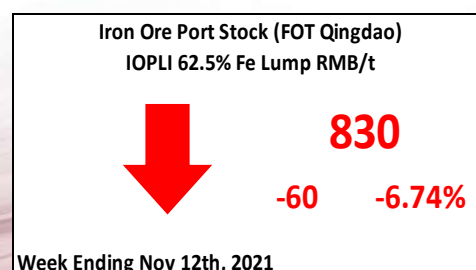
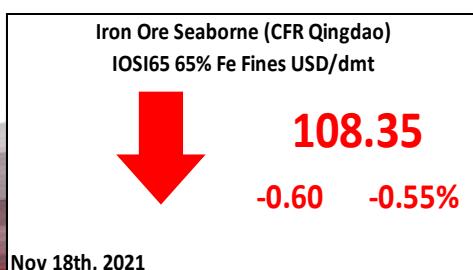
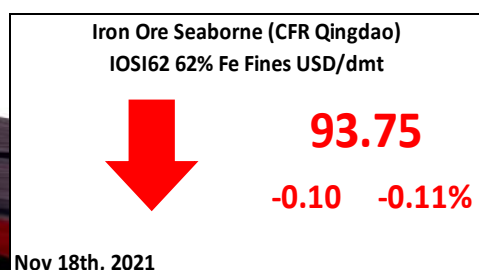
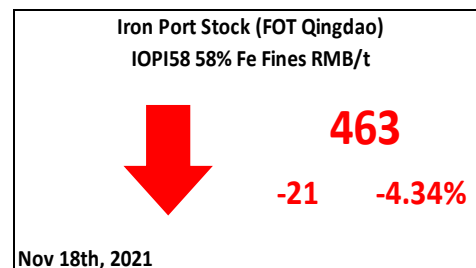
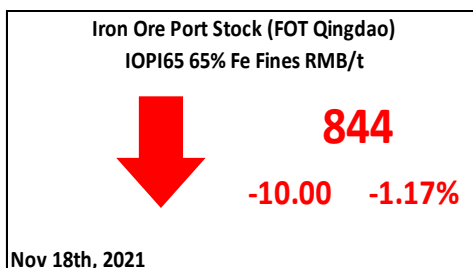
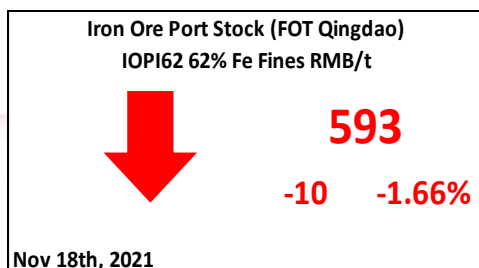


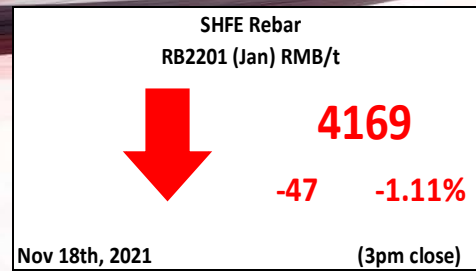
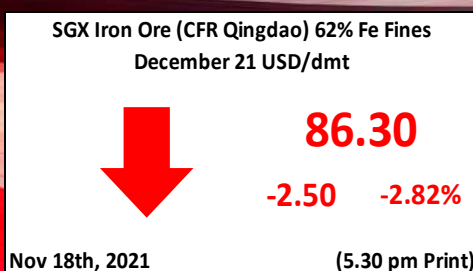
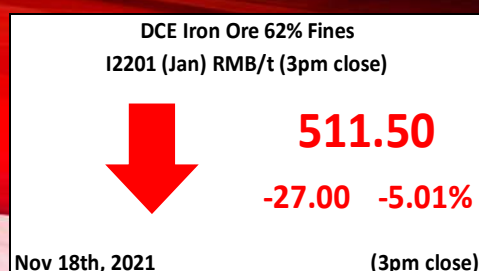


