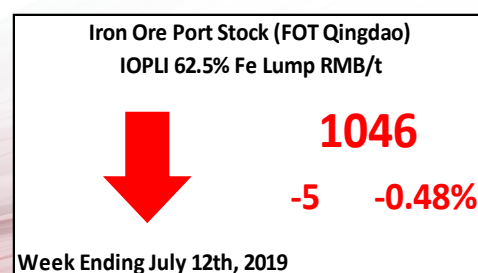
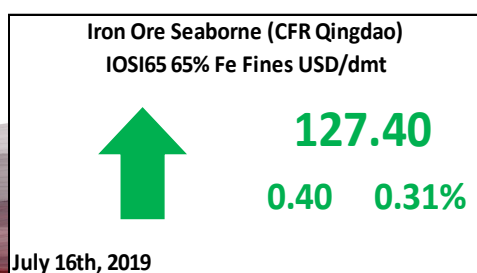
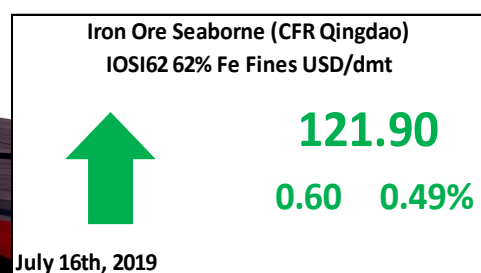
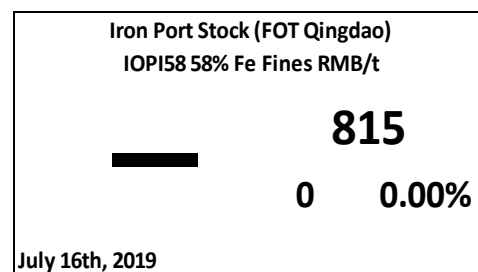
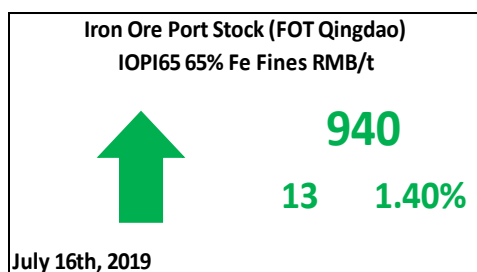
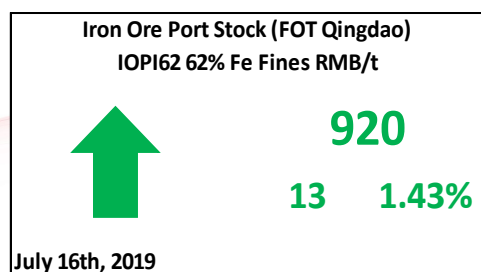


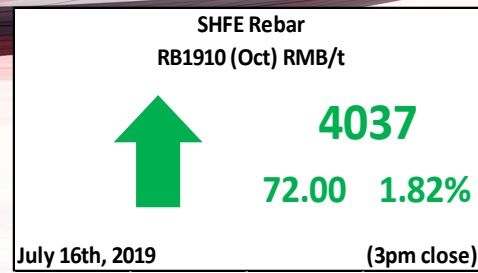
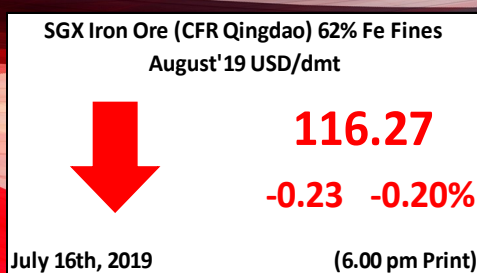
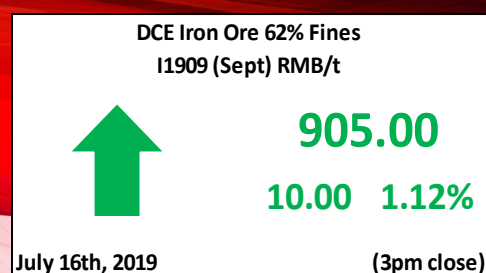


