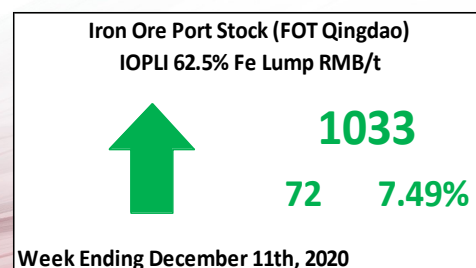
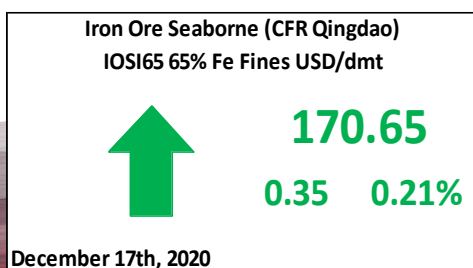
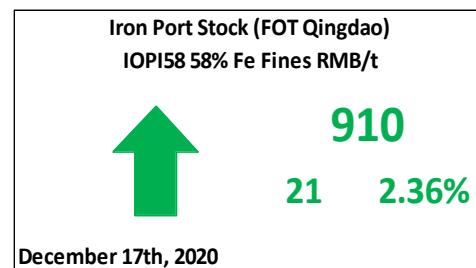
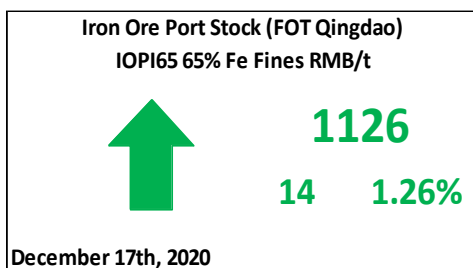
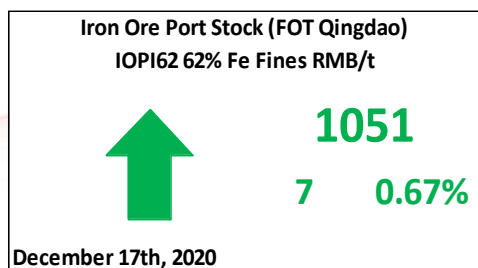


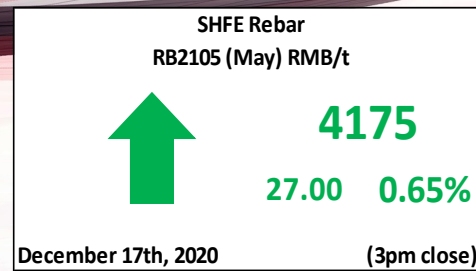
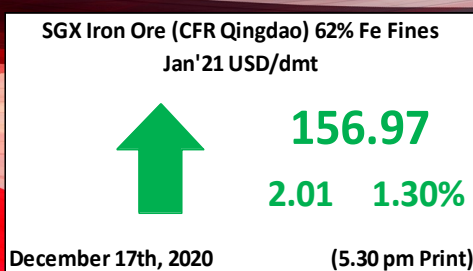
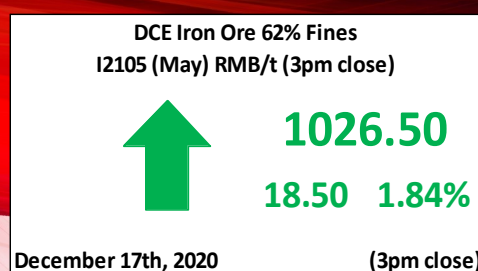


MMi Dashboard

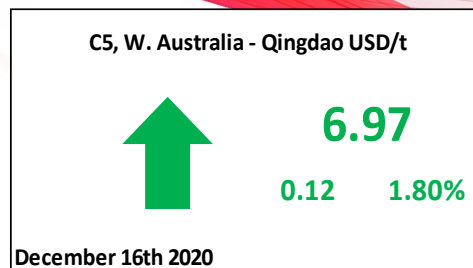
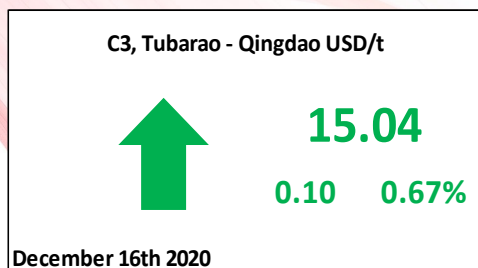
Iron Ore Price Indices



