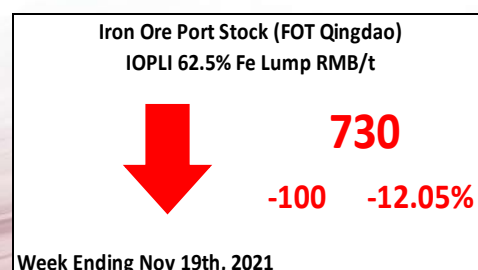
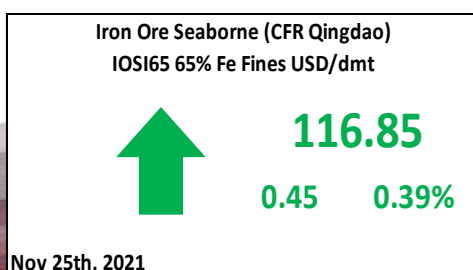
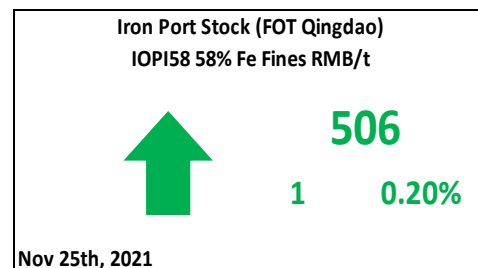
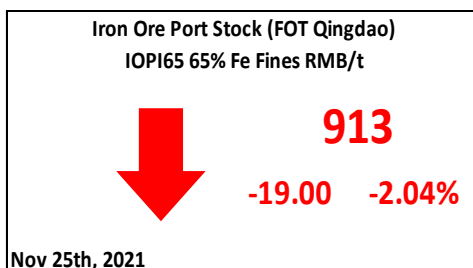
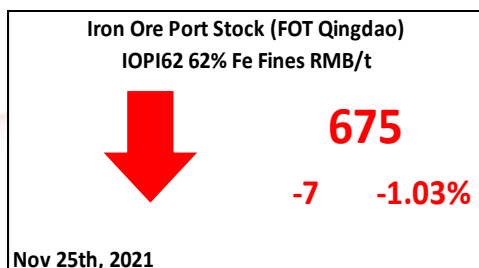


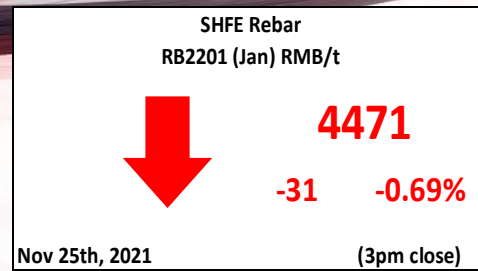
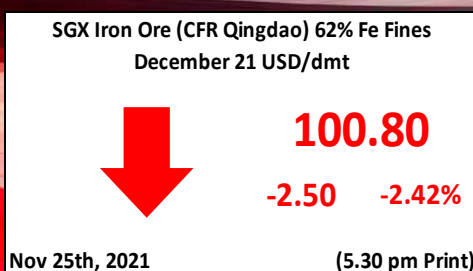
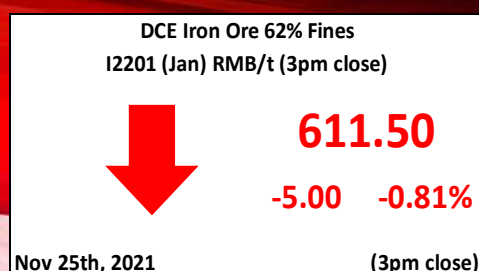