MMi Dashboard

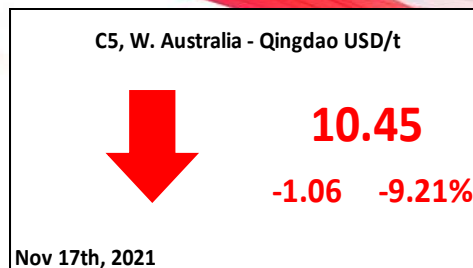
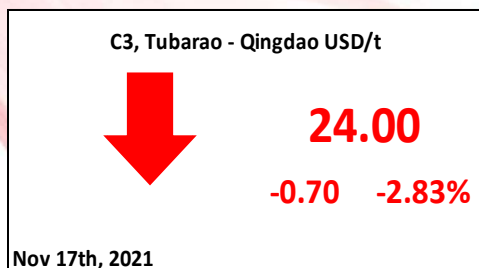
Iron Ore Price Indices



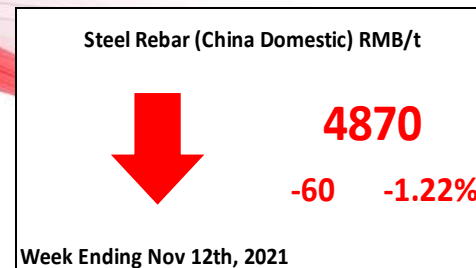
Exchange Traded Contracts



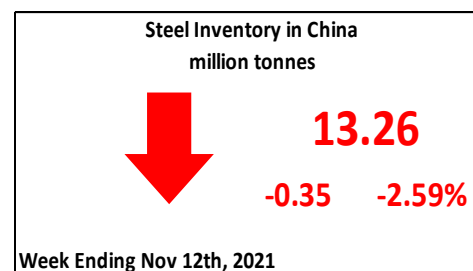
Freight Rates



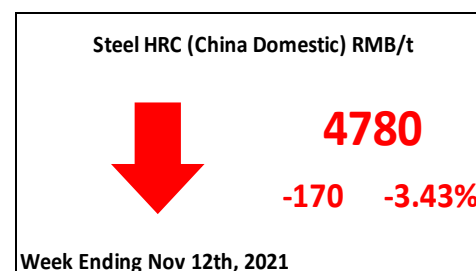
Steel Price



Inventory Levels



Steel Price



IRON ORE PORT STOCK INDEX (IOPI)

Nov 18th, 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	593	-10	-1.7%	690	1196	593	1680	85.18	-1.33	-1.5%	99.57	173.84	85.18	247.30
IOPI58	58% Fe Fines	463	-21	-4.3%	497	966	463	1421	66.30	-3.06	-4.4%	71.25	141.09	66.30	210.83
IOPI65	65% Fe Fines	844	-10	-1.2%	911	1399	844	1894	123.02	-1.25	-1.0%	132.70	204.01	123.02	278.61

IRON ORE SEABORNE INDEX (IOSI)

Nov 18th, 2021		CFR Qingdao, USD/dry tonne							MARKET COMMENTARY							
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low ²	High ²	DCE iron ore futures market falling sharply trends , as low as 489.5, an decrease of 4.28% throughout the day, the quotation in the morning was decreased by 10yuan/mt over yesterday, as the disk continues to decline , part of the business quotation shipping mentality turn weak , some traders lowered their offer, and steel mills purchased on demand, today's overall market transaction atmosphere in general. PBF at Shandong port dealt 570 yuans/mt, decreased 20-25 yuan/mt over yesterday. PBF at Tangshan port dealt 565-570 yuan/mt, decreased 20-25 yuan/mt over yesterday. According to SMM research, this week SMM's blast furnace operating rate was 9.49% on, down 0.17% month-on-week and up 1.03% month-on-month. The main reason is that north China is affected by the decline of steel profits and environmental protection production limits, some blast furnaces open for maintenance, while the northeast individual blast furnaces resume production, the overall operating rate level is basically stable. On the other hand, many places in the north recently appeared fog weather, Hebei, Shandong, Liaoning many places issued a red alert, for the steel mill sintering machine had to upgrade again, the weak iron ore demand further reduce, iron ore weak pattern will continue.							
IOSI62	62% Fe Fines	93.75	-0.10	-0.11%	98.80	168.95	93.75	230.50								
IOSI65	65% Fe Fines	108.35	-0.60	-0.55%	114.16	195.31	108.20	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

