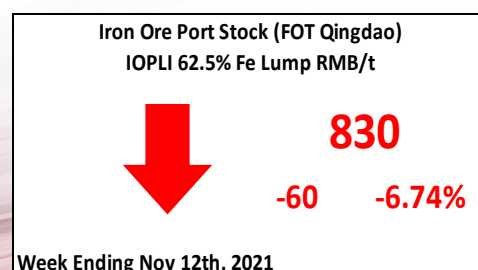
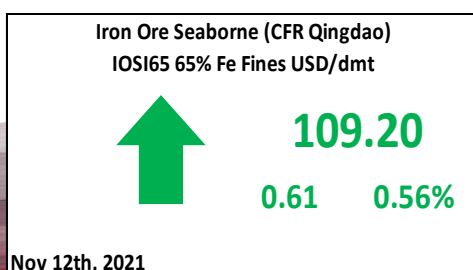
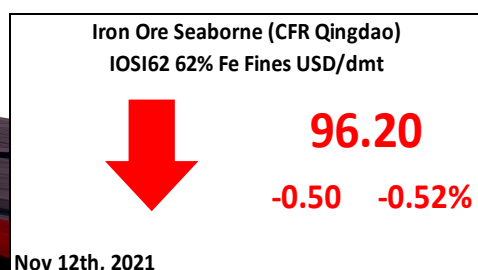
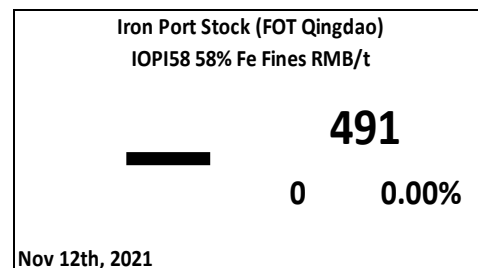
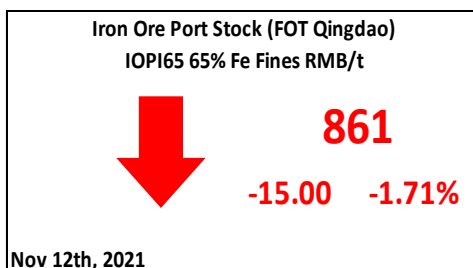
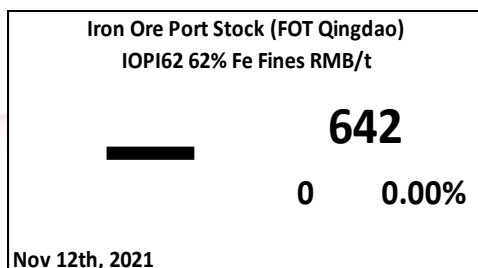


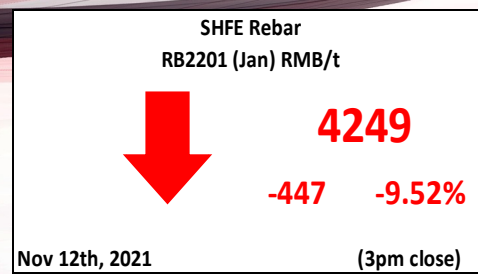
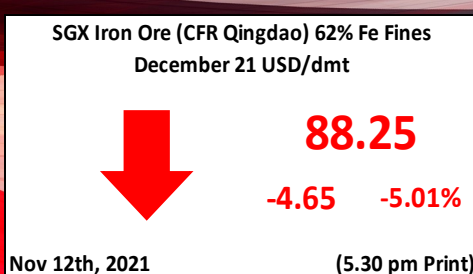
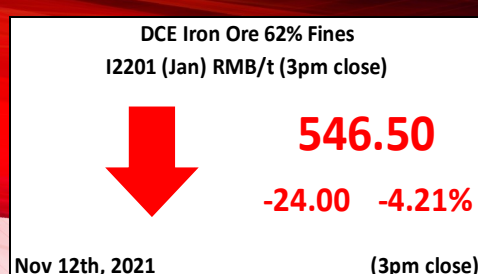


