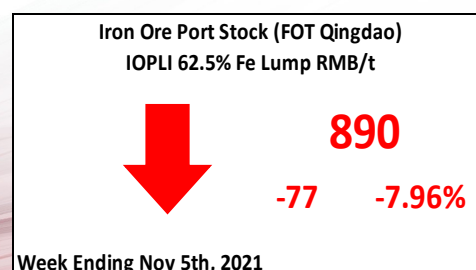
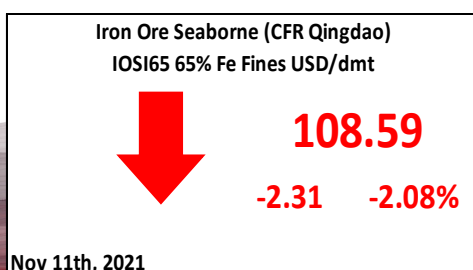
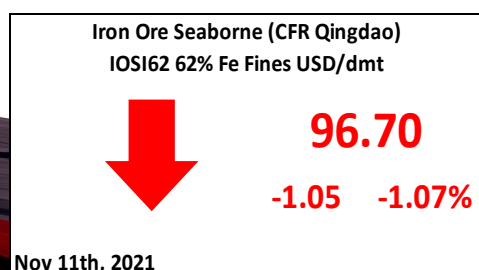
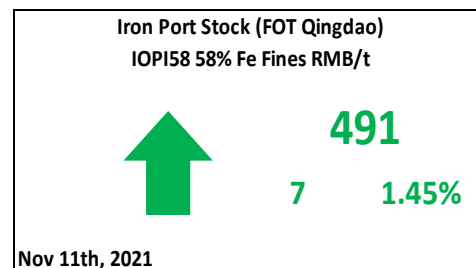
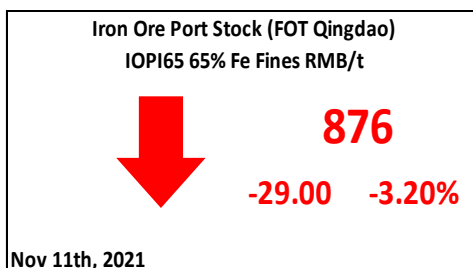
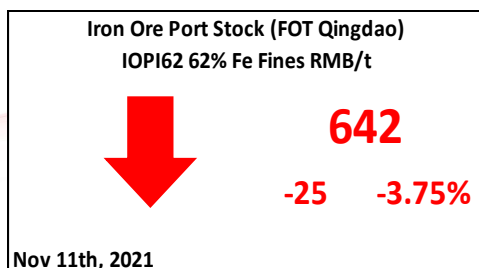


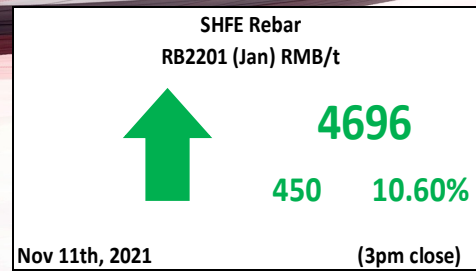
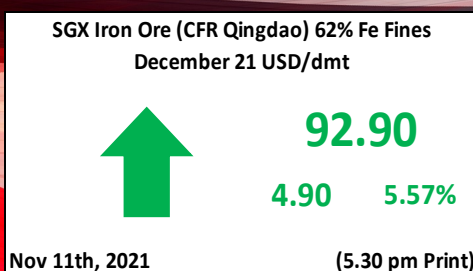
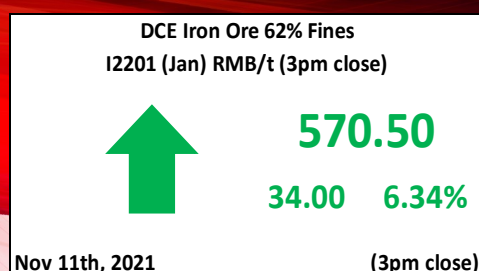