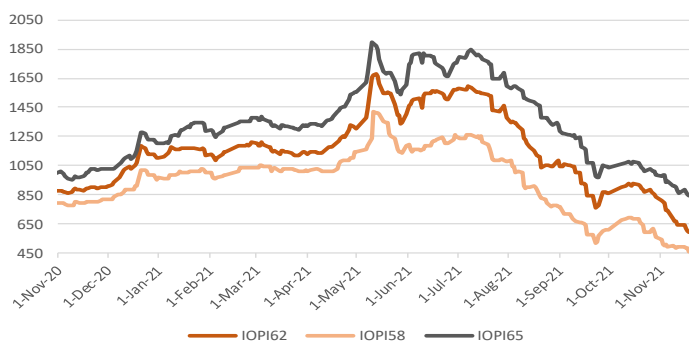
Week Ending Nov 12th, 2021				RMB/tonne (excluding tax) ³				USD/tonne (excluding tax) ³			
Province	Region	Product	Basis	This week	Change %	Low ²	High ²	This week	Change %	Low ²	High ²
Hebei	Hanxing	66% Fe Concentrate	Dry	850	-12.4%	779	1645	132.80	-12.32%	110.31	255.69
Hebei	Qian'an	65% Fe Concentrate	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

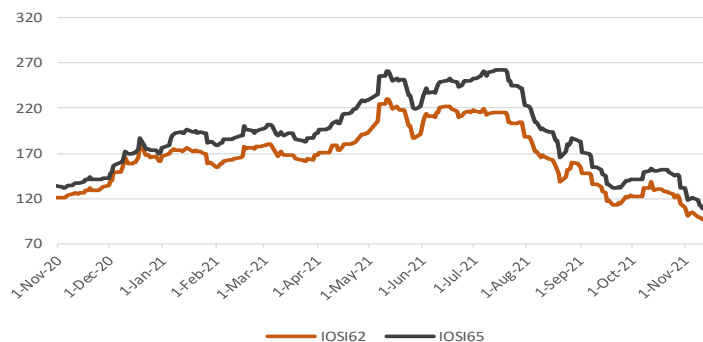
	This week	Change %	Low ²	High ²
China Mines Concentrate Composite Index RMB/WT	868.33	-5.84%	706.36	1511.22

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 18th, 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	690	798	1196	170.18	135.90	135.31	129.57	99.57	115.57	173.84
IOPI58	58% Fe Fines	1186	894	648	646	497	577	966	130.00	93.62	93.31	93.69	71.25	83.21	141.09
IOPI65	65% Fe Fines	1750	1466	1152	1043	911	981	1399	213.59	214.41	214.06	152.11	132.70	143.05	204.01

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

Nov 18th, 2021		CFR Qingdao, USD/dry tonne							FREIGHT RATES - DRY BULK US\$/wet tonne						
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	98.80	115.68	168.95	W. Australia - Qingdao	C5	10.45	-1.06	-9.21%	3.57	16.77
IOSI65	65% Fe Fines	254.36	192.73	148.09	147.37	114.16	134.14	195.31	Tubarao - Qingdao	C3	24.00	-0.70	-2.83%	6.70	36.40

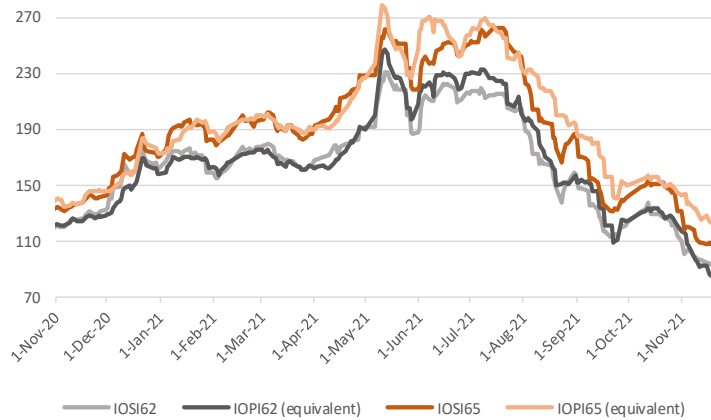
IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

