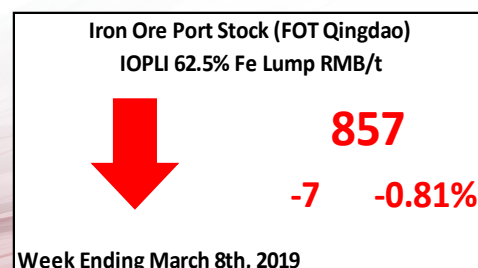
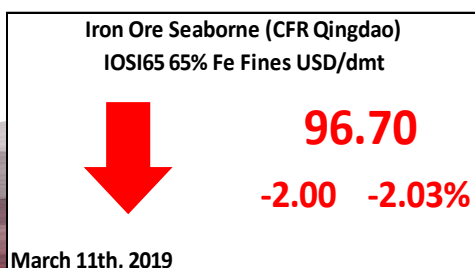
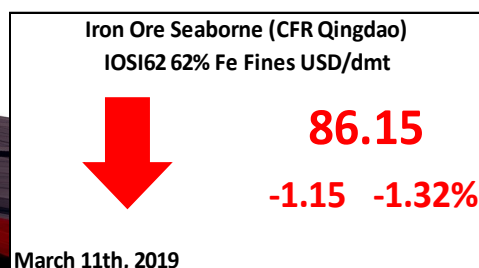
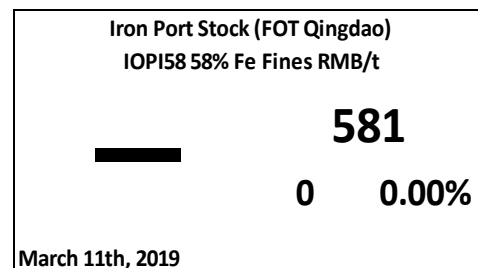
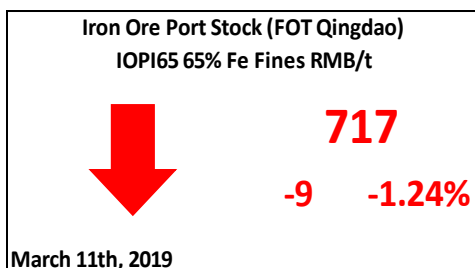
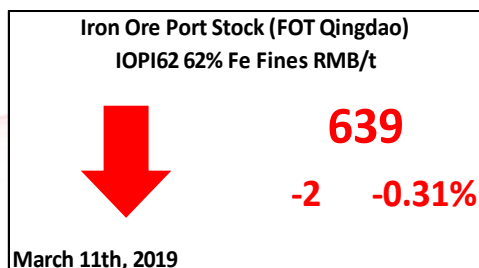


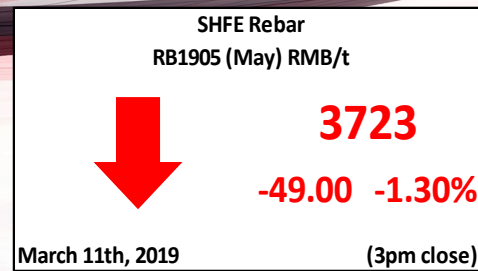
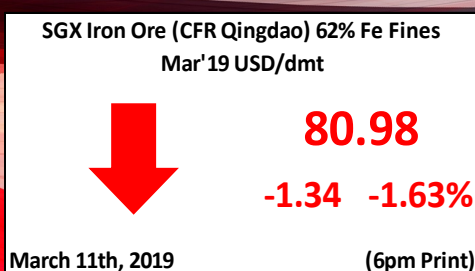
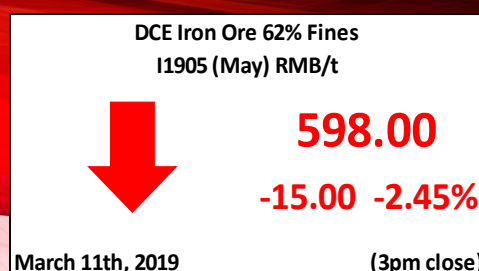


MMi Dashboard

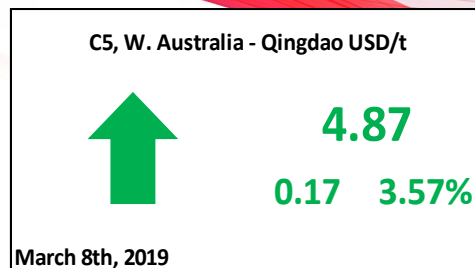
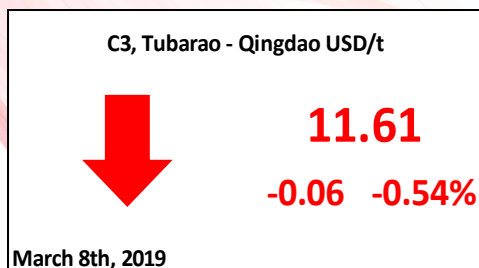
Iron Ore Price Indices