## MMi Dashboard

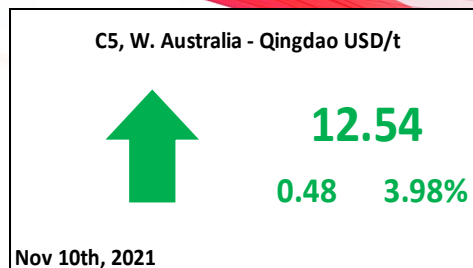
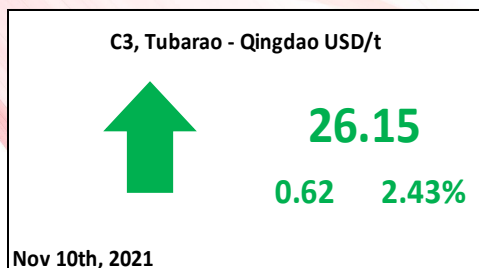
## Iron Ore Price Indices



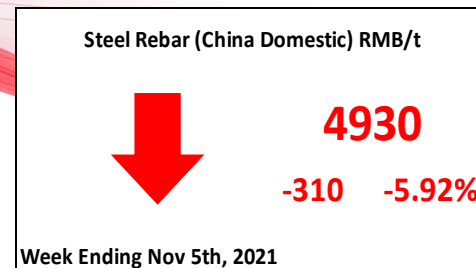
## Exchange Traded Contracts



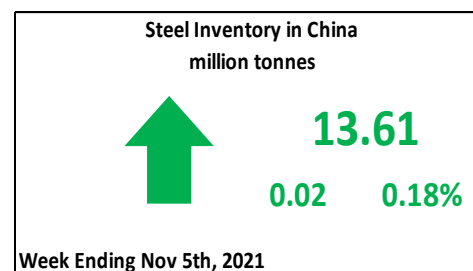
## Freight Rates



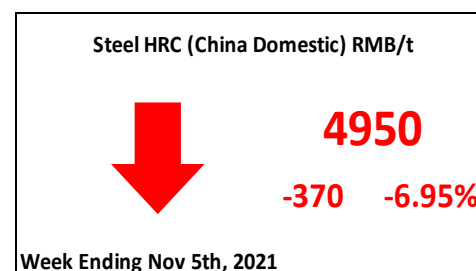
## Steel Price



## Inventory Levels



## Steel Price



## IRON ORE PORT STOCK INDEX (IOPI)

Nov 11th, 2021		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne <sup>1</sup>						
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low <sup>2</sup>	High <sup>2</sup>	Price	Change	Change %	MTD	YTD	Low <sup>2</sup>	High <sup>2</sup>
IOPI62	62% Fe Fines	642	-25	-3.7%	729	1210	642	1680	92.07	-4.04	-4.2%	105.39	175.89	92.07	247.30
IOPI58	58% Fe Fines	491	7	1.4%	504	978	484	1421	70.19	0.85	1.2%	72.27	142.82	69.35	210.83
IOPI65	65% Fe Fines	876	-29	-3.2%	938	1412	876	1894	127.16	-4.75	-3.6%	136.73	205.91	127.16	278.61

## IRON ORE SEABORNE INDEX (IOSI)

## MARKET COMMENTARY

Nov 11th, 2021		CFR Qingdao, USD/dry tonne							DCE iron ore futures rose largely today, the main contract closed 570.5, an increase of 6.84% throughout the day, the quotation in the morning was increased by 10-20 yuan/mt over yesterday, some traders were active to sell, and steel mills also active to purchase; total transactions was increased; significantly, BF at Shandong port dealt 610-625 yuan/mt, decreased 10-25 yuan/mt over yesterday; PBF at Tangshan port dealt 615 yuan/mt; increased 15 yuan/mt over yesterday. This week, SMM statistics of blast furnace operating rate is 78.5%, week on month up 1.39%, but with the recent collapse of steel prices, the vast majority of domestic steel companies have been in the margin of loss or loss, there is more news that Shanxi steel companies will jointly reduce production, if the subsequent material prices continue to fall, profit deterioration, will form further pressure on iron ore prices.							
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low <sup>2</sup>	High <sup>2</sup>								
IOSI62	62% Fe Fines	96.70	-1.05	-1.07%	101.38	170.67	96.70	230.50								
IOSI65	65% Fe Fines	108.59	-2.31	-2.08%	117.62	197.31	108.59	262.95								

## IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending Nov 5th, 2021		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne <sup>3</sup>						
Index	Fe Content	Price	W-o-W	Change %	MTD	YTD	Low <sup>2</sup>	High <sup>2</sup>	Price	W-o-W	Change %	MTD	YTD	Low <sup>2</sup>	High <sup>2</sup>
IOPLI62	62.5% Fe Lump	890	-77	-8.0%	890	1455	886	1868	124.08	-11.37	-8.39%	124.08	202.28	118.00	262.00