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 18th, 2021		PORT STOCK INDEX (RMB/WT)		SEABORNE INDEX (USD/DMT)	
Index	Fe Content	Spread to IOPI62	% Spread to IOPI62	Index	Fe Content
IOPI58	58% Fe Fines	-130	-21.92%	IOSI65	65% Fe Fines
IOPI65	65% Fe Fines	251	42.33%		

IRON ORE INDEX COMPARISONS (USD/DMT)



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



IRON ORE BRAND SPOT PRICE ASSESSMENTS

Nov 18th, 2021				Nov 18th, 2021			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	555	-10	-38	Roy Hill	89.25	-0.10	-4.50
SIMEC Fines	548	-10	-45	SIMEC Fines	85.75	-0.10	-8.00
PB Fines	576	-10	-17	PB Fines	92.50	-0.10	-1.25
Newman Fines	604	-10	11	Newman Fines	93.65	-0.10	-0.10
MAC Fines	554	-10	-39	MAC Fines	89.65	-0.10	-4.10
Jimblebar Blended Fines	518	-10	-75	Jimblebar Blended Fines	83.00	-0.10	-10.75
Carajas Fines	826	-10	233	Carajas Fines	123.30	-0.10	29.55
Brazilian SSF	637	-10	44	Brazilian SSF	97.50	-0.10	3.75
Brazilian Blend Fines	619	-10	26	Brazilian Blend Fines	99.15	-0.10	5.40
RTX Fines	523	-10	-70	RTX Fines	83.65	-0.10	-10.10
West Pilbara Fines	543	-10	-50	West Pilbara Fines	88.00	-0.10	-5.75

Nov 18th, 2021			
PORT STOCK INDEX (RMB/WT)			
	Price	Change	Diff to IOPI58
SSF	462	-21	-1
FMG Blended Fines	467	-21	4
Robe River	466	-21	3
Western Fines	471	-21	8
Atlas Fines	463	-21	0
Yandi	460	-21	-3

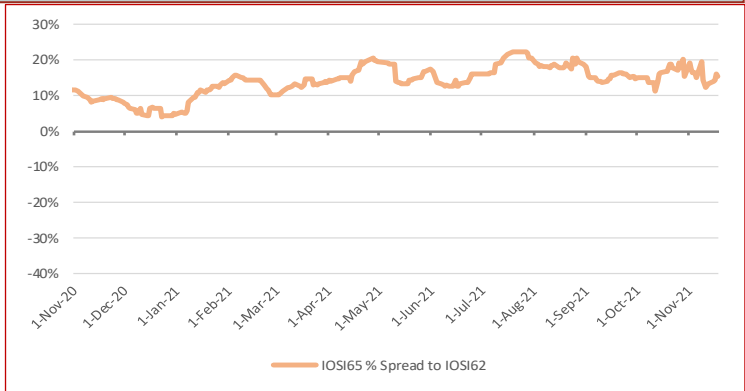
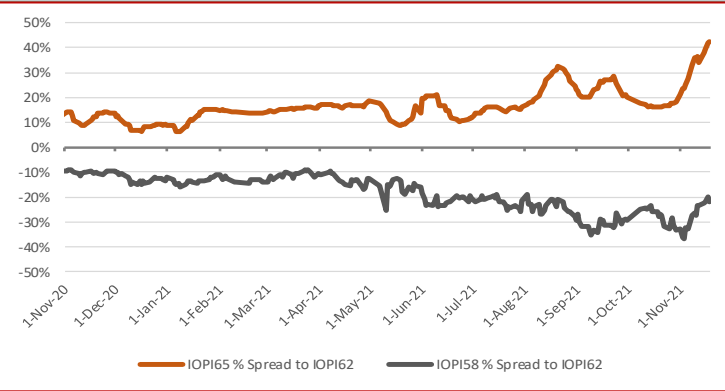
IRON ORE INDEX NORMALISATION DIFFERENTIALS