MMi Dashboard

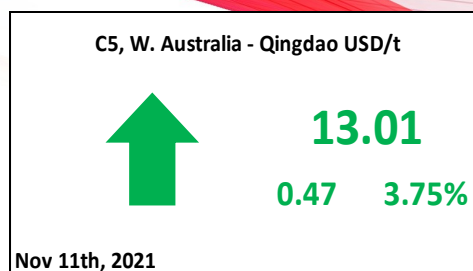
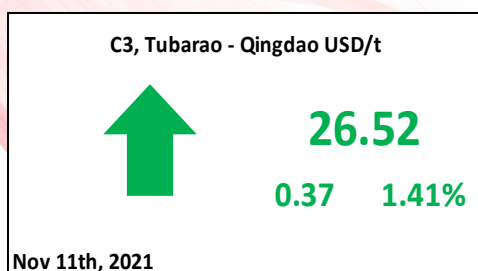
Iron Ore Price Indices



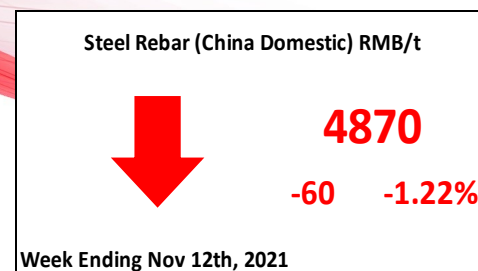
Exchange Traded Contracts



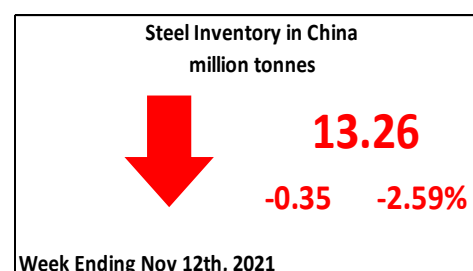
Freight Rates



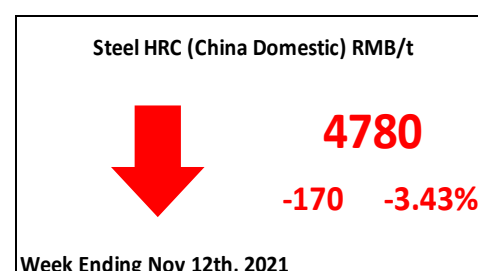
Steel Price



Inventory Levels



Steel Price



IRON ORE PORT STOCK INDEX (IOPI)

Nov 12th, 2021		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	642	0	0.0%	721	1207	642	1680	92.19	0.11	0.1%	104.07	175.49	92.07	247.30
IOPI58	58% Fe Fines	491	0	0.0%	503	975	484	1421	70.28	0.09	0.1%	72.07	142.47	69.35	210.83
IOPI65	65% Fe Fines	861	-15	-1.7%	930	1409	861	1894	125.07	-2.09	-1.6%	135.57	205.52	125.07	278.61

IRON ORE SEABORNE INDEX (IOSI)

MARKET COMMENTARY

Nov 12th, 2021		CFR Qingdao, USD/dry tonne							DCE iron ore futures market falling trends... an increase of 1.62% throughout the day. The spot quotation in the morning almost kept steady, some traders were active to sell, but steel mills replenishment were completed this week so total transactions was decreased significantly. SSF at Shandong port dealt 390 yuan/mt; PBF at Tangshan port dealt 605-610 yuan/mt; decreased 5-10 yuan/mt over yesterday; As of November 5, the iron ore inventories across the 35 Chinese ports tracked by SMM totalled 145.12 million mt, an increase of 2.29 million mt from the previous week and 19.02 million mt year-on-year. The daily average shipments from the 35 ports dropped 54,000 mt on a weekly basis to 2.75 million mt last week. Some steel mills in north China did not increase the purchases due to environmental protection-related controls, and port arrivals from overseas increased, further raising local port inventory. The sharp drop in imported ore prices also affected the purchasing sentiment of steel mills. However, the shipments from domestic ports are expected to pick up this week as Tangshan may loosen environmental protection-related controls on local steel mills and ports, depending on how the pollution improves, and as some steel mills in Shandong may resume production.
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low ²	High ²	
IOSI62	62% Fe Fines	96.20	-0.50	-0.52%	100.80	170.32	96.20	230.50	
IOSI65	65% Fe Fines	109.20	0.61	0.56%	116.69	196.90	108.59	262.95	

IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending Nov 12th, 2021		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	830	-60	-6.7%	860	1440	886	1868	115.51	-19.94	-14.72%	119.79	200.21	118.00	262.00

IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

Week Ending Nov 12th, 2021				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	850	-12.4%	779	1645	132.80	-12.32%	110.31	255.69
Hebei	Qian'an	65% Fe Concentrate	Dry	1005	-2.0%	770	1630	157.02	-1.89%	110.51	251.57
Liaoning	Anshan	65% Fe Concentrate	Wet	770	-2.5%	620	1310	120.30	-2.48%	87.40	202.32
Shandong	Zibo	65% Fe Concentrate	Dry	865	-11.3%	865	1752	135.15	-11.23%	122.55	272.32

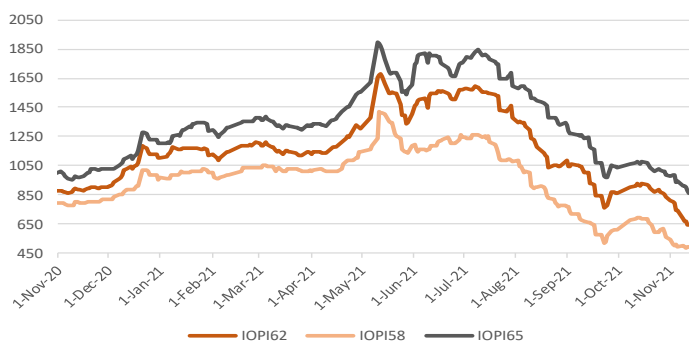
Week Ending Nov 12th, 2021

This week	Change %	Low ²	High ²
868.33	-5.84%	706.36	1511.22

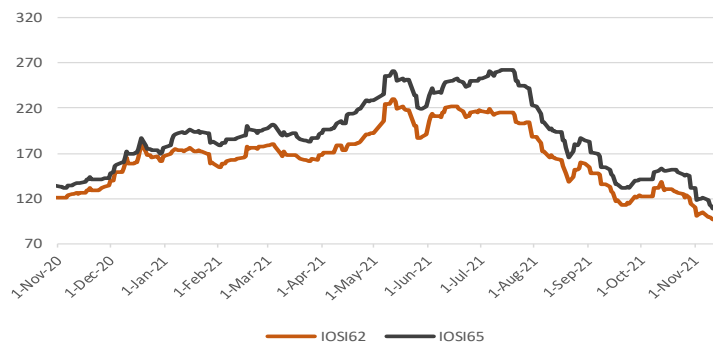
China Mines Concentrate Composite Index RMB/WT

¹ Exchange rate applied: RMB/USD = 6.4934 ² Last 12 months
³ Weekly exchange rate applied: RMB/USD 6.5044

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

Nov 12th, 2021		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne						
Index	Fe Content	July	August	September	October	MTD	QTD	YTD	July	August	September	October	MTD	QTD	YTD
IOPI62	62% Fe Fines	1519	1174	937	893	721	826	1207	170.18	135.90	135.31	129.57	104.07	119.76	175.49
IOPI58	58% Fe Fines	1186	894	648	646	503	591	975	130.00	93.62	93.31	93.69	72.07	85.37	142.47
IOPI65	65% Fe Fines	1750	1466	1152	1043	930	1000	1409	213.59	214.41	214.06	152.11	135.57	145.75	205.52

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

FREIGHT RATES

Nov 12th, 2021		CFR Qingdao, USD/dry tonne							Nov 11th, 2021							
Index	Fe Content	July	August	September	October	MTD	QTD	YTD	Route		Designation	Change	Change %	Low ²	High ²	
IOSI62	62% Fe Fines	211.65	162.80	128.43	127.04	100.80	118.53	170.32	W. Australia - Qingdao		C5	13.01	0.47	3.75%	3.57	16.77
IOSI65	65% Fe Fines	254.36	192.73	148.09	147.37	116.69	137.57	196.90	Tubarao - Qingdao		C3	26.52	0.37	1.41%	6.70	36.40

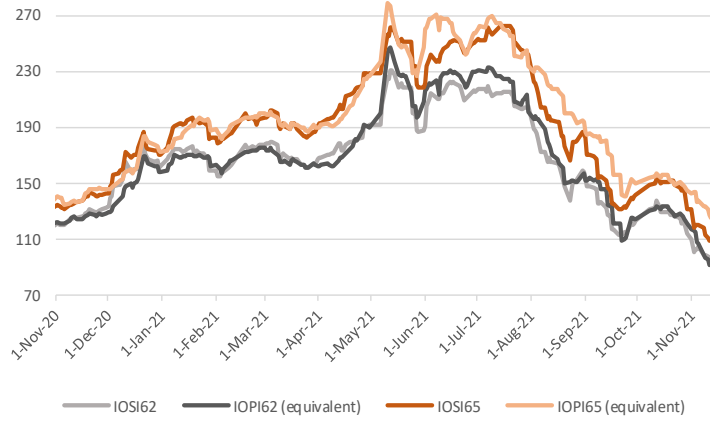
IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending Nov 12th, 2021		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne ¹						
Index	Fe Content	July	August	September	October	MTD	QTD	YTD	July	August	September	October	MTD	QTD	YTD
IOPLI62	62.5% Fe Lump	1816	1409	1065	999	860	943	1440	254.64	196.49	147.90	139.52	119.79	131.63	200.21

