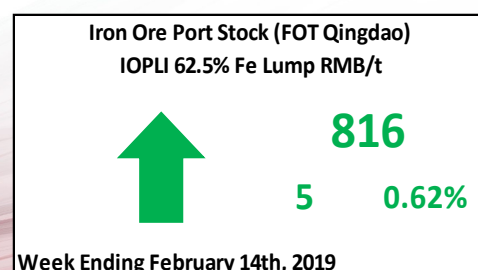
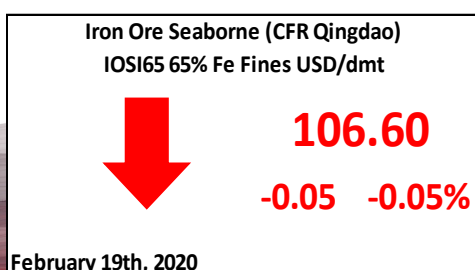
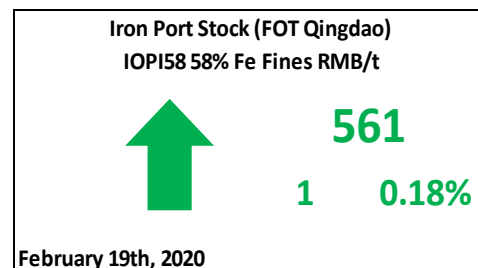
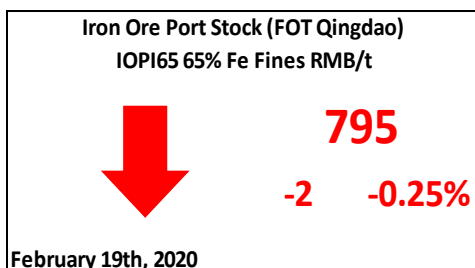
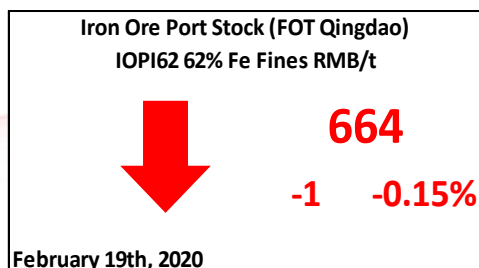


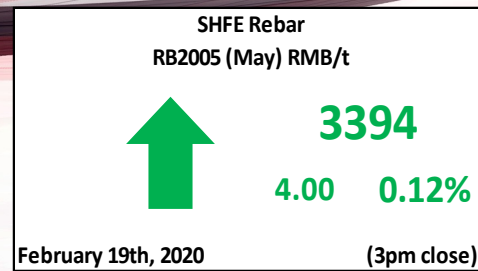
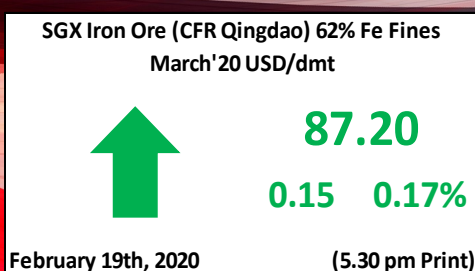
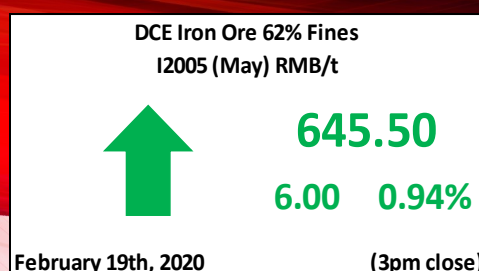


# MMi Dashboard

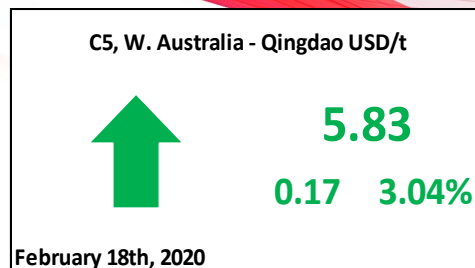
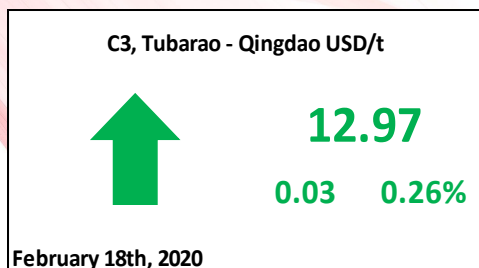
## Iron Ore Price Indices



