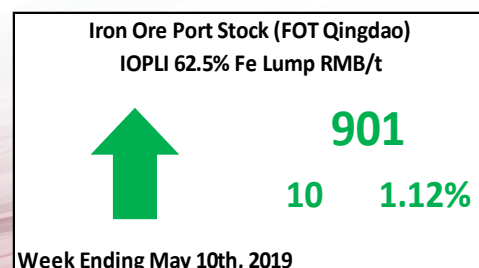
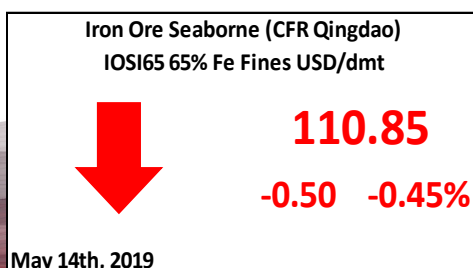
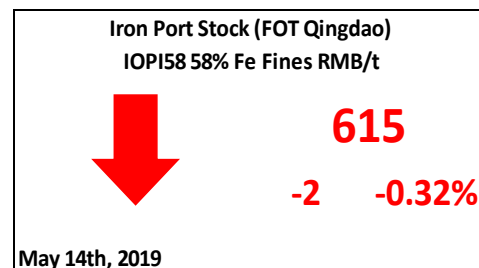
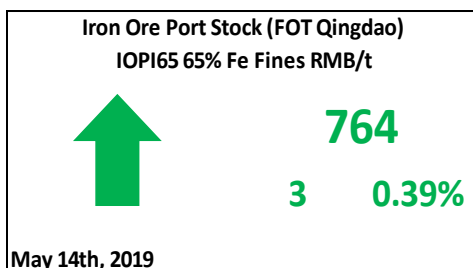
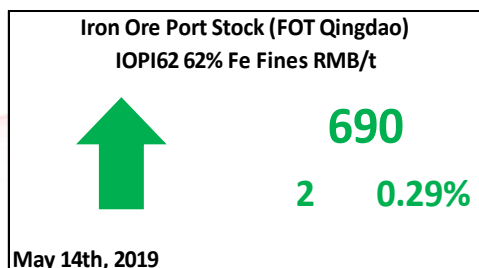


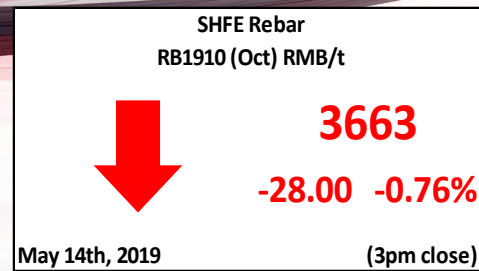
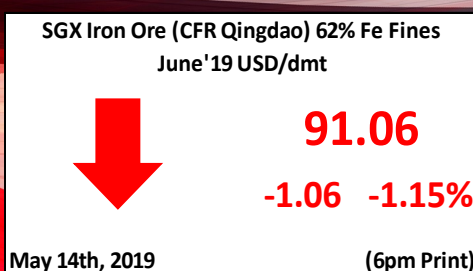
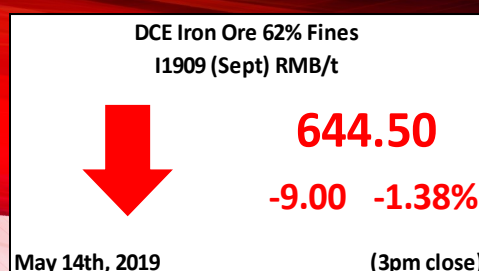


## MMi Dashboard

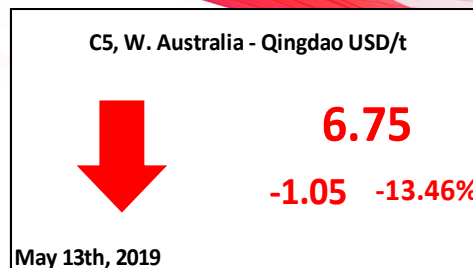
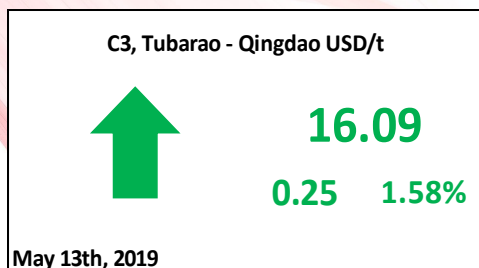
## Iron Ore Price Indices