IRON ORE INDEX PREMIUMS/DISCOUNTS

Nov 12th, 2021				PORT STOCK INDEX (RMB/WT)				Nov 12th, 2021				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	-151		-23.52%		IOSI65	65% Fe Fines	13.00		13.51%					
IOPI65	65% Fe Fines	219		34.11%											

IRON ORE INDEX COMPARISONS (USD/DMT)



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



IRON ORE BRAND SPOT PRICE ASSESSMENTS

Nov 12th, 2021				Nov 12th, 2021			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	604	7	-38	Roy Hill	91.70	-0.50	-4.50
SIMEC Fines	598	16	-44	SIMEC Fines	88.20	-0.50	-8.00
PB Fines	623	1	-19	PB Fines	94.95	-0.50	-1.25
Newman Fines	653	-2	11	Newman Fines	96.75	0.15	0.55
MAC Fines	603	9	-39	MAC Fines	92.10	-0.50	-4.10
Jimblebar Blended Fines	565	10	-77	Jimblebar Blended Fines	85.45	-0.50	-10.75
Carajas Fines	846	-14	204	Carajas Fines	125.75	-0.50	29.55
Brazilian SSF	679	5	37	Brazilian SSF	99.95	-0.50	3.75
Brazilian Blend Fines	664	-1	22	Brazilian Blend Fines	101.60	-0.50	5.40
RTX Fines	568	10	-74	RTX Fines	86.10	-0.50	-10.10
West Pilbara Fines	592	10	-50	West Pilbara Fines	90.45	-0.50	-5.75

Nov 12th, 2021			
PORT STOCK INDEX (RMB/WT)			
	Price	Change	Diff to IOPI58
SSF	490	0	-1
FMG Blended Fines	495	0	4
Robe River	494	0	3
Western Fines	499	0	8
Atlas Fines	491	0	0
Yandi	488	0	-3

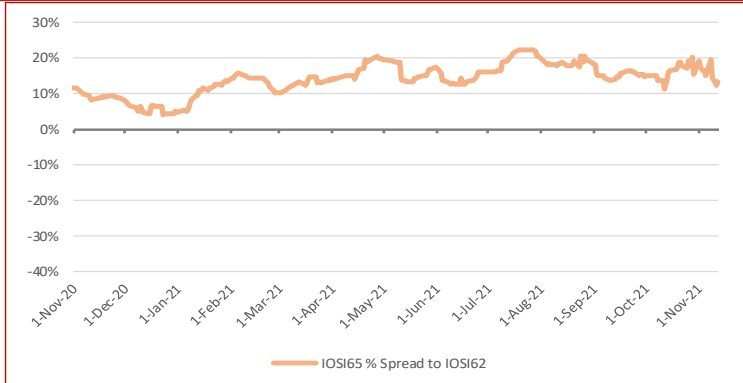
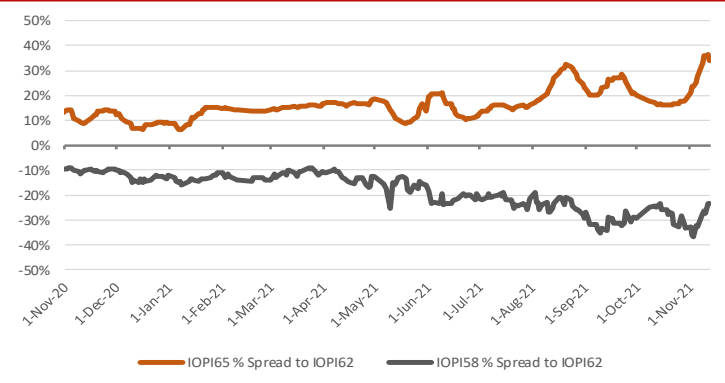
IRON ORE INDEX NORMALISATION DIFFERENTIALS