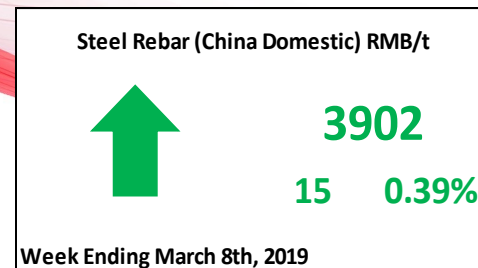
Exchange Traded Contracts



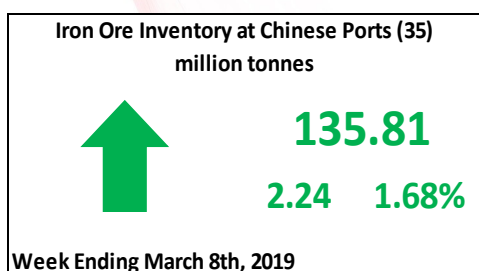
Freight Rates



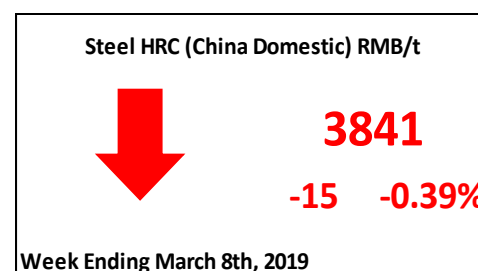
Steel Price



Inventory Levels



Steel Price



IRON ORE PORT STOCK INDEX (IOPI)

March 11th, 2019		FOT Qingdao (inc. 16% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 16% VAT), USD/dry tonne ¹						
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low ²	High ²	Price	Change	Change %	MTD	YTD	Low ²	High ²
IOPI62	62% Fe Fines	639	-2	-0.3%	641	615	443	681	85.19	-0.24	-0.3%	85.56	81.38	61.36	90.41
IOPI58	58% Fe Fines	581	0	0.0%	574	509	308	588	77.11	0.04	0.1%	76.24	66.77	41.40	78.17
IOPI65	65% Fe Fines	717	-9	-1.2%	721	700	541	784	96.07	-1.21	-1.2%	96.84	93.16	75.83	112.12

IRON ORE SEABORNE INDEX (IOSI)

MARKET COMMENTARY

March 11th, 2019		CFR Qingdao, USD/dry tonne							The DCE iron ore futures market extended its recent fall, with news that Qinghuangdao announcement requiring mills to close sintering machines and blast furnaces due to a red alert pollution notice, adding to the bearish news in the market. This means that output is expected to fall around 30% in that area until 31st of March. Jingtang port is still closed, though CaoFeidian was heard open for a short time this afternoon. Mill buying has plummeted with some quotes falling around 10-15 rmb/mt. Few transactions in Shandong, though low grade iron ore quotes held up quite well relative to other grades							
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low ³	High ³								
IOSI62	62% Fe Fines	86.15	-1.15	-1.32%	87.32	82.08	62.95	89.20								
IOSI65	65% Fe Fines	96.70	-2.00	-2.03%	98.17	95.99	83.20	106.85								

IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending March 8th, 2019		FOT Qingdao (inc. 16% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 16% VAT), USD/dry tonne ¹						
Index	Fe Content	Price	W-o-W	Change %	MTD	YTD	Low ³	High ³	Price	W-o-W	Change %	MTD	YTD	Low ³	High ³
IOPLI62	62.5% Fe Lump	857	-7	-0.8%	861	820	565	865	110.72	-1.40	-1.2%	111.42	105.22	76.63	112.12

IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

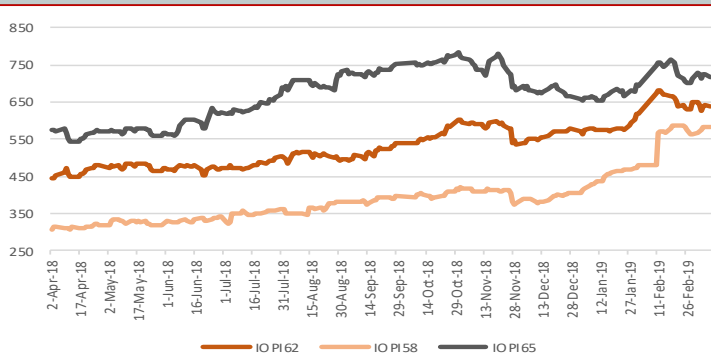
Week Ending March 8th, 2019				RMB/tonne (excluding tax) ⁴				USD/tonne (excluding tax) ⁴			
Province	Region	Product	Basis	This week	Change %	Low ²	High ²	This week	Change %	Low ²	High ²
Hebei	Hanxing	66% Fe Concentrate	Dry	761	-3.1%	579	802	113.43	-3.24%	11.23	118.53
Hebei	Qian'an	65% Fe Concentrate	Dry	765	0.0%	630	815	114.03	-0.19%	100.26	117.34
Liaoning	Anshan	65% Fe Concentrate	Wet	595	0.0%	445	745	88.69	-0.19%	68.21	88.86
Shandong	Zibo	65% Fe Concentrate	Dry	815	0.0%	620	860	121.48	-0.19%	99.75	127.11

Week Ending March 8th, 2019

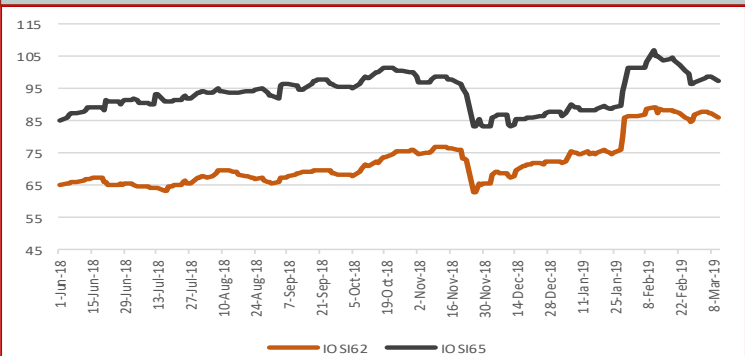
This week	Change %	Low ⁵	High ⁵	
China Mines Concentrate Composite Index RMB/WT	676.61	-0.2%	534.50	685.87

¹ Exchange rate applied: RMB/USD = 6.7235 ² Since April 2 ³ Since June 1
⁴ Weekly exchange rate applied: RMB/USD 6.6960 ⁵ Last 12 months

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

March 11th, 2019		FOT Qingdao (inc. 16% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 16% VAT), USD/dry tonne ¹						
Index	Fe Content	November	December	January	February	MTD	QTD	YTD	November	December	January	February	MTD	QTD	YTD
IOPI62	62% Fe Fines	564	559	580	654	641	615	615	65.25	72.55	76.16	87.09	85.56	81.38	81.38
IOPI58	58% Fe Fines	401	392	448	569	574	509	509	45.84	50.47	57.99	75.22	76.24	66.77	66.77
IOPI65	65% Fe Fines	760	681	670	733	721	700	700	92.13	99.05	88.65	98.08	96.84	93.16	93.16

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

FREIGHT RATES

March 11th, 2019		CFR Qingdao, USD/dry tonne							March 8th, 2019						
Index	Fe Content	November	December	January	February	MTD	QTD	YTD	FREIGHT RATES - DRY BULK US\$/wet tonne						
IOSI62	62% Fe Fines	72.91	69.96	76.09	87.39	87.32	82.08	82.08	Route	Designation	Change	Change %	Low ⁵	High ⁵	
IOSI65	65% Fe Fines	94.05	85.95	89.92	102.56	98.17	95.99	95.99	W. Australia - Qingdao	C5	4.87	0.17	3.57%	4.68	10.00
									Tubarao - Qingdao	C3	11.61	-0.06	-0.54%	11.61	24.76