MMi Dashboard

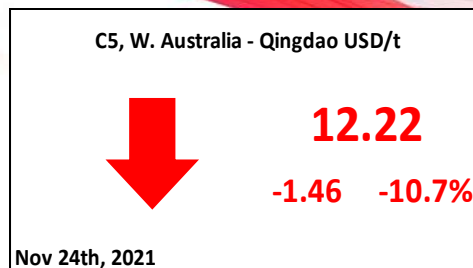
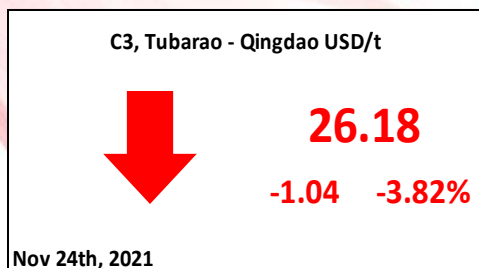
Iron Ore Price Indices



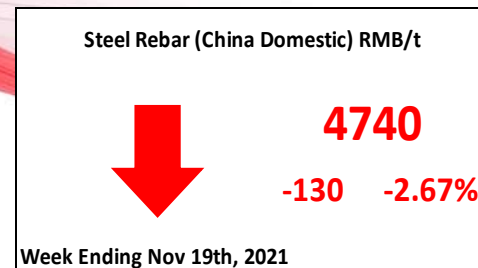
Exchange Traded Contracts



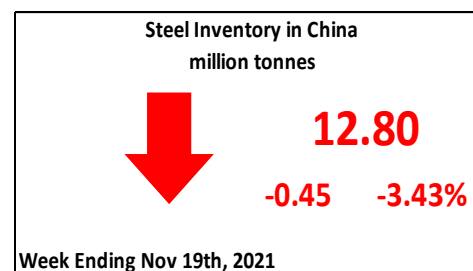
Freight Rates



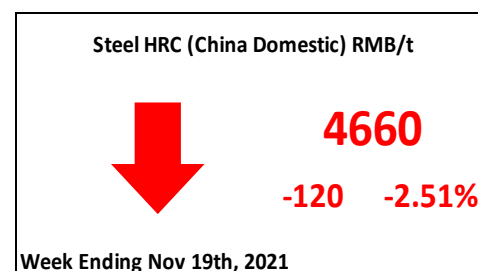
Steel Price



Inventory Levels



Steel Price



IRON ORE PORT STOCK INDEX (IOPI)

Nov 25th, 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	675	-7	-1.0%	675	1183	587	1680	97.27	-1.17	-1.2%	97.24	171.93	84.25	247.30
IOPI58	58% Fe Fines	506	1	0.2%	493	955	454	1421	72.65	0.06	0.1%	70.73	139.43	64.78	210.83
IOPI65	65% Fe Fines	913	-19	-2.0%	903	1387	843	1894	133.06	-3.02	-2.2%	131.54	202.27	122.83	278.61

IRON ORE SEABORNE INDEX (IOSI)

MARKET COMMENTARY

Nov 25th, 2021		CFR Qingdao, USD/dry tonne							DCE iron ore futures continued to fluctuate in a day, the main contract closed 611.5 and an increase of 1.83% throughout the day, the quotation in the morning was increased by 10-20 yuan/mt over yesterday, some traders were active to sell. Some steel mills tended to be wait-and-see, today's overall market transaction atmosphere is poor. PBF at Shandong port dealt 675 yuan/mt, the same as yesterday. According to SMM research, this week SMM's blast furnace operating rate was 78.9% on down 0.59% month-on-week and up 1.22% month-on-month. This week, some blast furnaces in Baowu system resumed production, but the overall blast furnace operation rate still declined slightly under the influence of the shutdown of steel enterprises in north China, southwest China and east China and the impact of blast furnace maintenance. In addition, environmental protection management and control policies in Hebei have been relaxed, and it is expected that blast furnace production will continue to increase, and special attention should be paid to the influence of actual resumption of blast furnace production on hot metal in the later period.							
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low ²	High ²								
IOSI62	62% Fe Fines	101.30	0.40	0.40%	98.44	167.38	93.75	230.50								
IOSI65	65% Fe Fines	116.85	0.45	0.39%	113.78	193.49	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