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	0.00	1% Fe	High Grade Fe 60 - 63%	3.00	0.00
	High Grade Fe 63 - 64%	36.00	0.00		High Grade Fe 63 - 64%	2.25	0.00
	High Grade Fe 64 - 65%	36.00	0.00		High Grade Fe 64 - 65%	2.25	0.00
	High Grade Fe 65 - 65.5%	36.00	0.00		High Grade Fe 65 - 65.5%	2.25	0.00
1% Alumina	Low Grade Fe	25.00	0.00	1% Alumina	High Fe Grade Al <2.25%	0.50	0.00
	High Fe Grade Al <2.25%	34.00	0.00		High Fe Grade Al 2.25-4%	1.50	-0.25
	High Fe Grade Al 2.25-4%	30.00	0.00				
	Low Fe Grade Al <2.25%	64.00	0.00				
1% Silica	Low Fe Grade Al 2.25-4%	52.00	0.00	1% Silica	High Fe Grade Si <4%	3.00	0.00
	High Fe Grade Si <4%	51.00	0.00		High Fe Grade Si 4 - 6.5%	7.50	-0.25
0.01% Phosphorus	High Fe Grade Si 4-6.5%	5.00	0.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	0.25	0.00
	Low Fe Grade	17.00	0.00		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				

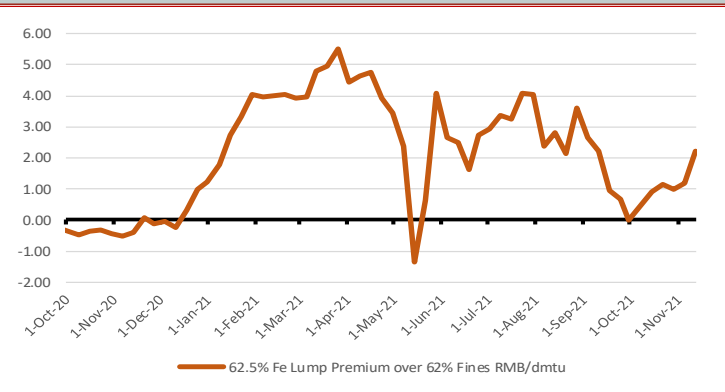
Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

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	-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

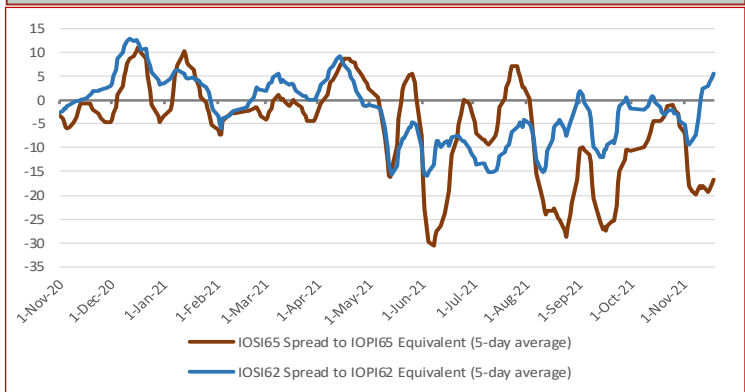
IRON ORE INDEX PREMIUMS/DISCOUNTS



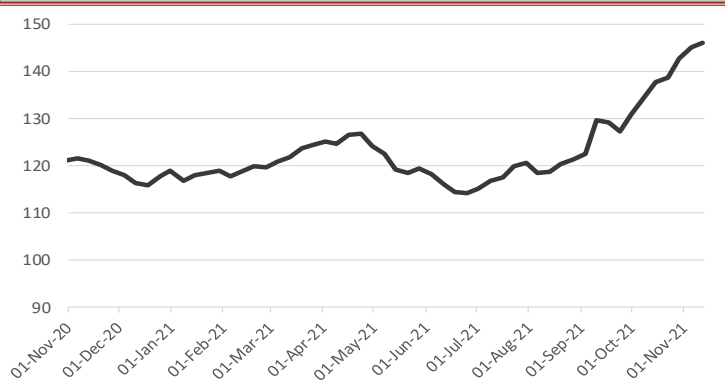
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



