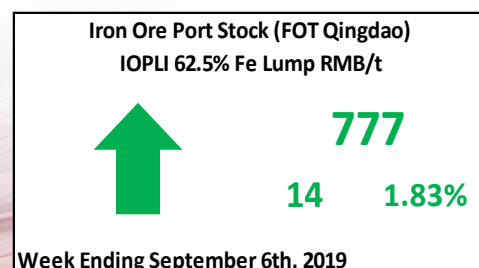
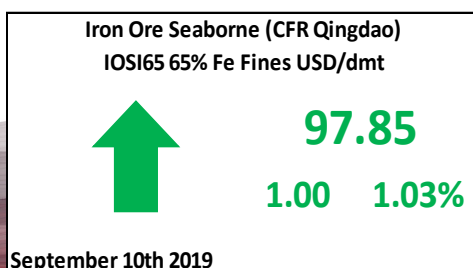
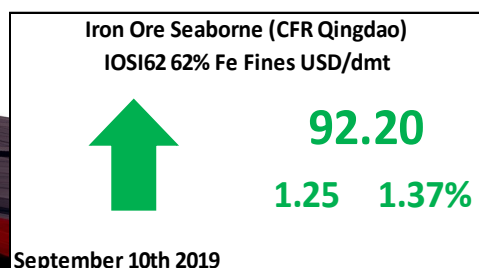
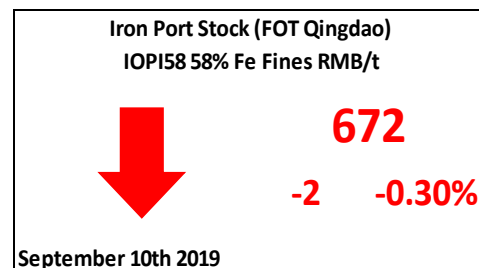
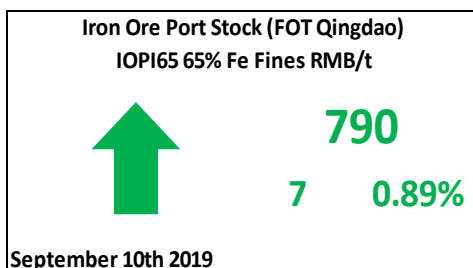
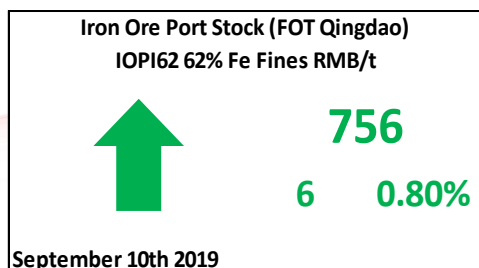


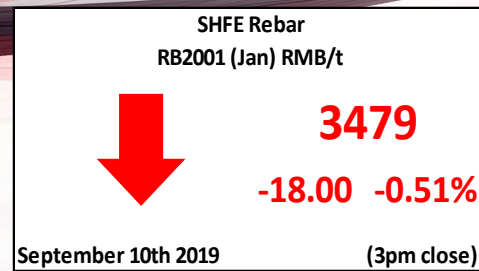
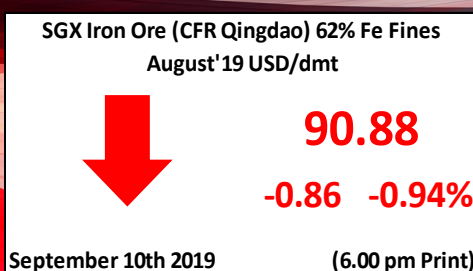
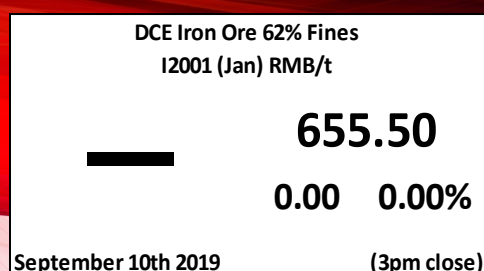