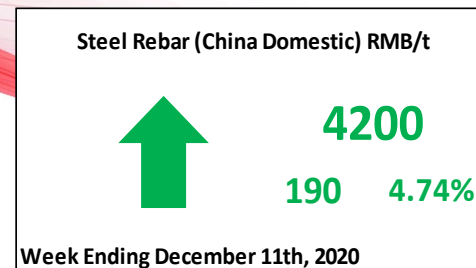
Exchange Traded Contracts



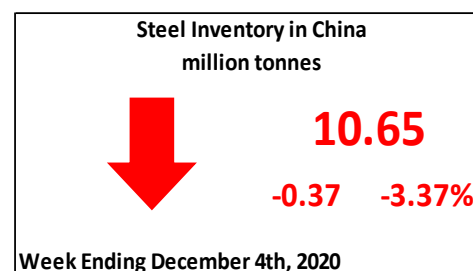
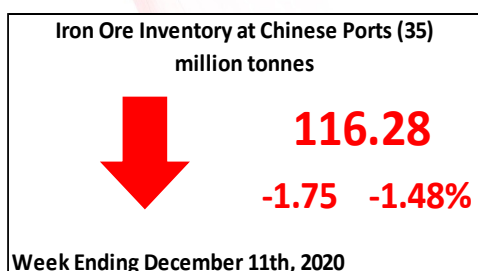
Freight Rates



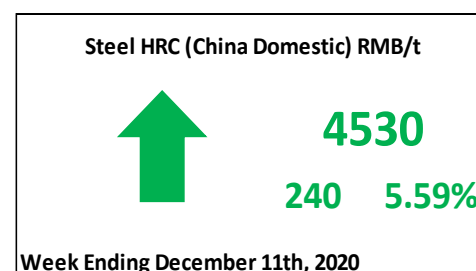
Steel Price



Inventory Levels



Steel Price



IRON ORE PORT STOCK INDEX (IOPI)

December 17th, 2020		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	1051	7	0.7%	986	807	619	1051	150.55	1.01	0.7%	140.79	108.76	81.37	150.55
IOPI58	58% Fe Fines	910	21	2.4%	861	718	531	910	131.23	3.11	2.4%	123.82	97.36	70.02	131.23
IOPI65	65% Fe Fines	1126	14	1.3%	1073	912	759	1126	161.59	2.04	1.3%	153.50	123.35	99.04	161.59

IRON ORE SEABORNE INDEX (IOSI)

MARKET COMMENTARY

December 17th, 2020		CFR Qingdao, USD/dry tonne							Physical iron ore port stock prices keep hitting new highs. According to SMM, the latest operating rates of blast furnaces increased slightly to 87.75%, declining 1.06% from the same period last year. Some mills in Hebei province resumed their production as the local government removed the emergency response control for heavy pollution. According to market players, iron ore deliveries from ports in Tangshan market dropped due to snowy weather, causing a small increase of the iron ore inventory at Jingtang port.							
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low ²	High ²								
IOSI62	62% Fe Fines	160.30	0.45	0.28%	151.89	107.88	80.65	165.00								
IOSI65	65% Fe Fines	170.65	0.35	0.21%	160.74	121.35	97.05	172.35								

IRON ORE PORT LUMP INDEX (IOPLI)

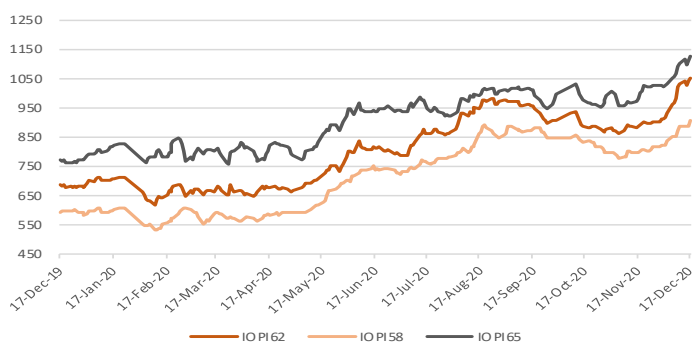
Week Ending December 11th, 2020		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne ³						
Index	Fe Content	Price	W-o-W	Change %	MTD	YTD	Low ²	High ²	Price	W-o-W	Change %	MTD	YTD	Low ²	High ²
IOPLI62	62.5% Fe Lump	1033	72	7.5%	997	888	804	1033	141.71	10.77	8.23%	136.33	114.38	101.03	141.71

IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

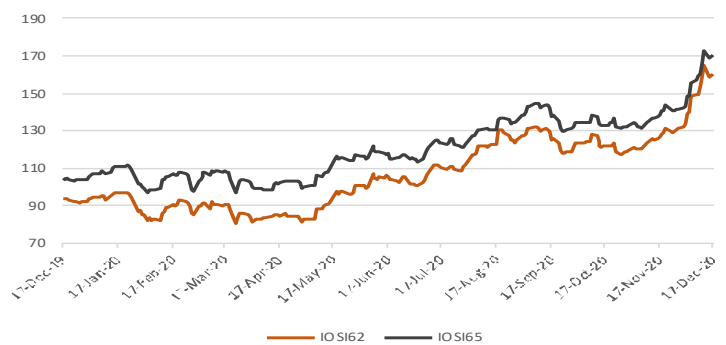
Week Ending December 11th, 2020				RMB/tonne (excluding tax) ³				USD/tonne (excluding tax) ³			
Province	Region	Product	Basis	This week	Change %	Low ²	High ²	This week	Change %	Low ²	High ²
Hebei	Hanxing	66% Fe Concentrate	Dry	1094	5.2%	763	1094	167.34	5.69%	109.28	167.34
Hebei	Qian'an	65% Fe Concentrate	Dry	1059	2.6%	780	1059	161.99	3.10%	110.51	161.99
Liaoning	Anshan	65% Fe Concentrate	Wet	830	1.8%	620	830	126.96	2.32%	87.40	126.96
Shandong	Zibo	65% Fe Concentrate	Dry	1130	3.7%	810	1130	172.85	4.16%	115.13	172.85

Week Ending December 11th, 2020				This week	Change %	Low ²	High ²	Exchange rate applied: RMB/USD = 6.5362 ² Last 12 months	
China Mines Concentrate Composite Index RMB/WT				923.51	0.00%	702.47	947.97	³ Weekly exchange rate applied: RMB/USD 6.5683	

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

December 17th, 2020		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne						
Index	Fe Content	August	September	October	November	MTD	QTD	YTD	August	September	October	November	MTD	QTD	YTD
IOPI62	62% Fe Fines	948	946	892	888	986	915	807	127.65	129.64	123.88	125.18	140.79	125.44	108.76
IOPI58	58% Fe Fines	838	870	828	799	861	824	718	113.63	120.14	115.94	113.43	123.82	113.84	97.36
IOPI65	65% Fe Fines	992	998	982	996	1073	1011	912	133.70	136.85	136.68	140.93	153.50	136.75	123.35

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

FREIGHT RATES

December 17th, 2020		CFR Qingdao, USD/dry tonne							December 16th 2020							
Index	Fe Content	August	September	October	November	MTD	QTD	YTD	Route		Designation	Change	Change %	Low ²	High ²	
IOSI62	62% Fe Fines	124.02	126.26	122.16	126.25	151.89	130.59	107.88	W. Australia - Qingdao		C5	6.97	0.12	1.80%	3.57	10.80
IOSI65	65% Fe Fines	132.95	138.39	133.94	137.65	160.74	141.55	121.35	Tubarao - Qingdao		C3	15.04	0.10	0.67%	6.70	22.78

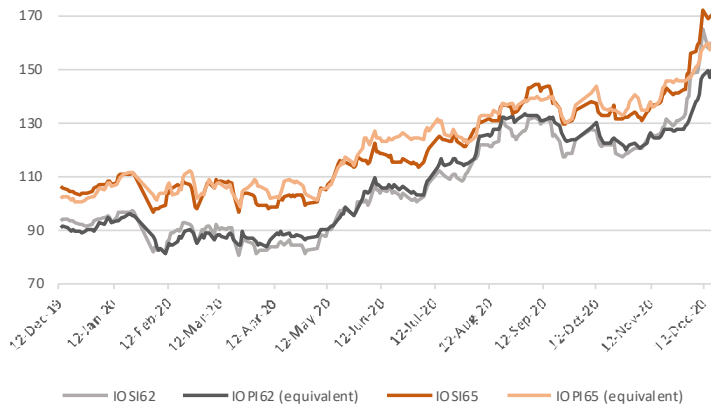
IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending December 11th, 2020		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne ¹						
Index	Fe Content	August	September	October	November	MTD	QTD	YTD	August	September	October	November	MTD	QTD	YTD
IOPLI62	62.5% Fe Lump	932	959	919	919	997	934	888	120.08	125.87	121.91	124.21	136.33	121.65	114.38

