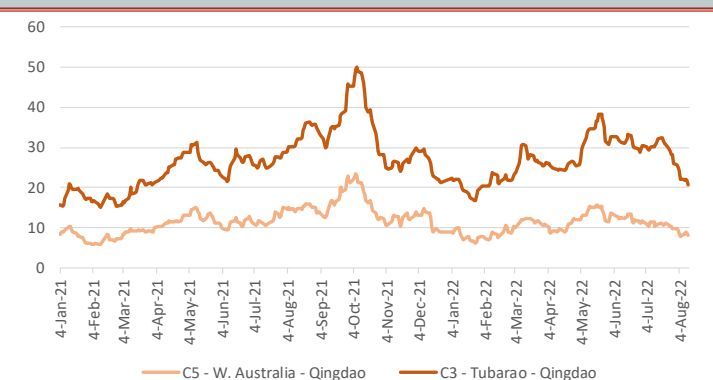
IRON ORE PORT INVENTORIES (MILLION TONNES)

Week Ending Aug 12th, 2022				
Province	This week	Change %	Low ²	High ²
Jingtang	11.91	1.45%	9.84	19.20
Qingdao	24.85	1.64%	9.41	26.24
Caofeidian	10.39	0.97%	9.05	16.29
Tianjin	10.48	0.48%	7.14	12.97
Rizhao	17.80	2.12%	9.44	19.26
Total (35 Ports)	135.00	1.40%	98.80	155.39

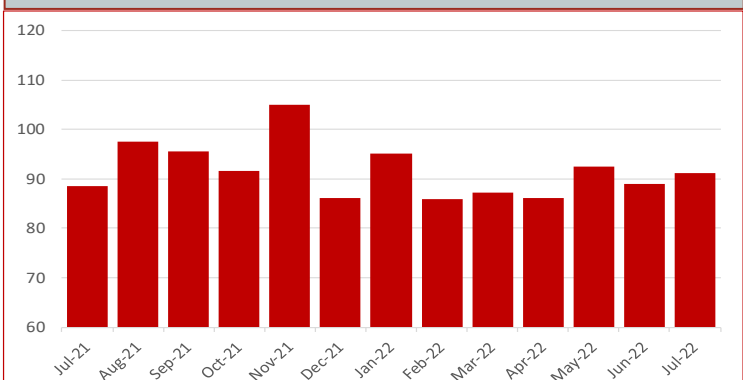
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	Aug 15th, 3pm close			Aug 15th, 5:30pm		
Contract	I2301	Change	Change %	Sep. 22	Change	Change %
Closing Price	707.50	-23.00	-3.15%	106.15	-4.40	-3.98%
Vol traded ('000 lots)	96.62	21.87	29.26%	5.63	0.85	17.86%
Open positions ('000 lots)	66.75	2.84	4.44%	31.42	0.25	0.82%
Day Low	703.5	-12.50	-1.75%	105.65	-3.85	-3.52%
Day High	738.5	-5.50	-0.74%	111.95	-1.05	-0.93%

DRY BULK FREIGHT RATES (USD/MT)



TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)



STEEL SPOT MARKET PRICES—CHINA

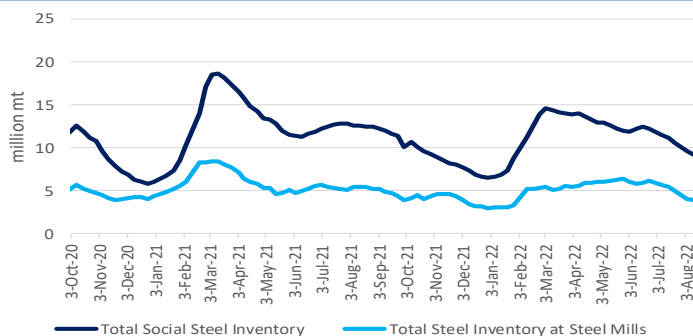
Product	2022/8/12	Change	Change %
ReBar HRB400 φ18mm	4,220	80	1.93%
Wirerod Q300 φ6.5mm	4,680	90	1.96%
HRC Q235/SS400 5.5mm*1500*C	4,020	30	0.75%
CRC SPCC/ST12 1.0mm*1250*2500	4,460	20	0.45%
Medium & Heavy Plate Q235B 20mm	4,200	0	0.00%
GI ST02Z 1.0mm*1000*C	4,740	-10	-0.21%
Colour Coated Plate	7,600	0	0.00%

CHINESE STEEL MILL PROFITABILITY

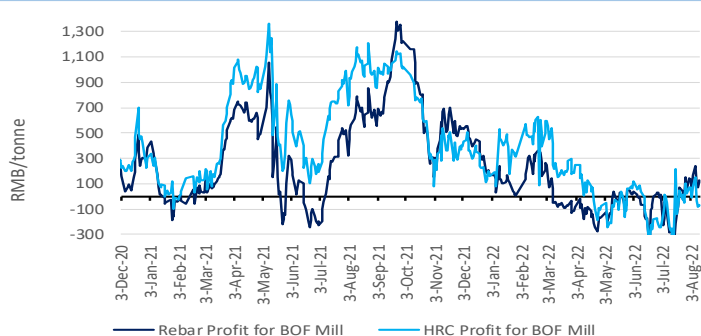
Category	Price	Change (WoW)	Note
MMi (Fe 62%), USD/mt excluding tax	115.20	5	Mmi CFR Equivalent index for 1st Feb
Coke	2,800	240	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	3,220	450	steel scrap (6mm) in Zhangjiagang, excl. tax
Billet Cost	3,620	166	Q234, incl. tax
Rebar cost - Blast furnace	4,125	188	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	125	-38	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	4,092	188	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	-72	-148	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

