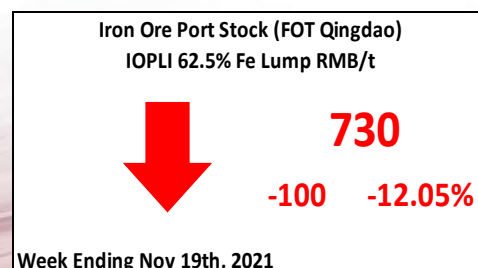
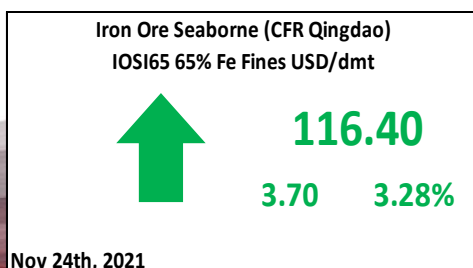
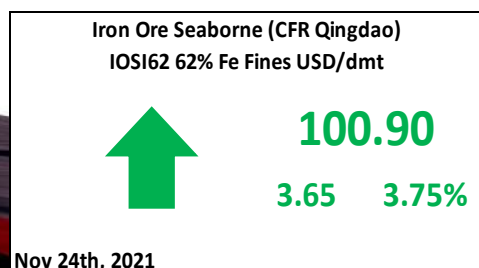
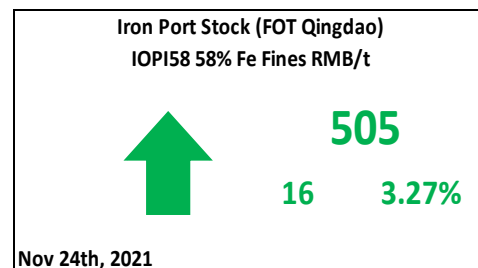
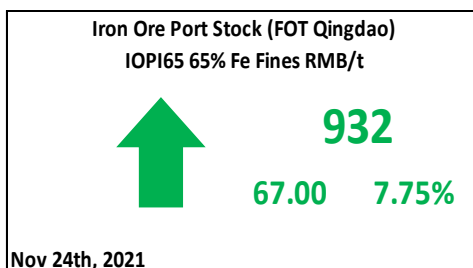
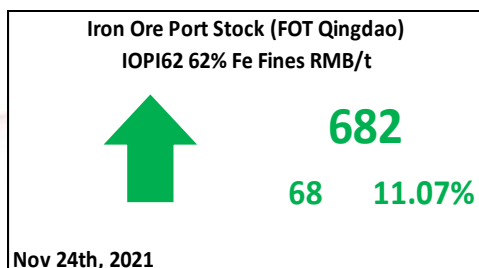


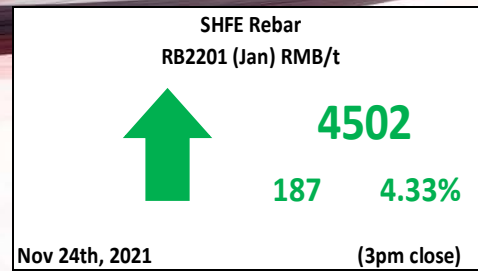
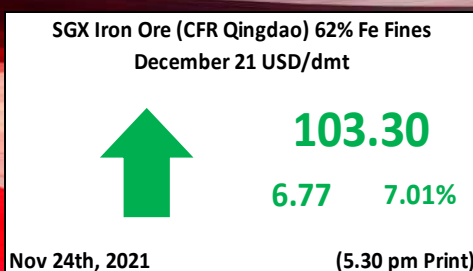
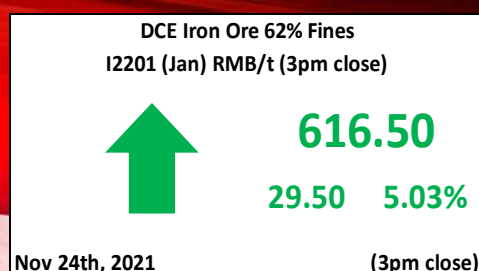