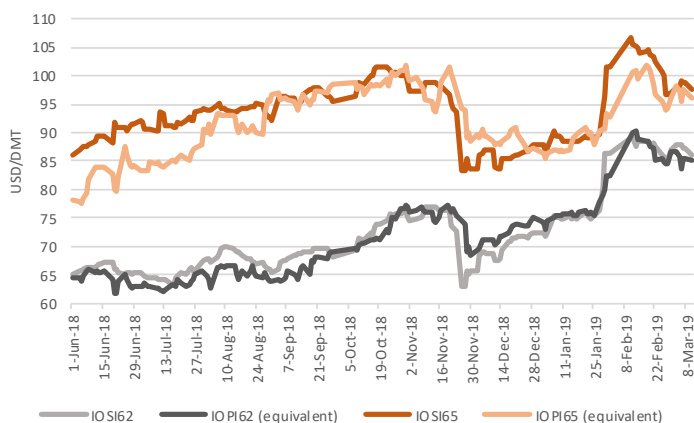
IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending February 22nd, 2019		FOT Qingdao (inc. 16% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 16% VAT), USD/dry tonne ¹						
Index	Fe Content	November	December	January	February	MTD	QTD	YTD	November	December	January	February	MTD	QTD	YTD
IOPLI62	62.5% Fe Lump	771	749	782	842	861	820	820	96.21	94.22	99.57	108.63	111.42	105.22	105.22

IRON ORE INDEX PREMIUMS/DISCOUNTS

March 11th, 2019			PORT STOCK INDEX (RMB/WT)		March 11th, 2019			SEABORNE INDEX (USD/DMT)		
Fe Content		Spread to IOPI62	% Spread to IOPI62		Fe Content		Spread to IOSI62		% Spread to IOSI62	
58% Fe Fines		-58	-9.08%		65% Fe Fines		11		12.25%	
65% Fe Fines		78	12.21%							

IRON ORE INDEX COMPARISONS



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



IRON ORE BRAND SPOT PRICE ASSESSMENTS

March 11th, 2019				March 11th, 2019			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	611	-3	-28	Roy Hill	79.95	-1.15	-6.20
SIMEC Fines	584	-9	-55	SIMEC Fines	75.75	-1.15	-10.40
PB Fines	622	-3	-17	PB Fines	85.15	-1.15	-1.00
Newman Fines	658	-2	19	Newman Fines	89.15	-1.15	3.00
MAC Fines	616	-4	-23	MAC Fines	80.05	-1.15	-6.10
Jimblebar Blended Fines	593	-3	-46	Jimblebar Blended Fines	76.12	-1.15	-10.03
Carajas Fines	728	-10	89	Carajas Fines	97.57	-1.15	11.42
Brazilian SSF	650	-10	11	Brazilian SSF	86.15	-1.15	0.00
Brazilian Blend Fines	650	-5	11	Brazilian Blend Fines	88.65	-1.15	2.50
RTX Fines	603	-4	-36	RTX Fines	77.82	-1.15	-8.33

March 11th, 2019			
PORT STOCK INDEX (RMB/WT)			
	Price	Change	Diff to IOPI58
SSF	501	0	-80
FMG Blended Fines	575	-1	-6
Robe River	520	0	-61
Western Fines	519	0	-62
Atlas Fines	511	0	-70
Yandi	576	2	-5

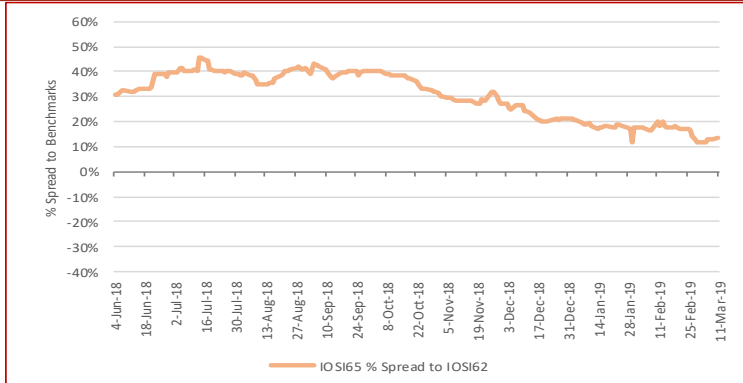
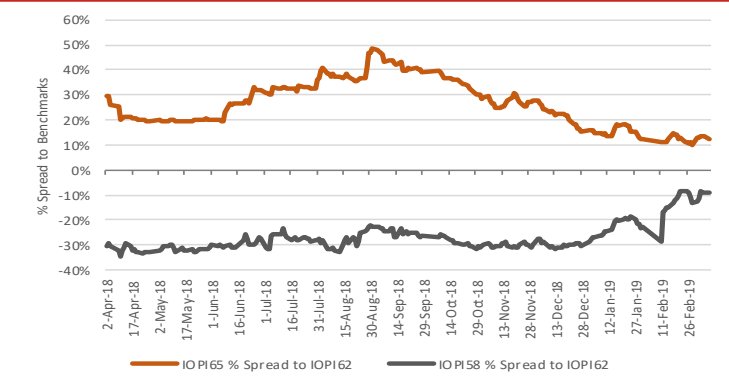
IRON ORE INDEX NORMALISATION DIFFERENTIALS