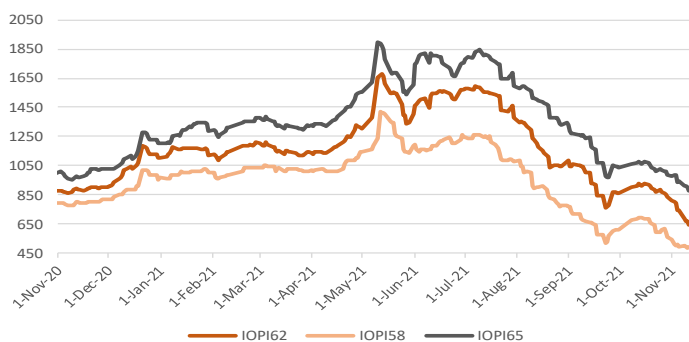
## IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

Week Ending Nov 5th, 2021				RMB/tonne (excluding tax) <sup>3</sup>				USD/tonne (excluding tax) <sup>3</sup>			
Province	Region	Product	Basis	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>
Hebei	Hanxing	66% Fe Concentrate	Dry	970	-12.6%	779	1645	151.47	-12.80%	110.31	255.69
Hebei	Qian'an	65% Fe Concentrate	Dry	1025	-3.8%	780	1630	160.05	-3.96%	110.51	251.57
Liaoning	Anshan	65% Fe Concentrate	Wet	790	-3.7%	620	1310	123.36	-3.86%	87.40	202.32
Shandong	Zibo	65% Fe Concentrate	Dry	975	-4.1%	865	1752	152.25	-4.33%	122.55	272.32

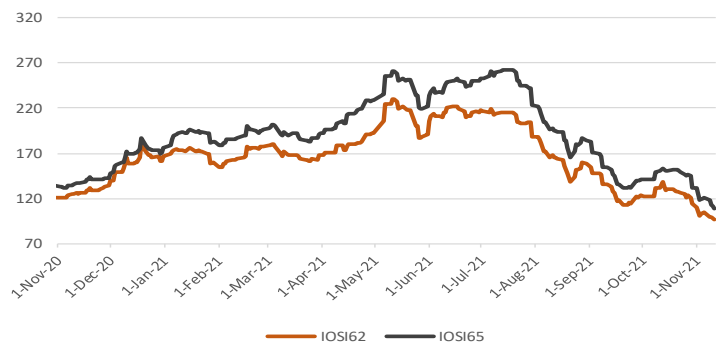
Week Ending Nov 5th, 2021	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>
China Mines Concentrate Composite Index RMB/WT	922.21	-5.49%	706.36	1511.22

<sup>1</sup> Exchange rate applied: RMB/USD = 6.4934 <sup>2</sup> Last 12 months  
<sup>3</sup> 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 11th, 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	729	834	1210	170.18	135.90	135.31	129.57	105.39	120.86	175.89
IOPI58	58% Fe Fines	1186	894	648	646	504	595	978	130.00	93.62	93.31	93.69	72.27	85.98	142.82
IOPI65	65% Fe Fines	1750	1466	1152	1043	938	1005	1412	213.59	214.41	214.06	152.11	136.73	146.58	205.91

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

## FREIGHT RATES

Nov 11th, 2021		CFR Qingdao, USD/dry tonne							Nov 10th, 2021						
Index	Fe Content	July	August	September	October	MTD	QTD	YTD	FREIGHT RATES - DRY BULK US\$/wet tonne						
		Route		Designation		Change	Change %	Low <sup>2</sup>	High <sup>2</sup>						
IOSI62	62% Fe Fines	211.65	162.80	128.43	127.04	101.38	119.30	170.67	W. Australia - Qingdao	C5	12.54	0.48	3.98%	3.57	16.77
IOSI65	65% Fe Fines	254.36	192.73	148.09	147.37	117.62	138.55	197.31	Tubarao - Qingdao	C3	26.15	0.62	2.43%	6.70	36.40