MMi Dashboard

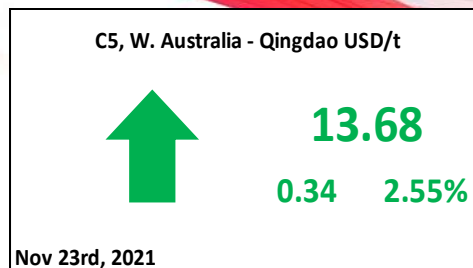
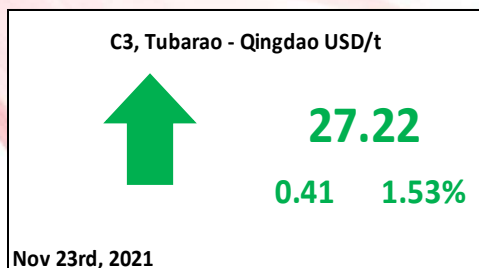
Iron Ore Price Indices



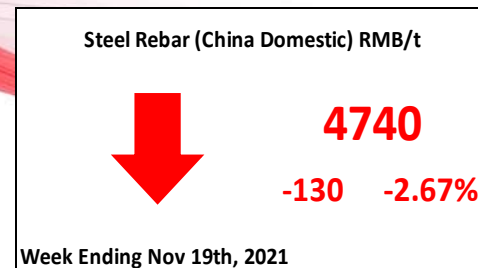
Exchange Traded Contracts



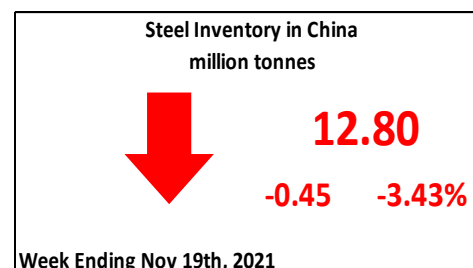
Freight Rates



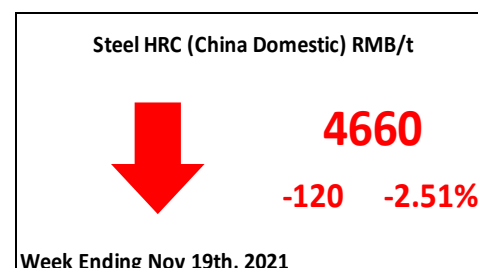
Steel Price



Inventory Levels



Steel Price



IRON ORE PORT STOCK INDEX (IOPI)

Nov 24th, 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	682	68	11.1%	675	1185	587	1680	98.44	10.27	11.6%	97.23	172.27	84.25	247.30
IOPI58	58% Fe Fines	505	16	3.3%	493	957	454	1421	72.59	2.46	3.5%	70.62	139.74	64.78	210.83
IOPI65	65% Fe Fines	932	67	7.7%	902	1389	843	1894	136.08	10.14	8.0%	131.46	202.59	122.83	278.61

IRON ORE SEABORNE INDEX (IOSI)

MARKET COMMENTARY

Nov 24th, 2021		CFR Qingdao, USD/dry tonne							DCE iron ore futures market rose by 5.84%, and the main contract closed 616.5, the quotation in the morning was increased by 30-40 yuan/mt over yesterday, some traders were active to sell, but some steel procurement more cautious, total transactions remained insipid. PBF at Shandong port dealt 645-680 yuan/mt, increased 0-30 yuan/mt over yesterday. PBF at Tangshan port dealt 645-650 yuan/mt, increased 10-20 yuan/mt over yesterday. PBF at Jiangnei port dealt 740 yuan/mt. SMM analysis, DCE iron ore futures rose for four consecutive days due to the recovery of steel profits and the completion of the crude steel flat control task, leading to the market for the resumption of blast furnace expectations. But from the fundamental point of view, Hebei and Sichuan area at the same time issued severe pollution weather warning and air pollution prevention measures, affected by this part of the sintering machine and blast furnace will be again concentrated production, iron ore needs to be suppressed, the future mine price continue to rise space or more limited.							
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low ²	High ²								
IOSI62	62% Fe Fines	100.90	3.65	3.75%	98.28	167.67	93.75	230.50								
IOSI65	65% Fe Fines	116.40	3.70	3.28%	113.60	193.83	108.20	262.95								

IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending Nov 19th, 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	730	-100	-12.0%	817	1424	886	1868	101.31	-14.20	-12.29%	113.63	197.91	118.00	262.00

IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

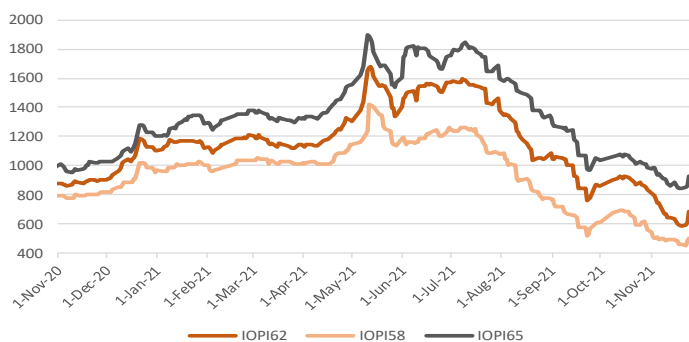
Week Ending Nov 19th, 2021				RMB/tonne (excluding tax) ³				USD/tonne (excluding tax) ³			
Province	Region	Product	Basis	This week	Change %	Low ²	High ²	This week	Change %	Low ²	High ²
Hebei	Hanxing	66% Fe Concentrate	Dry	815	-4.1%	779	1645	127.59	-3.93%	110.31	255.69
Hebei	Qian'an	65% Fe Concentrate	Dry	870	-13.4%	780	1630	136.20	-13.26%	110.51	251.57
Liaoning	Anshan	65% Fe Concentrate	Wet	770	0.0%	620	1310	120.54	0.20%	87.40	202.32
Shandong	Zibo	65% Fe Concentrate	Dry	820	-5.2%	820	1752	128.37	-5.01%	122.55	272.32

Week Ending Nov 19th, 2021

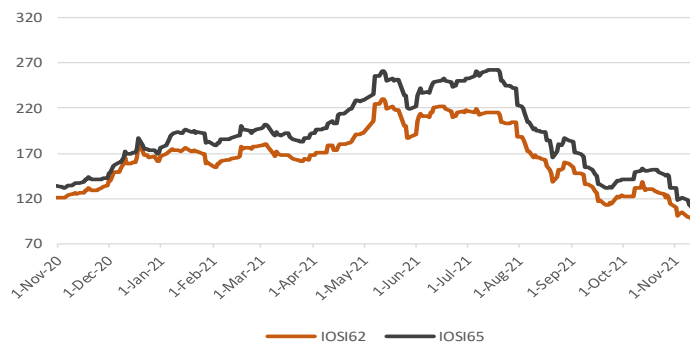
	This week	Change %	Low ²	High ²
China Mines Concentrate Composite Index RMB/WT	828.99	-4.53%	706.36	1511.22

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 24th, 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	675	777	1185	170.18	135.90	135.31	129.57	97.23	112.45	172.27
IOPI58	58% Fe Fines	1186	894	648	646	493	565	957	130.00	93.62	93.31	93.69	70.62	81.48	139.74
IOPI65	65% Fe Fines	1750	1466	1152	1043	902	968	1389	213.59	214.41	214.06	152.11	131.46	141.18	202.59

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

FREIGHT RATES

Nov 24th, 2021		CFR Qingdao, USD/dry tonne							Nov 23rd, 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	98.28	113.67	167.67	W. Australia - Qingdao		C5	13.68	0.34	2.55%	3.57	16.77
IOSI65	65% Fe Fines	254.36	192.73	148.09	147.37	113.60	131.79	193.83	Tubarao - Qingdao		C3	27.22	0.41	1.53%	6.70	36.40

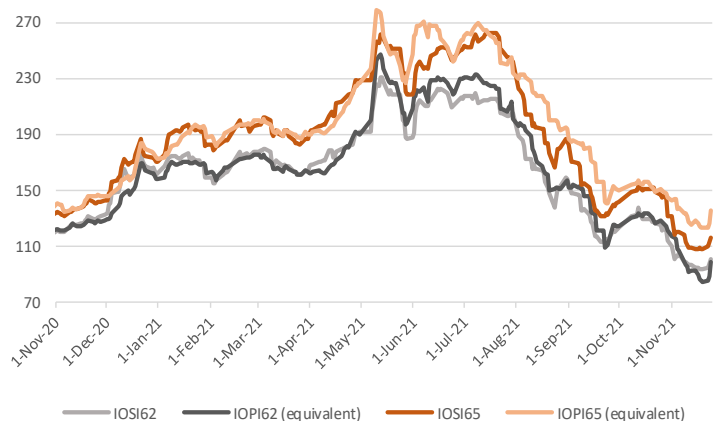
IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending Nov 19th, 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	817	908	1424	254.64	196.49	147.90	139.52	113.63	126.58	197.91