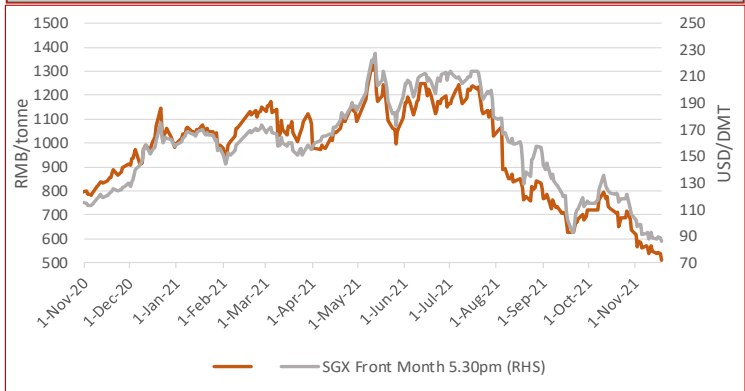
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



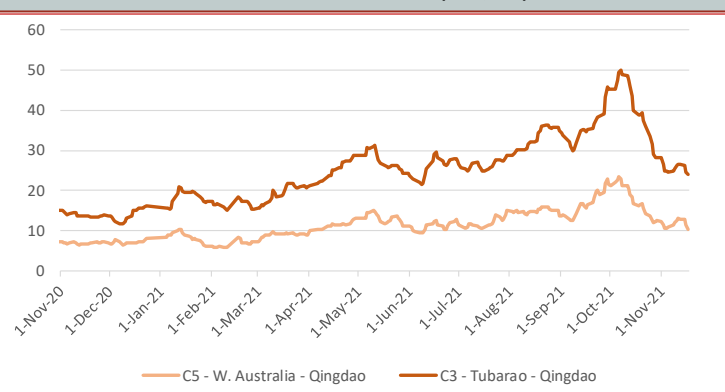
IRON ORE PORT INVENTORIES (MILLION TONNES)

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

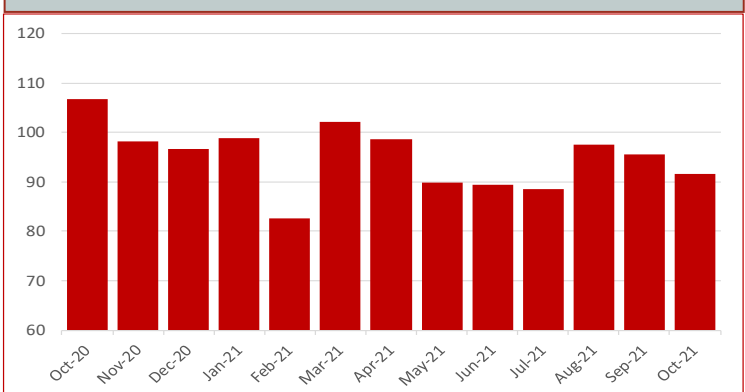
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	Nov 18th, 3pm close			Nov 18th, 5:30pm		
Contract	I2201	Change	Change %	Nov. 21	Change	Change %
Closing Price	511.50	-27.00	-5.01%	86.30	-2.50	-2.82%
Vol traded ('000 lots)	73.05	3.42	4.91%	2.63	0.55	26.56%
Open positions ('000 lots)	51.38	3.66	7.66%	19.67	0.02	0.08%
Day Low	510.5	-20.00	-3.77%	85.70	-2.05	-2.34%
Day High	540.0	-11.50	-2.09%	89.10	-1.45	-1.60%