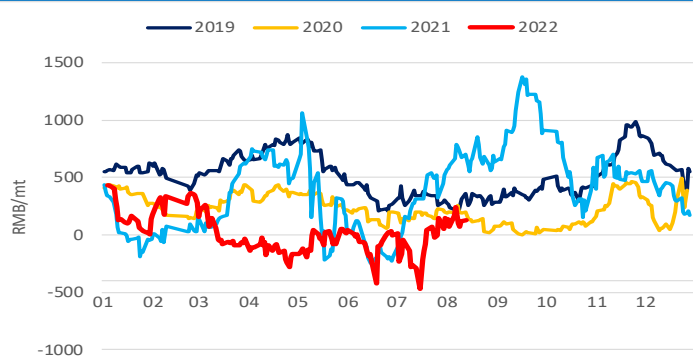
CHINESE STEEL INVENTORIES



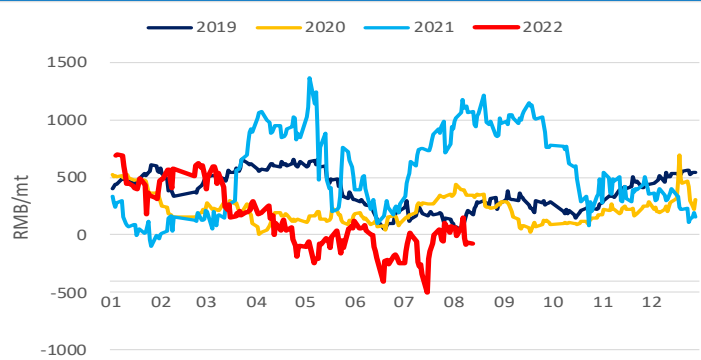
CHINESE STEEL MILL PROFITABILITY



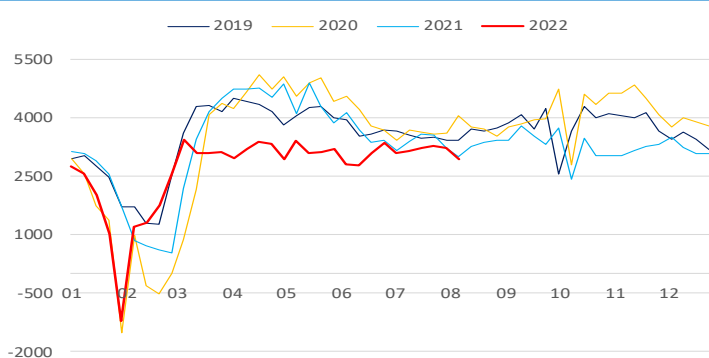
CHINESE STEEL MILL PROFITABILITY—Rebar



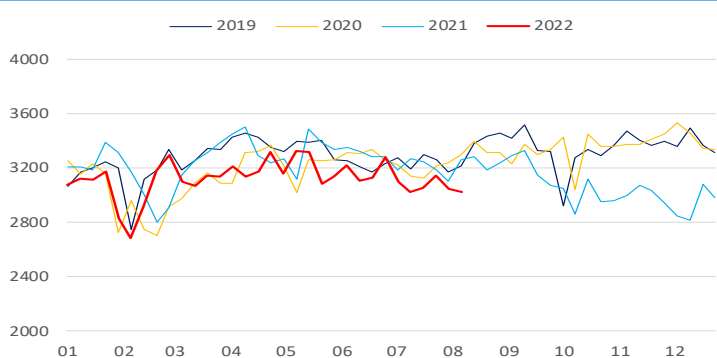
CHINESE STEEL MILL PROFITABILITY—Hot-rolled Coil



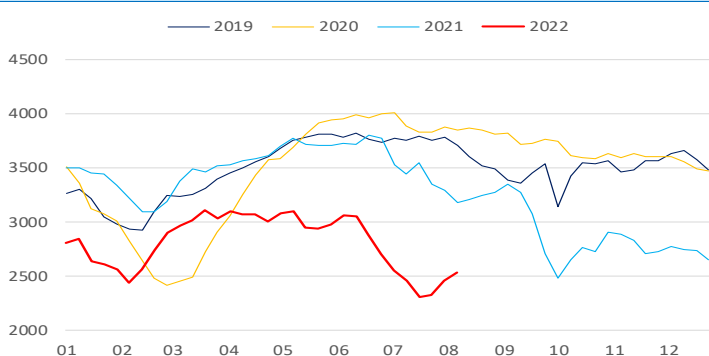
CHINESE STEEL CONSUMPTION—Rebar



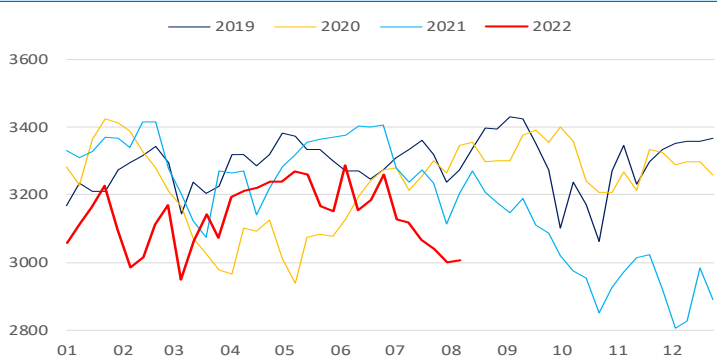
CHINESE STEEL CONSUMPTION—Hot-rolled Coil



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					
Aug 15th, 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%
Aug 15th, 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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