IRON ORE INDEX PREMIUMS/DISCOUNTS

Nov 24th, 2021		PORT STOCK INDEX (RMB/WT)		Nov 24th, 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	-177	-25.95%	IOSI65	65% Fe Fines	15.50	15.36%
IOPI65	65% Fe Fines	250	36.66%				

IRON ORE INDEX COMPARISONS (USD/DMT)



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



IRON ORE BRAND SPOT PRICE ASSESSMENTS

Nov 24th, 2021	PORT STOCK INDEX (RMB/WT)			Nov 24th, 2021	SEABORNE INDEX (USD/DMT)		
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	635	67	-47	Roy Hill	96.40	3.65	-4.50
SIMEC Fines	610	69	-72	SIMEC Fines	92.90	3.65	-8.00
PB Fines	662	67	-20	PB Fines	99.65	3.65	-1.25
Newman Fines	694	68	12	Newman Fines	100.80	3.65	-0.10
MAC Fines	632	68	-50	MAC Fines	96.80	3.65	-4.10
Jimblebar Blended Fines	592	68	-90	Jimblebar Blended Fines	90.15	3.65	-10.75
Carajas Fines	916	68	234	Carajas Fines	130.45	3.65	29.55
Brazilian SSF	698	69	16	Brazilian SSF	104.65	3.65	3.75
Brazilian Blend Fines	699	68	17	Brazilian Blend Fines	106.30	3.65	5.40
RTX Fines	596	68	-86	RTX Fines	90.80	3.65	-10.10
West Pilbara Fines	620	67	-62	West Pilbara Fines	95.15	3.65	-5.75

Nov 24th, 2021	PORT STOCK INDEX (RMB/WT)		
	Price	Change	Diff to IOPI58
SSF	504	16	-1
FMG Blended Fines	509	16	4
Robe River	508	16	3
Western Fines	514	17	9
Atlas Fines	505	16	0
Yandi	502	16	-3

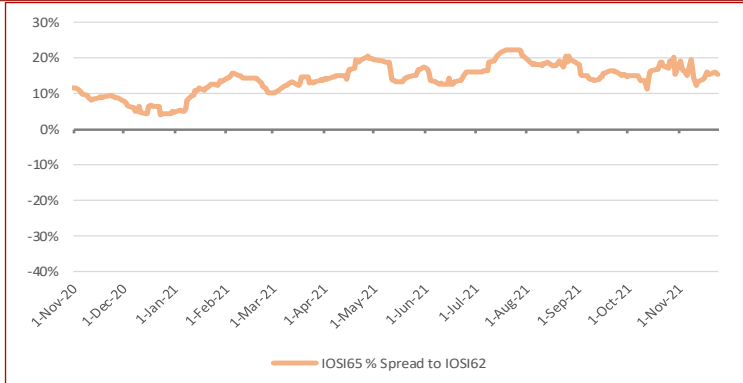
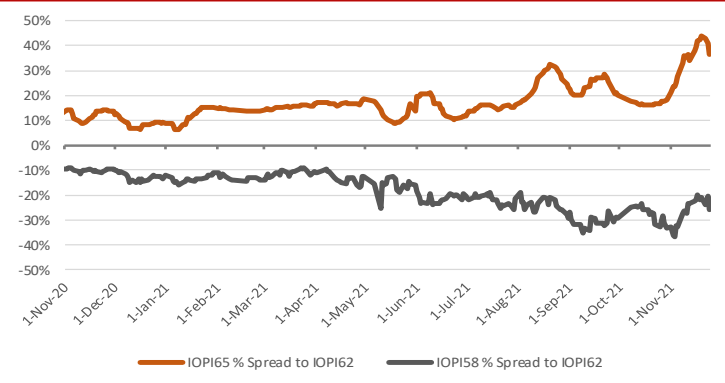
IRON ORE INDEX NORMALISATION DIFFERENTIALS