## MMi Dashboard

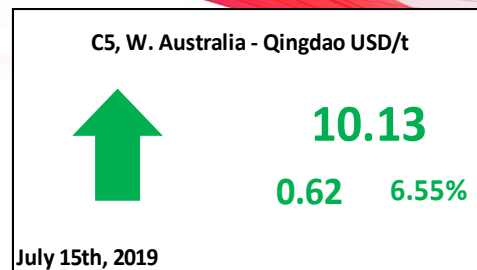
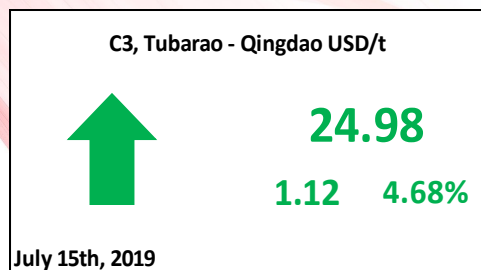
## Iron Ore Price Indices



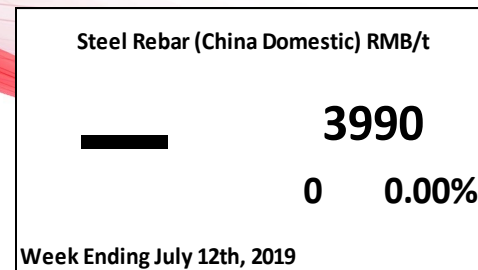
## Exchange Traded Contracts



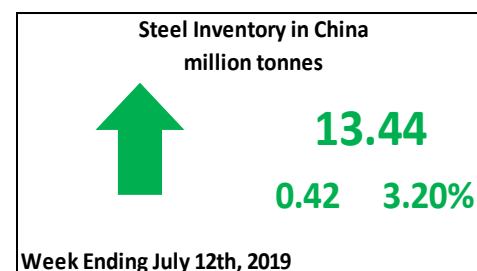
## Freight Rates



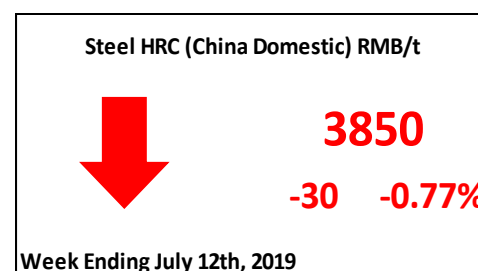
## Steel Price



## Inventory Levels



## Steel Price



## IRON ORE PORT STOCK INDEX (IOPI)

July 16th, 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	920	13	1.4%	912	703	472	928	124.88	1.76	1.4%	123.74	94.54	62.35	126.12
IOPI58	58% Fe Fines	815	0	0.0%	801	611	344	815	111.39	-0.05	0.0%	109.39	82.08	43.55	111.44
IOPI65	65% Fe Fines	940	13	1.4%	952	779	627	992	127.68	1.76	1.4%	129.28	105.26	84.12	135.34

## IRON ORE SEABORNE INDEX (IOSI)

## MARKET COMMENTARY

July 16th, 2019		CFR Qingdao, USD/dry tonne							A DCE iron ore futures high failed to rouse mill or trader demand today, though the physical iron ore port market saw higher concluded trades. Traders in particular seemed happy to offer material to sell. According to SMM, iron ore arrivals at Qingdao, Jingtang and Rizhao are expected to increase and this made traders look to quickly take profit should increasing inventories dampen pricing sentiment. Production cuts in Tangshan and Wu'an maintain their strict levels and thus iron ore demand may maintain current levels, with little supports from the mills. The Dalian Commodity Exchange will increase its iron ore transaction fees on the night plate of July 17, which may put pressure on the iron ore DCE Futures market.						
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low <sup>3</sup>	High <sup>3</sup>							
IOSI62	62% Fe Fines	121.90	0.60	0.49%	122.01	94.16	62.95	127.50							
IOSI65	65% Fe Fines	127.40	0.40	0.31%	131.31	108.02	83.20	137.95							

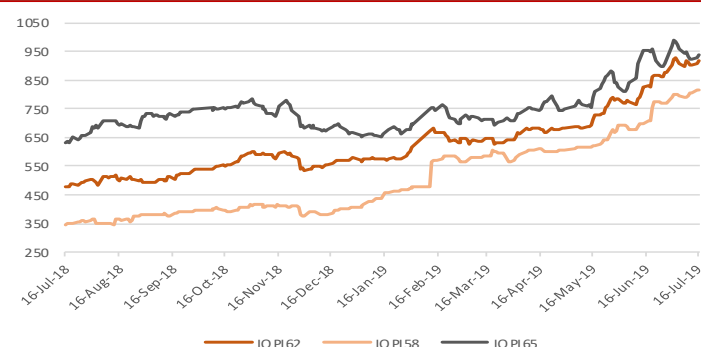
## IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending July 12th, 2019		FOT Qingdao (inc. 16% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 16% VAT), USD/dry tonne <sup>4</sup>						
Index	Fe Content	Price	W-o-W	Change %	MTD	YTD	Low <sup>3</sup>	High <sup>3</sup>	Price	W-o-W	Change %	MTD	YTD	Low <sup>3</sup>	High <sup>3</sup>
IOPLI62	62.5% Fe Lump	1046	-5	-0.5%	1049	895	611	1051	132.90	-0.91	-0.68%	133.35	114.63	77.55	133.81