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%	22.00	-4.00	1% Fe	High Grade Fe 60 - 63%	3.50	-0.25
	High Grade Fe 63 - 64%	28.00	-2.00		High Grade Fe 63 - 64%	1.75	0.25
	High Grade Fe 64 - 65%	28.00	-2.00		High Grade Fe 64 - 65%	1.75	0.25
	High Grade Fe 65 - 65.5%	28.00	-2.00		High Grade Fe 65 - 65.5%	1.75	0.25
1% Alumina	Low Grade Fe	26.00	0.00	1% Alumina	High Fe Grade Al <2.25%	0.50	-0.25
	High Fe Grade Al <2.25%	28.00	-2.00		High Fe Grade Al 2.25-4%	2.50	-0.25
	High Fe Grade Al 2.25-4%	30.00	-5.00				
	Low Fe Grade Al <2.25%	59.00	4.00				
1% Silica	Low Fe Grade Al 2.25-4%	52.00	0.00	1% Silica	High Fe Grade Si <4%	2.25	0.00
	High Fe Grade Si <4%	47.00	-2.00		High Fe Grade Si 4 - 6.5%	8.50	-0.25
0.01% Phosphorus	High Fe Grade Si 4-6.5%	5.00	-3.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	0.25	0.00
	Low Fe Grade	21.00	0.00		High Fe Grade 0.115%<P<0.15%	1.00	0.00
	High Fe Grade 0.09%<P<0.115%	6.00	0.00				
	High Fe Grade 0.115%<P<0.15%	6.00	0.00				
	Low Fe Grade 0.09%<P<0.1%	5.00	0.00				

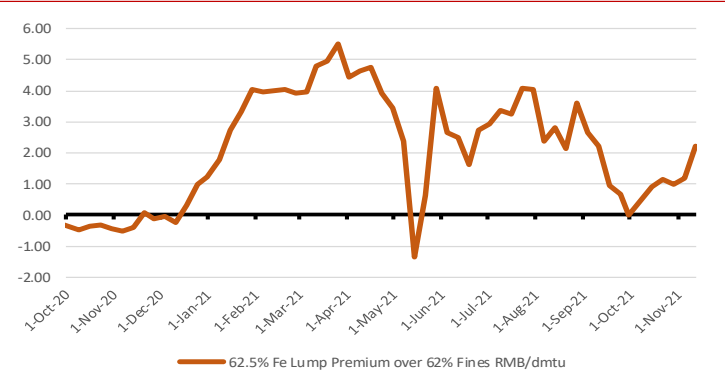
Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

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	-95.00	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	-95.00	0.00
Dalian	0.00	0.00	Lanqiao	0.00	0.00	Qingdao	0.00	0.00	Tianjin	-40.00	0.00

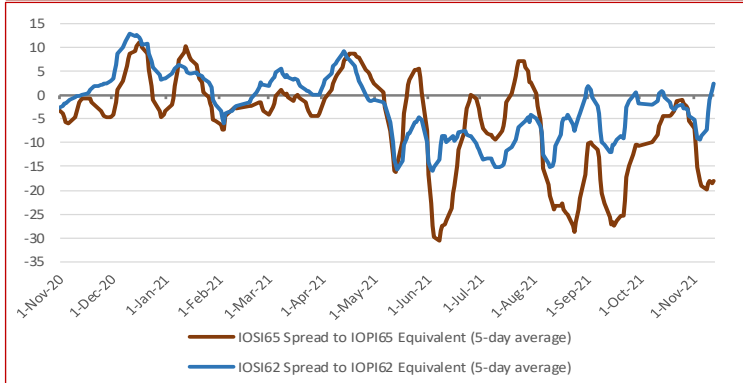
IRON ORE INDEX PREMIUMS/DISCOUNTS



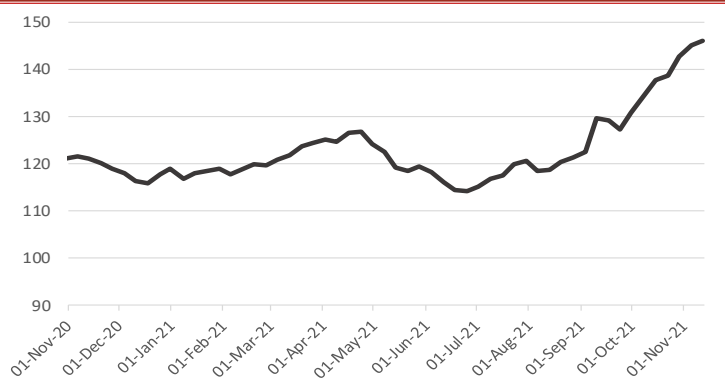
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