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%	24.00	0.00	1% Fe	High Grade Fe 60 - 63%	3.00	0.00
	High Grade Fe 63 - 64%	39.00	0.00		High Grade Fe 63 - 64%	2.25	0.00
	High Grade Fe 64 - 65%	39.00	0.00		High Grade Fe 64 - 65%	2.25	0.00
	High Grade Fe 65 - 65.5%	39.00	0.00		High Grade Fe 65 - 65.5%	2.25	0.00
1% Alumina	Low Grade Fe	22.00	0.00	1% Alumina	High Fe Grade Al <2.25%	1.00	0.25
	High Fe Grade Al <2.25%	31.00	0.00		High Fe Grade Al 2.25-4%	1.25	0.00
	High Fe Grade Al 2.25-4%	41.00	0.00				
	Low Fe Grade Al <2.25%	65.00	0.00				
1% Silica	Low Fe Grade Al 2.25-4%	47.00	0.00	1% Silica	High Fe Grade Si <4%	3.00	0.00
	High Fe Grade Si <4%	49.00	0.00		High Fe Grade Si 4 - 6.5%	7.50	0.00
	High Fe Grade Si 4-6.5%	15.00	0.00				
0.01% Phosphorus	Low Fe Grade	10.00	0.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	0.25	0.00
	High Fe Grade 0.09%<P<0.115%	5.00	0.00		High Fe Grade 0.115%<P<0.15%	1.00	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

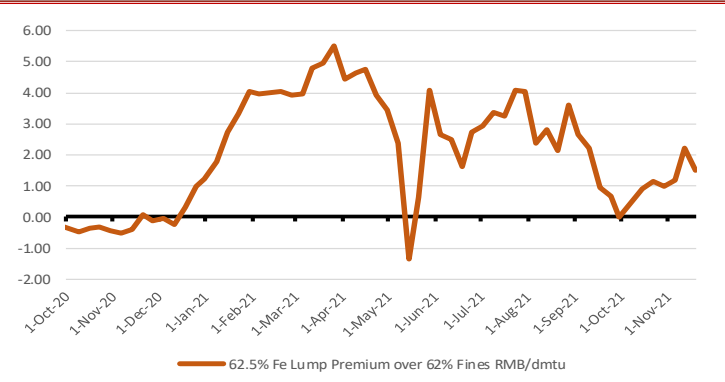
Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

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	-60.00	35.00	Lianyungang	0.00	0.00	Shekou	0.00	0.00
Caofeidian	-20.00	0.00	Jingtang	-20.00	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

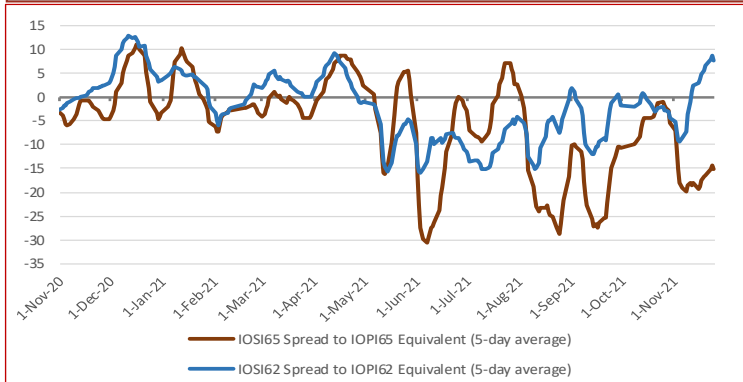
IRON ORE INDEX PREMIUMS/DISCOUNTS



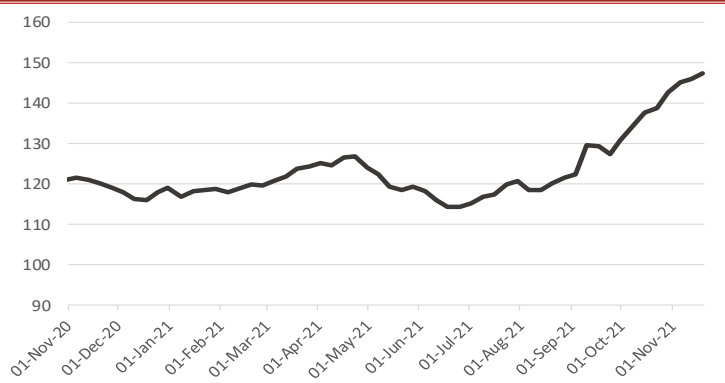
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