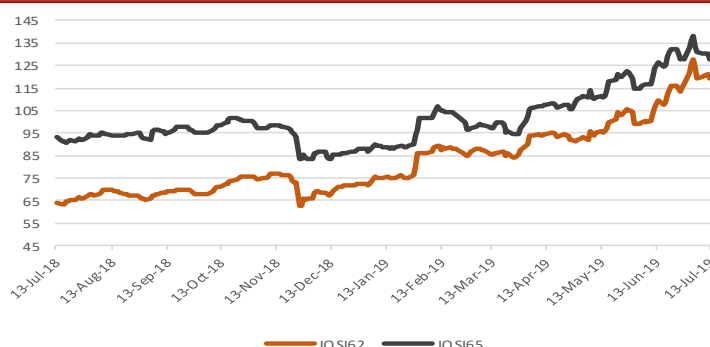
## IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

Week Ending July 12th, 2019				RMB/tonne (excluding tax) <sup>4</sup>				USD/tonne (excluding tax) <sup>4</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	1032	4.3%	600	1032	150.03	4.15%	91.97	150.03
Hebei	Qian'an	65% Fe Concentrate	Dry	925	2.2%	665	925	134.48	2.01%	100.26	134.48
Liaoning	Anshan	65% Fe Concentrate	Wet	705	2.9%	465	745	102.49	2.72%	68.21	102.49
Shandong	Zibo	65% Fe Concentrate	Dry	1010	0.0%	660	1010	146.83	-0.19%	99.75	147.11
Week Ending July 12th, 2019				This week	Change %	Low <sup>2</sup>	High <sup>2</sup>	<sup>1</sup> Exchange rate applied: RMB/USD = 6.8710 <sup>2</sup> Last 12 months <sup>3</sup> Since June 1 <sup>4</sup> Weekly exchange rate applied: RMB/USD 6.8786			
China Mines Concentrate Composite Index RMB/WT				834.48	2.9%	552.39	834.48				

## 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

July 16th, 2019		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne						
Index	Fe Content	March	April	May	June	MTD	QTD	YTD	March	April	May	June	MTD	QTD	YTD
IOPI62	62% Fe Fines	639	675	729	825	912	912	703	87.09	85.37	98.40	111.42	123.74	123.74	94.54
IOPI58	58% Fe Fines	583	600	637	726	801	801	611	75.22	77.49	86.39	98.60	109.39	109.39	82.08
IOPI65	65% Fe Fines	714	753	812	901	952	952	779	98.08	95.78	110.00	121.97	129.28	129.28	105.26

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

## FREIGHT RATES

July 16th, 2019		CFR Qingdao, USD/dry tonne							July 15th, 2019		FREIGHT RATES - DRY BULK US\$/wet tonne				
Index	Fe Content	March	April	May	June	MTD	QTD	YTD	Route	Designation	Change	Change %	Low <sup>2</sup>	High <sup>2</sup>	
IOSI62	62% Fe Fines	86.18	93.42	98.68	108.57	122.01	122.01	94.16	W. Australia - Qingdao	C5	10.13	0.62	6.55%	4.39	10.13
IOSI65	65% Fe Fines	97.22	106.75	115.53	124.49	131.31	131.31	108.02	Tubarao - Qingdao	C3	24.98	1.12	4.68%	11.61	24.98

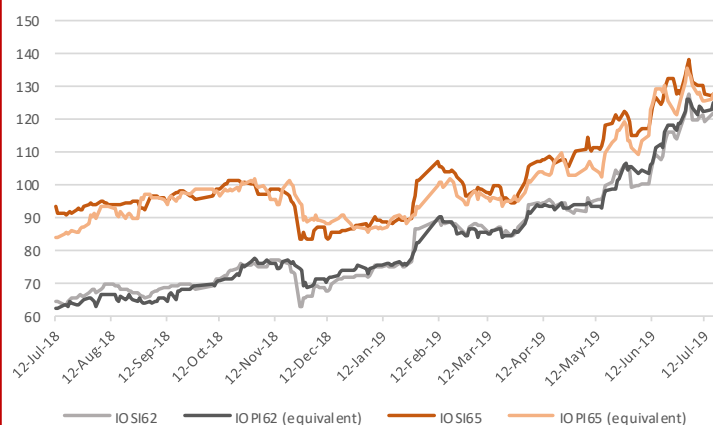
## IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending July 12th, 2019		FOT Qingdao (inc. 16% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 16% VAT), USD/dry tonne <sup>1</sup>						
Index	Fe Content	March	April	May	June	MTD	QTD	YTD	March	April	May	June	MTD	QTD	YTD
IOPLI62	62.5% Fe Lump	858	872	919	1009	1049	1049	895	99.57	111.03	117.12	128.00	133.35	133.35	114.63