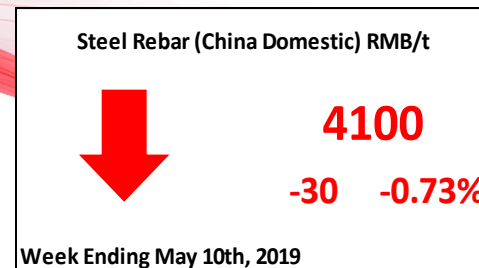
## Exchange Traded Contracts



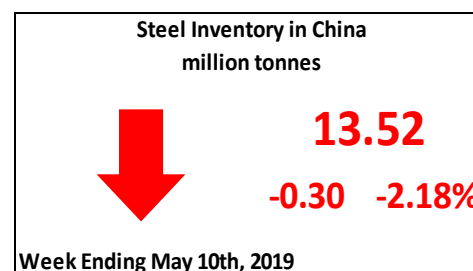
## Freight Rates



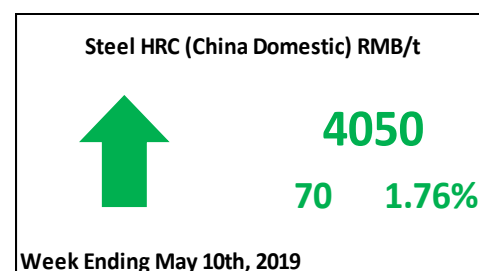
## Steel Price



## Inventory Levels



## Steel Price



## IRON ORE PORT STOCK INDEX (IOPI)

May 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	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	690	2	0.3%	687	639	453	690	93.14	-0.28	-0.3%	93.54	85.68	61.66	94.28
IOPI58	58% Fe Fines	615	-2	-0.3%	615	553	317	617	83.50	-0.79	-0.9%	84.29	73.68	41.71	84.59
IOPI65	65% Fe Fines	764	3	0.4%	768	720	559	794	103.56	-0.20	-0.2%	105.08	97.02	77.70	109.92

## IRON ORE SEABORNE INDEX (IOSI)

May 14th, 2019		CFR Qingdao, USD/dry tonne							MARKET COMMENTARY						
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low <sup>3</sup>	High <sup>3</sup>	Eighty-two vessels carrying 12.33 million mt of iron ore arrived at major Chinese ports in the week ended May 11, down 1.66 million mt from the previous week, SMM forecasted. For the same week, iron ore shipments departing Australian ports decreased 1.47 million mt, to stand at 15.08 million mt. Iron ore leaving Brazilian ports was expected to drop by 1.14 million mt on the week to 5.18 million mt, the port stock market will still enjoy certain supports from recent declining arrivals as well as obvious drop shipments from Australia and Brazil. A wild trading day today, with traders and the broader physical iron ore port stock market unable to find a clear direction in terms of pricing. Steel mills were quiet today following the early morning fall, hence a low number of concluded deals at the ports.						
IOSI62	62% Fe Fines	95.40	-0.30	-0.31%	94.34	86.45	62.95	96.05							
IOSI65	65% Fe Fines	110.85	-0.50	-0.45%	111.38	100.11	83.20	114.40							

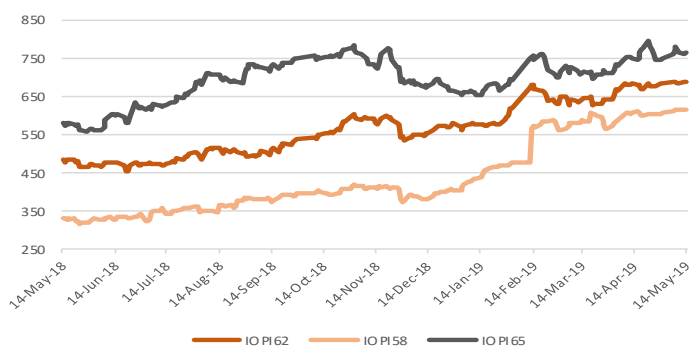
## IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending May 10th, 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	901	10	1.1%	896	846	575	901	115.86	0.78	0.68%	115.47	108.98	76.63	115.86

