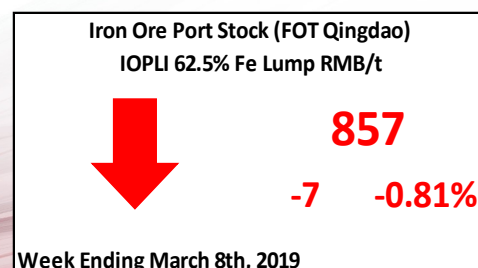
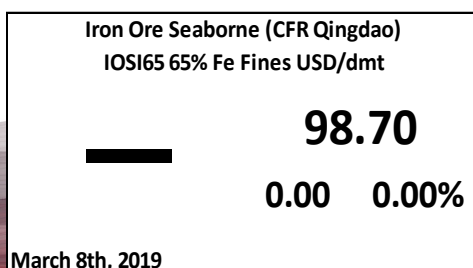
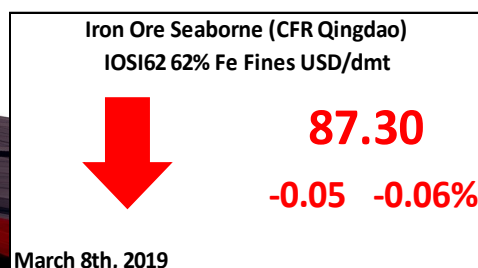
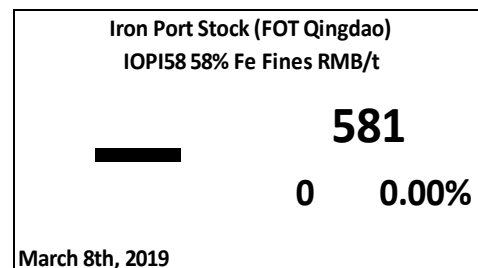
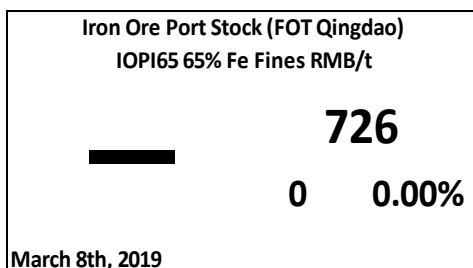
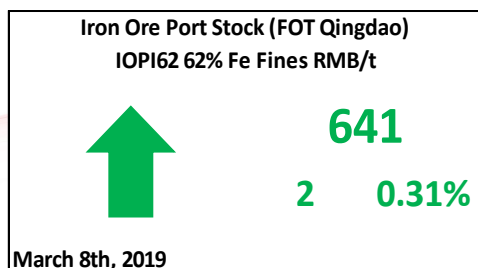


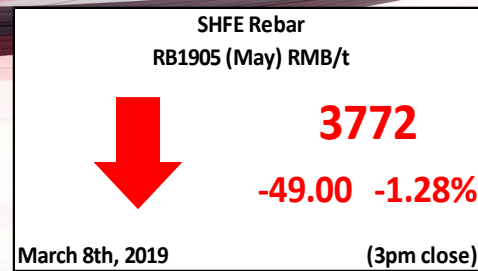
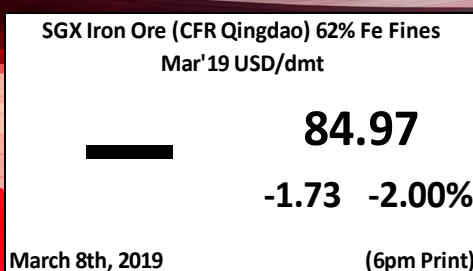
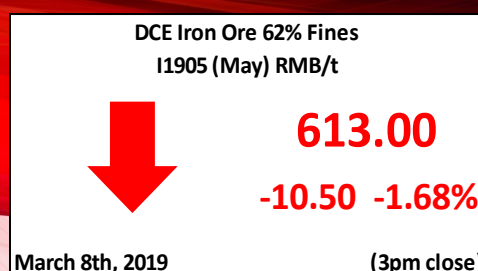