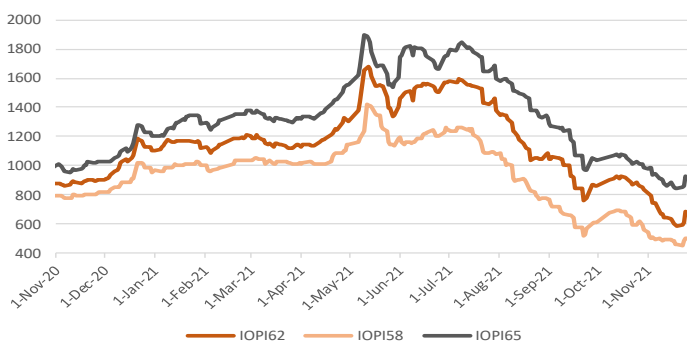
IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

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

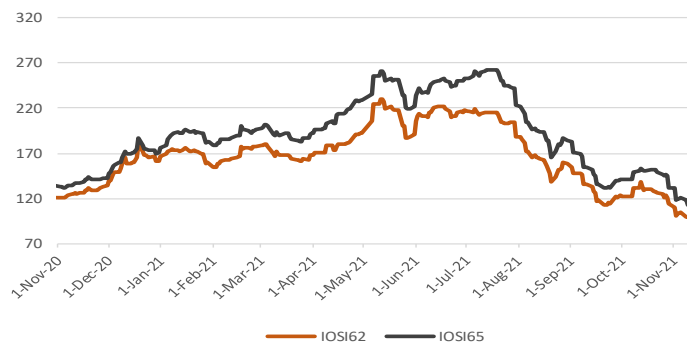
Week Ending Nov 19th, 2021		This week	Change %	Low ²	High ²
China Mines Concentrate Composite Index RMB/WT		828.99	-4.53%	706.36	1511.22

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 25th, 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	774	1183	170.18	135.90	135.31	129.57	97.24	112.02	171.93
IOPI58	58% Fe Fines	1186	894	648	646	493	563	955	130.00	93.62	93.31	93.69	70.73	81.22	139.43
IOPI65	65% Fe Fines	1750	1466	1152	1043	903	967	1387	213.59	214.41	214.06	152.11	131.54	140.95	202.27

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

FREIGHT RATES

Nov 25th, 2021		CFR Qingdao, USD/dry tonne							Nov 24th, 2021						
Index	Fe Content	July	August	September	October	MTD	QTD	YTD	FREIGHT RATES - DRY BULK US\$/wet tonne						
									Route	Designation	Change	Change %	Low ²	High ²	
IOSI62	62% Fe Fines	211.65	162.80	128.43	127.04	98.44	113.35	167.38	W. Australia - Qingdao	C5	12.22	-1.46	-10.67%	3.57	16.77
IOSI65	65% Fe Fines	254.36	192.73	148.09	147.37	113.78	131.41	193.49	Tubarao - Qingdao	C3	26.18	-1.04	-3.82%	6.70	36.40

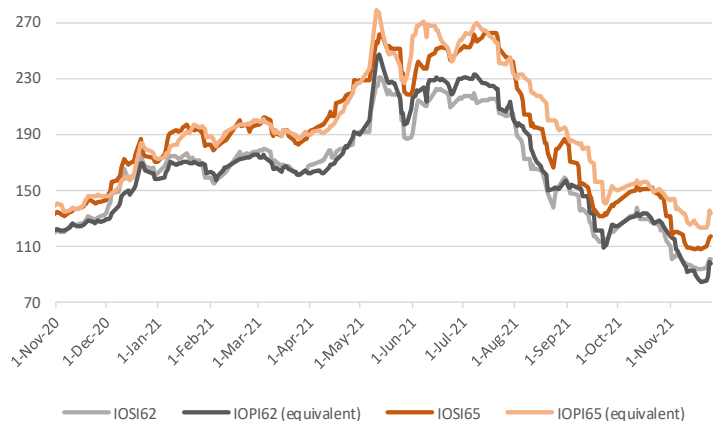
IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

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 25th, 2021		PORT STOCK INDEX (RMB/WT)		Nov 25th, 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	-169	-25.04%	IOSI65	65% Fe Fines	15.55	15.35%
IOPI65	65% Fe Fines	238	35.26%				