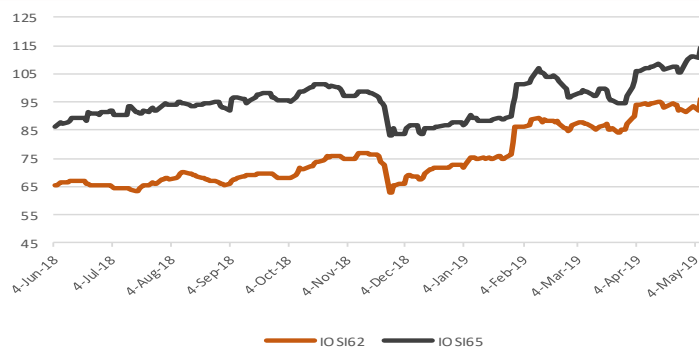
## IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

Week Ending May 10th, 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	839	1.1%	592	839	124.15	0.50%	91.97	124.15
Hebei	Qian'an	65% Fe Concentrate	Dry	795	2.6%	635	815	117.64	1.99%	100.26	117.64
Liaoning	Anshan	65% Fe Concentrate	Wet	605	5.2%	450	745	89.53	4.61%	68.21	89.53
Shandong	Zibo	65% Fe Concentrate	Dry	820	0.0%	655	860	121.34	-0.58%	99.75	127.11
Week Ending May 10th, 2019				This week	Change %	Low <sup>2</sup>	High <sup>2</sup>	<sup>1</sup> Exchange rate applied: RMB/USD = 6.8365 <sup>2</sup> Last 12 months <sup>3</sup> Since June 1 <sup>4</sup> Weekly exchange rate applied: RMB/USD 6.7577			
China Mines Concentrate Composite Index RMB/WT				684.41	2.1%	535.58	685.87				

## 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

May 14th, 2019		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne						
Index	Fe Content	January	February	March	April	MTD	QTD	YTD	January	February	March	April	MTD	QTD	YTD
IOPI62	62% Fe Fines	580	654	639	675	687	678	639	72.55	76.16	87.09	85.37	93.54	92.91	85.68
IOPI58	58% Fe Fines	448	569	583	600	615	604	553	50.47	57.99	75.22	77.49	84.29	82.66	73.68
IOPI65	65% Fe Fines	670	733	714	753	768	757	720	99.05	88.65	98.08	95.78	105.08	104.21	97.02

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

May 14th, 2019		CFR Qingdao, USD/dry tonne							FREIGHT RATES						
Index	Fe Content	January	February	March	April	MTD	QTD	YTD	FREIGHT RATES - DRY BULK US\$/wet tonne						
Index	Fe Content	January	February	March	April	MTD	QTD	YTD	Route	Designation	Change	Change %	Low <sup>2</sup>	High <sup>2</sup>	
IOSI62	62% Fe Fines	76.09	87.39	86.18	93.42	94.34	93.70	86.45	W. Australia - Qingdao	C5	6.75	-1.05	-13.46%	4.39	10.00
IOSI65	65% Fe Fines	89.92	102.56	97.22	106.75	111.38	108.14	100.11	Tubarao - Qingdao	C3	16.09	0.25	1.58%	11.61	24.76

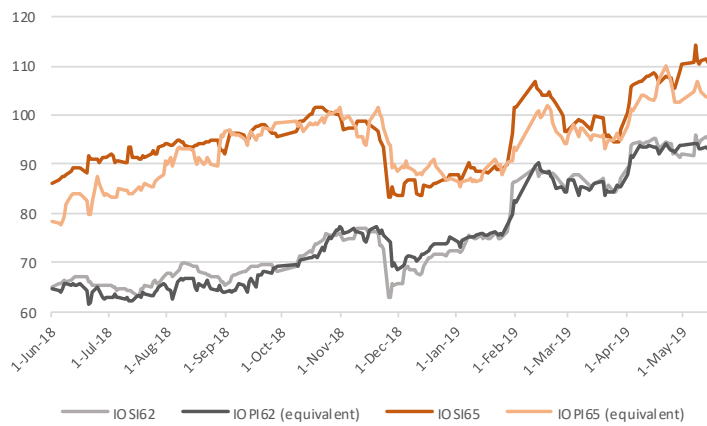
## IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending May 10th, 2019		FOT Qingdao (inc. 16% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 16% VAT), USD/dry tonne <sup>1</sup>						
Index	Fe Content	January	February	March	April	MTD	QTD	YTD	January	February	March	April	MTD	QTD	YTD
IOPLI62	62.5% Fe Lump	782	842	858	872	896	880	846	96.21	94.22	99.57	111.03	115.47	113.73	108.98