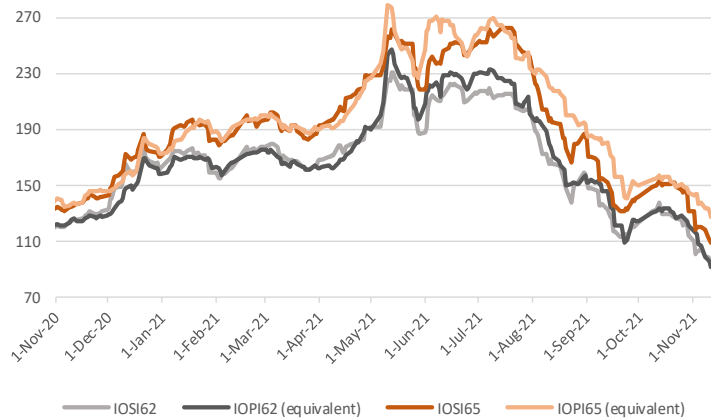
## IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending Nov 5th, 2021		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne <sup>1</sup>						
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	890	972	1455	254.64	196.49	147.90	139.52	124.08	135.66	202.28

## IRON ORE INDEX PREMIUMS/DISCOUNTS

Nov 11th, 2021				PORT STOCK INDEX (RMB/WT)		Nov 11th, 2021					
Index	Fe Content	Spread to IOPI62		% Spread to IOPI62		Index	Fe Content	SEABORNE INDEX (USD/DMT)			
								Spread to IOSI62		% Spread to IOSI62	
IOPI58	58% Fe Fines	-151		-23.52%		IOSI65	65% Fe Fines	11.89		12.30%	
IOPI65	65% Fe Fines	234		36.45%							

## IRON ORE INDEX COMPARISONS (USD/DMT)



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



## IRON ORE BRAND SPOT PRICE ASSESSMENTS

Nov 11th, 2021				Nov 11th, 2021			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	597	-19	-45	Roy Hill	92.20	-1.05	-4.50
SIMEC Fines	582	-13	-60	SIMEC Fines	88.70	-1.05	-8.00
PB Fines	622	-22	-20	PB Fines	95.45	-1.05	-1.25
Newman Fines	655	-27	13	Newman Fines	96.60	-1.05	-0.10
MAC Fines	594	-17	-48	MAC Fines	92.60	-1.05	-4.10
Jimblebar Blended Fines	555	-16	-87	Jimblebar Blended Fines	85.95	-1.05	-10.75
Carajas Fines	860	-29	218	Carajas Fines	126.25	-1.05	29.55
Brazilian SSF	674	-20	32	Brazilian SSF	100.45	-1.05	3.75
Brazilian Blend Fines	665	-25	23	Brazilian Blend Fines	102.10	-1.05	5.40
RTX Fines	558	-16	-84	RTX Fines	86.60	-1.05	-10.10
West Pilbara Fines	582	-16	-60	West Pilbara Fines	90.95	-1.05	-5.75

Nov 11th, 2021			
PORT STOCK INDEX (RMB/WT)			
	Price	Change	Diff to IOPI58
SSF	490	7	-1
FMG Blended Fines	495	7	4
Robe River	494	7	3
Western Fines	499	7	8
Atlas Fines	491	7	0
Yandi	488	7	-3

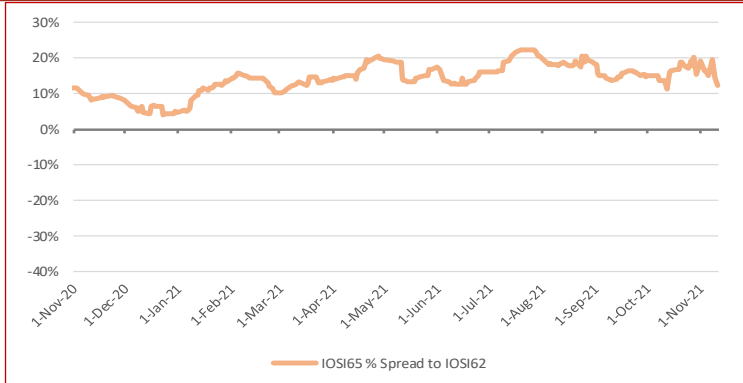
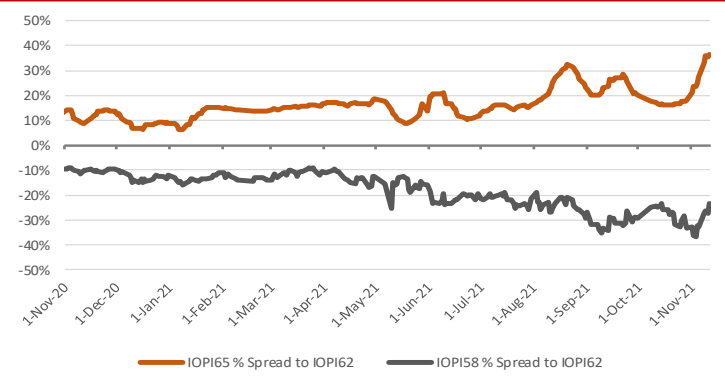
## IRON ORE INDEX NORMALISATION DIFFERENTIALS