IRON ORE INDEX COMPARISONS (USD/DMT)



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



IRON ORE BRAND SPOT PRICE ASSESSMENTS

Nov 25th, 2021				Nov 25th, 2021			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	625	-10	-50	Roy Hill	96.80	0.40	-4.50
SIMEC Fines	589	-21	-86	SIMEC Fines	93.30	0.40	-8.00
PB Fines	654	-8	-21	PB Fines	100.05	0.40	-1.25
Newman Fines	687	-7	12	Newman Fines	101.20	0.40	-0.10
MAC Fines	620	-12	-55	MAC Fines	97.20	0.40	-4.10
Jimblebar Blended Fines	578	-14	-97	Jimblebar Blended Fines	90.55	0.40	-10.75
Carajas Fines	897	-19	222	Carajas Fines	130.85	0.40	29.55
Brazilian SSF	676	-22	1	Brazilian SSF	105.05	0.40	3.75
Brazilian Blend Fines	687	-12	12	Brazilian Blend Fines	106.70	0.40	5.40
RTX Fines	582	-14	-93	RTX Fines	91.20	0.40	-10.10
West Pilbara Fines	608	-12	-67	West Pilbara Fines	95.55	0.40	-5.75

Nov 25th, 2021			
PORT STOCK INDEX (RMB/WT)			
	Price	Change	Diff to IOPI58
SSF	505	1	-1
FMG Blended Fines	510	1	4
Robe River	509	1	3
Western Fines	515	1	9
Atlas Fines	506	1	0
Yandi	503	1	-3

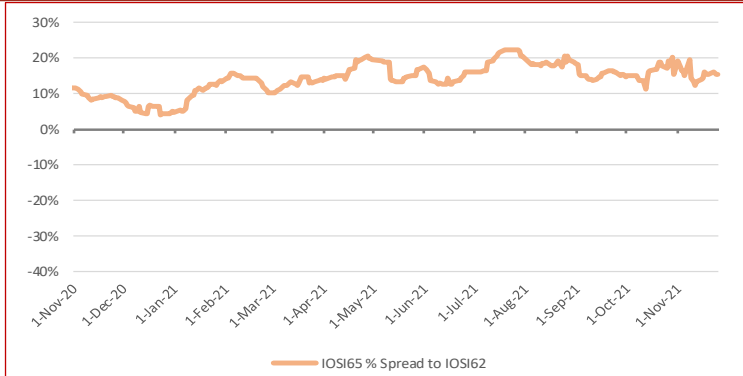
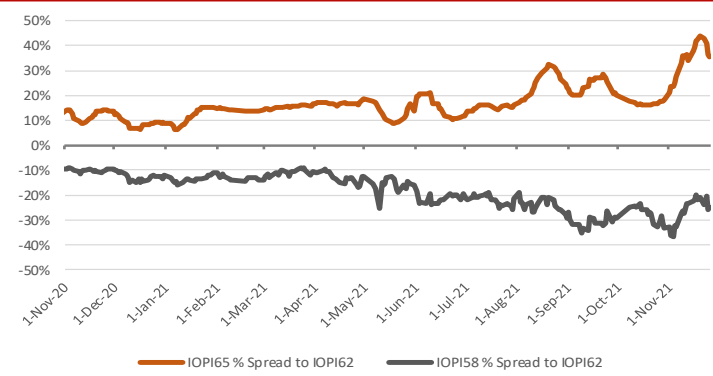
IRON ORE INDEX NORMALISATION DIFFERENTIALS

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%	25.00	1.00	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	18.00	-4.00	1% Alumina	High Fe Grade Al <2.25%	1.00	0.00
	High Fe Grade Al <2.25%	29.00	-2.00		High Fe Grade Al 2.25-4%	1.25	0.00
	High Fe Grade Al 2.25-4%	46.00	5.00				
	Low Fe Grade Al <2.25%	68.00	3.00				
1% Silica	Low Fe Grade Al 2.25-4%	42.00	-5.00	1% Silica	High Fe Grade Si <4%	3.00	0.00
	High Fe Grade Si <4%	44.00	-5.00		High Fe Grade Si 4 - 6.5%	7.50	0.00
0.01% Phosphorus	High Fe Grade Si 4-6.5%	20.00	5.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	0.25	0.00
	Low Fe Grade	5.00	-5.00		High Fe Grade 0.115%<P<0.15%	1.00	0.00
	High Fe Grade 0.09%<P<0.115%	5.00	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				