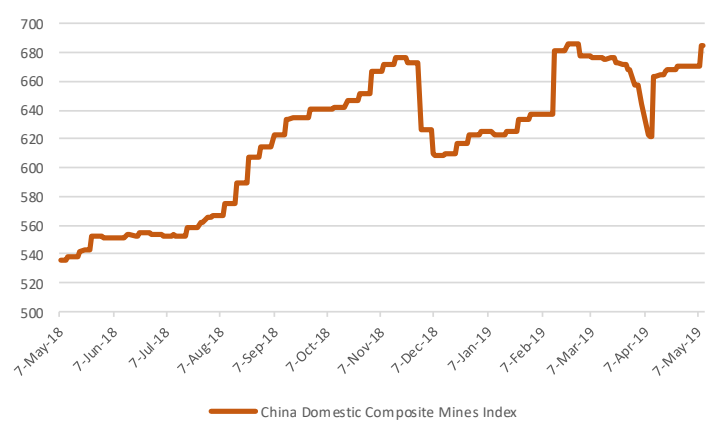
## IRON ORE INDEX PREMIUMS/DISCOUNTS

May 14th, 2019				PORT STOCK INDEX (RMB/WT)		May 14th, 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	-75		-10.87%		IOSI65	65% Fe Fines	15.45		16.19%	
IOPI65	65% Fe Fines	74		10.72%							

## IRON ORE INDEX COMPARISONS (USD/DMT)



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



## IRON ORE BRAND SPOT PRICE ASSESSMENTS

May 14th, 2019				May 14th, 2019			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	665	2	-25	Roy Hill	90.81	-0.30	-4.59
SIMEC Fines	658	2	-32	SIMEC Fines	88.19	-0.30	-7.21
PB Fines	675	1	-15	PB Fines	94.36	-0.30	-1.04
Newman Fines	696	2	6	Newman Fines	98.06	-0.30	2.66
MAC Fines	670	2	-20	MAC Fines	90.74	-0.30	-4.66
Jimblebar Blended Fines	654	3	-36	Jimblebar Blended Fines	87.81	-0.30	-7.59
Carajas Fines	773	5	83	Carajas Fines	110.46	-0.30	15.06
Brazilian SSF	708	2	18	Brazilian SSF	98.21	-0.30	2.81
Brazilian Blend Fines	708	2	18	Brazilian Blend Fines	98.84	-0.30	3.44
RTX Fines	671	2	-19	RTX Fines	88.69	-0.30	-6.71

May 14th, 2019			
PORT STOCK INDEX (RMB/WT)			
	Price	Change	Diff to IOPI58
SSF	599	-1	-16
FMG Blended Fines	624	-3	9
Robe River	593	-5	-22
Western Fines	620	-2	5
Atlas Fines	604	-2	-11
Yandi	632	-16	17

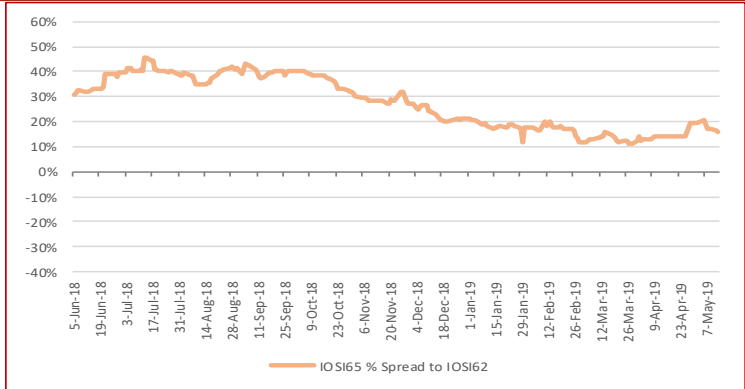
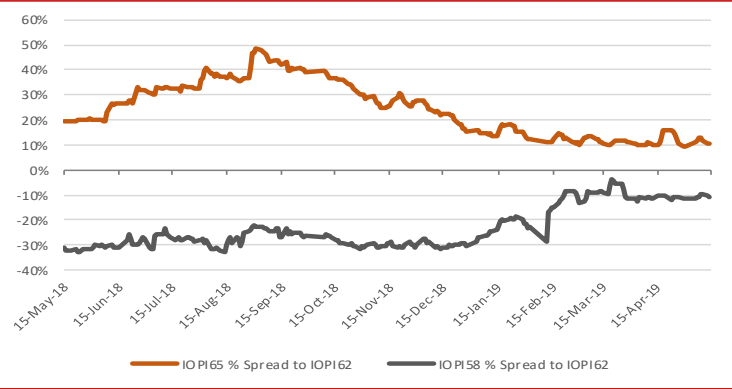
## IRON ORE INDEX NORMALISATION DIFFERENTIALS