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%	26.00	-4.00	1% Fe	High Grade Fe 60 - 63%	3.75	-0.25
	High Grade Fe 63 - 64%	30.00	0.00		High Grade Fe 63 - 64%	1.50	0.00
	High Grade Fe 64 - 65%	30.00	0.00		High Grade Fe 64 - 65%	1.50	0.00
	High Grade Fe 65 - 65.5%	30.00	0.00		High Grade Fe 65 - 65.5%	1.50	0.00
1% Alumina	Low Grade Fe	26.00	0.00	1% Alumina	High Fe Grade Al <2.25%	0.75	0.00
	High Fe Grade Al <2.25%	30.00	0.00		High Fe Grade Al 2.25-4%	2.75	-0.25
	High Fe Grade Al 2.25-4%	35.00	-5.00				
	Low Fe Grade Al <2.25%	55.00	0.00				
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%	49.00	0.00		High Fe Grade Si 4 - 6.5%	8.75	-0.25
0.01% Phosphorus	High Fe Grade Si 4-6.5%	8.00	-2.00	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				

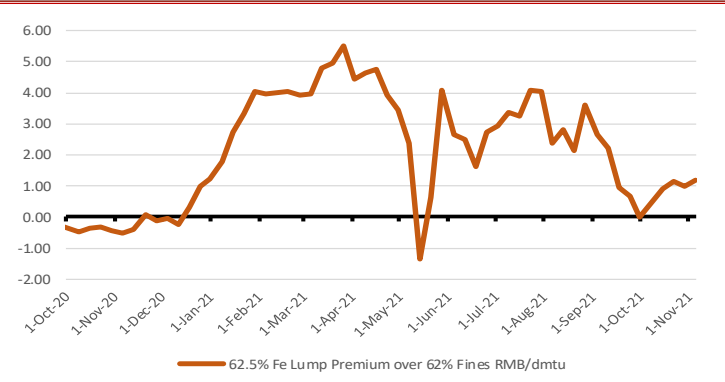
## Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

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

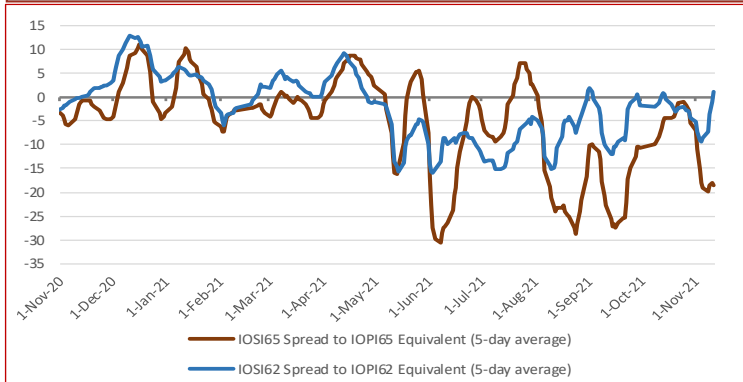
IRON ORE INDEX PREMIUMS/DISCOUNTS



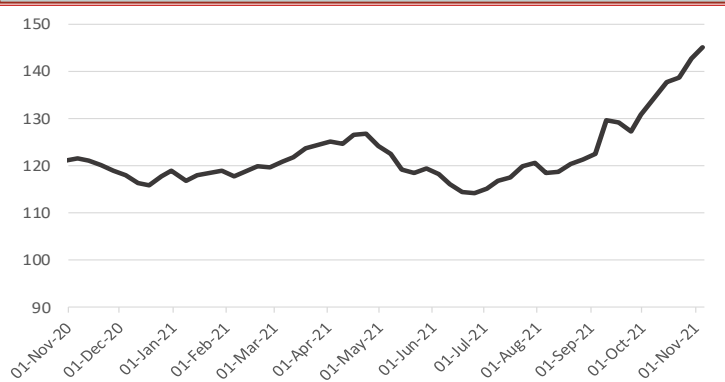
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