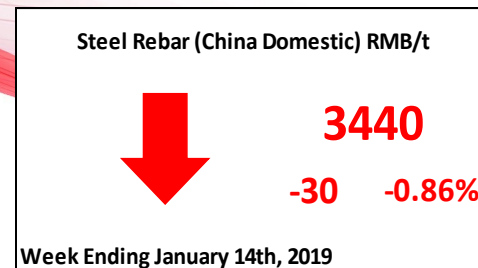
## Exchange Traded Contracts



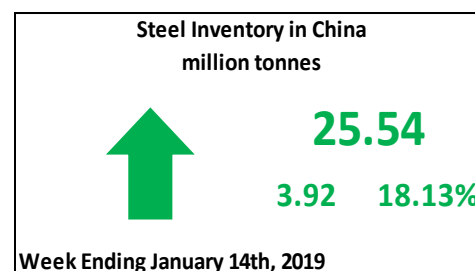
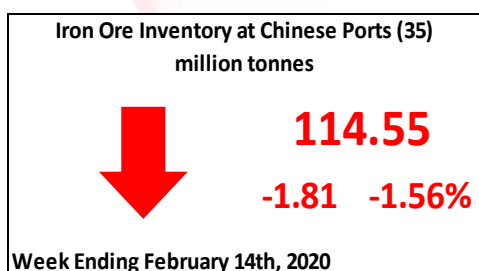
## Freight Rates



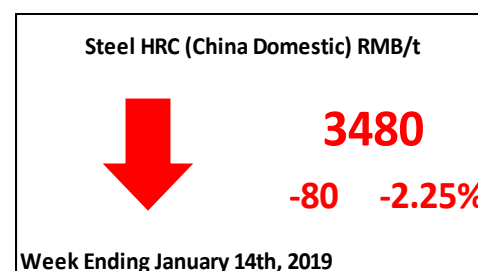
## Steel Price



## Inventory Levels



## Steel Price



## IRON ORE PORT STOCK INDEX (IOPI)

February 19th, 2020		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	664	-1	-0.2%	645	678	619	928	87.38	-0.37	-0.4%	84.99	90.09	81.37	126.12
IOPI58	58% Fe Fines	561	1	0.2%	547	576	531	823	74.03	-0.06	-0.1%	72.28	76.79	70.02	112.44
IOPI65	65% Fe Fines	795	-2	-0.3%	785	798	695	992	105.38	-0.56	-0.5%	104.29	106.63	91.81	135.34

## IRON ORE SEABORNE INDEX (IOSI)

## MARKET COMMENTARY

February 19th, 2020		CFR Qingdao, USD/dry tonne							The physical port stock market became very active today, as traders and mills undertook some restocking. Whilst trade volumes dipped in the afternoon session on a strong DCE market, PBF in Tangshan area traded at 648yuan/mt. In addition, Tangshan and Handan once again launched warnings for polluted weather and the steel mill shutdowns mills continued under the influence of the Coronavirus, lowering demand. Iron ore supply and demand remains weak, with little bullishness seen in the market. However as downstream industries slowly resume production, iron ore prices may come under some positive pressure.
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low <sup>2</sup>	High <sup>2</sup>	
IOSI62	62% Fe Fines	90.75	0.80	0.89%	86.00	90.85	80.40	127.50	
IOSI65	65% Fe Fines	106.60	-0.05	-0.05%	102.33	105.56	91.20	137.95	

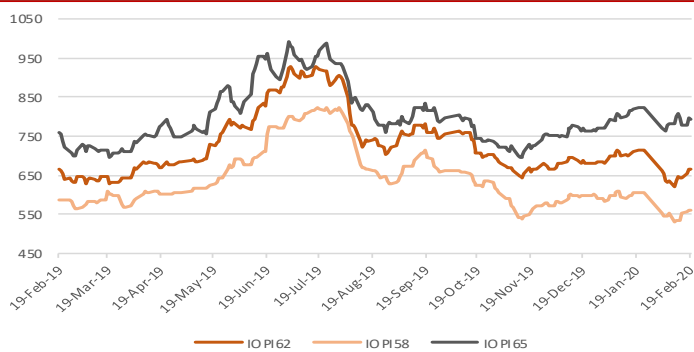
## IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending February 14th, 2019		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	816	5	0.6%	814	850	763	1051	104.04	0.51	0.49%	103.78	107.25	93.24	133.81