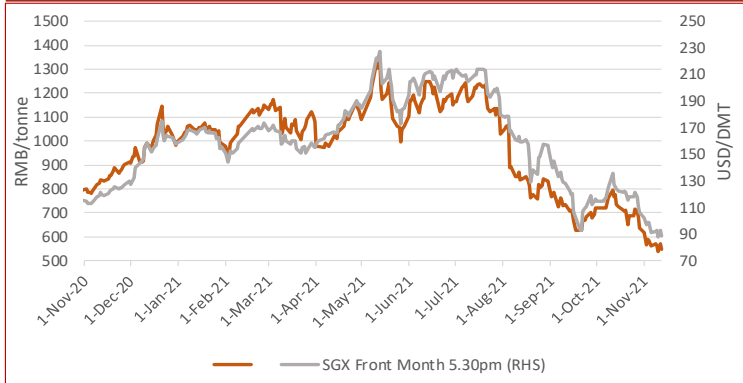
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



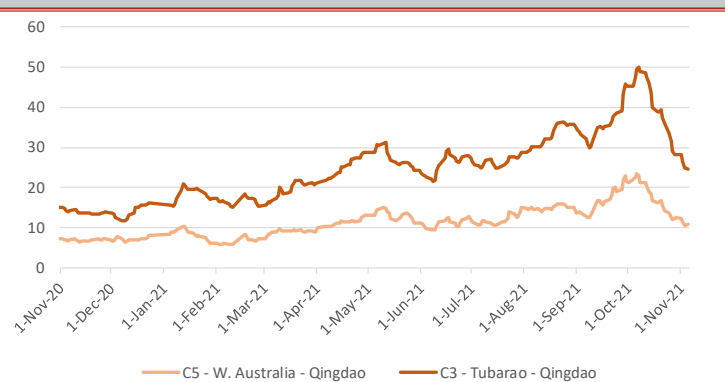
IRON ORE PORT INVENTORIES (MILLION TONNES)

Week Ending Nov 12th, 2021				
Province	This week	Change %	Low ²	High ²
Jingtang	16.05	-8.60%	12.26	19.20
Qingdao	22.77	-2.53%	9.41	23.96
Caofeidian	15.16	-0.98%	11.25	16.25
Tianjin	10.88	1.87%	7.14	11.28
Rizhao	15.57	1.50%	9.44	15.57
Total (35 Ports)	146.12	0.69%	98.80	146.12

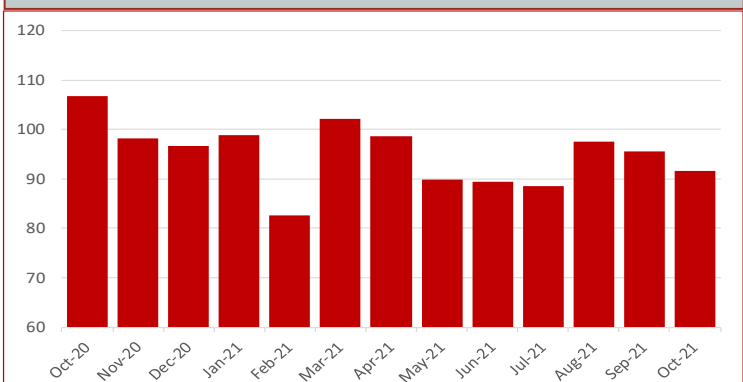
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	Nov 12th, 3pm close			Nov 12th, 5:30pm		
Contract	I2201	Change	Change %	Nov. 21	Change	Change %
Closing Price	546.50	-24.00	-4.21%	88.25	-4.65	-5.01%
Vol traded ('000 lots)	76.24	-21.51	-22.01%	2.29	-0.44	-16.16%
Open positions ('000 lots)	46.39	2.65	6.06%	19.48	-0.02	-0.11%
Day Low	538.0	1.50	0.28%	87.70	0.60	0.69%
Day High	566.0	-13.50	-2.33%	92.15	-0.75	-0.81%

DRY BULK FREIGHT RATES (USD/MT)



TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)