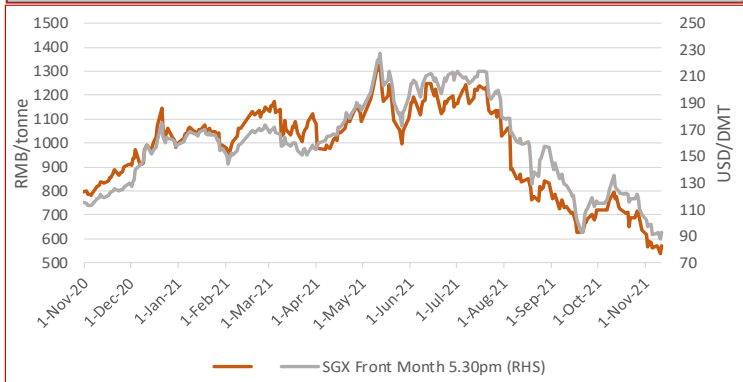
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



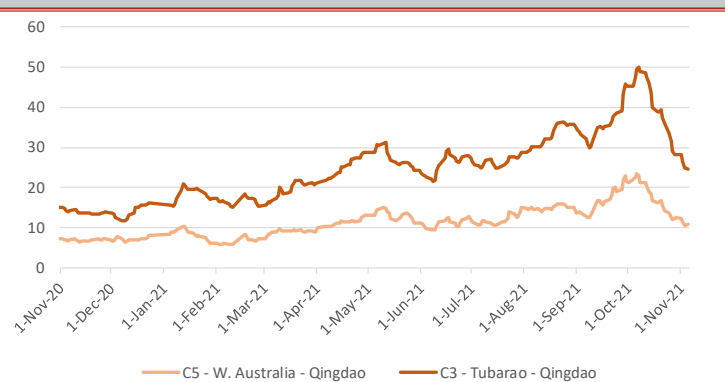
IRON ORE PORT INVENTORIES (MILLION TONNES)

Week Ending Nov 5th, 2021				
Province	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>
Jingtang	17.56	0.92%	12.26	19.20
Qingdao	23.36	-2.50%	9.41	23.96
Caofeidian	15.31	2.41%	11.25	16.25
Tianjin	10.68	3.89%	7.14	11.28
Rizhao	15.34	4.64%	9.44	15.34
<b>Total (35 Ports)</b>	<b>145.12</b>	<b>1.61%</b>	<b>98.80</b>	<b>145.12</b>

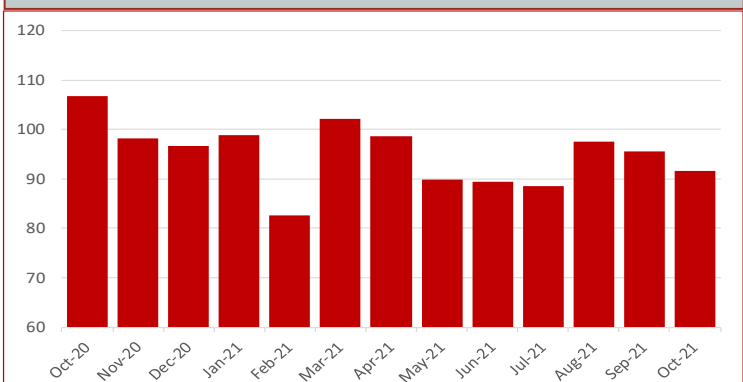
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	Nov 11th, 3pm close			Nov 11th, 5:30pm		
Contract	I2201	Change	Change %	Nov. 21	Change	Change %
Closing Price	570.50	34.00	6.34%	92.90	4.90	5.57%
Vol traded ('000 lots)	97.75	10.81	12.43%	2.73	-0.90	-24.84%
Open positions ('000 lots)	43.74	-4.12	-8.61%	19.50	-0.21	-1.06%
Day Low	536.5	18.00	3.47%	87.10	2.50	2.96%
Day High	579.5	26.00	4.70%	92.90	3.55	3.97%