MMi Dashboard

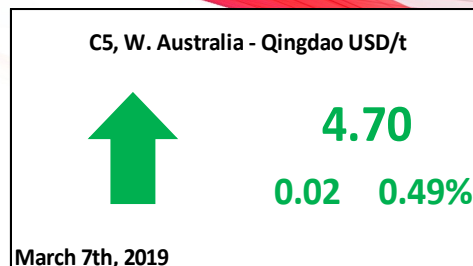
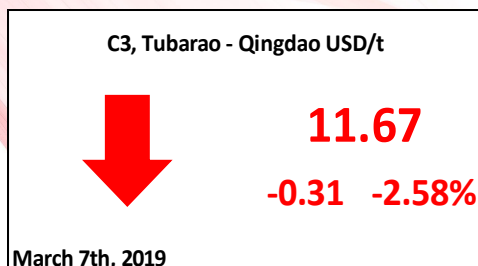
Iron Ore Price Indices



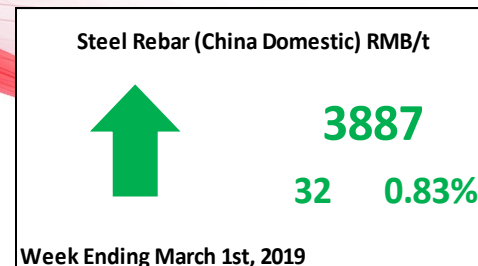
Exchange Traded Contracts



Freight Rates



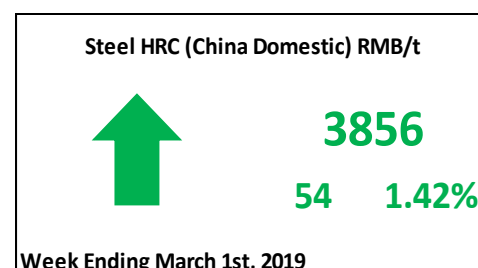
Steel Price



Inventory Levels



Steel Price



IRON ORE PORT STOCK INDEX (IOPI)

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	Change	Change %	MTD	YTD	Low ²	High ²	Price	Change	Change %	MTD	YTD	Low ²	High ²
IOPI62	62% Fe Fines	641	2	0.3%	641	614	443	681	85.43	0.11	0.1%	85.63	81.30	61.36	90.41
IOPI58	58% Fe Fines	581	0	0.0%	573	508	308	588	77.07	-0.15	-0.2%	76.10	66.53	41.40	78.17
IOPI65	65% Fe Fines	726	0	0.0%	722	699	541	784	97.28	-0.19	-0.2%	0.96	93.09	75.83	112.12

IRON ORE SEABORNE INDEX (IOSI)

MARKET COMMENTARY

March 8th, 2019		CFR Qingdao, USD/dry tonne							As of Friday March 8, iron ore stocks across 35 Chinese ports grew 2.24 million mt from a week ago to 135.81 million mt, SMM data showed. Higher arrivals in the north and east and lower deliveries from ports due to output controls accounted for the growth. Daily average deliveries from ports decreased 271,000 mt from the prior week to 2.42 million mt this week as Tangshan extended controls on sintering, and as Wuan required 14 steel mills to close 60% of blast furnace capacity. Transport restrictions during the two sessions in Beijing also accounted for the decline. Jingtang port and Caofeidian port banned transport from March 7. Daily deliveries are likely to inch up next week as growing downstream demand drives steel mills to purchase. But output curbs will keep mills cautious about procurement.							
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low ³	High ³								
IOSI62	62% Fe Fines	87.30	-0.05	-0.06%	87.52	81.99	62.95	89.20								
IOSI65	65% Fe Fines	98.70	0.00	0.00%	98.27	95.96	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