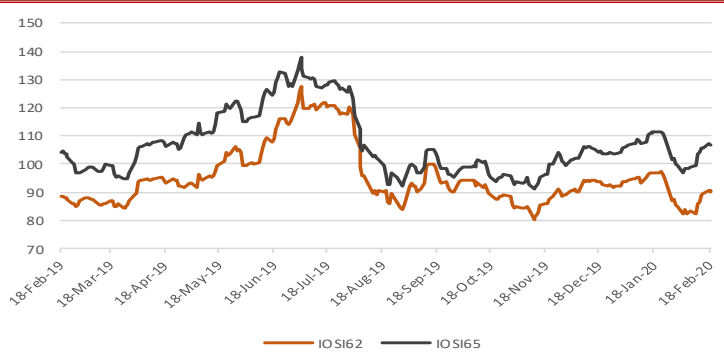
## IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

Week Ending January 14th, 2019				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	763	-1.0%	704	1032	109.28	-1.18%	104.68	150.03
Hebei	Qian'an	65% Fe Concentrate	Dry	810	0.0%	735	960	116.01	-0.14%	109.45	139.35
Liaoning	Anshan	65% Fe Concentrate	Wet	640	-1.5%	545	720	91.66	-1.68%	81.04	104.66
Shandong	Zibo	65% Fe Concentrate	Dry	830	0.0%	765	1040	118.88	-0.14%	113.34	151.33
Week Ending January 14th, 2019				This week	Change %	Low <sup>2</sup>	High <sup>2</sup>	<sup>1</sup> Exchange rate applied: RMB/USD = 7.0012 <sup>2</sup> Last 12 months <sup>3</sup> Weekly exchange rate applied: RMB/USD 6.9821			
China Mines Concentrate Composite Index RMB/WT				711.85	-0.71%	621.60	859.50				

## 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

February 19th, 2020		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne						
Index	Fe Content	October	November	December	January	MTD	QTD	YTD	October	November	December	January	MTD	QTD	YTD
IOPI62	62% Fe Fines	721	665	683	706	645	678	678	94.29	87.30	89.84	94.23	84.99	90.09	90.09
IOPI58	58% Fe Fines	636	567	592	600	547	576	576	83.57	74.67	78.18	80.46	72.28	76.79	76.79
IOPI65	65% Fe Fines	758	723	764	808	785	798	798	99.32	95.29	100.90	108.54	104.29	106.63	106.63

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

## FREIGHT RATES

February 19th, 2020		CFR Qingdao, USD/dry tonne							February 18th, 2020						
Index	Fe Content	October	November	December	January	MTD	QTD	YTD	FREIGHT RATES - DRY BULK US\$/wet tonne						
Index	Fe Content	October	November	December	January	MTD	QTD	YTD	Route	Designation	Change	Change %	Low <sup>2</sup>	High <sup>2</sup>	
IOSI62	62% Fe Fines	90.81	85.83	92.64	93.85	86.00	90.85	90.85	W. Australia - Qingdao	C5	5.83	0.17	3.04%	4.39	11.42
IOSI65	65% Fe Fines	97.45	96.49	104.14	107.56	102.33	105.56	105.56	Tubarao - Qingdao	C3	12.97	0.03	0.26%	11.61	29.10

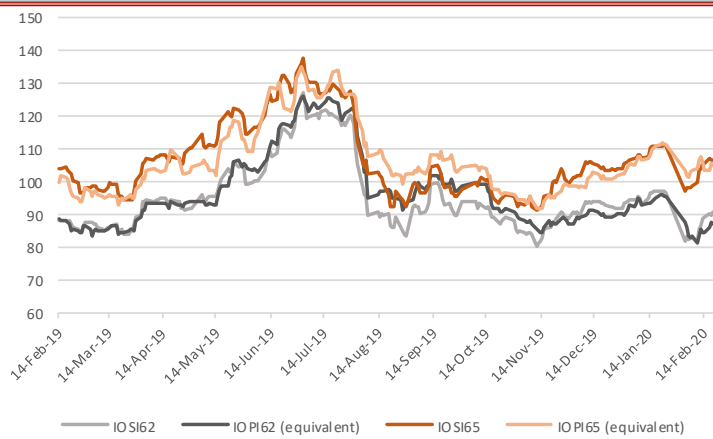
## IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending February 14th, 2019		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne <sup>1</sup>						
Index	Fe Content	October	November	December	January	MTD	QTD	YTD	October	November	December	January	MTD	QTD	YTD
IOPLI62	62.5% Fe Lump	829	794	825	868	814	850	850	108.80	98.44	97.89	108.99	103.78	107.25	107.25