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%	9.00	0.00	1% Fe	High Grade Fe 60 - 63%	3.25	0.00	
	High Grade Fe 63 - 64%	15.00	0.00		High Grade Fe 63 - 64%	3.00	0.00	
	High Grade Fe 64 - 65%	15.00	0.00		High Grade Fe 64 - 65%	3.00	0.00	
	High Grade Fe 65 - 65.5%	15.00	0.00		High Grade Fe 65 - 65.5%	3.00	0.00	
	Low Grade Fe	9.00	0.00					
1% Alumina	High Fe Grade Al <2.25%	26.00	0.00	1% Alumina	High Fe Grade Al <2.25%	2.75	0.00	
	High Fe Grade Al 2.25-4%	0.00	0.00		High Fe Grade Al 2.25-4%	2.75	0.00	
	Low Fe Grade Al <2.25%	48.00	0.00					
	Low Fe Grade Al 2.25-4%	7.00	0.00					
1% Silica	High Fe Grade Si <4%	5.00	0.00	1% Silica	High Fe Grade Si <4%	1.50	0.00	
	High Fe Grade Si 4-6.5%	12.00	0.00		High Fe Grade Si 4 - 6.5%	0.25	0.00	
0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	3.00	0.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	0.00	0.00	
	High Fe Grade 0.115%<P<0.15%	0.00	0.00		High Fe Grade 0.115%<P<0.15%	0.50	0.00	
	Low Fe Grade 0.09<P<0.1%	6.00	0.00					

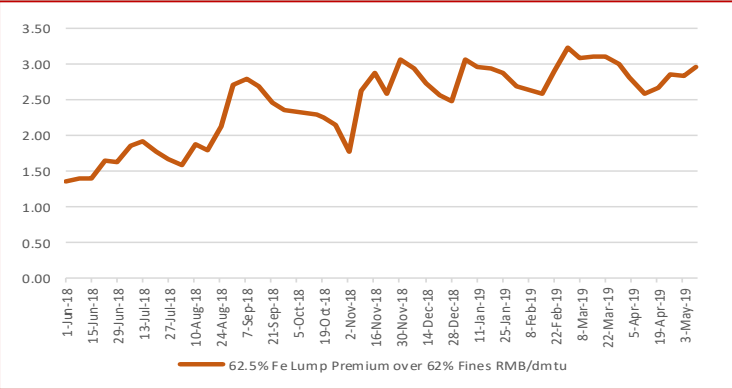
## Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

Port	Value	Change	Port	Value	Change	Port	Value	Change	Port	Value	Change
Bayuquan	-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	-5.00	0.00	Rizhao	0.00	0.00
Caofeidian	0.00	0.00	Jingtang	0.00	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	-20.00	0.00