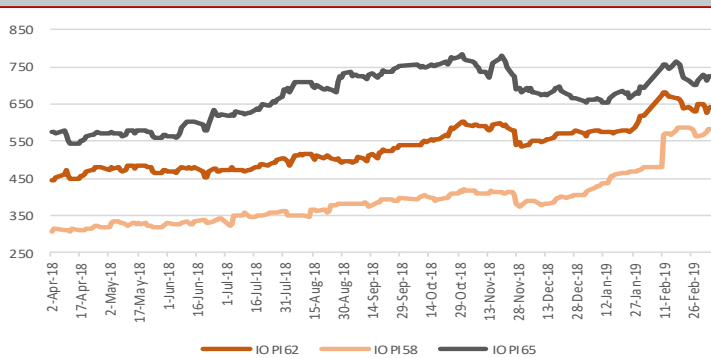
Week Ending March 1st, 2019				RMB/tonne (excluding tax) ⁴				USD/tonne (excluding tax) ⁴			
Province	Region	Product	Basis	This week	Change %	Low ²	High ²	This week	Change %	Low ²	High ²
Hebei	Hanxing	66% Fe Concentrate	Dry	785	-0.4%	579	802	117.23	0.34%	11.23	118.53
Hebei	Qian'an	65% Fe Concentrate	Dry	765	-1.3%	630	815	114.25	-0.57%	100.26	117.34
Liaoning	Anshan	65% Fe Concentrate	Wet	595	0.0%	445	745	88.86	0.73%	68.21	88.86
Shandong	Zibo	65% Fe Concentrate	Dry	815	-3.0%	620	860	121.71	-2.27%	99.75	127.11

Week Ending March 1st, 2019

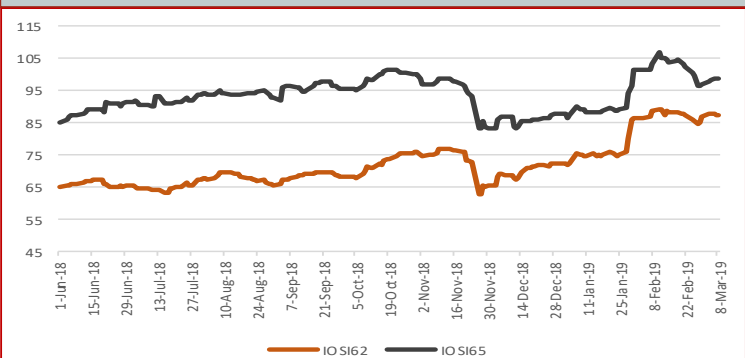
China Mines Concentrate Composite Index RMB/WT	This week	Change %	Low ⁵	High ⁵
	677.83	-1.2%	534.50	685.87

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 8th, 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	614	614	65.25	72.55	76.16	87.09	85.63	81.30	81.30
IOPI58	58% Fe Fines	401	392	448	569	573	508	508	45.84	50.47	57.99	75.22	76.10	66.53	66.53
IOPI65	65% Fe Fines	760	681	670	733	722	699	699	92.13	99.05	88.65	98.08	0.96	93.09	93.09

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

FREIGHT RATES

March 8th, 2019		CFR Qingdao, USD/dry tonne							March 7th, 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	87.52	81.99	81.99	Route	Designation	Change	Change %	Low ⁵	High ⁵	
IOSI65	65% Fe Fines	94.05	85.95	89.92	102.56	98.27	95.96	95.96	W. Australia - Qingdao	C5	4.70	0.02	0.49%	4.68	10.00
									Tubarao - Qingdao	C3	11.67	-0.31	-2.58%	11.67	24.76

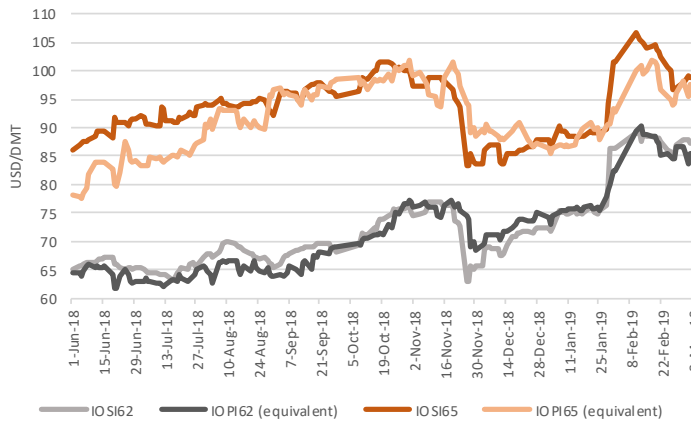
IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