## MMi Dashboard

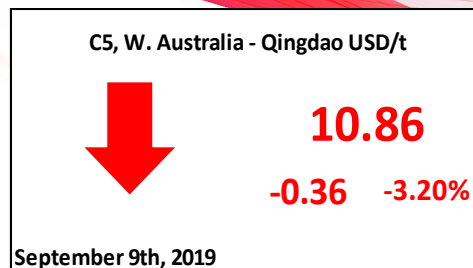
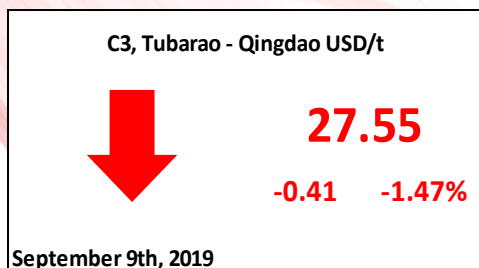
## Iron Ore Price Indices



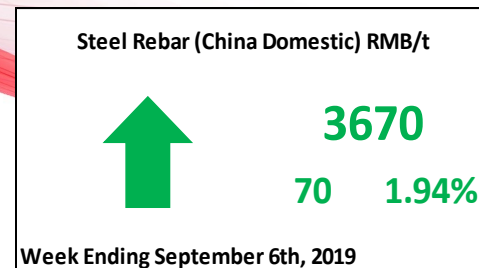
## Exchange Traded Contracts



## Freight Rates



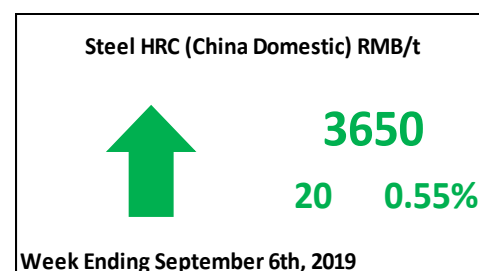
## Steel Price



## Inventory Levels



## Steel Price



## IRON ORE PORT STOCK INDEX (IOPI)

September 10th 2019		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	756	6	0.8%	749	725	497	928	98.84	0.82	0.8%	97.81	97.24	64.11	126.12
IOPI58	58% Fe Fines	672	-2	-0.3%	655	636	374	823	88.40	-0.27	-0.3%	86.06	85.42	46.88	112.44
IOPI65	65% Fe Fines	790	7	0.9%	789	797	654	992	103.46	0.96	0.9%	103.30	107.24	85.47	135.34

## IRON ORE SEABORNE INDEX (IOSI)

## MARKET COMMENTARY

September 10th 2019		CFR Qingdao, USD/dry tonne							Concluded transactions fell off slightly today as offers rose, with the bid/offer gap increasing. Some mills have concluded topping up their inventories, though there are some mills who are likely to continue restocking after the National Day holiday. According to SMM, today's PB Fines was traded around 735-740yuan/mt while PB lump, traded around 790yuan/mt. The price spread between PB Lump and PB Fines shrinking to 50-55yuan/mt. PB lump has held its better cost performance since August. Mills' ratio of lump in the blast furnace mix has increased from mid-August. It is predicted the demand for lump in the future will improve.							
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low <sup>2</sup>	High <sup>2</sup>								
IOSI62	62% Fe Fines	92.20	1.25	1.37%	91.91	95.51	62.95	127.50								
IOSI65	65% Fe Fines	97.85	1.00	1.03%	98.41	108.10	83.20	137.95								

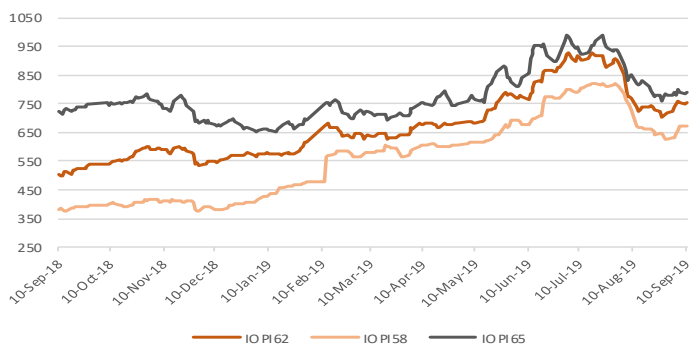
## IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending September 6th, 2019		FOT Qingdao (inc. 16% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 16% 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	777	14	1.8%	777	896	691	1051	94.90	1.66	1.78%	94.90	114.16	87.28	133.81

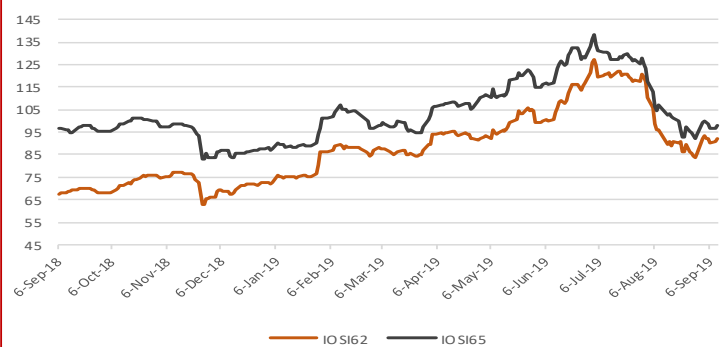
## IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