DRY BULK FREIGHT RATES (USD/MT)



TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)



STEEL SPOT MARKET PRICES—CHINA

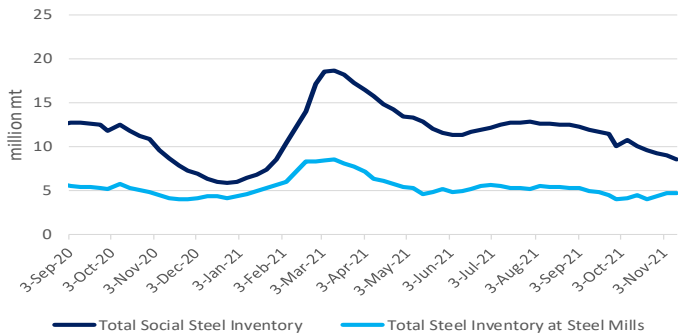
Product	2021/11/12	Change	Change %
ReBar HRB400 φ18mm	4,870	-60	-1.22%
Wirerod Q300 φ6.5mm	5,180	-60	-1.15%
HRC Q235/SS400 5.5mm*1500*C	4,780	-170	-3.43%
CRC SPCC/ST12 1.0mm*1250*2500	5,730	-180	-3.05%
Medium & Heavy Plate Q235B 20mm	5,180	-160	-3.00%
GI ST02Z 1.0mm*1000*C	5,850	-220	-3.62%
Colour Coated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

CHINESE STEEL MILL PROFITABILITY

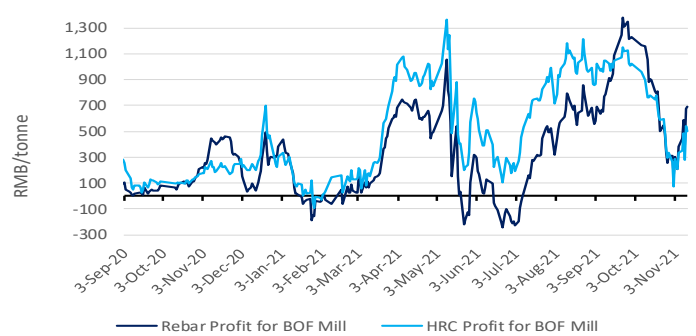
SMM Tracking of Steel Mill P&L - Rebar and Hot-rolled Coil (RMB/tonne)			
Category	Price	Change (WoW)	Note
MMi (Fe 62%), USD/mt excluding tax	96.70	-6	Mmi CFR Equivalent index for 1st Feb
Coke	3,610	-400	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	3,310	-100	steel scrap (6mm) in Zhangjiagang, 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