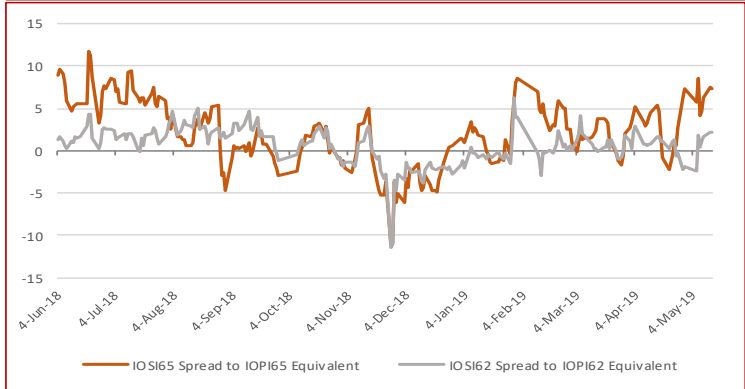
IRON ORE INDEX PREMIUMS/DISCOUNTS



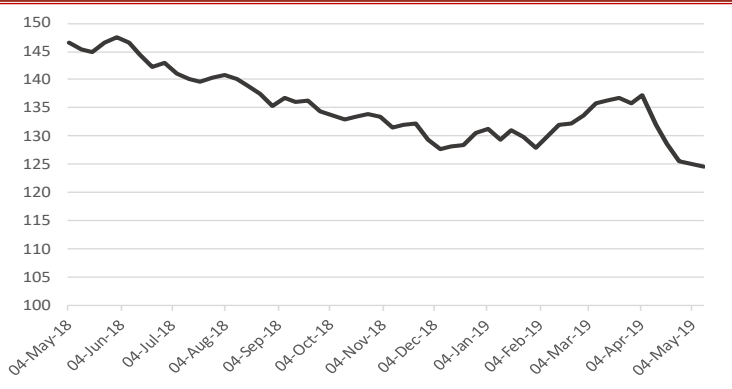
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



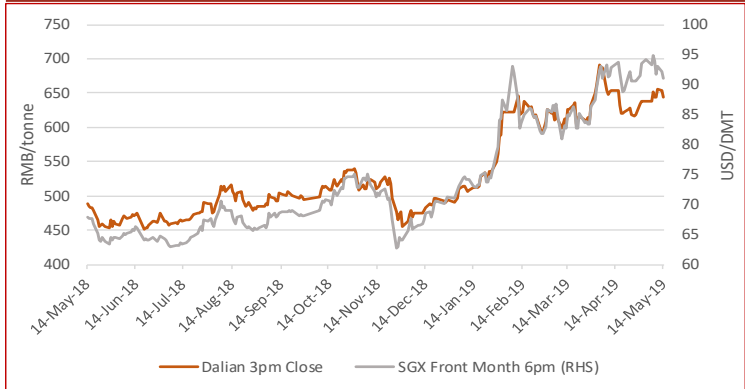
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



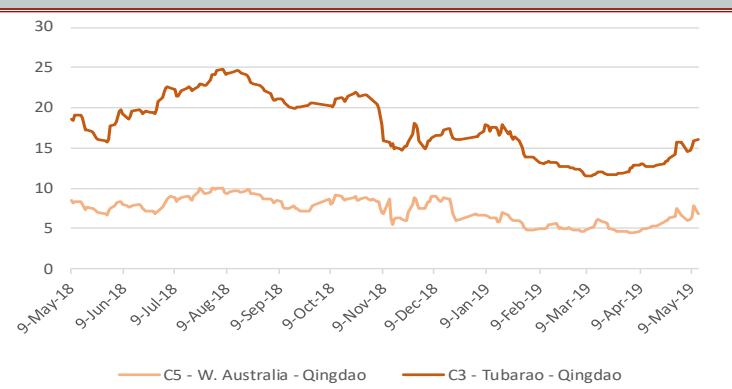
IRON ORE PORT INVENTORIES (MILLION TONNES)

Week Ending May 10th, 2019				
Province	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>
Jingtang	14.95	2.12%	13.29	18.10
Qingdao	16.06	-5.53%	16.06	19.50
Caofeidian	17.41	4.19%	16.30	23.30
Tianjin	7.68	-2.78%	7.39	10.48
Rizhao	14.75	-3.91%	14.00	19.00
<b>Total (35 Ports)</b>	<b>124.50</b>	<b>-0.77%</b>	<b>124.50</b>	<b>147.56</b>

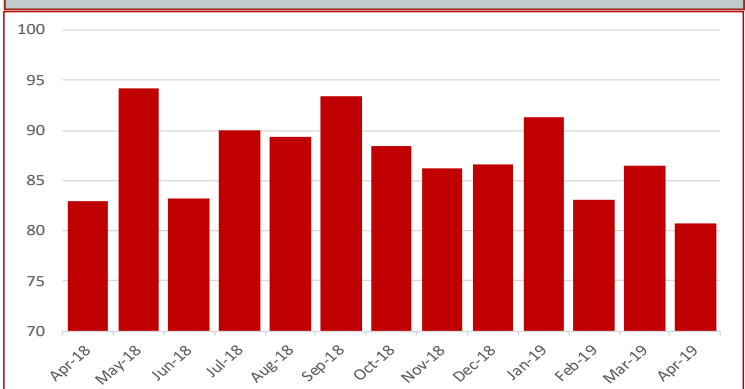
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	May 14th 3pm close			14th May Feb 6 pm		
Contract	I1909	Change	Change %	Jun'19	Change	Change %
Closing Price	644.50	-9.0	-1.38%	91.06	-1.06	-1.15%
Vol traded ('000 lots)	293.59	94.3	47.33%	18.47	8.09	77.96%
Open positions ('000 lots)	147.26	2.1	1.43%	118.26	3.46	3.01%
Day Low	642.0	-8.0	-1.23%	90.50	-1.40	-1.52%
Day High	666.0	6.0	0.91%	92.94	-0.15	-0.16%