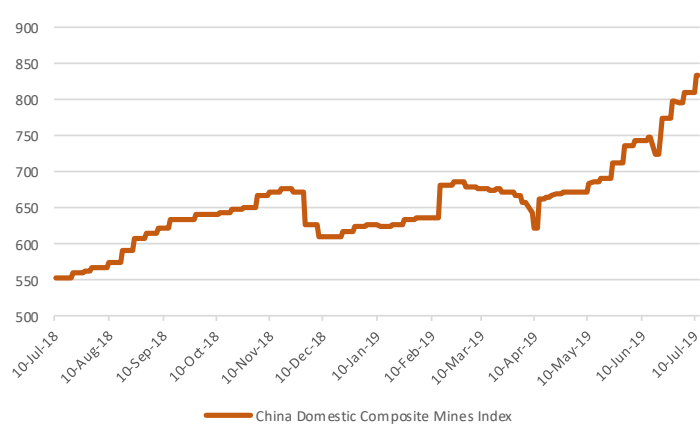
## IRON ORE INDEX PREMIUMS/DISCOUNTS

July 16th, 2019		PORT STOCK INDEX (RMB/WT)		July 16th, 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	-105	-11.41%	IOSI65	65% Fe Fines	5.50	4.51%
IOPI65	65% Fe Fines	20	2.17%				

## IRON ORE INDEX COMPARISONS (USD/DMT)



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



## IRON ORE BRAND SPOT PRICE ASSESSMENTS

July 16th, 2019				July 16th, 2019			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	876	11	-44	Roy Hill	119.24	0.68	-2.66
SIMEC Fines	824	5	-96	SIMEC Fines	117.14	0.50	-4.76
PB Fines	903	13	-17	PB Fines	121.41	0.35	-0.49
Newman Fines	924	13	4	Newman Fines	122.90	0.34	1.00
MAC Fines	890	11	-30	MAC Fines	118.54	-0.05	-3.36
Jimblebar Blended Fines	879	10	-41	Jimblebar Blended Fines	116.01	-0.75	-5.89
Carajas Fines	941	13	21	Carajas Fines	127.50	1.64	5.60
Brazilian SSF	826	5	-94	Brazilian SSF	120.65	0.29	-1.25
Brazilian Blend Fines	886	11	-34	Brazilian Blend Fines	122.27	0.41	0.37
RTX Fines	877	9	-43	RTX Fines	117.14	-0.32	-4.76
West Pilbara Fines	875	9	-45	West Pilbara Fines	118.49	0.88	-3.41

July 16th, 2019			
PORT STOCK INDEX (RMB/WT)			
	Price	Change	Diff to IOPI58
SSF	756	-2	-59
FMG Blended Fines	817	-1	2
Robe River	756	-2	-59
Western Fines	778	-2	-37
Atlas Fines	766	-1	-49
Yandi	844	-2	29

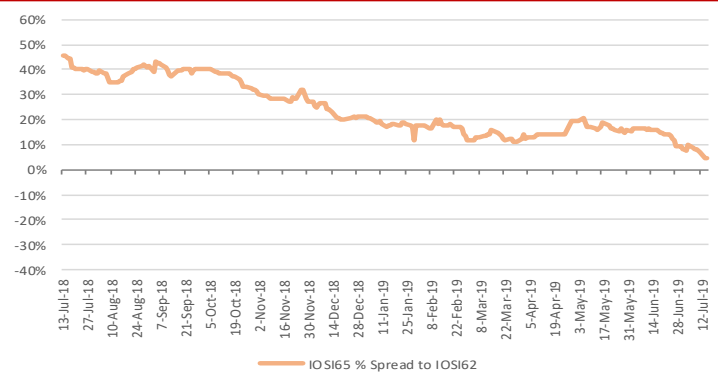
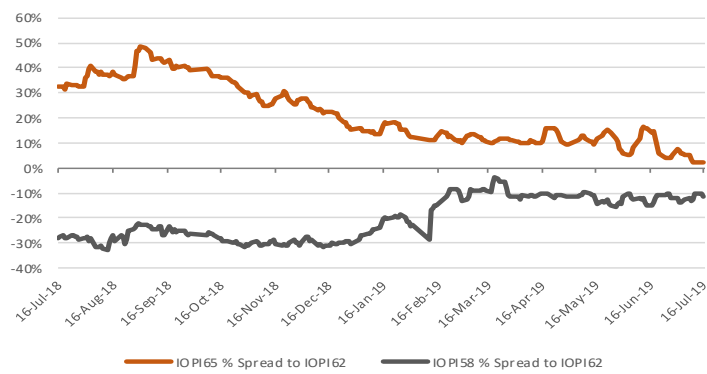
## IRON ORE INDEX NORMALISATION DIFFERENTIALS