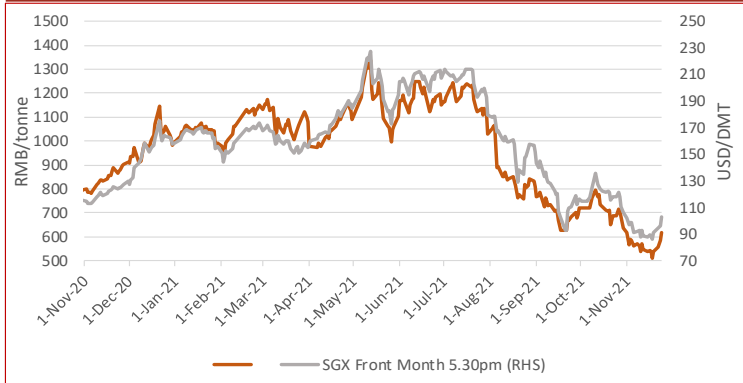
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



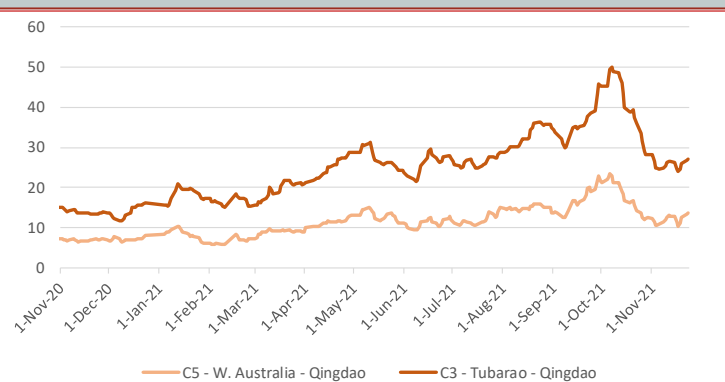
IRON ORE PORT INVENTORIES (MILLION TONNES)

Week Ending Nov 19th, 2021				
Province	This week	Change %	Low ²	High ²
Jingtang	16.21	1.00%	12.26	19.20
Qingdao	22.37	-1.76%	9.41	23.96
Caofeidian	15.50	2.24%	11.25	16.25
Tianjin	11.18	2.76%	7.14	11.28
Rizhao	15.84	1.73%	9.44	15.84
Total (35 Ports)	147.33	0.83%	98.80	147.33

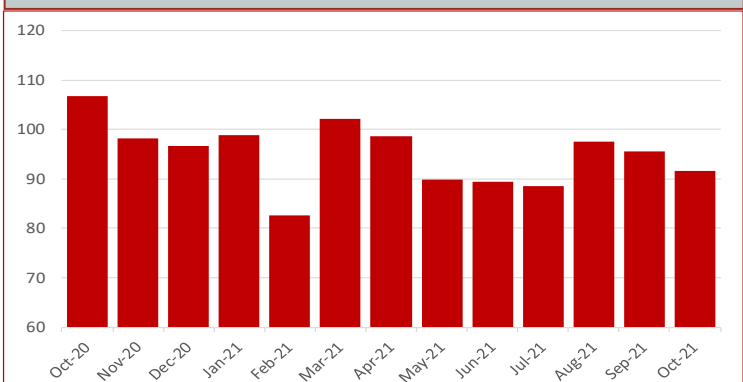
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	Nov 24th, 3pm close			Nov 24th, 5:30pm		
Contract	I2201	Change	Change %	Nov. 21	Change	Change %
Closing Price	616.50	29.50	5.03%	103.30	6.77	7.01%
Vol traded ('000 lots)	85.81	-9.76	-10.21%	4.13	0.57	15.97%
Open positions ('000 lots)	38.30	-2.06	-5.09%	20.43	0.47	2.37%
Day Low	585.5	27.50	4.93%	97.10	3.10	3.30%
Day High	620.5	22.00	3.68%	103.35	-1.25	-1.20%

DRY BULK FREIGHT RATES (USD/MT)



TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)