DRY BULK FREIGHT RATES (USD/MT)



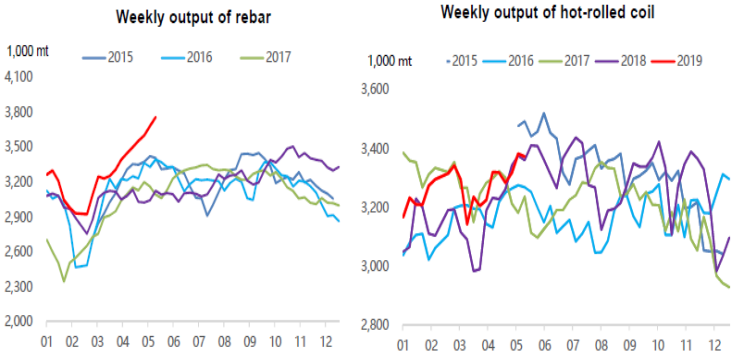
TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)



STEEL SPOT MARKET PRICES—CHINA

Steel Spot Market RMB/tonne

Product	10/5/2019	Change	Change %
ReBar HRB400 φ18mm	4,100.0	-30	-0.73%
Wirerod Q300 φ6.5mm	4,300.0	-20	-0.46%
HRC Q235/SS400 5.5mm*1500*C	4,050.0	70	1.76%
CRC SPPC/ST12 1.0mm*1250*2500	4,310.0	-30	-0.69%
Medium & Heavy Plate Q235B 20mm	4,110.0	30	0.74%
GI ST02Z 1.0mm*1000*C	4,640.0	0	0.00%
Colour Coated Plate	7,200.0	-100	-1.37%



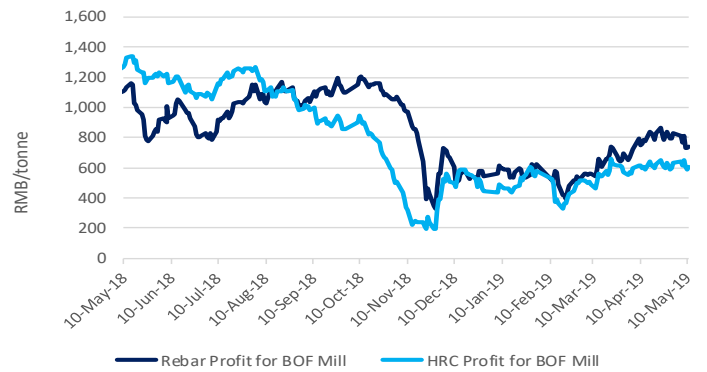
CHINESE STEEL MILL PROFITABILITY

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	94.20	2.75	Mmi CFR Equivalent index for 1st Feb
Coke	2,010	0	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	2,250	20	steel scrap (6mm) in Zhangjiagang, excl. tax
Billet Cost	3,121	42	Q234, incl. tax
Rebar cost - Blast furnace	3,368	41	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	742	-91	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	3,446	42	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	604	-32	based on Shanghai prices, incl. tax

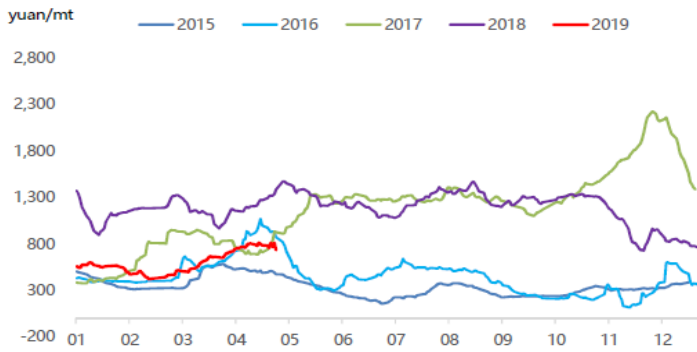
Note: 1. Costs in the table are calculated based on today's market prices and factored our management, sales, financial and depreciations fees.  
2. The cost refers to average cost in the industry based on SMM's survey of small, medium and large mills in China