STEEL SPOT MARKET PRICES—CHINA

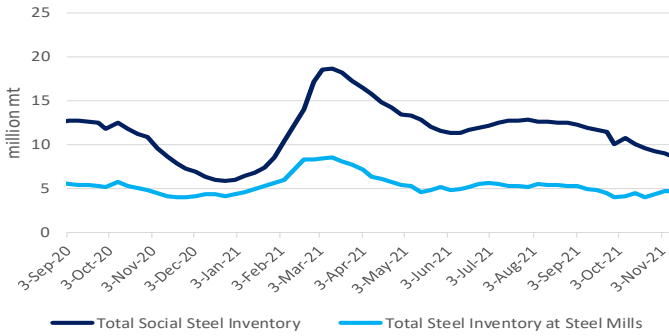
Steel Spot Market RMB/tonne			
Product	2021/11/12	Change	Change %
ReBar HRB400 φ18mm	4,870	-60	-1.22%
Wirerod Q300 φ6.5mm	5,180	-60	-1.15%
HRC Q235/SS400 5.5mm*1500*C	4,780	-170	-3.43%
CRC SPCC/ST12 1.0mm*1250*2500	5,730	-180	-3.05%
Medium & Heavy Plate Q235B 20mm	5,180	-160	-3.00%
GI ST02Z 1.0mm*1000*C	5,850	-220	-3.62%
Colour Coated Plate	8,650	-50	-0.57%

CHINESE STEEL MILL PROFITABILITY

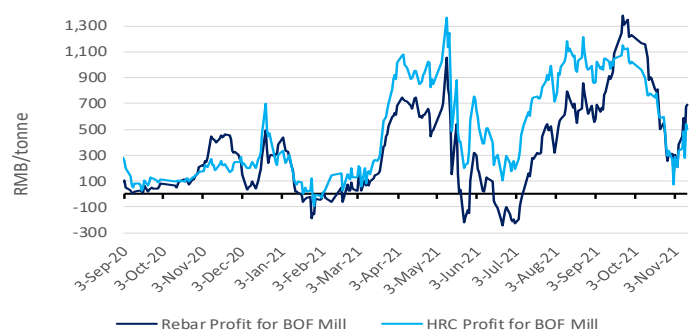
SMM Tracking of Steel Mill P&L - Rebar and Hot-rolled Coil (RMB/tonne)			
Category	Price	Change (WoW)	Note
MMi (Fe 62%), USD/mt excluding tax	96.70	-6	Mmi CFR Equivalent index for 1st Feb
Coke	3,610	-400	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	3,310	-100	steel scrap (6mm) in Zhangjiagang, excl. tax
Billet Cost	3,999	-345	Q234, incl. tax
Rebar cost - Blast furnace	4,254	-360	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	690	309	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	4,279	-345	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	501	165	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