STEEL SPOT MARKET PRICES—CHINA

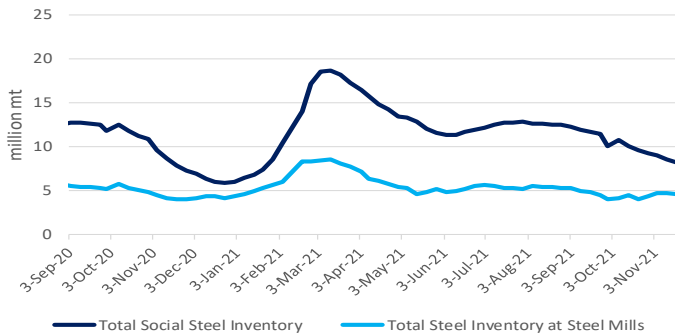
Product	2021/11/19	Change	Change %
ReBar HRB400 φ18mm	4,740	-130	-2.67%
Wirerod Q300 φ6.5mm	5,060	-120	-2.32%
HRC Q235/SS400 5.5mm*1500*C	4,660	-120	-2.51%
CRC SPCC/ST12 1.0mm*1250*2500	5,440	-290	-5.06%
Medium & Heavy Plate Q235B 20mm	5,060	-120	-2.32%
GI ST02Z 1.0mm*1000*C	5,680	-170	-2.91%
Colour Coated Plate	8,450	-200	-2.31%

CHINESE STEEL MILL PROFITABILITY

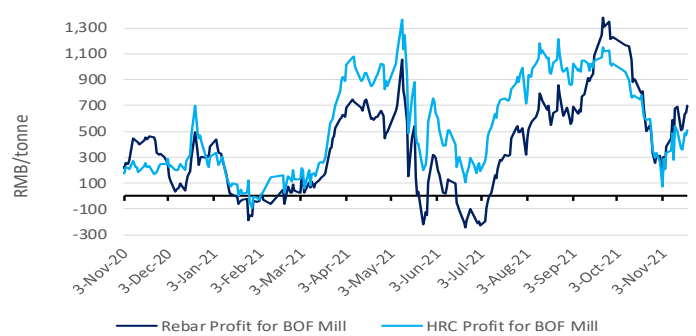
SMM Tracking of Steel Mill P&L - Rebar and Hot-rolled Coil (RMB/tonne)			
Category	Price	Change (WoW)	Note
MMi (Fe 62%), USD/mt excluding tax	93.75	-3	Mmi CFR Equivalent index for 1st Feb
Coke	3,210	-400	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	3,240	-70	steel scrap (6mm) in Zhangjiagang, excl. tax
Billet Cost	3,502	-497	Q234, incl. tax
Rebar cost - Blast furnace	3,970	-284	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	700	10	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	4,151	-128	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	509	8	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