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

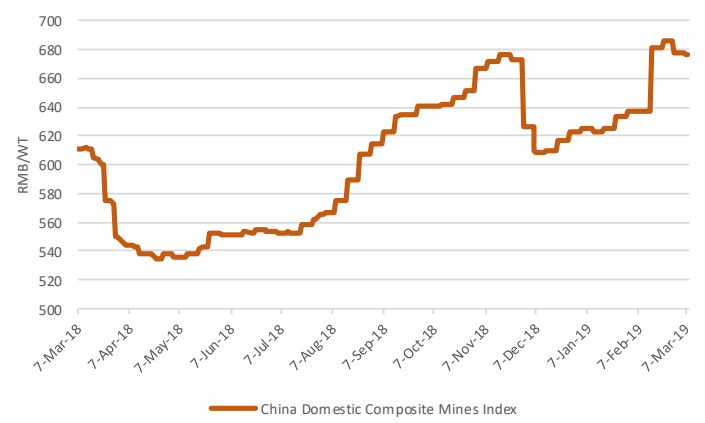
IRON ORE INDEX PREMIUMS/DISCOUNTS

March 8th, 2019			PORT STOCK INDEX (RMB/WT)		March 8th, 2019			SEABORNE INDEX (USD/DMT)	
Fe Content			Spread to IOPI62		% Spread to IOPI62		Fe Content		
58% Fe Fines			-60		-9.36%		65% Fe Fines		
65% Fe Fines			85		13.26%		11		
							13.06%		

IRON ORE INDEX COMPARISONS



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



IRON ORE BRAND SPOT PRICE ASSESSMENTS

March 8th, 2019				March 8th, 2019			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	614	2	-27	Roy Hill	81.10	-0.62	-6.20
SIMEC Fines	593	-5	-48	SIMEC Fines	76.90	-1.15	-10.40
PB Fines	625	2	-16	PB Fines	86.30	-0.30	-1.00
Newman Fines	660	4	19	Newman Fines	90.30	0.08	3.00
MAC Fines	620	0	-21	MAC Fines	81.20	-0.70	-6.10
Jimblebar Blended Fines	596	3	-45	Jimblebar Blended Fines	77.27	-0.78	-10.03
Carajas Fines	738	0	97	Carajas Fines	98.72	0.20	11.42
Brazilian SSF	660	-6	19	Brazilian SSF	87.30	-0.67	0.00
Brazilian Blend Fines	655	0	14	Brazilian Blend Fines	89.80	-0.17	2.50
RTX Fines	607	2	-34	RTX Fines	78.97	-0.35	-8.33

March 8th, 2019			
PORT STOCK INDEX (RMB/WT)			
	Price	Change	Diff to IOPI58
SSF	501	-5	-80
FMG Blended Fines	576	-2	-5
Robe River	520	-4	-61
Western Fines	519	-4	-62
Atlas Fines	511	-2	-70
Yandi	574	0	-7

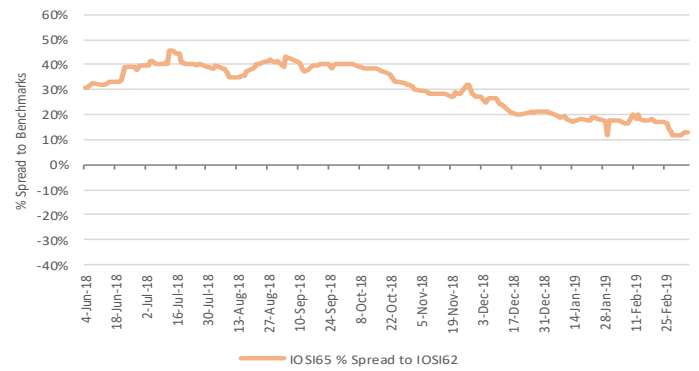
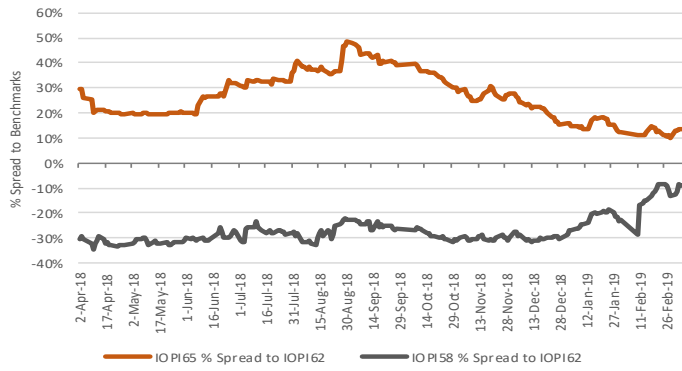
IRON ORE INDEX NORMALISATION DIFFERENTIALS