## IRON ORE INDEX PREMIUMS/DISCOUNTS

February 19th, 2020				PORT STOCK INDEX (RMB/WT)		February 19th, 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	-103	-15.51%	IOSI65	65% Fe Fines	15.85	17.47%		
IOPI65	65% Fe Fines	131	19.73%						

## IRON ORE INDEX COMPARISONS (USD/DMT)



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



## IRON ORE BRAND SPOT PRICE ASSESSMENTS

February 19th, 2020				February 19th, 2020			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	632	-1	-32	Roy Hill	85.27	0.80	-5.48
SIMEC Fines	626	-1	-38	SIMEC Fines	81.25	0.80	-9.50
PB Fines	641	-1	-23	PB Fines	89.50	0.80	-1.25
Newman Fines	668	-1	4	Newman Fines	91.80	0.80	1.05
MAC Fines	645	-1	-19	MAC Fines	84.50	0.80	-6.25
Jimblebar Blended Fines	578	-1	-86	Jimblebar Blended Fines	75.00	0.80	-15.75
Carajas Fines	799	-1	135	Carajas Fines	106.82	0.80	16.07
Brazilian SSF	698	-1	34	Brazilian SSF	90.75	0.80	0.00
Brazilian Blend Fines	687	-1	23	Brazilian Blend Fines	93.00	0.80	2.25
RTX Fines	607	-1	-57	RTX Fines	83.00	0.80	-7.75
West Pilbara Fines	637	-1	-27	West Pilbara Fines	83.57	0.80	-7.18

February 19th, 2020			
PORT STOCK INDEX (RMB/WT)			
	Price	Change	Diff to IOPI58
SSF	527	1	-34
FMG Blended Fines	559	1	-2
Robe River	527	1	-34
Western Fines	543	1	-18
Atlas Fines	538	1	-23
Yandi	583	1	22

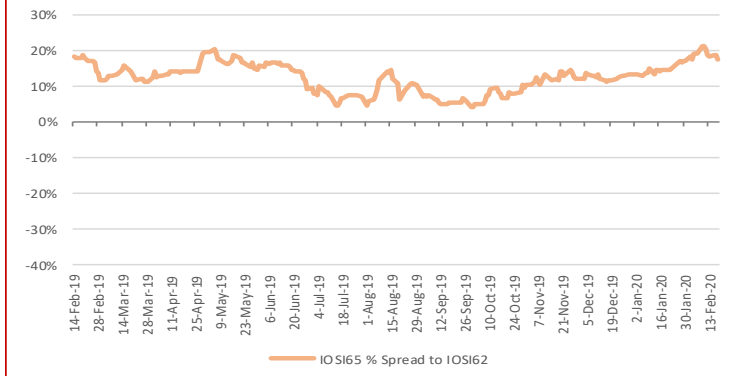
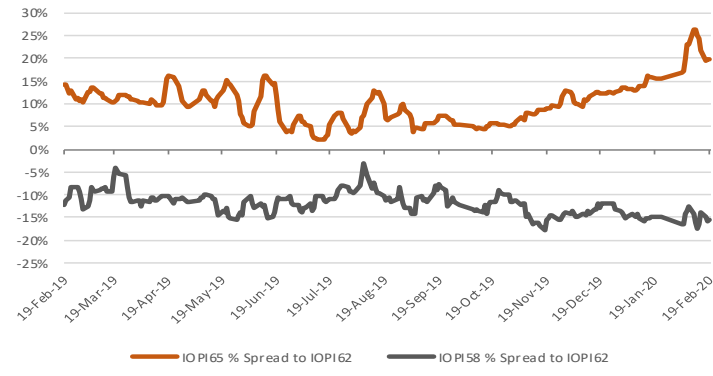
## IRON ORE INDEX NORMALISATION DIFFERENTIALS