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%	15.00	0.00	1% Fe	High Grade Fe 60 - 63%	4.00	0.00	
	High Grade Fe 63 - 64%	16.00	0.00		High Grade Fe 63 - 64%	2.00	0.00	
	High Grade Fe 64 - 65%	16.00	0.00		High Grade Fe 64 - 65%	2.00	0.00	
	High Grade Fe 65 - 65.5%	16.00	0.00		High Grade Fe 65 - 65.5%	2.00	0.00	
	Low Grade Fe	21.00	0.00					
1% Alumina	High Fe Grade Al <2.25%	30.00	0.00	1% Alumina	High Fe Grade Al <2.25%	2.00	0.00	
	High Fe Grade Al 2.25-4%	8.00	0.00		High Fe Grade Al 2.25-4%	2.00	0.00	
	Low Fe Grade Al <2.25%	38.00	3.00					
	Low Fe Grade Al 2.25-4%	45.00	0.00					
1% Silica	High Fe Grade Si <4%	2.00	-3.00	1% Silica	High Fe Grade Si <4%	0.75	0.00	
	High Fe Grade Si 4-6.5%	16.00	3.00		High Fe Grade Si 4 - 6.5%	1.00	0.00	
0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	2.00	0.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	0.25	0.00	
	High Fe Grade 0.115%<P<0.15%	2.00	0.00		High Fe Grade 0.115%<P<0.15%	0.75	0.00	
	Low Fe Grade 0.09<P<0.1%	2.00	0.00					

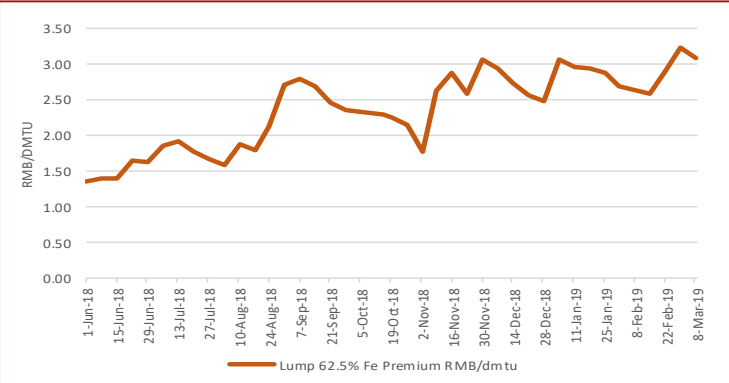
Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

Port	Value	Change	Port	Value	Change	Port	Value	Change	Port	Value	Change
Bayuquan	-35.00	0.00	Fangcheng	-5.00	0.00	Lanshan	0.00	0.00	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	-5.00	0.00	Jingtang	-5.00	0.00	Majishan	0.00	0.00	Shekou	0.00	0.00
Dalian	-10.00	0.00	Lanqiao	0.00	0.00	Nantong	-20.00	0.00	Tianjin	-15.00	0.00

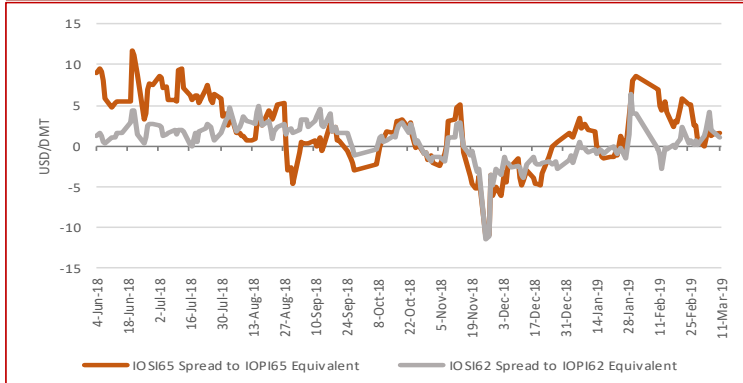
IRON ORE INDEX PREMIUMS/DISCOUNTS



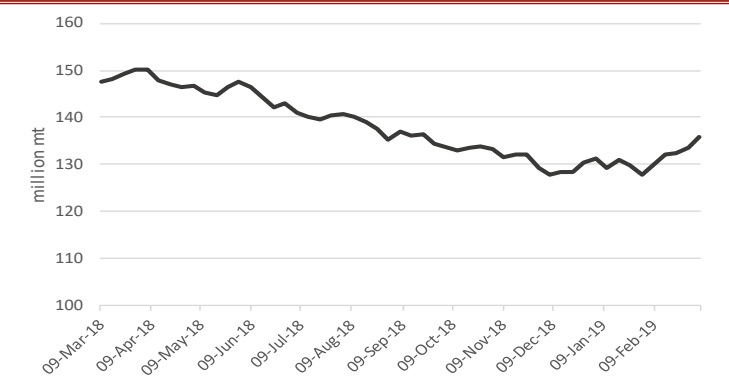
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (62.5% FE LUMP—62% FE FINES)