Week Ending September 6th, 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	788	-2.2%	630	1032	111.19	-2.34%	92.31	150.03
Hebei	Qian'an	65% Fe Concentrate	Dry	840	-1.2%	690	960	118.53	-1.29%	100.26	139.35
Liaoning	Anshan	65% Fe Concentrate	Wet	660	-4.3%	515	745	93.13	-4.46%	75.46	104.66
Shandong	Zibo	65% Fe Concentrate	Dry	840	-1.8%	725	1040	118.53	-1.87%	106.23	151.33
Week Ending September 6th, 2019				This week	Change %	Low <sup>2</sup>	High <sup>2</sup>	1 Exchange rate applied: RMB/USD = 7.0846 <sup>2</sup> Last 12 months <sup>3</sup> Weekly exchange rate applied: RMB/USD 7.0870			
China Mines Concentrate Composite Index RMB/WT				731.70	-2.5%	609.04	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

September 10th 2019		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne						
Index	Fe Content	May	June	July	August	MTD	QTD	YTD	May	June	July	August	MTD	QTD	YTD
IOPI62	62% Fe Fines	729	825	909	759	749	824	725	98.40	111.42	123.29	100.18	97.81	110.08	97.24
IOPI58	58% Fe Fines	637	726	809	691	655	738	636	86.39	98.60	110.47	91.86	86.06	99.31	85.42
IOPI65	65% Fe Fines	812	901	954	823	789	876	797	110.00	121.97	129.53	108.92	103.30	117.28	107.24

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

## FREIGHT RATES

September 10th 2019		CFR Qingdao, USD/dry tonne							September 9th, 2019		FREIGHT RATES - DRY BULK US\$/wet tonne				
Index	Fe Content	May	June	July	August	MTD	QTD	YTD	Route	Designation	Change	Change %	Low <sup>2</sup>	High <sup>2</sup>	
IOSI62	62% Fe Fines	98.68	108.57	120.82	92.61	91.91	105.49	95.51	W. Australia - Qingdao	C5	10.86	-0.36	-3.20%	4.39	11.42
IOSI65	65% Fe Fines	115.53	124.49	129.53	101.34	98.41	113.90	108.10	Tubarao - Qingdao	C3	27.55	-0.41	-1.47%	11.61	29.10

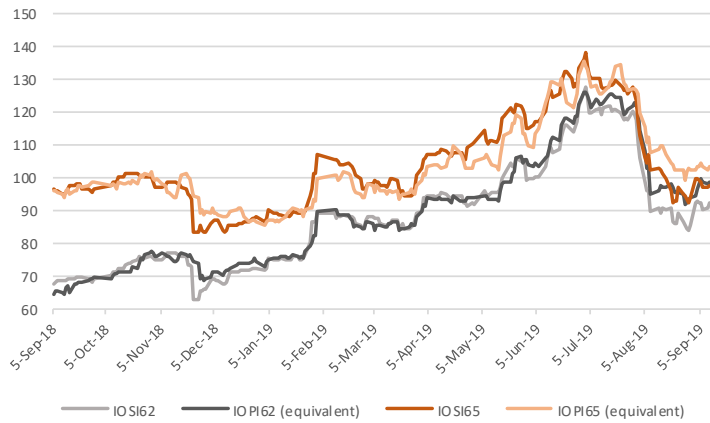
## IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending September 6th, 2019		FOT Qingdao (inc. 16% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 16% VAT), USD/dry tonne <sup>1</sup>						
Index	Fe Content	May	June	July	August	MTD	QTD	YTD	May	June	July	August	MTD	QTD	YTD
IOPLI62	62.5% Fe Lump	919	1009	1046	870	777	931	896	117.12	128.00	132.99	108.80	94.90	119.15	114.16