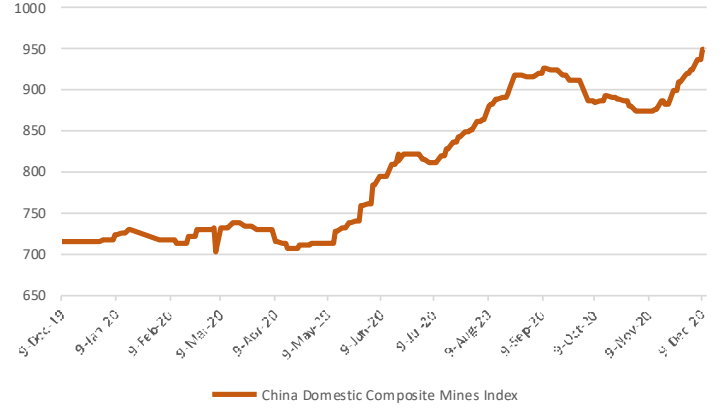
IRON ORE INDEX PREMIUMS/DISCOUNTS

December 17th, 2020				PORT STOCK INDEX (RMB/WT)		December 17th, 2020				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	-141		-13.42%		IOSI65	65% Fe Fines	10.35		6.46%	
IOPI65	65% Fe Fines	75		7.14%							

IRON ORE INDEX COMPARISONS (USD/DMT)



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



IRON ORE BRAND SPOT PRICE ASSESSMENTS

December 17th, 2020				December 17th, 2020			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IO SI62
Roy Hill	1020	10	-31	Roy Hill	151.85	0.72	-8.45
SIMEC Fines	1004	18	-47	SIMEC Fines	142.40	0.86	-17.90
PB Fines	1031	7	-20	PB Fines	156.90	0.54	-3.40
Newman Fines	1052	6	1	Newman Fines	158.10	0.43	-2.20
MAC Fines	1031	12	-20	MAC Fines	152.95	0.72	-7.35
Jimblebar Blended Fines	1009	9	-42	Jimblebar Blended Fines	148.30	1.56	-12.00
Carajas Fines	1124	13	73	Carajas Fines	167.27	0.43	6.97
Brazilian SSF	1021	18	-30	Brazilian SSF	148.42	0.76	-11.88
Brazilian Blend Fines	1041	10	-10	Brazilian Blend Fines	158.42	0.43	-1.88
RTX Fines	1025	8	-26	RTX Fines	147.55	1.49	-12.75
West Pilbara Fines	1019	13	-32	West Pilbara Fines	151.45	0.84	-8.85

December 17th, 2020			
PORT STOCK INDEX (RMB/WT)			
	Price	Change	Diff to IOPI58
SSF	869	13	-41
FMG Blended Fines	912	21	2
Robe River	882	15	-28
Western Fines	886	13	-24
Atlas Fines	922	21	12
Yandi	925	17	15

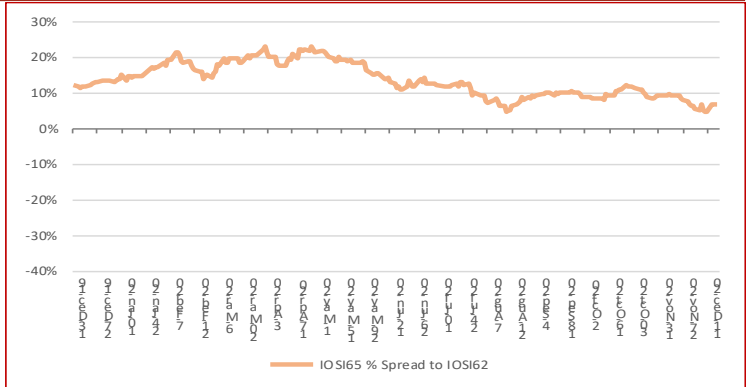
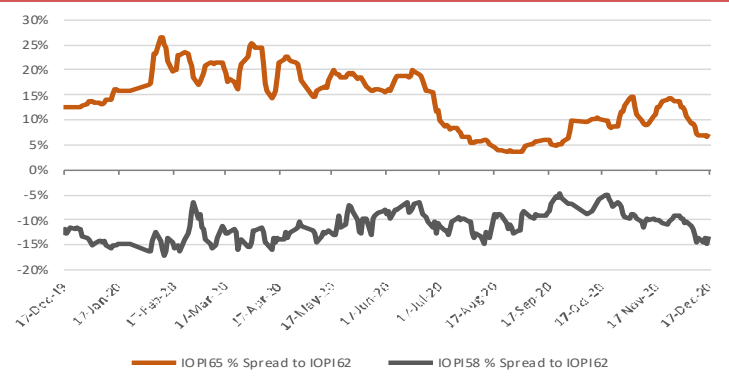
IRON ORE INDEX NORMALISATION DIFFERENTIALS