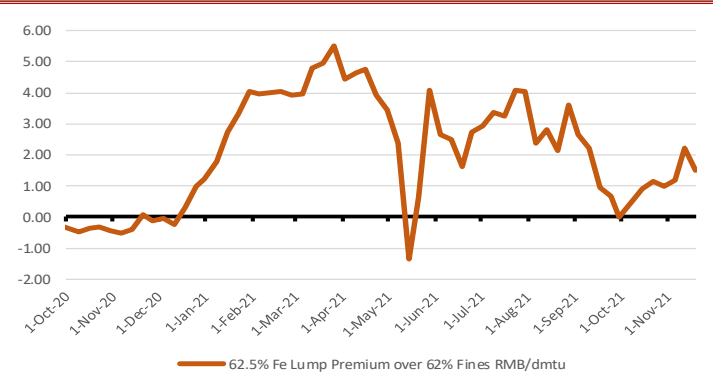
Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

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	0.00	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

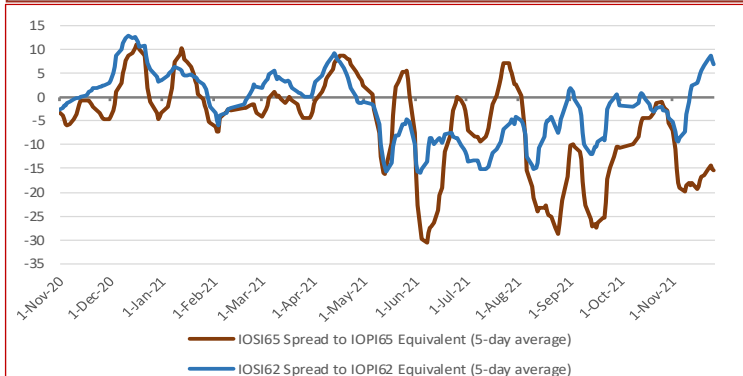
IRON ORE INDEX PREMIUMS/DISCOUNTS



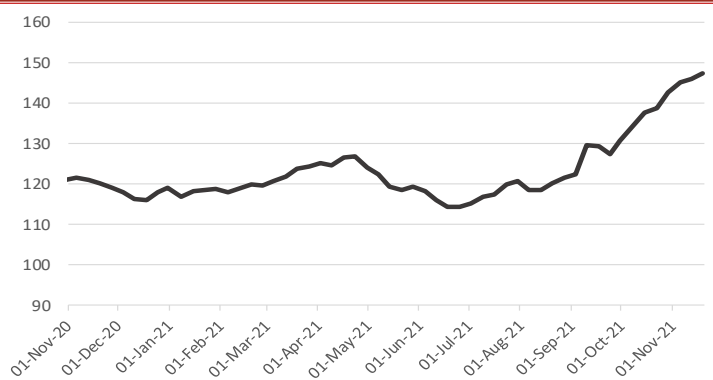
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



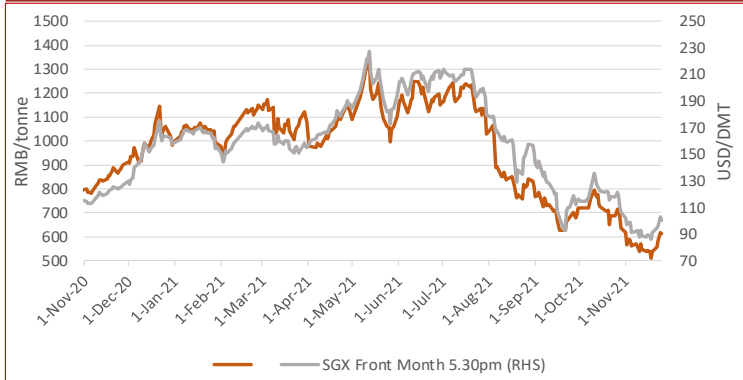
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



