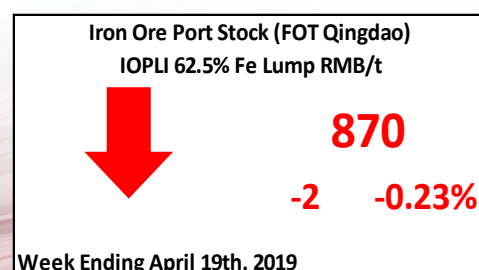
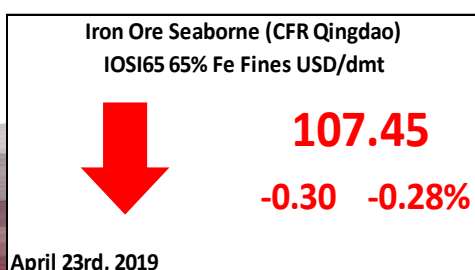
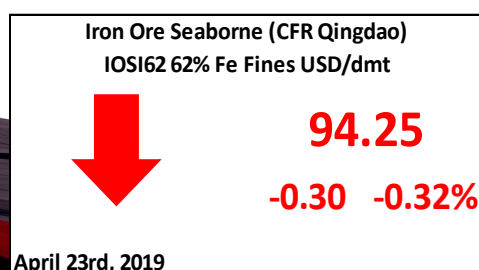
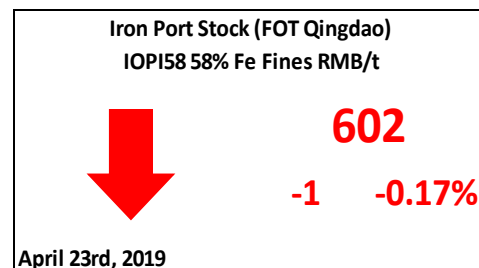
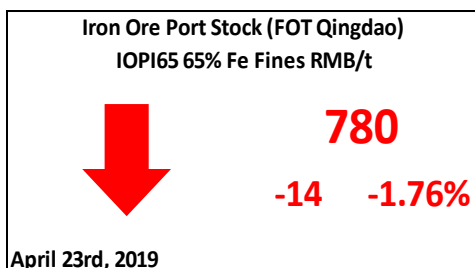
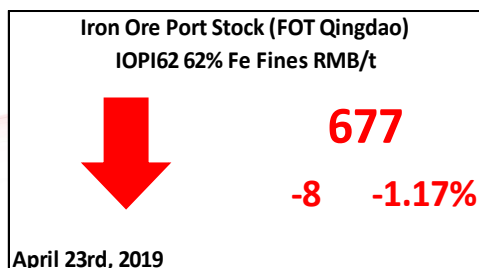


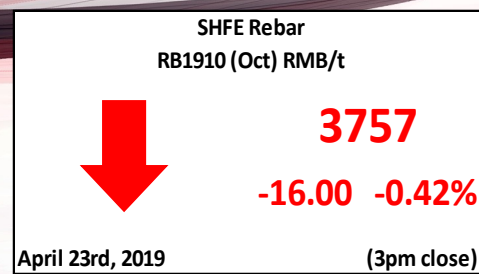
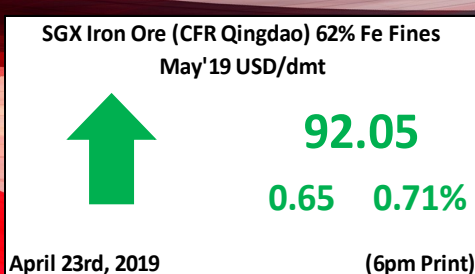
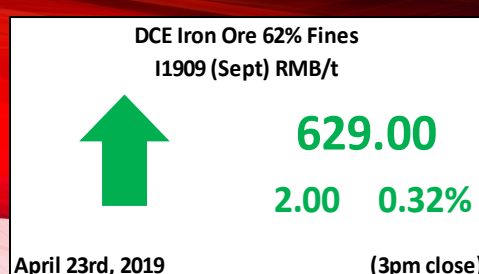