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%	4.00	-2.00	1% Fe	High Grade Fe 60 - 63%	2.50	-0.25
	High Grade Fe 63 - 64%	22.00	3.00		High Grade Fe 63 - 64%	0.50	0.00
	High Grade Fe 64 - 65%	22.00	3.00		High Grade Fe 64 - 65%	0.50	0.00
	High Grade Fe 65 - 65.5%	22.00	3.00		High Grade Fe 65 - 65.5%	0.50	0.00
	Low Grade Fe	4.00	2.00				
1% Alumina	High Fe Grade Al <2.25%	11.00	3.00	1% Alumina	High Fe Grade Al <2.25%	1.50	0.25
	High Fe Grade Al 2.25-4%	12.00	3.00		High Fe Grade Al 2.25-4%	5.00	-0.25
	Low Fe Grade Al <2.25%	50.00	0.00				
	Low Fe Grade Al 2.25-4%	26.00	3.00				
1% Silica	High Fe Grade Si <4%	7.00	0.00	1% Silica	High Fe Grade Si <4%	1.00	0.00
	High Fe Grade Si 4-6.5%	26.00	-3.00		High Fe Grade Si 4 - 6.5%	5.50	0.00
0.01% Phosphorus	Low Fe Grade	11.00	3.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	0.50	-0.25
	High Fe Grade 0.09%<P<0.115%	1.00	0.00		High Fe Grade 0.115%<P<0.15%	1.00	0.00
	High Fe Grade 0.115%<P<0.15%	1.00	0.00				
	Low Fe Grade 0.09<P<0.1%	2.00	0.00				

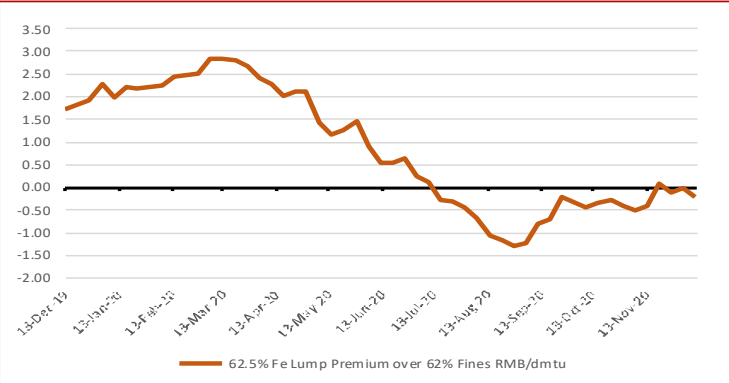
Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

Port	Value	Change	Port	Value	Change	Port	Value	Change	Port	Value	Change
Bayuquan	-35.00	0.00	Fangcheng	-5.00	0.00	Lanshan	0.00	0.00	Rizhao	0.00	0.00
Beilun	-5.00	0.00	Jiangyin	-30.00	0.00	Lianyungang	0.00	0.00	Shekou	0.00	0.00
Caofeidian	-5.00	0.00	Jingtang	-5.00	0.00	Majishan	0.00	0.00	Taicang	-30.00	0.00
Dalian	-35.00	0.00	Lanqiao	0.00	0.00	Qingdao	0.00	0.00	Tianjin	-10.00	0.00