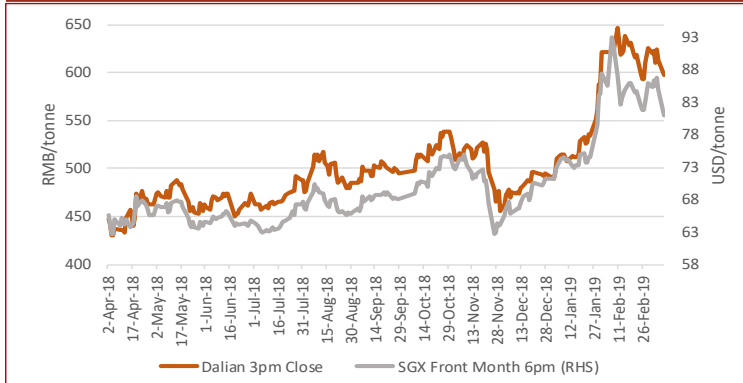
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS



TOTAL IRON ORE INVENTORIES AT CHINA PORTS



FUTURE TRADING—FRONT MONTH CLOSING PRICE



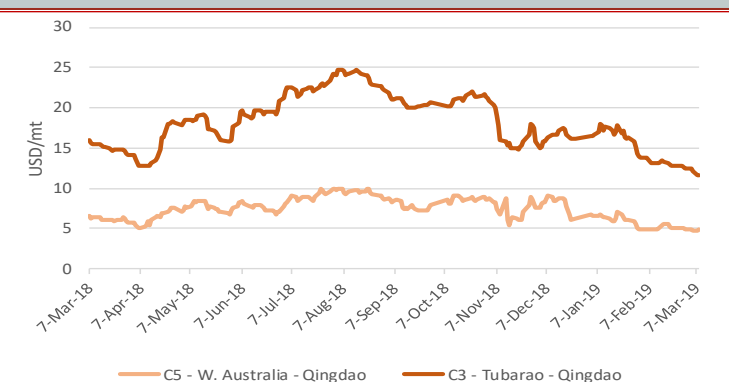
IRON ORE PORT INVENTORIES

Week Ending March 8th, 2019 (million tonnes)				
Province	This week	Change %	Low ⁴	High ⁴
Jingtang	15.19	5.93%	13.29	19.00
Qingdao	19.01	1.06%	16.09	19.97
Caofeidian	17.96	4.72%	16.30	25.30
Tianjin	9.08	-1.09%	8.50	11.00
Rizhao	16.41	-1.62%	14.00	19.00
Total (35 Ports)	135.81	1.68%	127.72	150.04

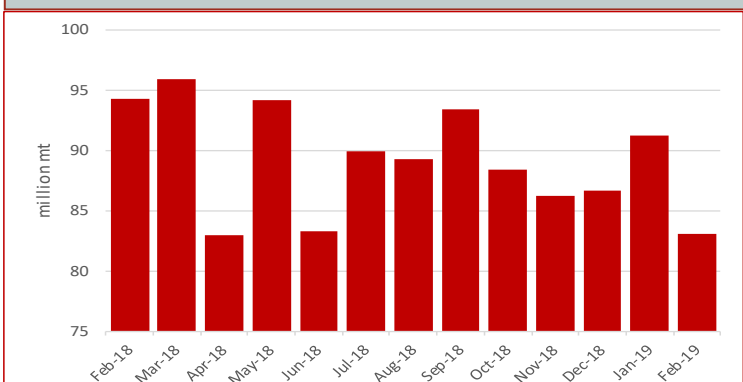
IRON ORE FUTURES CONTRACTS

Closing Date	DCE			SGX		
	11th Mar 3pm close			11th Mar Feb 6 pm		
Contract	I1905	Change	Change %	Apr'19	Change	Change %
Closing Price	598.0	-15.0	-2.45%	80.98	-1.34	-1.63%
Vol traded ('000 lots)	175.24	2.2	1.27%	15.02	1.81	13.70%
Open positions ('000 lots)	100.17	2.1	2.12%	94.61	-0.18	-0.19%
Day Low	594.5	-18.0	-2.94%	80.04	-2.28	-2.77%
Day High	609.0	-16.0	-2.56%	83.70	-0.46	-0.55%