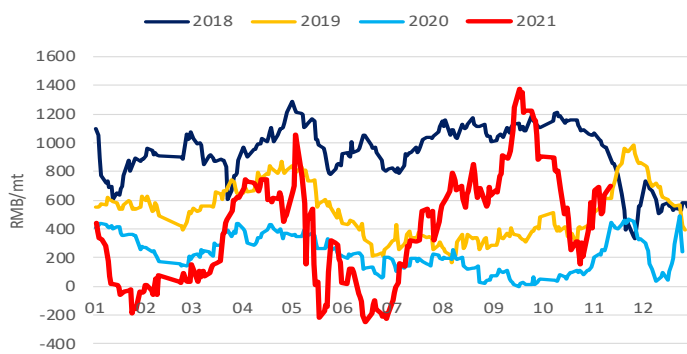
CHINESE STEEL INVENTORIES



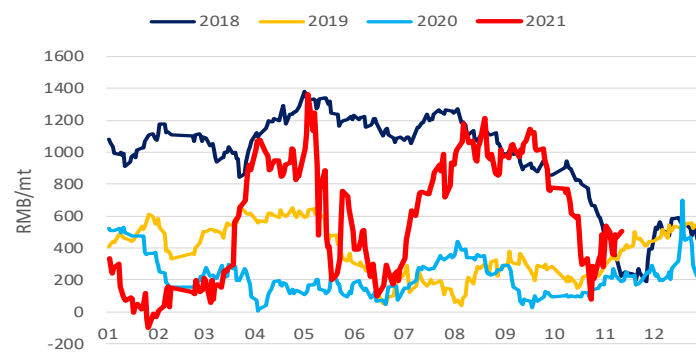
CHINESE STEEL MILL PROFITABILITY



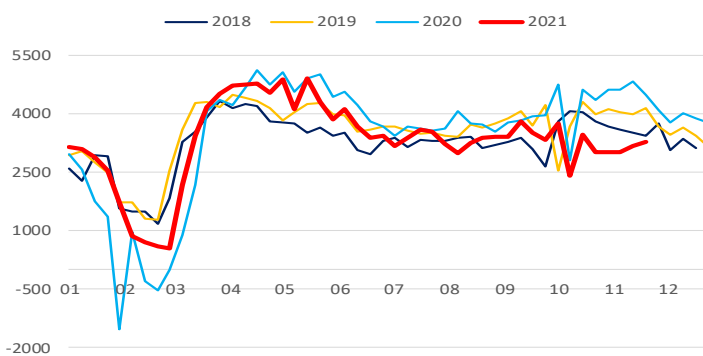
CHINESE STEEL MILL PROFITABILITY—Rebar



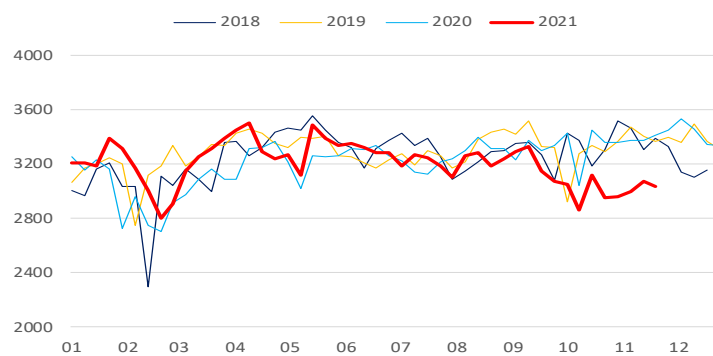
CHINESE STEEL MILL PROFITABILITY—Hot-rolled Coil



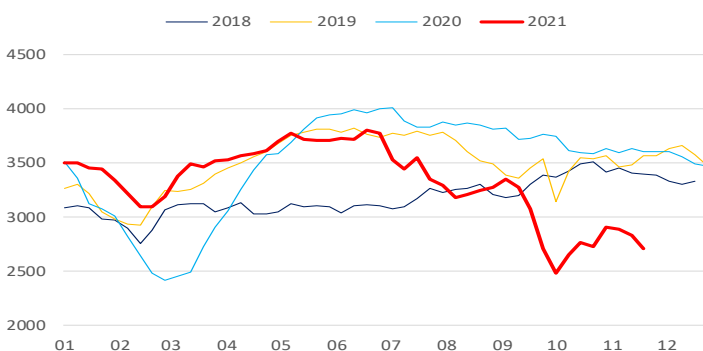
CHINESE STEEL CONSUMPTION—Rebar



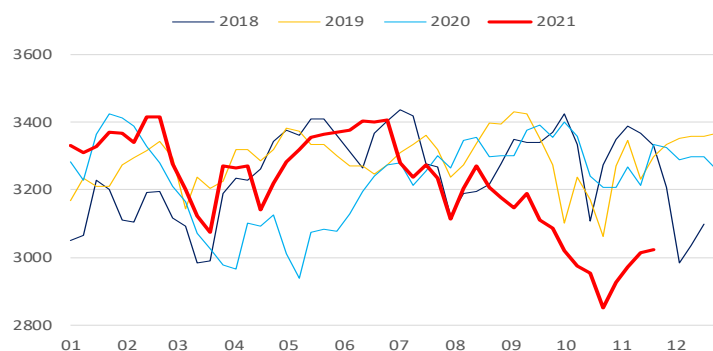
CHINESE STEEL CONSUMPTION—Hot-rolled Coil



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: www.mmiprices.com																				
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%	<table border="1"> <thead> <tr> <th colspan="4">Data Exclusions*</th> </tr> <tr> <th></th> <th>62%</th> <th>58%</th> <th>65%</th> </tr> </thead> <tbody> <tr> <td>Port Index</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Seaborne index</td> <td>0</td> <td></td> <td>0</td> </tr> <tr> <td>Lump Index 62.5</td> <td>0</td> <td></td> <td></td> </tr> </tbody> </table>	Data Exclusions*					62%	58%	65%	Port Index	0	0	0	Seaborne index	0		0	Lump Index 62.5	0		
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	62%	58%	65%																						
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Lump Index 62.5	0																								
Pricing Point	Qingdao Port (FOT and CFR respectively)			FOT Qingdao Port	* Number of price submissions for iron ore indices that were excluded from index calculations today as they were anomalous and could not be verified																				
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																					

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 24th, 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 24th, 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	IRCN0034	
IOPI58	IRCNQ002		IRCNQ005	IRCN0035	
IOPI65	IRCNQ003		IRCNQ006		
IOPLI62	IRCN0036		IRCN0037		

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