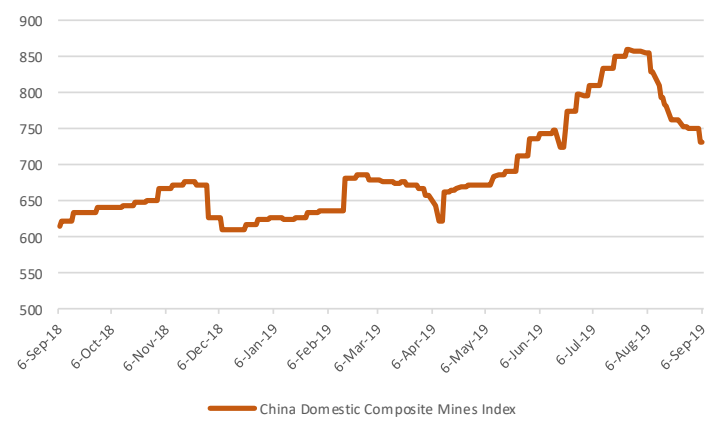
## IRON ORE INDEX PREMIUMS/DISCOUNTS

September 10th 2019				PORT STOCK INDEX (RMB/WT)		September 10th 2019		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	-84	-11.11%	IOSI65	65% Fe Fines	5.65	6.13%		
IOPI65	65% Fe Fines	34	4.50%						

## IRON ORE INDEX COMPARISONS (USD/DMT)



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



## IRON ORE BRAND SPOT PRICE ASSESSMENTS

September 10th 2019				September 10th 2019			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IO SI62
Roy Hill	719	6	-37	Roy Hill	90.32	1.47	-1.88
SIMEC Fines	677	9	-79	SIMEC Fines	88.22	1.82	-3.98
PB Fines	736	3	-20	PB Fines	91.12	1.32	-1.08
Newman Fines	756	7	0	Newman Fines	92.25	1.33	0.05
MAC Fines	731	5	-25	MAC Fines	89.92	1.42	-2.28
Jimblebar Blended Fines	677	-4	-79	Jimblebar Blended Fines	82.80	1.70	-9.40
Carajas Fines	793	8	37	Carajas Fines	97.90	1.25	5.70
Brazilian SSF	686	14	-70	Brazilian SSF	89.70	1.88	-2.50
Brazilian Blend Fines	738	9	-18	Brazilian Blend Fines	91.57	1.50	-0.63
RTX Fines	693	1	-63	RTX Fines	86.37	1.37	-5.83
West Pilbara Fines	714	5	-42	West Pilbara Fines	90.27	1.42	-1.93

September 10th 2019			
PORT STOCK INDEX (RMB/WT)			
	Price	Change	Diff to IOPI58
SSF	612	-11	-60
FMG Blended Fines	675	-4	3
Robe River	619	-8	-53
Western Fines	620	-12	-52
Atlas Fines	608	-10	-64
Yandi	654	-7	-18

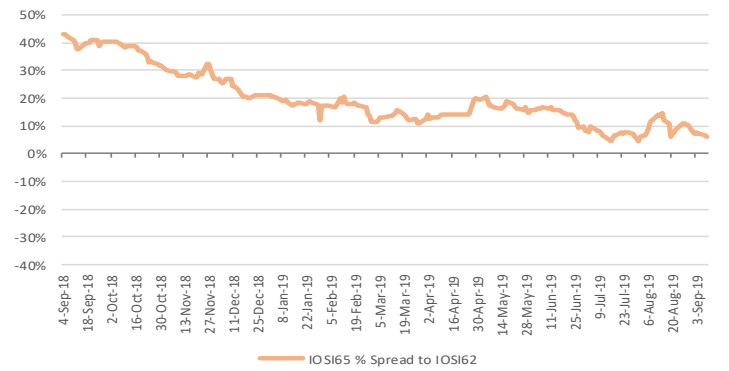
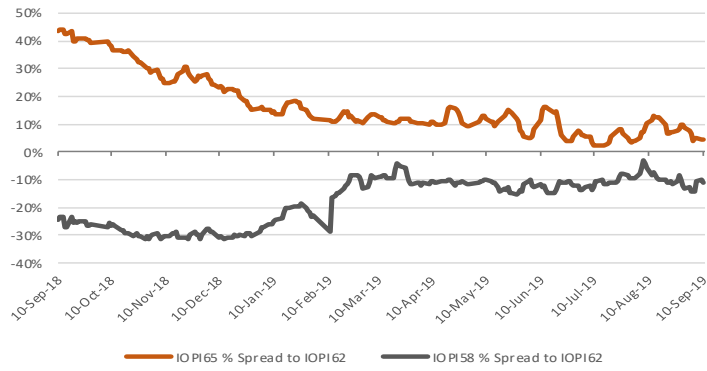
## IRON ORE INDEX NORMALISATION DIFFERENTIALS