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%	6.00	0.00	1% Fe	High Grade Fe 60 - 63%	3.25	0.00
	High Grade Fe 63 - 64%	13.00	0.00		High Grade Fe 63 - 64%	2.75	0.00
	High Grade Fe 64 - 65%	13.00	0.00		High Grade Fe 64 - 65%	2.75	0.00
	High Grade Fe 65 - 65.5%	13.00	0.00		High Grade Fe 65 - 65.5%	2.75	0.00
	Low Grade Fe	7.00	0.00				
1% Alumina	High Fe Grade Al <2.25%	49.00	0.00	1% Alumina	High Fe Grade Al <2.25%	2.50	0.00
	High Fe Grade Al 2.25-4%	13.00	0.00		High Fe Grade Al 2.25-4%	2.50	0.00
	Low Fe Grade Al <2.25%	48.00	0.00				
	Low Fe Grade Al 2.25-4%	23.00	0.00				
1% Silica	High Fe Grade Si <4%	23.00	0.00	1% Silica	High Fe Grade Si <4%	2.25	0.00
	High Fe Grade Si 4-6.5%	17.00	0.00		High Fe Grade Si 4 - 6.5%	1.25	0.00
0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	14.00	0.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	0.50	0.00
	High Fe Grade 0.115%<P<0.15%	0.00	0.00		High Fe Grade 0.115%<P<0.15%	0.25	0.00
	Low Fe Grade 0.09<P<0.1%	6.00	0.00				

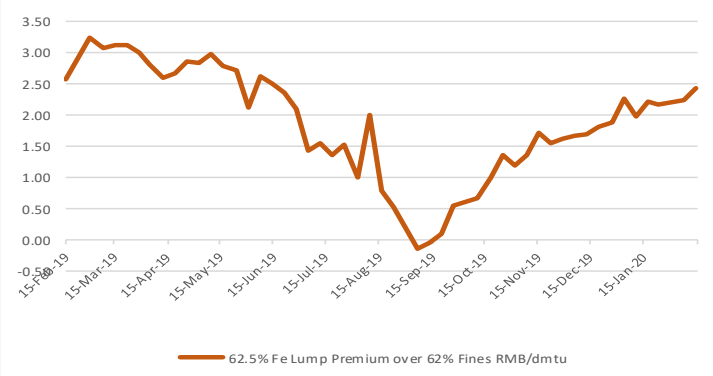
## Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

Port	Value	Change	Port	Value	Change	Port	Value	Change	Port	Value	Change
Bayuquan	-50.00	0.00	Fangcheng	-5.00	0.00	Lanshan	0.00	0.00	Qingdao	0.00	0.00
Beilun	5.00	0.00	Jiangyin	-30.00	0.00	Lianyungang	0.00	0.00	Rizhao	0.00	0.00
Caofeidian	-5.00	0.00	Jingtang	-5.00	0.00	Majishan	0.00	0.00	Shekou	0.00	0.00
Dalian	-50.00	0.00	Lanqiao	0.00	0.00	Nantong	-30.00	0.00	Tianjin	-30.00	0.00

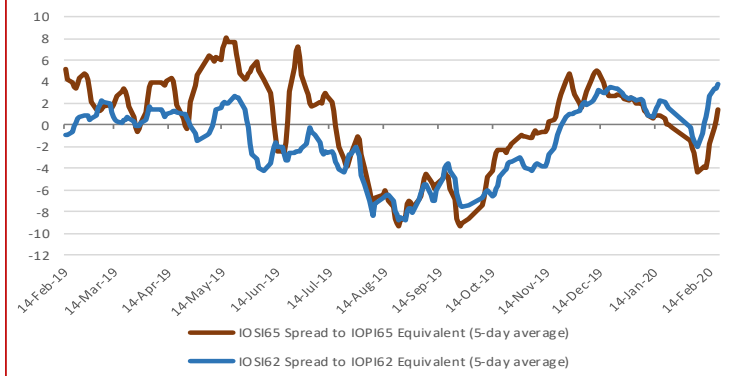
IRON ORE INDEX PREMIUMS/DISCOUNTS



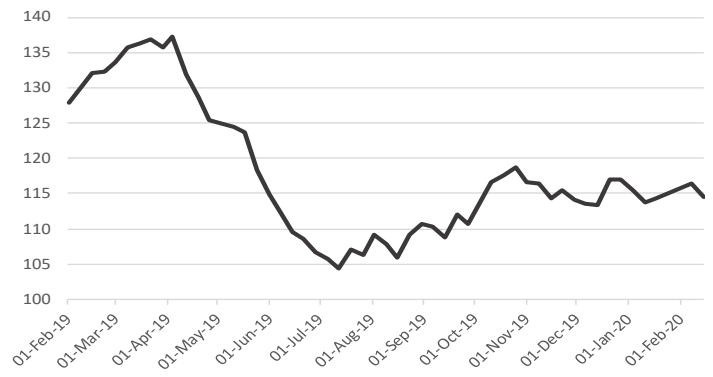
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