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	1.00	1% Fe	High Grade Fe 60 - 63%	1.50	-0.25
	High Grade Fe 63 - 64%	7.00	0.00		High Grade Fe 63 - 64%	1.50	0.25
	High Grade Fe 64 - 65%	7.00	0.00		High Grade Fe 64 - 65%	1.50	0.25
	High Grade Fe 65 - 65.5%	7.00	0.00		High Grade Fe 65 - 65.5%	1.50	0.25
	Low Grade Fe	16.00	0.00	1% Alumina	High Fe Grade Al <2.25%	0.50	0.25
1% Alumina	High Fe Grade Al <2.25%	3.00	0.00		High Fe Grade Al 2.25-4%	0.75	0.50
	High Fe Grade Al 2.25-4%	3.00	2.00		High Fe Grade Si <4%	0.25	0.25
	Low Fe Grade Al <2.25%	59.00	-3.00		High Fe Grade Si 4 - 6.5%	0.75	0.25
	Low Fe Grade Al 2.25-4%	43.00	3.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	0.50	0.50
1% Silica	High Fe Grade Si <4%	0.00	0.00		High Fe Grade 0.115%<P<0.15%	0.50	0.00
	High Fe Grade Si 4-6.5%	46.00	3.00				
	Low Fe Grade	11.00	0.00				
0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	1.00	0.00				
	High Fe Grade 0.115%<P<0.15%	8.00	0.00				
	Low Fe Grade 0.09%<P<0.1%	2.00	-1.00				

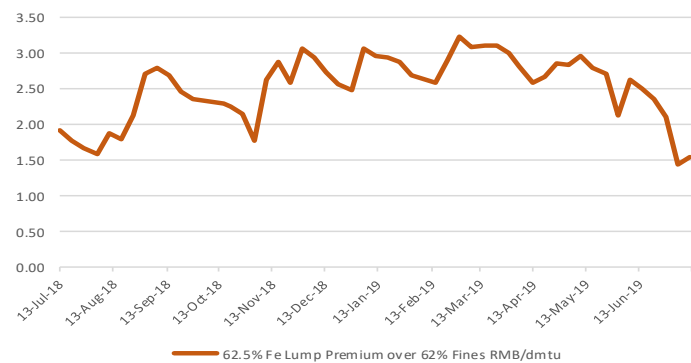
## Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

Port	Value	Change	Port	Value	Change	Port	Value	Change	Port	Value	Change
Bayuquan	-15.00	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	-10.00	0.00	Rizhao	0.00	0.00
Caofeidian	-15.00	0.00	Jingtang	-15.00	0.00	Majishan	0.00	0.00	Shekou	0.00	0.00
Dalian	-15.00	0.00	Langqiao	0.00	0.00	Nantong	-20.00	0.00	Tianjin	0.00	0.00