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%	7.00	2.00	1% Fe	High Grade Fe 60 - 63%	0.50	0.00	
	High Grade Fe 63 - 64%	10.00	0.00		High Grade Fe 63 - 64%	1.75	0.00	
	High Grade Fe 64 - 65%	10.00	0.00		High Grade Fe 64 - 65%	1.75	0.00	
	High Grade Fe 65 - 65.5%	10.00	0.00		High Grade Fe 65 - 65.5%	1.75	0.00	
	Low Grade Fe	17.00	1.00					
1% Alumina	High Fe Grade Al <2.25%	0.00	0.00	1% Alumina	High Fe Grade Al <2.25%	0.50	0.00	
	High Fe Grade Al 2.25-4%	30.00	5.00		High Fe Grade Al 2.25-4%	2.00	0.00	
	Low Fe Grade Al <2.25%	15.00	-3.00					
	Low Fe Grade Al 2.25-4%	30.00	6.00					
1% Silica	High Fe Grade Si <4%	3.00	0.00	1% Silica	High Fe Grade Si <4%	0.50	0.00	
	High Fe Grade Si 4-6.5%	34.00	-3.00		High Fe Grade Si 4 - 6.5%	1.25	-0.25	
0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	3.00	3.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	0.00	0.00	
	High Fe Grade 0.115%<P<0.15%	5.00	-2.00		High Fe Grade 0.115%<P<0.15%	1.50	0.00	
	Low Fe Grade 0.09<P<0.1%	0.00	0.00					

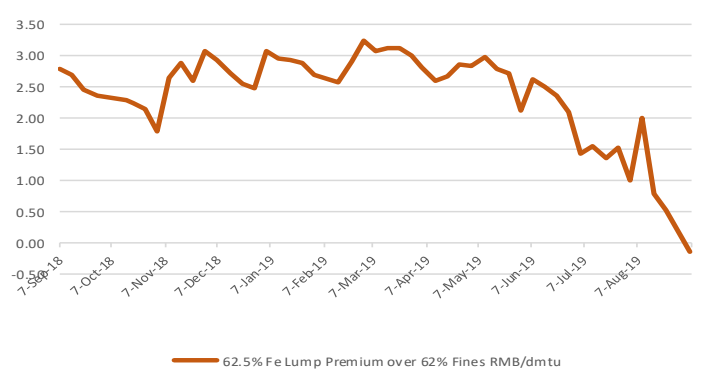
## Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

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	Qingdao	0.00	0.00
Beilun	5.00	0.00	Jiangyin	-20.00	0.00	Lianyungang	0.00	0.00	Rizhao	0.00	0.00
Caofeidian	-20.00	0.00	Jingtang	-20.00	0.00	Majishan	0.00	0.00	Shekou	0.00	0.00
Dalian	-35.00	0.00	Lanqiao	0.00	0.00	Nantong	-20.00	0.00	Tianjin	-10.00	0.00

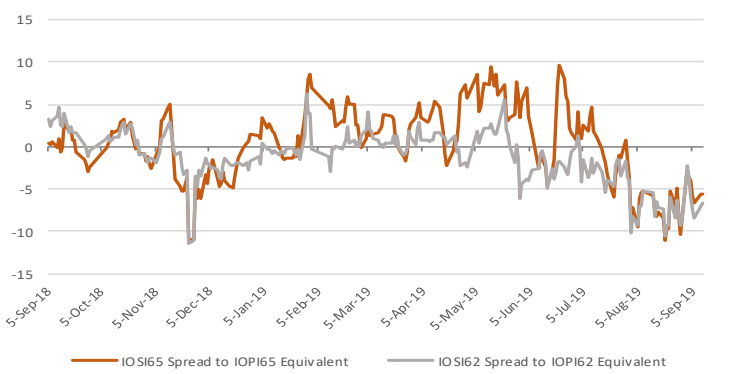
IRON ORE INDEX PREMIUMS/DISCOUNTS



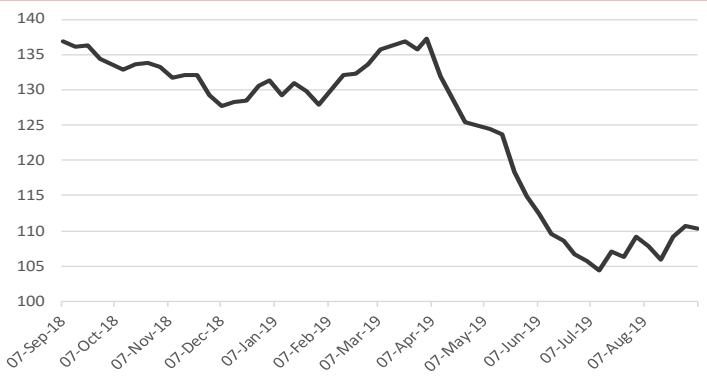
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