DRY BULK FREIGHT RATES (USD/MT)



TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)



STEEL SPOT MARKET PRICES—CHINA

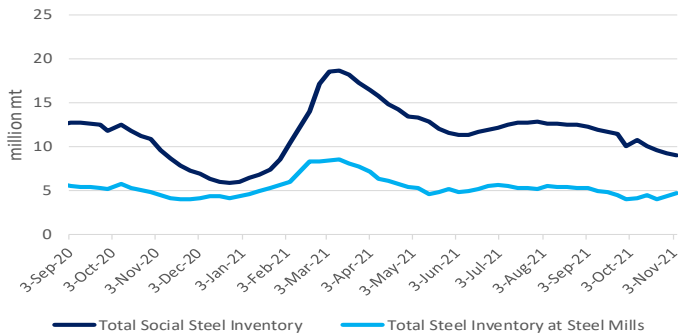
Steel Spot Market RMB/tonne			
Product	2021/11/5	Change	Change %
ReBar HRB400 φ18mm	4,930	-310	-5.92%
Wirerod Q300 φ6.5mm	5,240	-310	-5.59%
HRC Q235/SS400 5.5mm*1500*C	4,950	-370	-6.95%
CRC SPCC/ST12 1.0mm*1250*2500	5,910	-230	-3.75%
Medium & Heavy Plate Q235B 20mm	5,340	-250	-4.47%
GI ST02Z 1.0mm*1000*C	6,070	-170	-2.72%
Colour Coated Plate	8,700	-100	-1.14%

CHINESE STEEL MILL PROFITABILITY

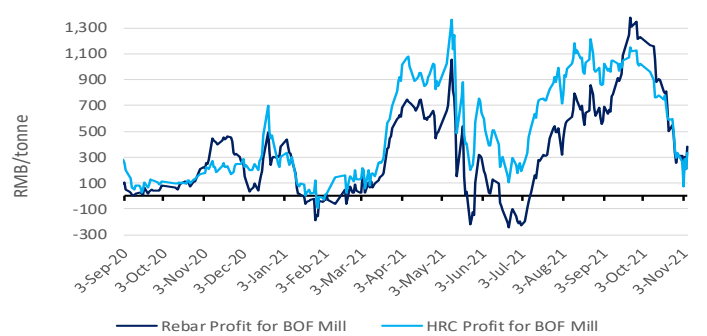
SMM Tracking of Steel Mill P&L - Rebar and Hot-rolled Coil (RMB/tonne)			
Category	Price	Change (WoW)	Note
MMi (Fe 62%), USD/mt excluding tax	103.00	-18	Mmi CFR Equivalent index for 1st Feb
Coke	4,010	-200	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	3,410	-130	steel scrap (6mm) in Zhangjiagang, ext. tax
Billet Cost	4,344	-369	Q234, incl. tax
Rebar cost - Blast furnace	4,614	-390	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	381	70	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	4,624	-369	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	336	-1	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