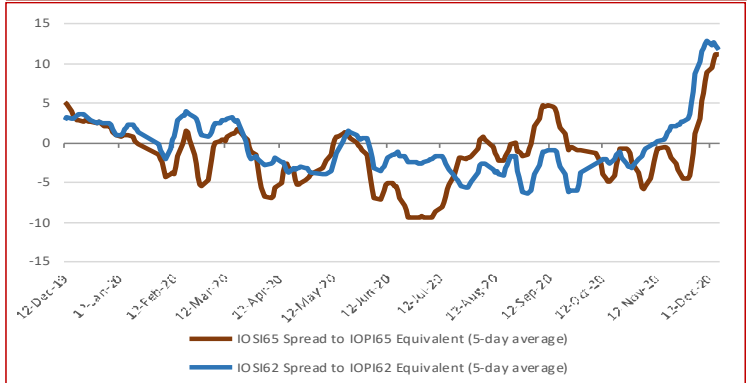
IRON ORE INDEX PREMIUMS/DISCOUNTS



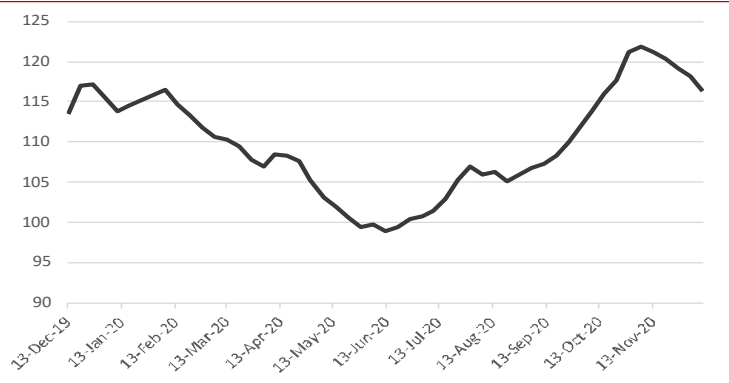
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



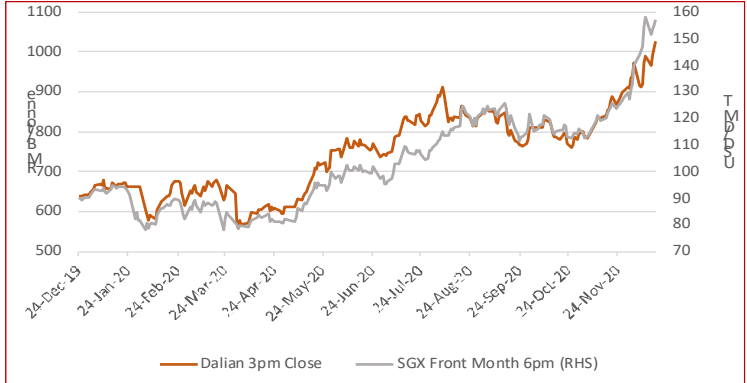
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



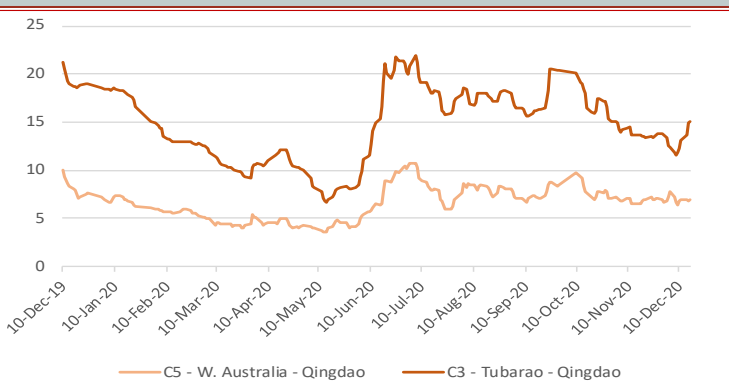
IRON ORE PORT INVENTORIES (MILLION TONNES)

Week Ending December 11th, 2020				
Province	This week	Change %	Low ²	High ²
Jingtang	14.43	0.14%	12.26	16.08
Qingdao	14.55	-3.00%	9.41	15.30
Caofeidian	13.64	-4.01%	12.46	16.44
Tianjin	9.78	-2.98%	7.14	10.08
Rizhao	12.68	-4.73%	9.44	14.22
Total (35 Ports)	116.28	-1.48%	98.80	121.69