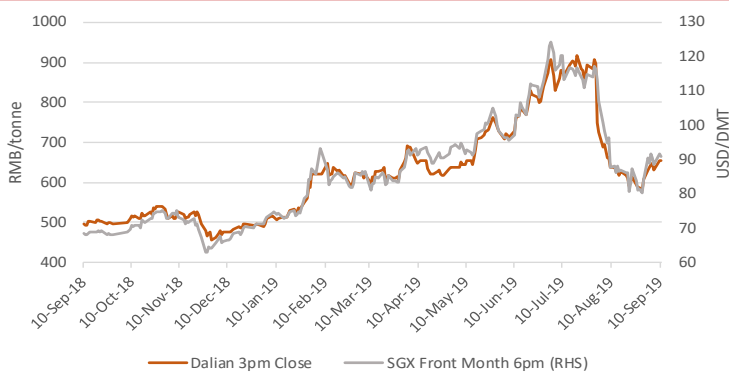
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



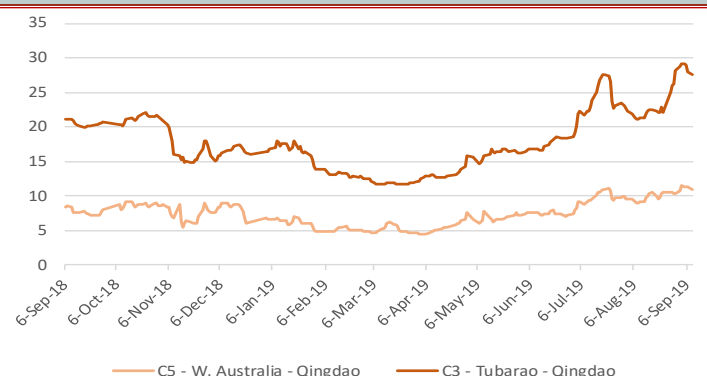
IRON ORE PORT INVENTORIES (MILLION TONNES)

Week Ending September 6th, 2019				
Province	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>
Jingtang	12.85	-0.70%	10.80	16.37
Qingdao	13.17	-0.75%	12.38	19.01
Caofeidian	14.75	-3.53%	14.32	20.10
Tianjin	7.09	-1.39%	6.39	10.05
Rizhao	12.13	1.42%	11.65	17.10
<b>Total (35 Ports)</b>	<b>110.30</b>	<b>-0.32%</b>	<b>104.40</b>	<b>137.30</b>

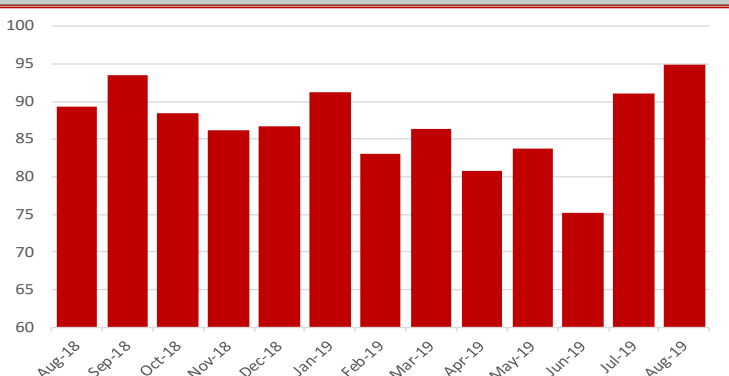
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	Sept 10th 3pm close			Sept 10th 5.30 pm		
Contract	I2001	Change	Change %	Sep'19	Change	Change %
Closing Price	655.50	0.0	0.00%	90.88	-0.86	-0.94%
Vol traded ('000 lots)	238.41	-102.6	-30.10%	6.22	-0.46	-6.82%
Open positions ('000 lots)	146.55	-10.0	-6.37%	157.69	1.76	1.13%
Day Low	643.0	22.0	3.54%	90.88	1.55	1.74%
Day High	660.0	4.0	0.61%	92.05	0.31	0.34%

DRY BULK FREIGHT RATES (USD/MT)