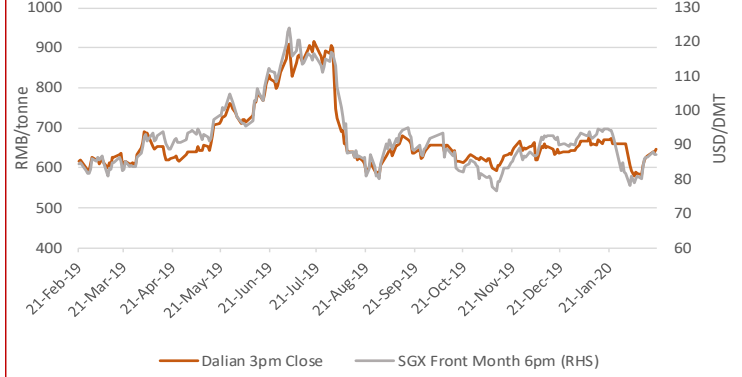
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



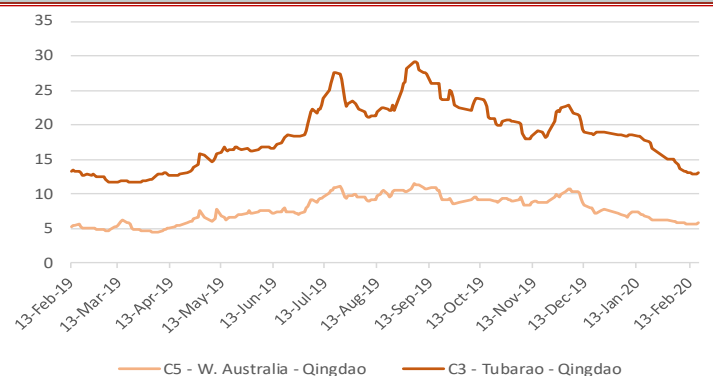
IRON ORE PORT INVENTORIES (MILLION TONNES)

Week Ending February 14th, 2020				
Province	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>
Jingtang	14.76	-7.81%	10.80	17.00
Qingdao	13.07	-5.70%	12.38	19.01
Caofeidian	15.41	-2.10%	13.47	18.98
Tianjin	7.39	0.96%	6.37	9.30
Rizhao	12.60	3.03%	11.41	17.10
<b>Total (35 Ports)</b>	<b>114.55</b>	<b>-1.56%</b>	<b>104.40</b>	<b>137.30</b>

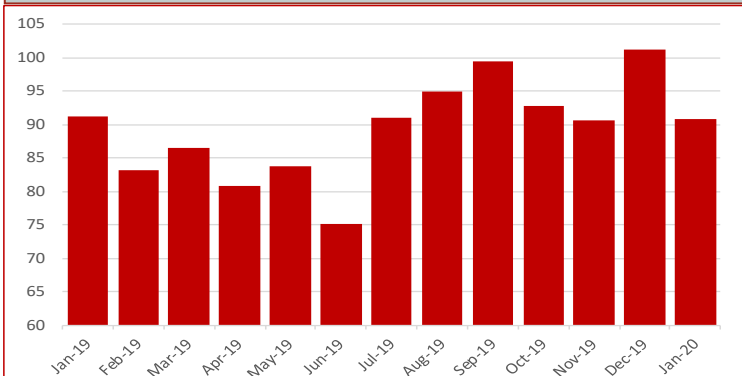
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	Feb 19th 3.00 pm close			Feb 19th, 5.30 pm		
Contract	I2005	Change	Change %	Mar'20	Change	Change %
Closing Price	645.50	6.0	0.94%	87.20	0.15	0.17%
Vol traded ('000 lots)	64.48	-23.1	-26.35%	14.70	-13.22	-47.35%
Open positions ('000 lots)	79.99	2.37	3.05%	148.57	12.77	9.40%
Day Low	634.0	0.0	0.00%	86.00	-0.70	-0.81%
Day High	646.5	1.5	0.23%	87.40	-1.08	-1.22%