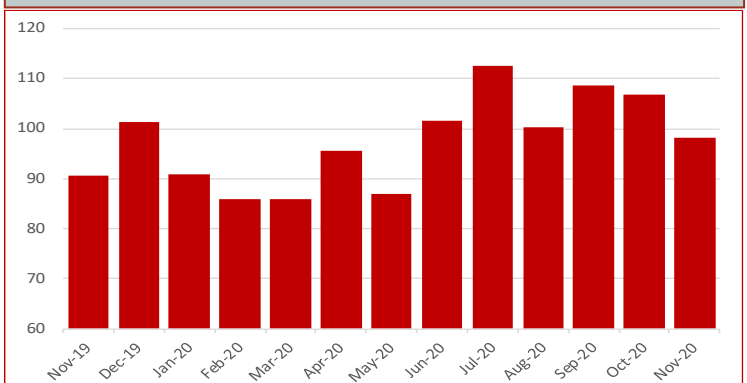
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	Dec 17th, 3.00 pm dose					
	Contract	Change	Change %	Jan '21	Change	Change %
Closing Price	1026.50	18.5	1.84%	156.97	2.01	1.30%
Vol traded ('000 lots)	46.34	-14.52	-23.86%	15.10	1.46	10.73%
Open positions ('000 lots)	52.83	0.62	1.18%	183.39	2.13	1.18%
Day Low	997.0	11.5	1.17%	153.79	0.89	0.58%
Day High	1026.5	9.5	0.93%	156.97	1.81	1.17%

DRY BULK FREIGHT RATES (USD/MT)



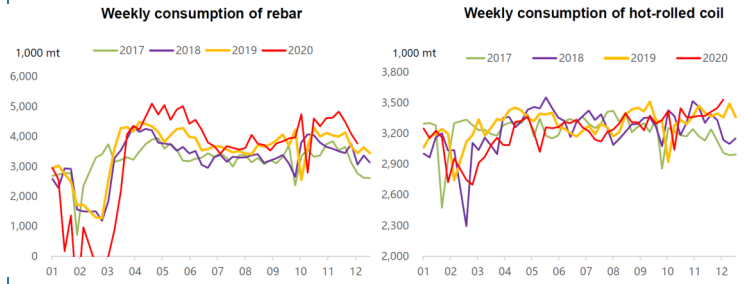
TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)



STEEL SPOT MARKET PRICES—CHINA

Steel Spot Market RMB/tonne			
Product	11/12/2020	Change	Change %
ReBar HRB400 φ18mm	4,200.0	190	4.74%
Wirerod Q300 φ6.5mm	4,570.0	130	2.93%
HRC Q235/SS400 5.5mm*1500*C	4,530.0	240	5.59%
CRC SPCC/ST12 1.0mm*1250*2500	5,640.0	310	5.82%
Medium & Heavy Plate Q235B 20mm	4,370.0	280	6.85%
GI ST02Z 1.0mm*1000*C	5,750.0	260	4.74%
Colour Coated Plate	8,000.0	300	3.90%

CHINESE STEEL CONSUMPTION



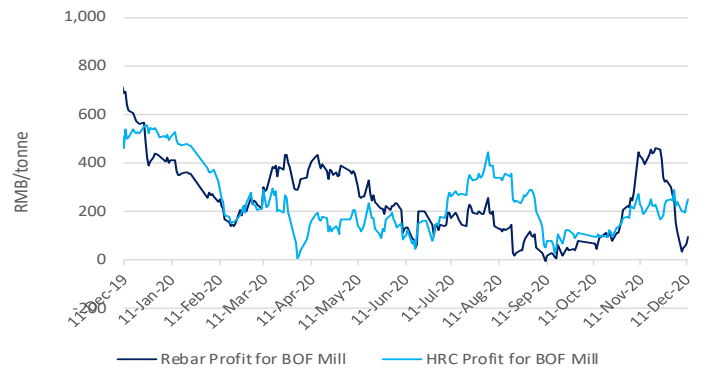
CHINESE STEEL MILL PROFITABILITY

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	158.80	18.55	Mmi CFR Equivalent index for 1st Feb
Coke	2,260	50	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	2,580	20	steel scrap (6mm) in Zhangjiagang, excl. tax
Billet Cost	3,964	220	Q234, incl. tax
Rebar cost - Blast furnace	4,192	222	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	93	-26	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	4,280	219	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	250	11	based on Shanghai prices, incl. tax