IRON ORE PORT INVENTORIES (MILLION TONNES)

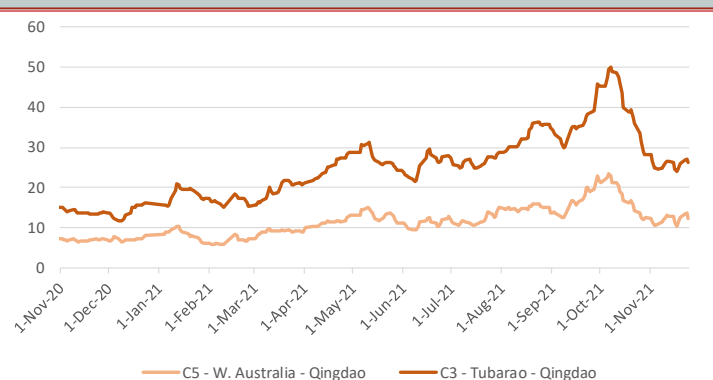
Week Ending Nov 19th, 2021

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

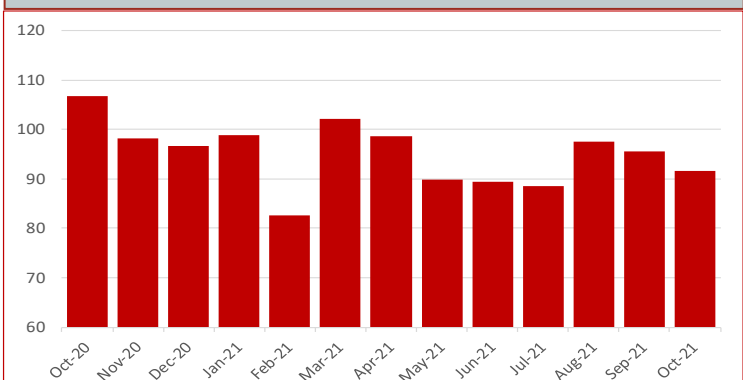
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	Nov 25th, 3pm close			Nov 25th, 5:30pm		
Contract	I2201	Change	Change %	Nov. 21	Change	Change %
Closing Price	611.50	-5.00	-0.81%	100.80	-2.50	-2.42%
Vol traded ('000 lots)	69.98	-15.83	-18.45%	3.25	-0.88	-21.28%
Open positions ('000 lots)	37.14	-1.16	-3.03%	20.71	0.28	1.37%
Day Low	604.0	18.50	3.16%	100.20	3.10	3.19%
Day High	629.0	8.50	1.37%	106.10	2.75	2.66%

DRY BULK FREIGHT RATES (USD/MT)



TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)



STEEL SPOT MARKET PRICES—CHINA

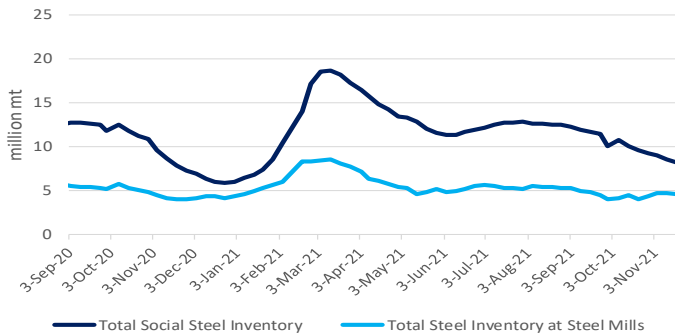
Product	2021/11/19	Change	Change %
ReBar HRB400 φ18mm	4,740	-130	-2.67%
Wirerod Q300 φ6.5mm	5,060	-120	-2.32%
HRC Q235/SS400 5.5mm*1500*C	4,660	-120	-2.51%
CRC SPCC/ST12 1.0mm*1250*2500	5,440	-290	-5.06%
Medium & Heavy Plate Q235B 20mm	5,060	-120	-2.32%
GI ST02Z 1.0mm*1000*C	5,680	-170	-2.91%
Colour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