DRY BULK F REIGHT RATES



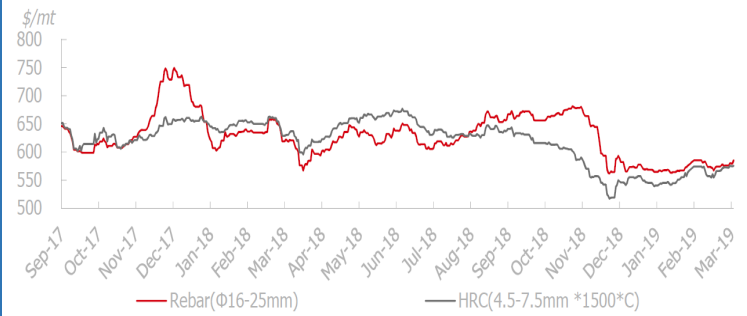
TOTAL CHINA IRON ORE IMPORT VOLUMES



STEEL SPOT MARKET PRICES—CHINA

Steel Spot Market RMB/tonne			
Product	8/3/2019	Change	Change %
ReBar HRB400 φ18mm	3,902.0	15	0.39%
Wirerod Q300 φ6.5mm	4,016.0	30	0.75%
HRC Q235/SS400 5.5mm*1500*C	3,841.0	-15	-0.39%
CRC SPCC/ST12 1.0mm*1250*2500	4,366.0	13	0.30%
Medium & Heavy Plate Q235B 20mm	4,000.0	17	0.43%
GI ST02Z 1.0mm*1000*C	4,790.0	55	1.16%
Billet Q235 150*150mm	3,460.0	-30	-0.86%

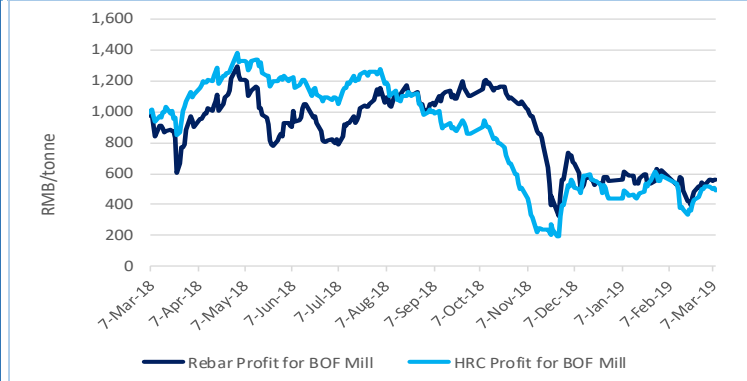
Rebar and HRC spot prices



CHINESE STEEL EXPORT PRICES

China Export Prices USD/tonne				
Product	Specification	8/3/2019	Change	% Change
Rebar	BS4449 460B 12-25mm, + chrome	530	0	0.00%
Wire Rod	SAE1008 6.5-10mm +chrome	535	0	0.00%
Hot-rolled coil	SS400/Q235 4.0-10.mm	540	15	2.86%
Cold-rolled coil	SPCC 1.0mm	560	-5	-0.88%
Medium & Heavy plate	A-level Shippe plate 12-25mm	560	10	1.82%
Galvanised	ST02Z/SGCC 1.0mm	605	25	4.31%

CHINESE STEEL MILL PROFITABILITY



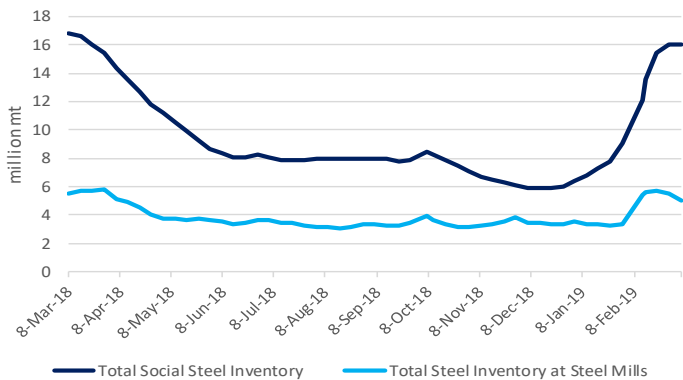
Note: Calculation formula for converting export prices of rebar, cold-rolled steel and galvanizing into prices in China's spot market = FOB * exchange rate * 1.16 / (1.16 - 0.13); Calculation formula for converting export prices of wire rod and hot-rolled steel into prices in China's spot market = FOB * exchange rate * 1.16 / (1.16 - 0.09); Calculation formula for converting export prices of medium-thick plate into prices in China's spot market = FOB * exchange rate