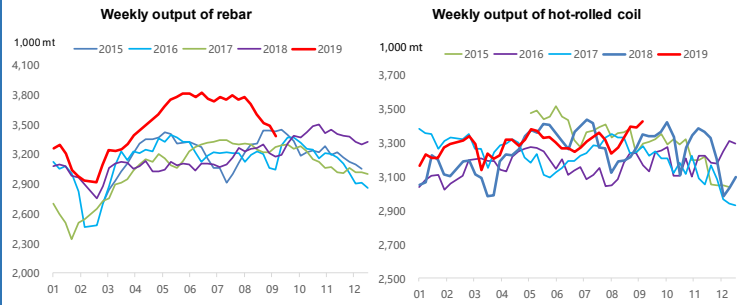
TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)



STEEL SPOT MARKET PRICES—CHINA

Steel Spot Market RMB/tonne

Product	6/9/2019	Change	Change %
ReBar HRB400 φ18mm	3,670.0	70	1.94%
Wirerod Q300 φ6.5mm	3,970.0	90	2.32%
HRC Q235/SS400 5.5mm*1500*C	3,650.0	20	0.55%
CRC SPPC/ST12 1.0mm*1250*2500	4,250.0	30	0.71%
Medium & Heavy Plate Q235B 20mm	3,760.0	10	0.27%
GI ST02Z 1.0mm*1000*C	4,490.0	0	0.00%
Colour Coated Plate	6,950.0	-50	-0.71%



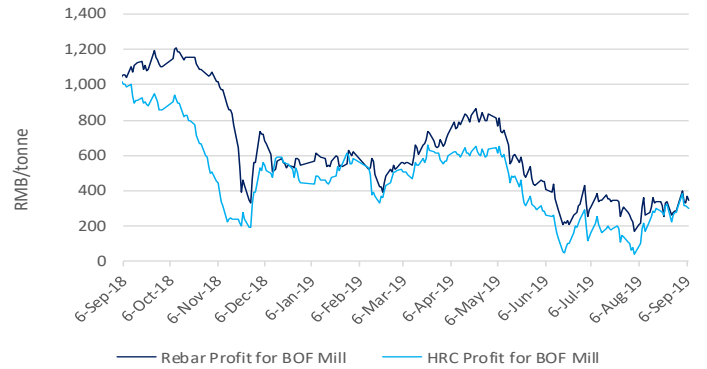
CHINESE STEEL MILL PROFITABILITY

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	92.30	8.55	Mmi CFR Equivalent index for 1st Feb
Coke	1,910	-100	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	2,270	50	steel scrap (6mm) in Zhangjiagang, excl. tax
Billet Cost	3,062	56	Q234, incl. tax
Rebar cost - Blast furnace	3,306	51	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	344	29	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	3,378	55	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	302	-5	based on Shanghai prices, incl. tax

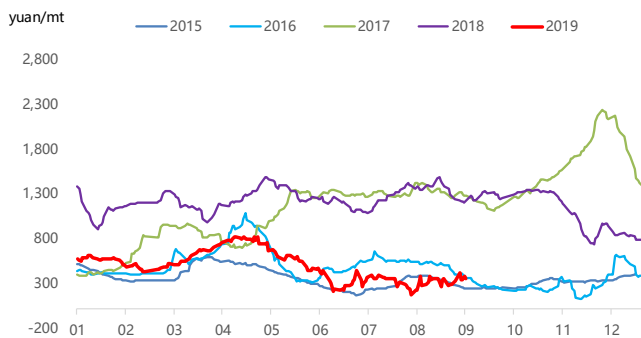
Note: 1. Costs in the table are calculated based on today's market prices and facout our management, sales, financial and depreciations fees.  
2. The cost refers to average cost in the industry based on SMM's survey of small, medium and large mills in China