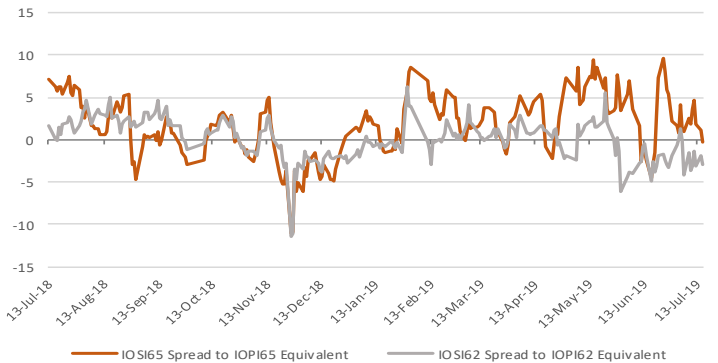
## IRON ORE INDEX PREMIUMS/DISCOUNTS



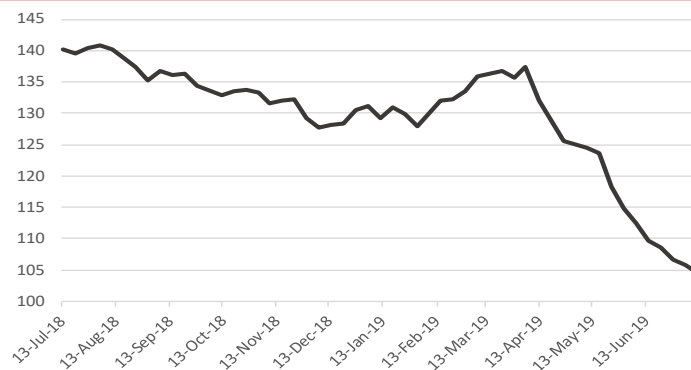
## WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



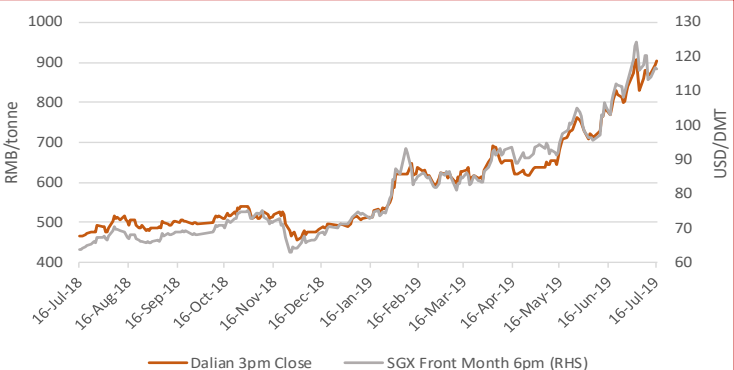
## IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



## TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



## FUTURE TRADING—FRONT MONTH CLOSING PRICE



## IRON ORE PORT INVENTORIES (MILLION TONNES)

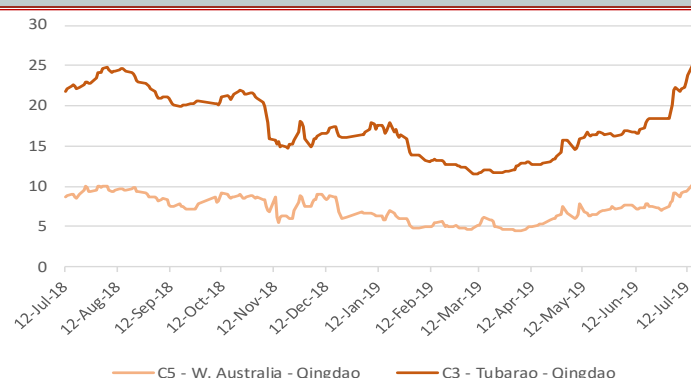
Week Ending July 12th, 2019

Province	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>
Jingtang	10.80	-1.46%	10.80	17.20
Qingdao	13.37	-3.54%	13.37	19.01
Caofeidian	14.67	1.31%	14.48	20.10
Tianjin	6.51	-10.45%	6.51	10.48
Rizhao	11.68	0.26%	11.65	18.73
Total (35 Ports)	104.40	-1.32%	104.40	140.74

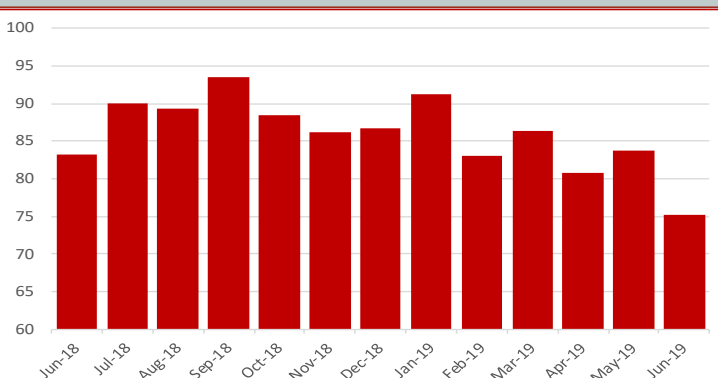
## IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	July 16th 3pm close			July 16th Feb 5.30 pm		
Contract	I1909	Change	Change %	Aug'19	Change	Change %
Closing Price	905.00	10.0	1.12%	116.27	-0.23	-0.20%
Vol traded ('000 lots)	207.46	22.5	12.15%	14.31	-2.33	-14.02%
Open positions ('000 lots)	134.37	-5.4	-3.86%	155.21	-2.71	-1.72%
Day Low	897.0	32.0	3.70%	115.70	2.95	2.62%
Day High	924.5	26.0	2.89%	119.40	2.85	2.45%