CHINESE STEEL MILL PROFITABILITY

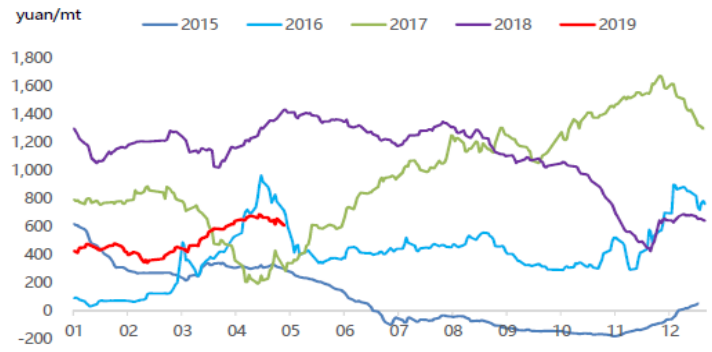


CHINESE STEEL MILL PROFITABILITY

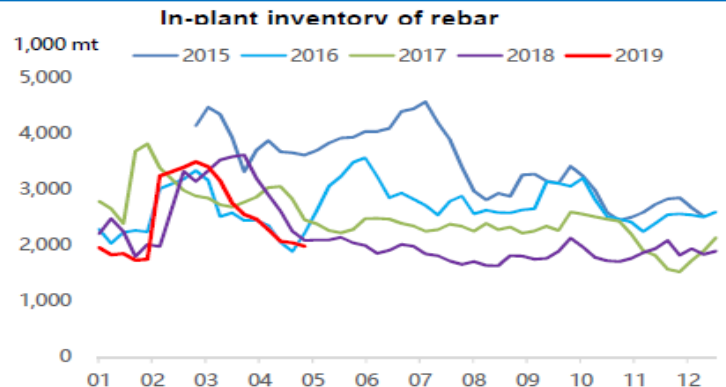
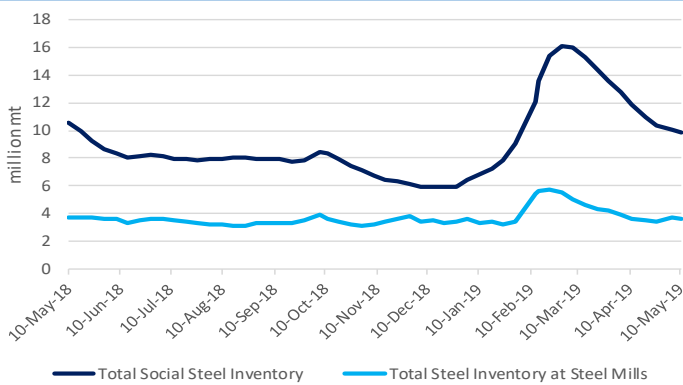
Rebar profits



Hot-rolled coil profits



CHINESE STEEL INVENTORIES



## 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	
<b>Data Exclusions*</b>					
	<b>62%</b>	<b>58%</b>	<b>65%</b>		
Port Index	0	0	0		
Seaborne Index	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					
May 14th, 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	61.59%	2.34%	3.76%	0.098%	9.24%	PB Fines 62%	62.00%	2.60%	4.30%	0.090%	10.00%
Newman Fines	62.49%	2.25%	4.19%	0.091%	7.46%	Newman Fines	62.80%	2.20%	4.30%	0.080%	6.40%
MAC Fines	60.85%	2.24%	4.92%	0.085%	7.77%	MAC Fines	61.00%	2.70%	4.70%	0.110%	9.30%
Jimblebar Blended Fines	60.96%	2.93%	4.55%	0.101%	7.69%	Jimblebar Blended Fines	61.79%	2.67%	4.08%	0.115%	7.16%
Carajas Fines	65.40%	1.30%	1.43%	0.082%	8.28%	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	62.88%	1.38%	4.79%	0.074%	8.44%	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%
May 14th, 2019	Specifications applied for 58% brand assessments										
	Fe	Alumina	Silica	Phos	Moisture						
SSF	56.72%	3.09%	5.99%	0.051%	8.95%						
FMG Blended Fines	58.25%	2.71%	5.65%	0.064%	7.37%						
Robe River	56.64%	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	57.10%	1.48%	6.52%	0.044%	8.65%						

## 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.