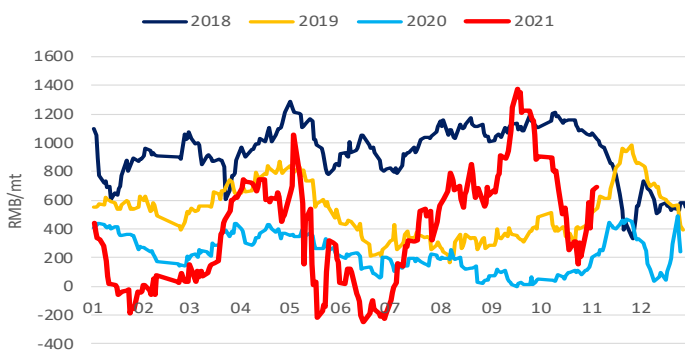
CHINESE STEEL INVENTORIES



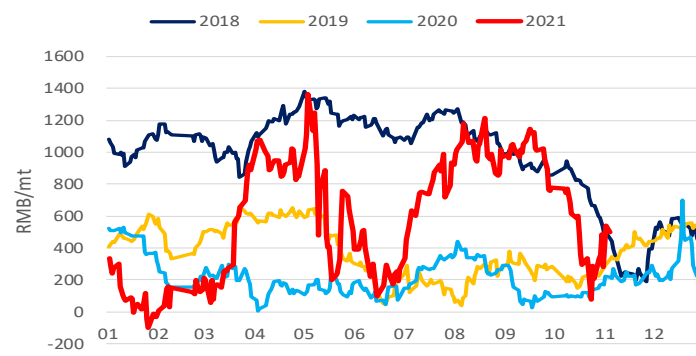
CHINESE STEEL MILL PROFITABILITY



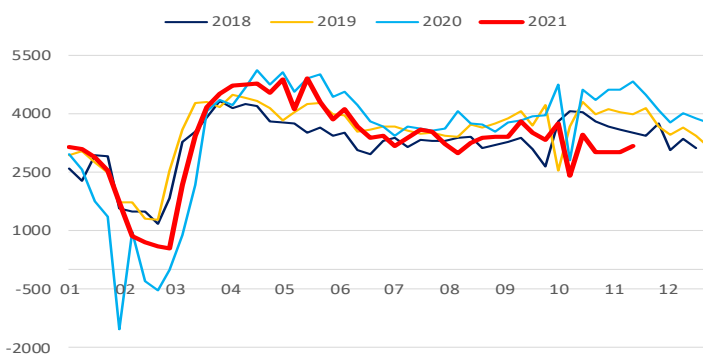
CHINESE STEEL MILL PROFITABILITY—Rebar



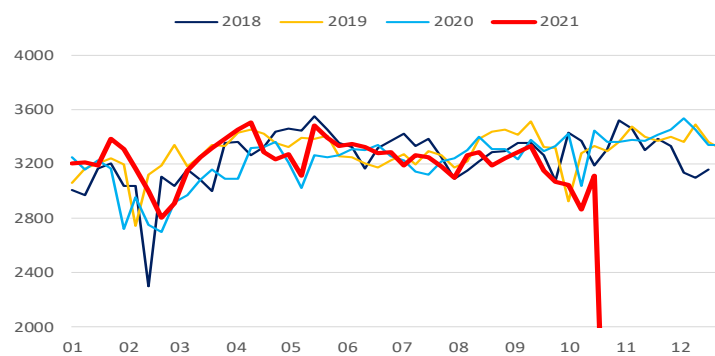
CHINESE STEEL MILL PROFITABILITY—Hot-rolled Coil



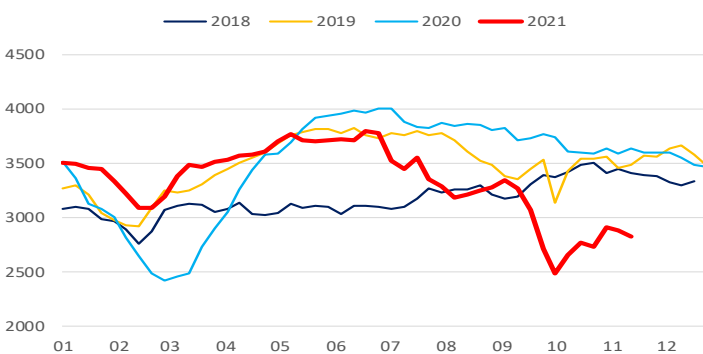
CHINESE STEEL CONSUMPTION—Rebar



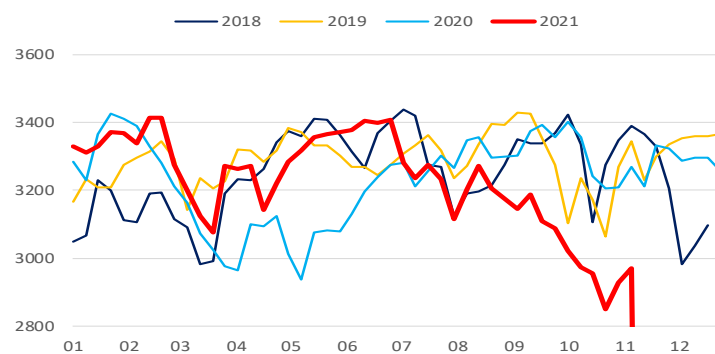
CHINESE STEEL CONSUMPTION—Hot-rolled Coil



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					
Nov 12th, 2021	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%	4.40%	0.090%	8.00%
MAC Fines	60.43%	2.38%	4.64%	0.078%	7.57%	MAC Fines	60.80%	2.35%	4.70%	0.080%	7.80%
Jimblebar Blended Fines	60.87%	2.95%	4.53%	0.111%	7.32%	Jimblebar Blended Fines	60.50%	3.00%	4.50%	0.120%	8.00%
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%

Nov 12th, 2021	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	IOSI62	IRCN0034	
IOPI58	IRCNQ002	IRCNQ005	IOSI65	IRCN0035	
IOPI65	IRCNQ003	IRCNQ006			
IOPLI62	IRCN0036	IRCN0037			

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