CHINESE STEEL MILL PROFITABILITY

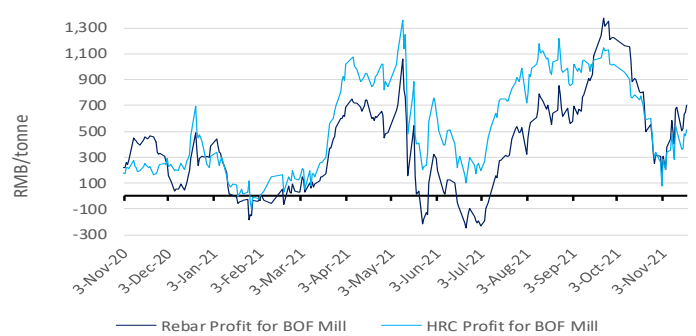
SMM Tracking of Steel Mill P&L - Rebar and Hot-rolled Coil (RMB/tonne)			
Category	Price	Change (WoW)	Note
MMi (Fe 62%), USD/mt excluding tax	93.75	-3	Mmi CFR Equivalent index for 1st Feb
Coke	3,210	-400	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	3,240	-70	steel scrap (6mm) in Zhangjiagang, 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

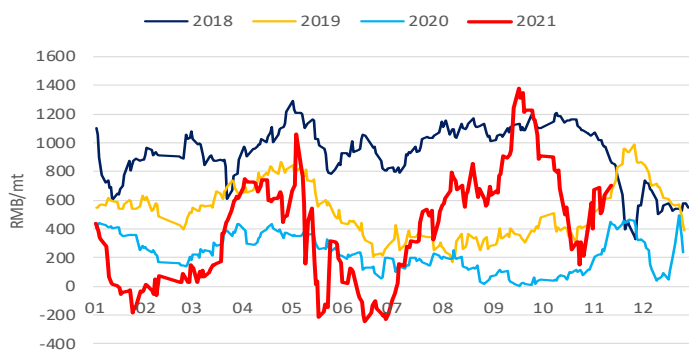
CHINESE STEEL INVENTORIES



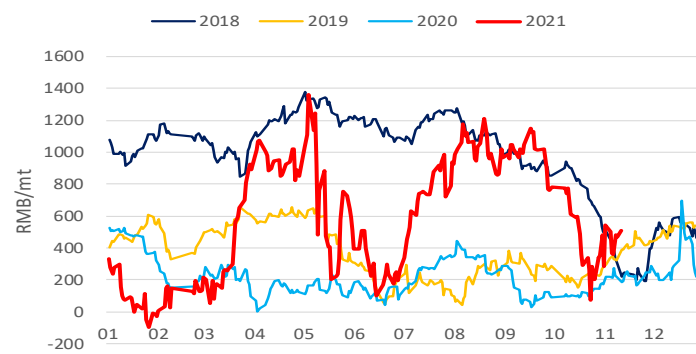
CHINESE STEEL MILL PROFITABILITY



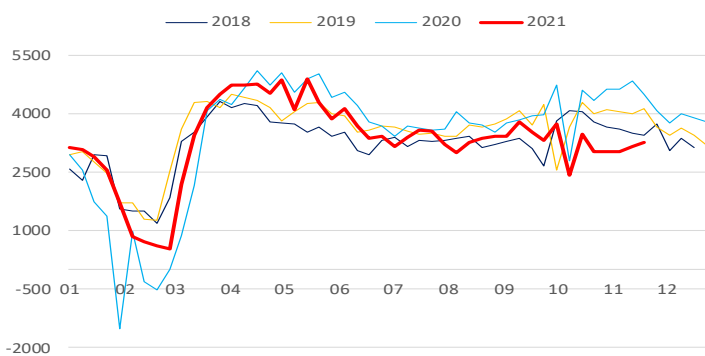
CHINESE STEEL MILL PROFITABILITY—Rebar



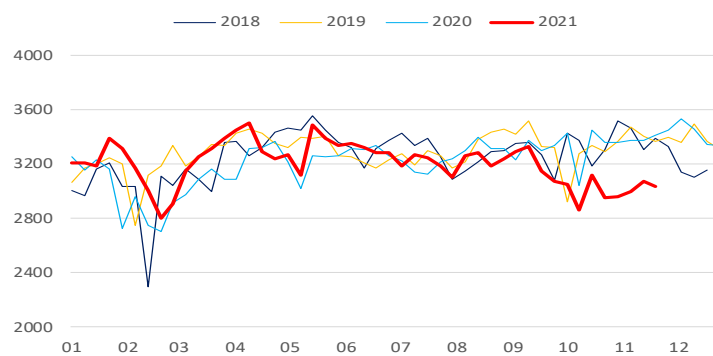
CHINESE STEEL MILL PROFITABILITY—Hot-rolled Coil



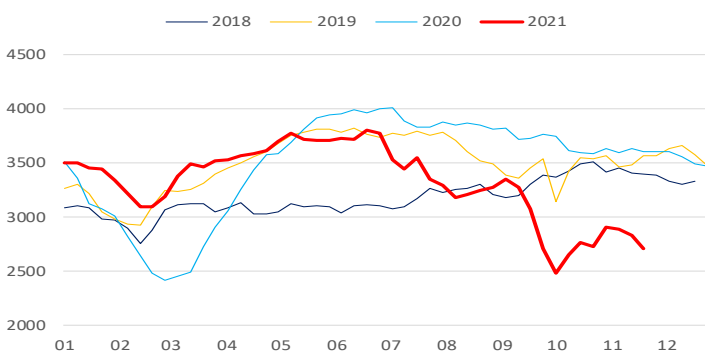
CHINESE STEEL CONSUMPTION—Rebar



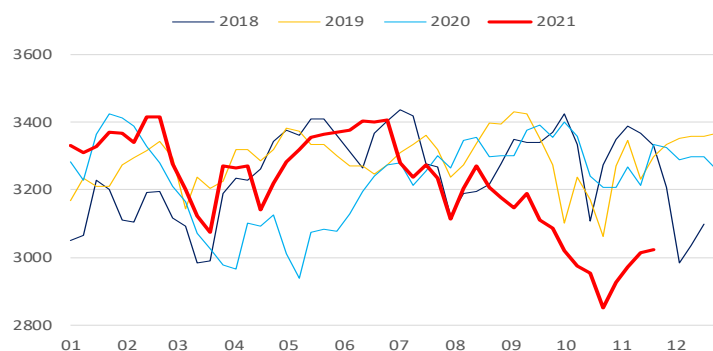
CHINESE STEEL CONSUMPTION—Hot-rolled Coil



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	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 25th, 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 25th, 2021	Specifications applied for 58% brand assessments						Specifications applied for 58% brand assessments				
	Fe	Alumina	Silica	Phos	Moisture		Fe	Alumina	Silica	Phos	Moisture
SSF	56.49%	3.20%	6.19%	0.065%	9.18%						
FMG Blended Fines	58.20%	2.43%	5.54%	0.057%	8.29%						
Robe River	56.44%	3.16%	5.73%	0.042%	8.44%						
Western Fines	57.88%	2.87%	7.50%	0.062%	7.45%						
Atlas Fines	58.00%	1.85%	5.50%	0.090%	9.00%						
Yandi	56.87%	1.58%	6.41%	0.042%	9.53%						

BLOOMBERG TICKERS

PORT STOCK INDICES				SEABORNE INDICES	
	FOT Qingdao (RMB/wet tonne)	CFR Qingdao Equivalent (USD/dry tonne)		CFR Qingdao (USD/DMT)	
IOPI62	IRCNQ001	IRCNQ004	IOSI62	IRCN0034	
IOPI58	IRCNQ002	IRCNQ005	IOSI65	IRCN0035	
IOPI65	IRCNQ003	IRCNQ006			
IOPLI62	IRCN0036	IRCN0037			

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