## DRY BULK FREIGHT RATES (USD/MT)



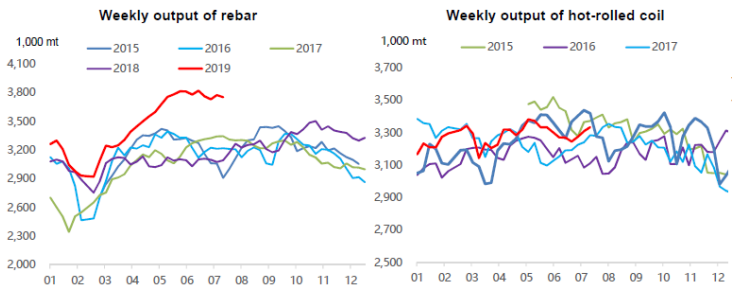
## TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)



## STEEL SPOT MARKET PRICES—CHINA

## Steel Spot Market RMB/tonne

Product	12/7/2019	Change	Change %
ReBar HRB400 $\phi$ 18mm	3,990.0	0	0.00%
Wirerod Q300 $\phi$ 6.5mm	4,240.0	0	0.00%
HRC Q235/SS400 5.5mm*1500*C	3,850.0	-30	-0.77%
CRC SPPC/ST12 1.0mm*1250*2500	4,200.0	0	0.00%
Medium & Heavy Plate Q235B 20mm	3,930.0	-50	-1.26%
GI ST02Z 1.0mm*1000*C	4,560.0	-60	-1.30%
Colour Coated Plate	6,900.0	50	0.73%



## CHINESE STEEL MILL PROFITABILITY

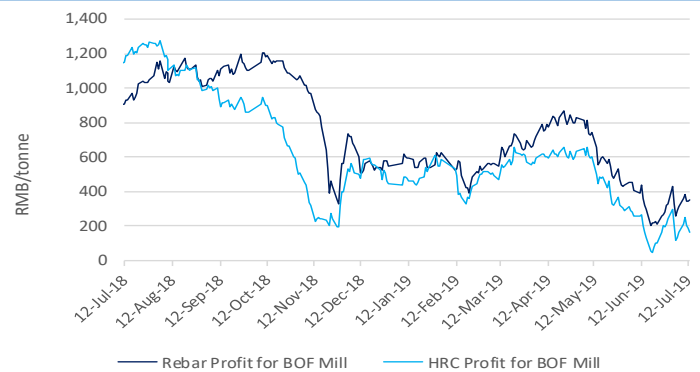
## SMM Tracking of Steel Mill P&amp;L - Rebar and Hot-rolled Coil (RMB/tonne)

Category	Price	Change (WoW)	Note
MMI (Fe 62%), USD/mt excluding tax	121.15	-3.55	Mmi CFR Equivalent index for 1st Feb
Coke	1,910	0	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	2,330	0	steel scrap (6mm) in Zhangjiagang, exl. tax
Billet Cost	3,381	-37	Q234, incl. tax
Rebar cost - Blast furnace	3,631	-39	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	349	39	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	3,697	-38	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	163	-2	based on Shanghai prices, incl. tax

Note: 1 Costs in the table are calculated based on today's market prices and factoring our management, sales, financial and depreciations fees.

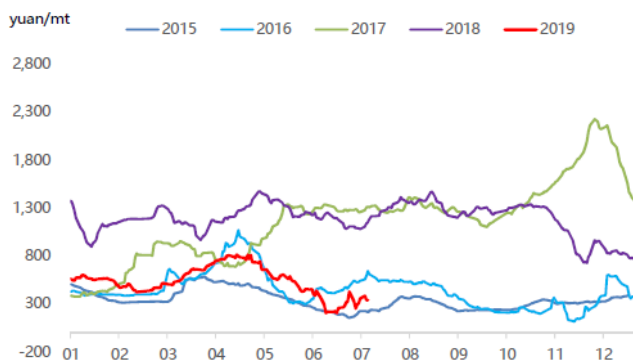
2. The cost refers to average cost in the industry based on SMM's survey of small, medium and large mills in China