CHINESE STEEL MILL PROFITABILITY

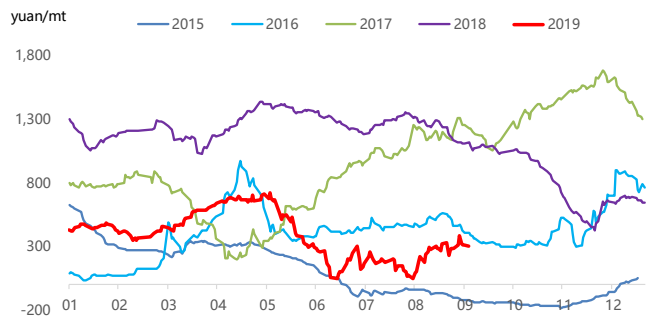


CHINESE STEEL MILL PROFITABILITY

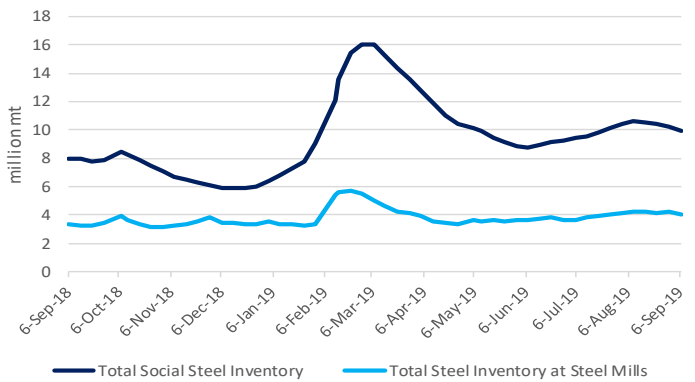
Rebar profits



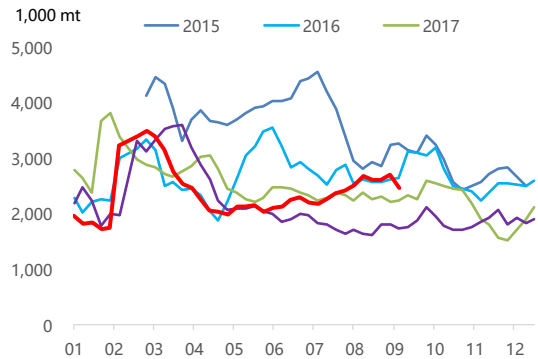
Hot-rolled coil profits



CHINESE STEEL INVENTORIES



In-plant inventory of rebar



## 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					
September 10th 2019	Specifications applied for 62% brand assessments						Specifications applied for 62% brand assessments				
	Fe	Alumina	Silica	Phos	Moisture		Fe	Alumina	Silica	Phos	Moisture
Roy Hill	61.16%	2.25%	4.61%	0.052%	9.35%	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	61.51%	2.37%	3.76%	0.097%	9.45%	PB Fines 62%	62.00%	2.60%	4.30%	0.090%	10.00%
Newman Fines	62.52%	2.16%	4.15%	0.088%	7.74%	Newman Fines	62.80%	2.20%	4.30%	0.080%	6.40%
MAC Fines	60.82%	2.24%	4.58%	0.079%	7.59%	MAC Fines	61.00%	2.70%	4.70%	0.110%	9.30%
Jimblebar Blended Fines	60.58%	3.04%	4.57%	0.119%	7.51%	Jimblebar Blended Fines	59.50%	3.70%	5.80%	0.135%	8.30%
Carajas Fines	65.46%	1.32%	1.35%	0.075%	8.32%	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	62.90%	1.54%	4.59%	0.070%	8.49%	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%

September 10th 2019	Specifications applied for 58% brand assessments				
	Fe	Alumina	Silica	Phos	Moisture
SSF	56.58%	3.08%	6.33%	0.057%	8.05%
FMG Blended Fines	58.20%	2.60%	5.44%	0.059%	7.77%
Robe River	56.28%	2.91%	5.58%	0.035%	9.29%
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	57.31%	1.54%	6.33%	0.041%	8.90%

## 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		

## CONTACT US

MMi Singapore Office Details: Level 28, Manulife Tower, 8 Cross Street Singapore. Tel: + 65 6850 7629 E: [jarek@mmiprices.com](mailto:jarek@mmiprices.com)  
 SMM Singapore Office Details: Level 28, Manulife Tower, 8 Cross Street Singapore. Tel: + 65 6850 7630 E: [service.en@smm.cn](mailto:service.en@smm.cn)  
 SMM Shanghai Office Details: 9th FL, Building 9, Lujiazui Software Park, No.20, Lane 91, Pudong, Shanghai Tel: +86 021 5155 0306 E: [service.en@smm.cn](mailto:service.en@smm.cn)

Visit [www.mmiprices.com](http://www.mmiprices.com) for full index price histories and archive of daily reports

This information has been prepared by Metals Market Index ("MMI"). Use of the information presented here is at your sole risk, and any content, material and/or data presented or otherwise obtained through your use of the information in this document is at your own discretion and risk and you will be solely responsible for any damage to you personally or your company or organisation or business associates whatsoever which in anyway results from the use, reliance or application of such content material and/or information. Certain data has been obtained from various sources and any copyright existing in such data shall remain the property of the source. Except for the foregoing, MMI retains all copyright within this document. The copying or redistribution of any part of this document without the express written authority of MMI is forbidden.