DRY BULK FREIGHT RATES (USD/MT)



TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)

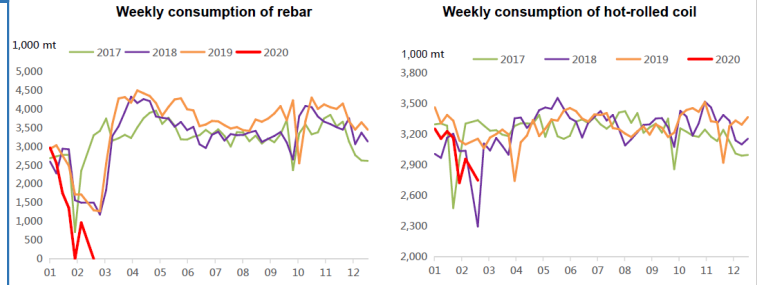


STEEL SPOT MARKET PRICES—CHINA

Steel Spot Market RMB/tonne

Product	7/2/2020	Change	Change %
ReBar HRB400 φ18mm	3,440.0	-30	-0.86%
Wirerod Q300 φ6.5mm	3,560.0	-10	-0.28%
HRC Q235/SS400 5.5mm*1500*C	3,480.0	-80	-2.25%
CRC SPCC/ST12 1.0mm*1250*2500	4,210.0	-140	-3.22%
Medium & Heavy Plate Q235B 20mm	3,600.0	-100	-2.70%
GI ST02Z 1.0mm*1000*C	4,460.0	-20	-0.45%
Colour Coated Plate	6,850.0	-50	-0.72%

CHINESE STEEL CONSUMPTION



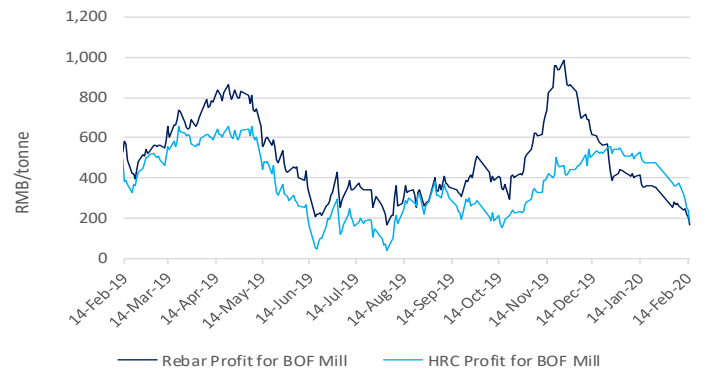
CHINESE STEEL MILL PROFITABILITY

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	89.00	1.75	Mmi CFR Equivalent index for 1st Feb
Coke	1,960	0	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	2,290	0	steel scrap (6mm) in Zhangjiagang, excl. tax
Billet Cost	3,002	73	Q234, incl. tax
Rebar cost - Blast furnace	3,240	70	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	170	-90	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	3,318	73	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	182	-193	based on Shanghai prices, incl. tax

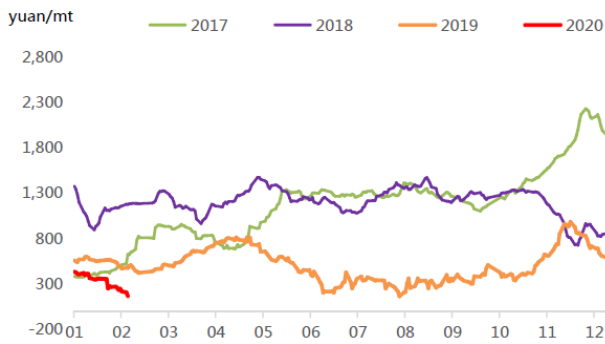
Note: 1.Costs in the table are calculated based on today's market prices and fact our management, sales, financial and depreciations fees.  
2.The cost refers to average cost in the industry based on SMM's survey of small, medium and large mills in China