## CHINESE STEEL MILL PROFITABILITY

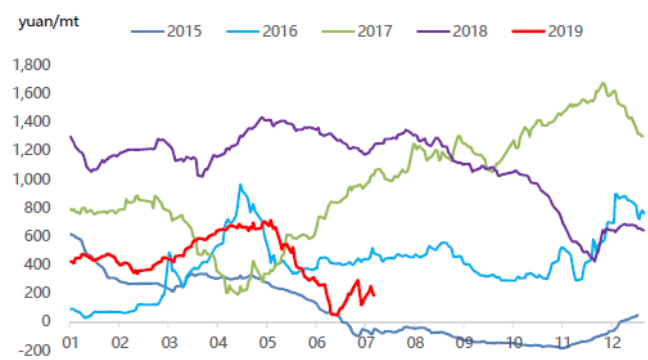


## CHINESE STEEL MILL PROFITABILITY

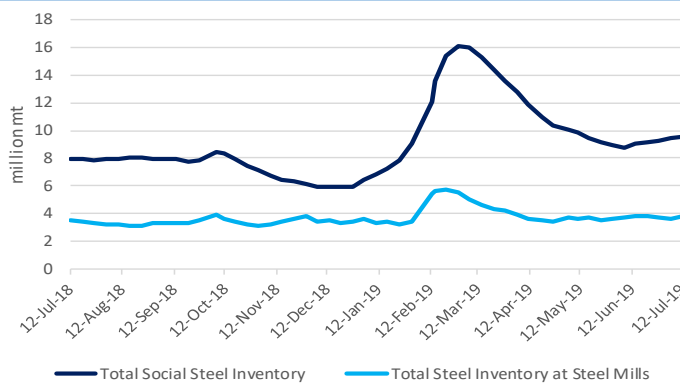
## Rebar profits



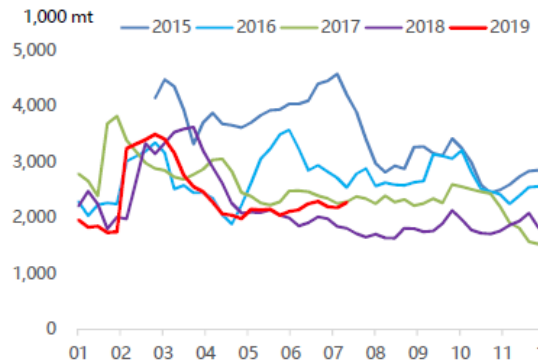
## Hot-rolled coil profits



## 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																			
Fe %	65% Fe Fines	62% Fe Fines	58% Fe Fines	62.5% Fe Lump	<p>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.</p> <p>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></p>																			
Alumina %	65.00	62.00	58.00	62.50																				
Silica%	1.40	2.25	2.25	1.50																				
Phosphorus %	1.50	4.00	5.50	3.50																				
Sulphur %	0.06	0.09	0.05	0.08																				
Moisture %	0.01	0.02	0.02	0.02	<table><tr><th colspan="4">Data Exclusions*</th></tr><tr><td>Port Index</td><td>62%</td><td>58%</td><td>65%</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></table> <p>* Number of price submissions for iron ore indices that were excluded from index calculations today as they were anomalous and could not be verified</p>				Data Exclusions*				Port Index	62%	58%	65%	Seaborne index	0		0	Lump Index 62.5	0		
Data Exclusions*																								
Port Index	62%	58%	65%																					
Seaborne index	0		0																					
Lump Index 62.5	0																							
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																				

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					
July 16th, 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%	2.35%	3.87%	0.101%	9.42%	PB Fines 62%	62.00%	2.60%	4.30%	0.090%	10.00%
Newman Fines	62.55%	2.27%	3.99%	0.087%	7.79%	Newman Fines	62.80%	2.20%	4.30%	0.080%	6.40%
MAC Fines	60.87%	2.24%	4.66%	0.081%	7.55%	MAC Fines	61.00%	2.70%	4.70%	0.110%	9.30%
Jimblebar Blended Fines	60.85%	3.00%	4.41%	0.114%	7.31%	Jimblebar Blended Fines	61.79%	2.67%	4.08%	0.115%	7.16%
Carajas Fines	65.64%	1.23%	1.41%	0.067%	8.39%	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	62.85%	1.45%	4.81%	0.073%	8.28%	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%
July 16th, 2019	Specifications applied for 58% brand assessments										
	Fe	Alumina	Silica	Phos	Moisture						
SSF	56.72%	3.06%	6.27%	0.057%	8.46%						
FMG Blended Fines	58.19%	2.60%	5.47%	0.062%	7.45%						
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	57.47%	1.50%	6.22%	0.040%	8.86%						

BLOOMBERG TICKERS

PORT STOCK INDICES		
	FOT Qingdao (RMB/wet tonne)	CFR Qingdao Equivalent (USD/dry tonne)
IOP162	IRCNQ001	IRCNQ004
IOP158	IRCNQ002	IRCNQ005
IOP165	IRCNQ003	IRCNQ006

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.