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	0.25	
	High Grade Fe 63 - 64%	16.00	-1.00		High Grade Fe 63 - 64%	2.00	0.00	
	High Grade Fe 64 - 65%	16.00	-1.00		High Grade Fe 64 - 65%	2.00	0.00	
	High Grade Fe 65 - 65.5%	16.00	-1.00		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	-2.00		High Fe Grade Al 2.25-4%	2.00	0.50	
	Low Fe Grade Al <2.25%	35.00	0.00					
	Low Fe Grade Al 2.25-4%	45.00	6.00					
1% Silica	High Fe Grade Si <4%	5.00	0.00	1% Silica	High Fe Grade Si <4%	0.75	0.00	
	High Fe Grade Si 4-6.5%	13.00	3.00		High Fe Grade Si 4 - 6.5%	1.00	0.25	
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	-0.25	
	Low Fe Grade 0.09<P<0.1%	2.00	0.00					

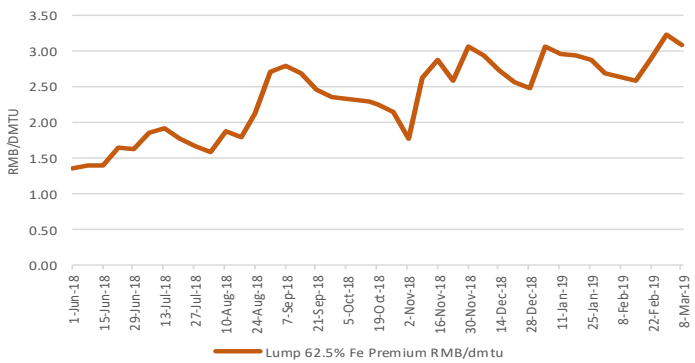
Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

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	-5.00	Jingtang	-5.00	-5.00	Majishan	0.00	0.00	Shekou	0.00	0.00
Dalian	-10.00	0.00	Lanqiao	0.00	0.00	Nantong	-20.00	-5.00	Tianjin	-15.00	0.00

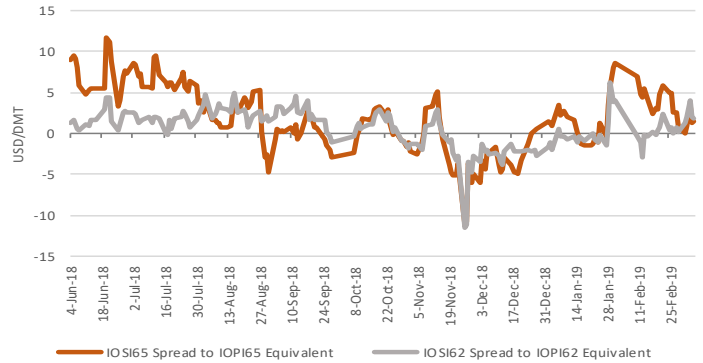
IRON ORE INDEX PREMIUMS/DISCOUNTS



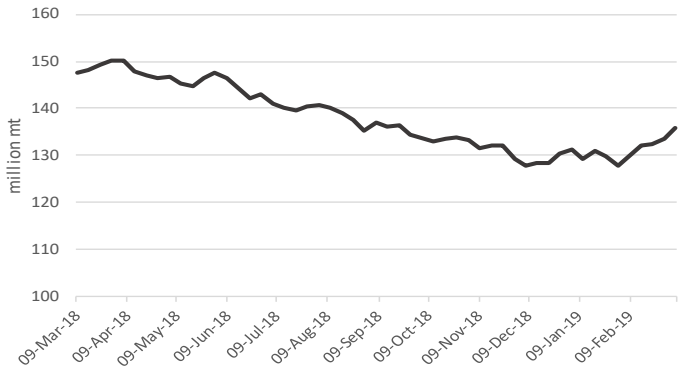
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (62.5% FE LUMP—62% FE FINES)