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	85.43	-1.34	Mmi CFR Equivalent index for 1st Feb
Coke	2,070	0	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	2,160	-30	steel scrap (6mm) in Zhangjiagang, excl. tax
Billet Cost	3,017	-13	Q234, incl. tax
Rebar cost - Blast furnace	3,270	-13	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	560	32	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	3,342	-13	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	488	-37	based on Shanghai prices, incl. tax

Note: 1. Costs in the table are calculated based on today's market prices and factor 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 INVENTORIES



Steel Inventories³ (unit: 1000 tonnes)

Product	0/1/1900	1/3/2019	Change	Change %
Rebar	10,138	10,206	-68	-0.67%
Wirerod	3,116	3,134	-18	-0.57%
Hot-rolled Coil	2,680	2,739	-59	-2.15%
Medium & Thick Plate	1,316	1,340	-24	-1.79%
Cold-rolled Coil	1,175	1,199	-24	-2.00%
Total	18,538	18,618	-80	-0.43%

³ SMM statistics cover inventories of major steel products in China's major markets: hot-rolled steel inventories in 33 major cities; rebar and wire inventories in 35 major cities; cold-rolled steel and medium-thick plate inventories in 31 major cities.

IRON ORE INDEX SPECIFICATIONS, COMPILATION RATIONALE AND DATA EXCLUSIONS

Iron Ore Index Specifications (Port and Seaborne)					Iron Ore Index Compilation Rationale and Data Exclusions																				
	65% Fe Fines	62% Fe Fines	58% Fe Fines	62.5% Fe Lump																					
Fe %	65.00	62.00	58.00	62.50	MMi iron ore indices are compiled from data provided by companies that are part of the iron ore supply chain and involved in spot market transactions. The indices are calculated using detailed transaction-level data submitted to MMi by these companies. This data is normalised to the appropriate specifications and screened to remove outliers before volume-weighted average prices are calculated from the remaining core set of data. For more details on MMi's iron ore methodology please download the guide published on our website at: www.mmiprices.com																				
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%	<table border="1"> <thead> <tr> <th colspan="4">Data Exclusions*</th> </tr> <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>	Data Exclusions*					62%	58%	65%	Port Index	0	0	0	Seaborne Index	0		0	Lump Index 62.5	0		
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	62%	58%	65%																						
Port Index	0	0	0																						
Seaborne Index	0		0																						
Lump Index 62.5	0																								
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					
March 11th, 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	60.76%	2.35%	4.31%	0.057%	8.58%	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	61.62%	2.38%	3.63%	0.100%	9.30%	PB Fines 62%	62.00%	2.60%	4.30%	0.090%	10.00%
Newman Fines	62.83%	2.16%	3.94%	0.088%	7.54%	Newman Fines	62.80%	2.20%	4.30%	0.080%	6.40%
MAC Fines	60.86%	2.28%	4.80%	0.087%	6.98%	MAC Fines	61.00%	2.70%	4.70%	0.110%	9.30%
Jimblebar Blended Fines	61.01%	3.06%	4.22%	0.120%	7.22%	Jimblebar Blended Fines	61.79%	2.67%	4.08%	0.115%	7.16%
Carajas Fines	65.44%	1.22%	1.52%	0.069%	8.08%	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	62.55%	1.57%	4.86%	0.071%	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%
March 11th, 2019	Specifications applied for 58% brand assessments						Specifications applied for 58% brand assessments				
	Fe	Alumina	Silica	Phos	Moisture		Fe	Alumina	Silica	Phos	Moisture
SSF	56.65%	3.14%	6.15%	0.052%	9.02%						
FMG Blended Fines	58.21%	2.67%	5.52%	0.062%	7.52%						
Robe River	56.64%	2.91%	5.58%	0.035%	9.29%						
Western Fines	57.84%	2.90%	7.62%	0.065%	7.48%						
Atlas Fines	56.59%	2.55%	7.14%	0.080%	8.46%						
Yandi	57.08%	1.41%	6.58%	0.032%	8.71%						

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

SMM Singapore Office Details: Level 28, Manulife Tower, 8 Cross Street Singapore. Tel: + 65 6850 7630 E: 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

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