CHINESE STEEL MILL PROFITABILITY

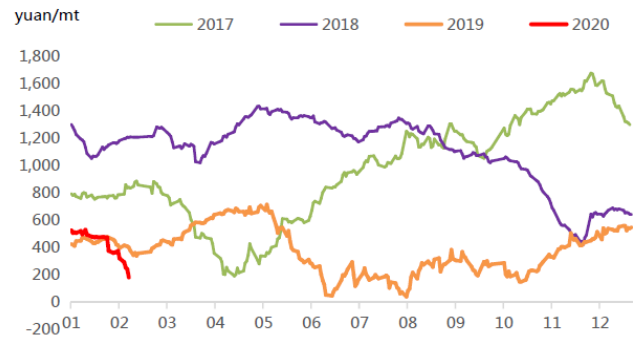


CHINESE STEEL MILL PROFITABILITY

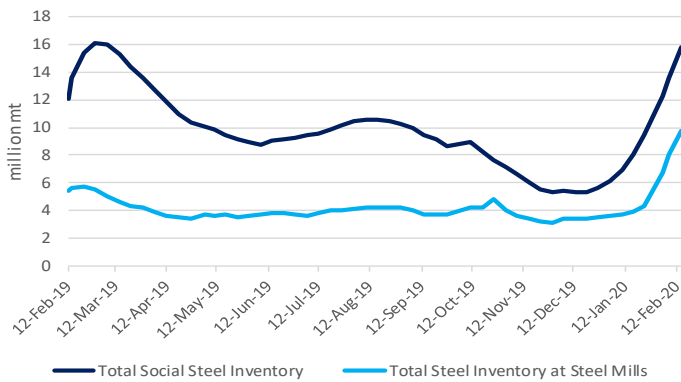
Rebar profits



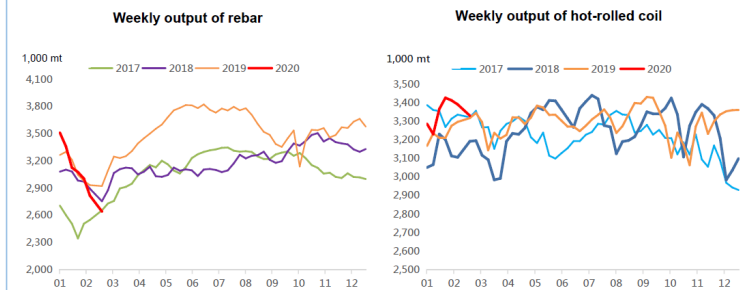
Hot-rolled coil profits



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																		
	<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	<b>Data Exclusions*</b> <table border="1"> <thead> <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>				62%	58%	65%	Port Index	0	0	0	Seaborne Index	0		0	Lump Index 62.5	0		
	62%	58%	65%																				
Port Index	0	0	0																				
Seaborne Index	0		0																				
Lump Index 62.5	0																						
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																			

## 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					
February 19th, 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	60.70%	2.24%	4.89%	0.060%	9.33%	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	61.50%	2.32%	3.82%	0.100%	9.31%	PB Fines 62%	62.00%	2.60%	4.30%	0.090%	10.00%
Newman Fines	62.46%	2.23%	4.12%	0.076%	7.62%	Newman Fines	62.40%	2.20%	4.30%	0.080%	6.40%
MAC Fines	60.74%	2.35%	4.72%	0.072%	7.62%	MAC Fines	61.00%	2.70%	4.70%	0.110%	9.30%
Jimblebar Blended Fines	60.30%	3.11%	4.69%	0.115%	7.71%	Jimblebar Blended Fines	59.50%	3.70%	5.80%	0.135%	8.30%
Carajas Fines	65.17%	1.31%	1.72%	0.082%	7.83%	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	62.63%	1.55%	4.91%	0.072%	8.03%	Brazilian Blend Fines	62.50%	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%
February 19th, 2020	Specifications applied for 58% brand assessments										
	Fe	Alumina	Silica	Phos	Moisture						
SSF	56.71%	3.09%	6.18%	0.059%	9.20%						
FMG Blended Fines	58.23%	2.69%	5.61%	0.060%	7.83%						
Robe River	56.31%	3.17%	5.64%	0.041%	9.10%						
Western Fines	57.88%	2.87%	7.50%	0.062%	7.45%						
Atlas Fines	56.59%	2.55%	7.14%	0.080%	8.46%						
Yandi	57.11%	1.55%	6.42%	0.035%	8.98%						

## 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	IRCNO034
IOPI58	IRCNQ002		IRCNQ005	IOSI65	IRCNO035
IOPI65	IRCNQ003		IRCNQ006		
IOPLI62	IRCNO036		IRCNO037		

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