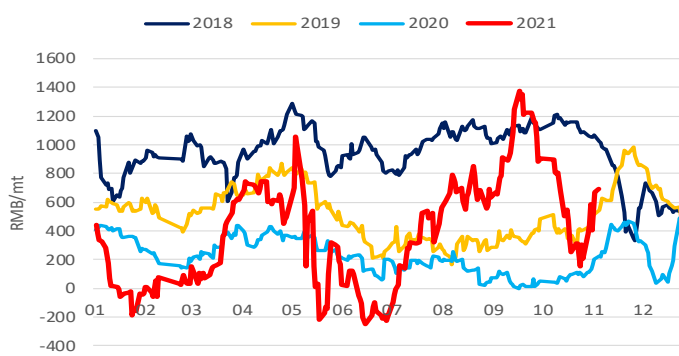
CHINESE STEEL INVENTORIES



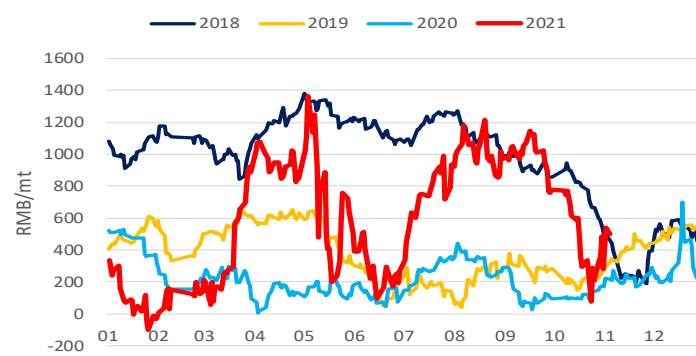
CHINESE STEEL MILL PROFITABILITY



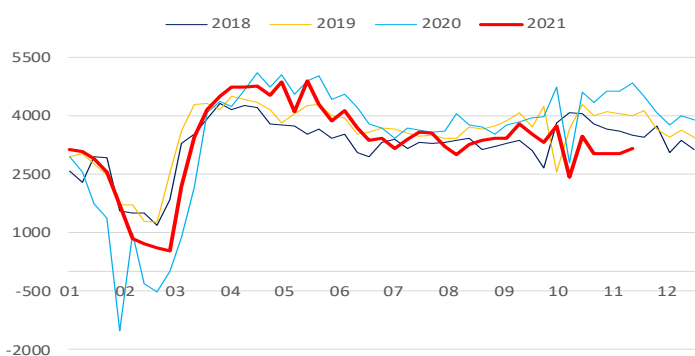
CHINESE STEEL MILL PROFITABILITY—Rebar



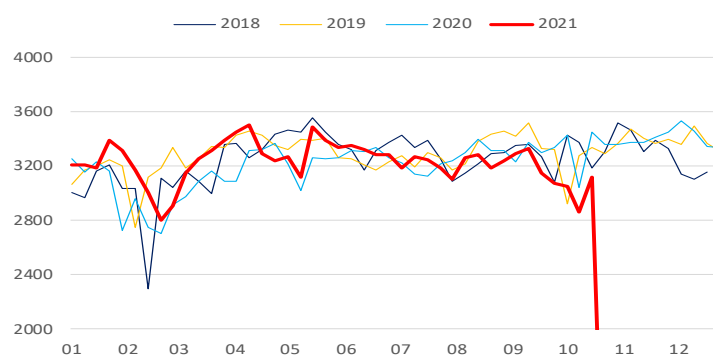
CHINESE STEEL MILL PROFITABILITY—Hot-rolled Coil



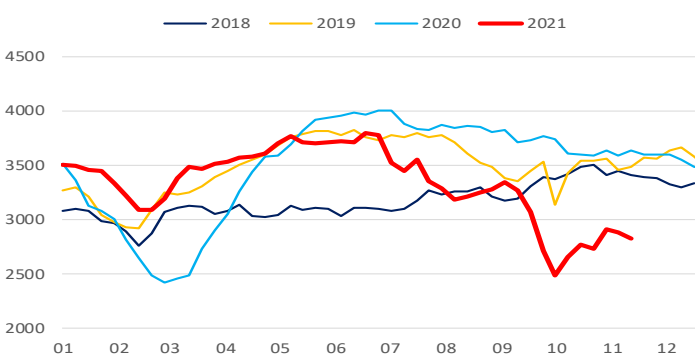
CHINESE STEEL CONSUMPTION—Rebar



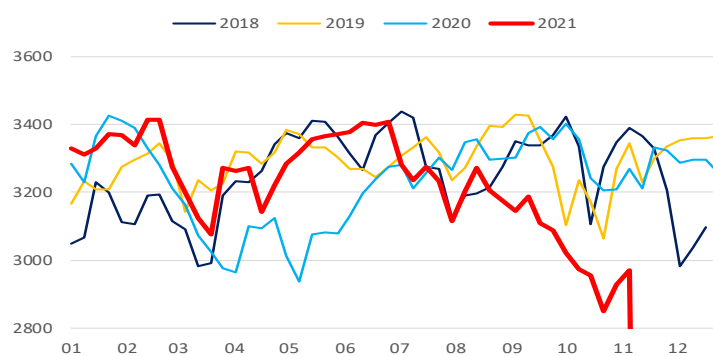
CHINESE STEEL CONSUMPTION—Hot-rolled Coil



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 18th, 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 18th, 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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