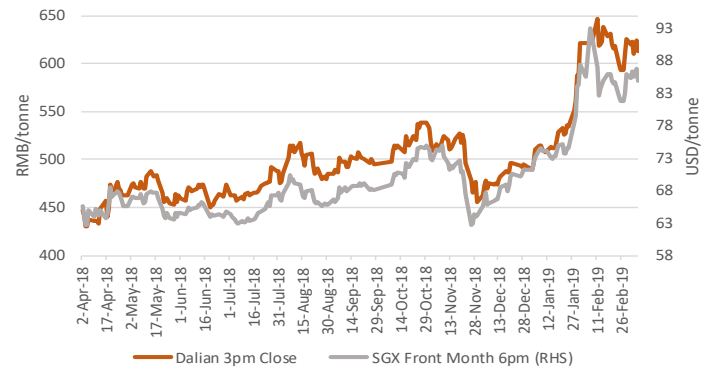
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS



TOTAL IRON ORE INVENTORIES AT CHINA PORTS



FUTURE TRADING—FRONT MONTH CLOSING PRICE



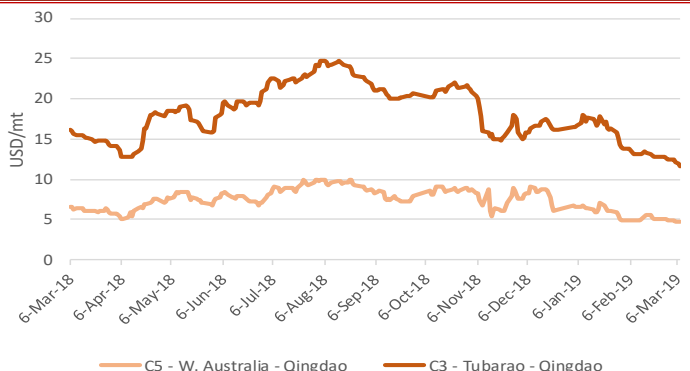
IRON ORE PORT INVENTORIES

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

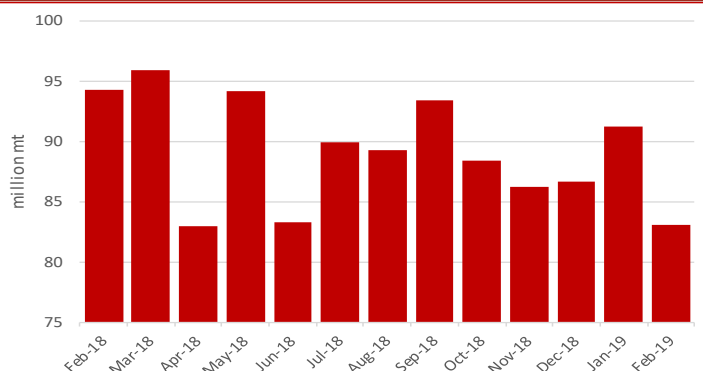
IRON ORE FUTURES CONTRACTS

Closing Date	DCE			SGX		
	8th Mar 3pm close			8th Mar Feb 6 pm		
Contract	I1905	Change	Change %	Mar'19	Change	Change %
Closing Price	613.0	-10.5	-1.68%	84.97	-1.73	-2.00%
Vol traded ('000 lots)	173.04	16.7	10.71%	4.35	0.81	22.99%
Open positions ('000 lots)	98.10	-1.6	-1.58%	131.32	1.74	1.34%
Day Low	612.5	2.0	0.33%	84.97	-0.63	-0.74%
Day High	625.0	0.0	0.00%	86.40	-0.30	-0.35%

DRY BULK F REIGHT RATES



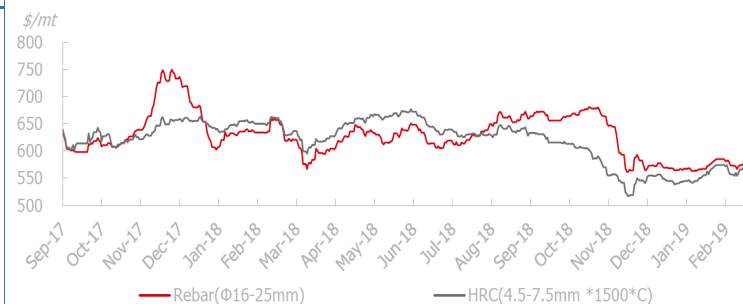
TOTAL CHINA IRON ORE IMPORT VOLUMES



STEEL SPOT MARKET PRICES—CHINA

Steel Spot Market RMB/tonne			
Product	1/3/2019	Change	Change %
ReBar HRB400 φ18mm	3,887.0	32	0.83%
Wirerod Q300 φ6.5mm	3,986.0	44	1.12%
HRC Q235/SS400 5.5mm*1500*C	3,856.0	54	1.42%
CRC SPCC/ST12 1.0mm*1250*2500	4,353.0	27	0.62%
Medium & Heavy Plate Q235B 20mm	3,983.0	17	0.43%
GI ST02Z 1.0mm*1000*C	4,735.0	65	1.39%
Billet Q235 150*150mm	3,490.0	70	2.05%