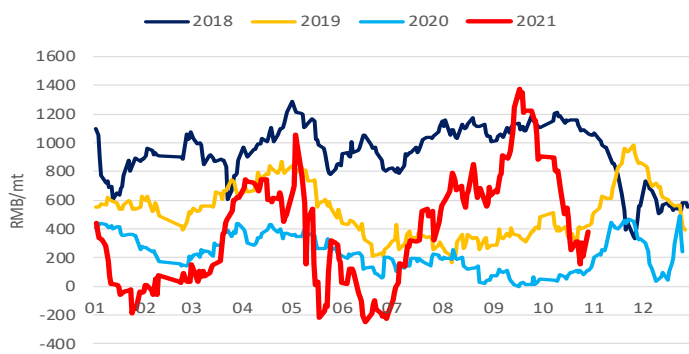
CHINESE STEEL INVENTORIES



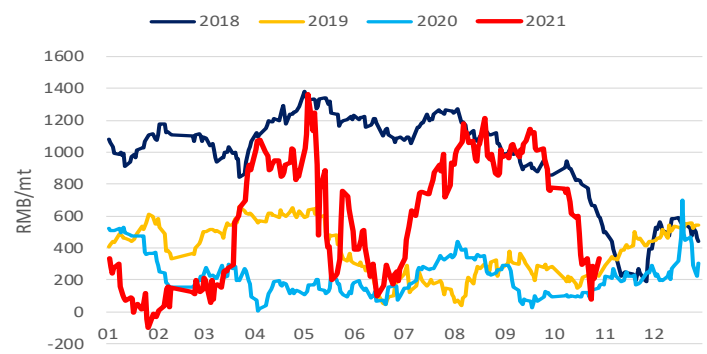
CHINESE STEEL MILL PROFITABILITY



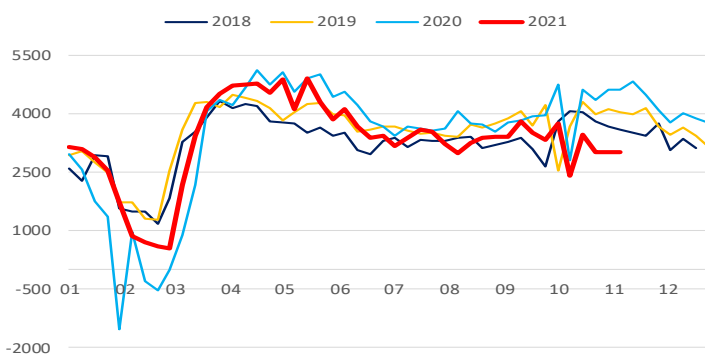
CHINESE STEEL MILL PROFITABILITY—Rebar



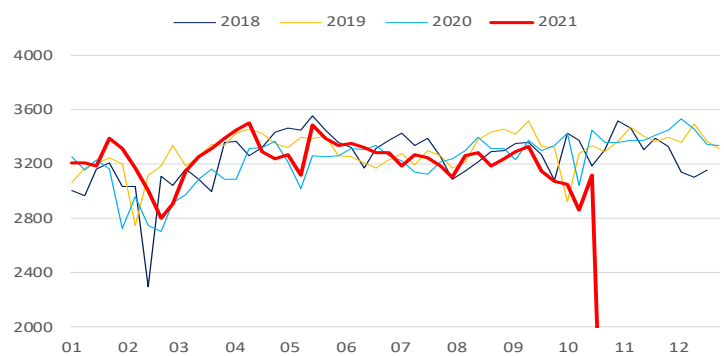
CHINESE STEEL MILL PROFITABILITY—Hot-rolled Coil



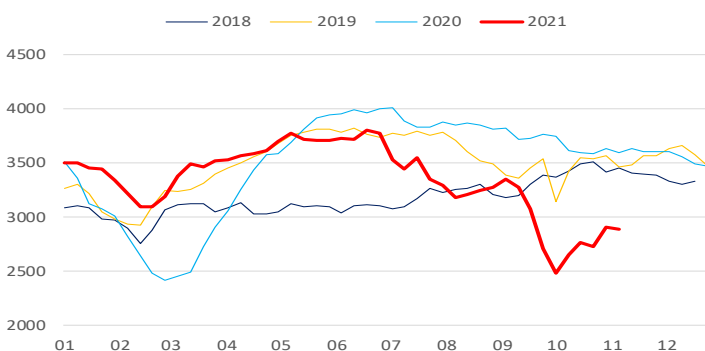
CHINESE STEEL CONSUMPTION—Rebar



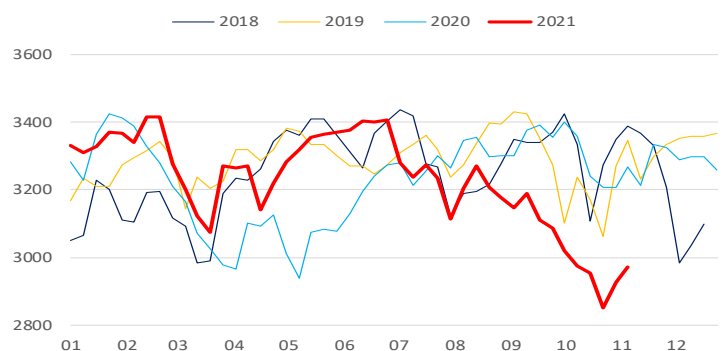
CHINESE STEEL CONSUMPTION—Hot-rolled Coil



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
	<b>65% Fe Fines</b>	<b>62% Fe Fines</b>	<b>58% Fe Fines</b>	<b>62.5% Fe Lump</b>	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: <a href="http://www.mmiprices.com">www.mmiprices.com</a>
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 11th, 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 11th, 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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