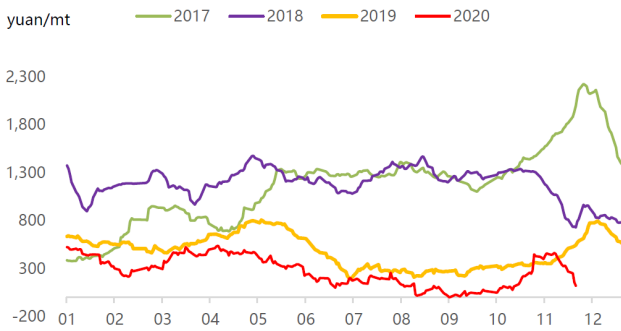
Note: 1. Costs in the table are calculated based on today's market prices and factored our management, sales, financial and depreciations fees.
2. The cost refers to average cost in the industry based on SMM's survey of small, medium and large mills in China

CHINESE STEEL MILL PROFITABILITY

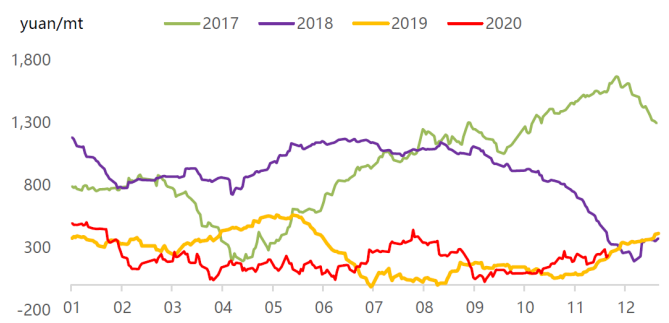


CHINESE STEEL MILL PROFITABILITY

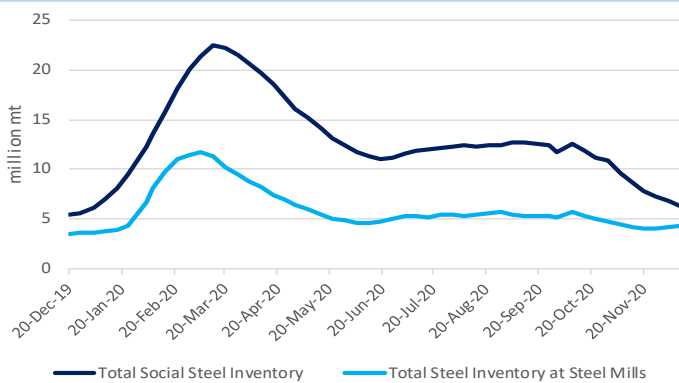
Rebar profits



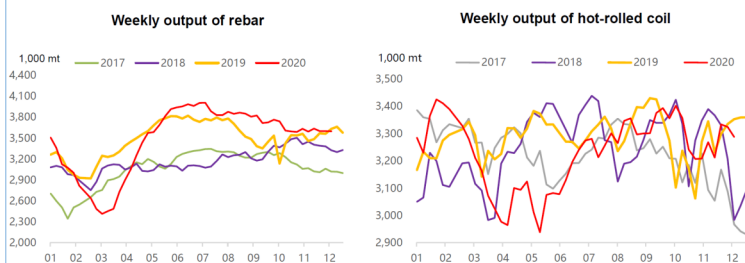
Hot-rolled coil profits



CHINESE STEEL INVENTORIES



CHINESE STEEL PRODUCTION



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					
December 17th, 2020	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%	2.41%	4.32%	0.057%	9.48%	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%	9.55%	PB Fines 62%	62.00%	2.60%	4.30%	0.090%	9.50%
Newman Fines	62.45%	2.32%	4.06%	0.090%	7.83%	Newman Fines	62.30%	2.40%	4.40%	0.090%	8.00%
MAC Fines	60.46%	2.39%	4.62%	0.079%	7.67%	MAC Fines	60.80%	2.35%	4.70%	0.080%	7.80%
Jimblebar Blended Fines	60.87%	2.98%	4.50%	0.112%	7.43%	Jimblebar Blended Fines	60.50%	3.00%	4.50%	0.120%	8.00%
Carajas Fines	64.92%	1.34%	1.83%	0.076%	7.88%	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	62.77%	1.38%	4.79%	0.086%	8.19%	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%

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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