Rebar and HRC spot prices



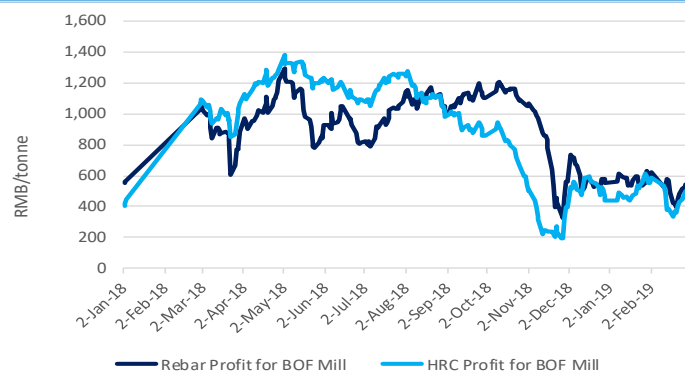
Source: SMM

CHINESE STEEL EXPORT PRICES

China Export Prices USD/tonne			
Product	Specification	Export tax (+)/Vate rebate (-)	Change
			1/3/2019
Rebar	BS4449 460B 12-25mm, + chrome	-13%	530 5
Wire Rod	SAE1008 6.5-10mm +chrome	-9%	535 0
Hot-rolled coil	SS400/Q235 4.0-10.0mm	-9%	525 0
Cold-rolled coil	SPCC 1.0mm	-13%	565 0
Medium & Heavy plate	A-level Shipe plate 12-25mm	0%	550 20
Galvanised	ST02Z/SGCC 1.0mm	-13%	580 0

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

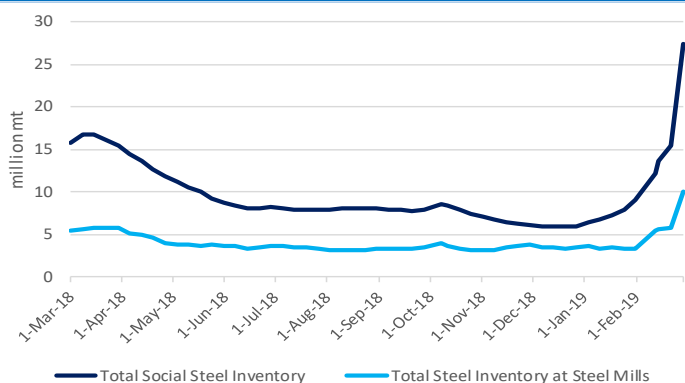


CHINESE STEEL MILL PROFITABILITY

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	86.77	1.65	Mmi CFR Equivalent index for 1st Feb
Coke	2,070	0	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	2,190	-20	steel scrap (6mm) in Zhangjiagang, excl. tax
Billet Cost	3,030	5	Q234, incl. tax
Rebar cost - Blast furnace	3,283	4	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	528	47	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	3,355	5	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	525	95	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 depreciation 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	1/3/2019	22/2/2019	Change	Change %
Rebar	10,206	9,634	572	5.94%
Wirerod	3,134	3,052	82	2.69%
Hot-rolled Coil	2,739	2,725	14	0.51%
Medium & Thick Plate	1,340	1,351	-11	-0.81%
Cold-rolled Coil	1,199	1,201	-2	-0.17%
Total	18,618	17,964	654	3.64%

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	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
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*					
	62%	58%	65%		
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					
March 8th, 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 8th, 2019	Specifications applied for 58% brand assessments										
	Fe	Alumina	Silica	Phos	Moisture						
SSF	56.64%	3.14%	6.16%	0.053%	9.02%						
FMG Blended Fines	58.20%	2.66%	5.50%	0.061%	7.54%						
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

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