MMi Dashboard

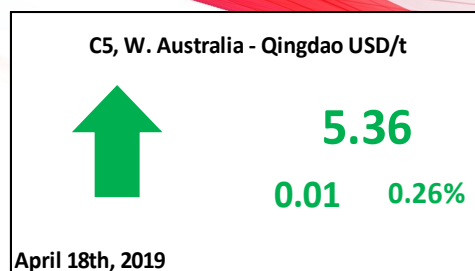
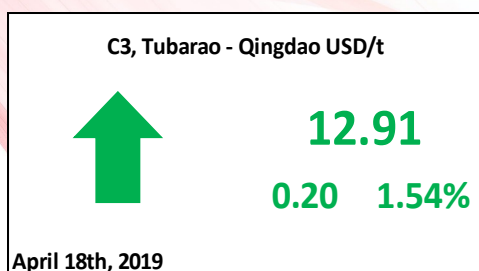
Iron Ore Price Indices



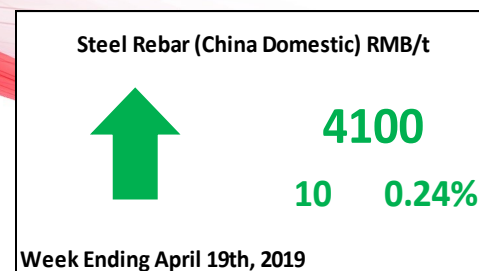
Exchange Traded Contracts



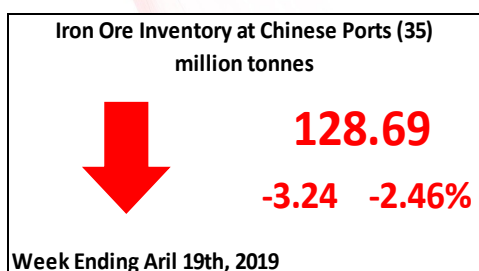
Freight Rates



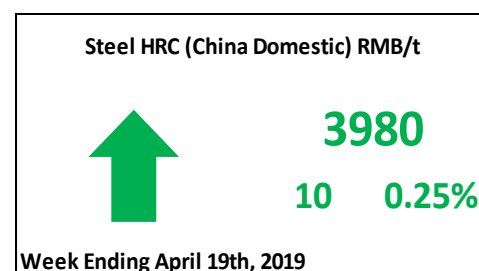
Steel Price



Inventory Levels



Steel Price



IRON ORE PORT STOCK INDEX (IOPI)

April 23rd, 2019		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% 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	677	-8	-1.2%	673	632	453	685	93.06	-1.22	-1.3%	92.59	84.52	61.66	94.28
IOPI58	58% Fe Fines	602	-1	-0.2%	599	543	317	610	82.31	-0.20	-0.2%	81.88	72.18	41.71	83.42
IOPI65	65% Fe Fines	780	-14	-1.8%	753	713	559	794	107.83	-2.09	-1.9%	103.91	95.88	77.70	109.92

IRON ORE SEABORNE INDEX (IOSI)

MARKET COMMENTARY

April 23rd, 2019		CFR Qingdao, USD/dry tonne							Eighty-seven vessels carrying 13.23 million mt of iron ore arrived at major Chinese ports during April 15-22, up 2.73 million mt from the previous week, SMM forecasted on Tuesday April 23. Arrivals at major ports in the east and north grew considerably during the period. For the same week, iron ore shipments departing Australian ports increased 1.13 million mt, to stand at 16.76 million mt, as the impact of cyclones waned. Inventories of Australian ore across major Chinese ports shrank sharply as of April 23, and this will underpin spot prices of iron ore. Iron ore leaving Brazilian ports was expected to grow 260,000 mt, but remain at lows of 3.55 million mt.							
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low ³	High ³								
IOSI62	62% Fe Fines	94.25	-0.30	-0.32%	93.72	85.14	62.95	95.25								
IOSI65	65% Fe Fines	107.45	-0.30	-0.28%	106.50	98.31	83.20	108.50								

IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending April 19th, 2019		FOT Qingdao (inc. 16% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 16% VAT), USD/dry tonne ⁴						
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	870	-2	-0.2%	867	836	565	872	112.78	0.03	0.03%	112.32	107.75	76.63	112.78

IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

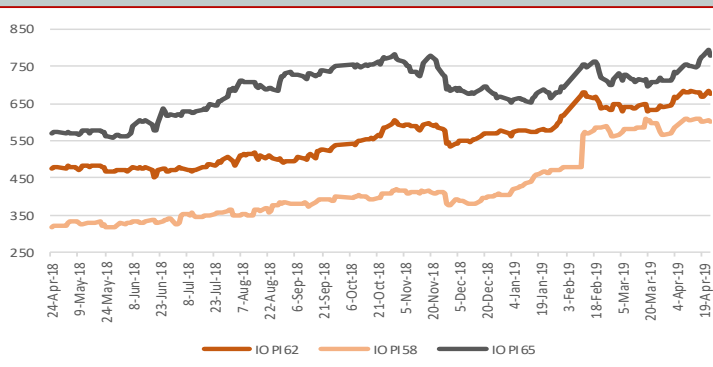
Week Ending April 19th, 2019				RMB/tonne (excluding tax) ⁴				USD/tonne (excluding tax) ⁴			
Province	Region	Product	Basis	This week	Change %	Low ²	High ²	This week	Change %	Low ²	High ²
Hebei	Hanxing	66% Fe Concentrate	Dry	830	2.9%	579	830	123.78	3.00%	91.97	123.78
Hebei	Qian'an	65% Fe Concentrate	Dry	765	0.0%	630	815	114.09	0.14%	100.26	117.34
Liaoning	Anshan	65% Fe Concentrate	Wet	575	1.8%	445	745	85.75	1.92%	68.21	88.86
Shandong	Zibo	65% Fe Concentrate	Dry	820	0.0%	620	860	122.29	0.14%	99.75	127.11

Week Ending April 19th, 2019

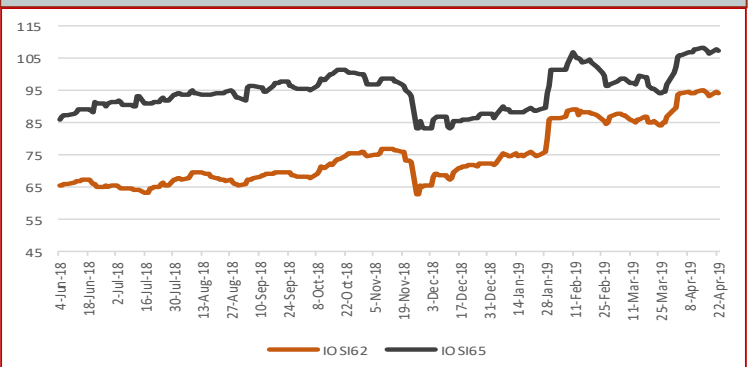
This week	Change %	Low ²	High ²
667.34	4.2%	534.50	685.87

¹ Exchange rate applied: RMB/USD = 6.7052 ² Last 12 months ³ Since June 1
⁴ Weekly exchange rate applied: RMB/USD 6.7055

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

April 23rd, 2019		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne						
Index	Fe Content	December	January	February	March	MTD	QTD	YTD	December	January	February	March	MTD	QTD	YTD
IOPI62	62% Fe Fines	559	580	654	639	673	673	632	72.55	76.16	87.09	85.37	92.59	92.59	84.52
IOPI58	58% Fe Fines	392	448	569	583	599	599	543	50.47	57.99	75.22	77.49	81.88	81.88	72.18
IOPI65	65% Fe Fines	681	670	733	714	753	753	713	99.05	88.65	98.08	95.78	103.91	103.91	95.88

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

FREIGHT RATES

April 23rd, 2019		CFR Qingdao, USD/dry tonne							April 18th, 2019				FREIGHT RATES - DRY BULK US\$/wet tonne			
Index	Fe Content	December	January	February	March	MTD	QTD	YTD	Route	Designation	Change	Change %	Low ²	High ²		
IOSI62	62% Fe Fines	69.96	76.09	87.39	86.18	93.72	93.72	85.14	W. Australia - Qingdao	C5	5.36	0.01	0.26%	4.39	10.00	
IOSI65	65% Fe Fines	85.95	89.92	102.56	97.22	106.50	106.50	98.31	Tubarao - Qingdao	C3	12.91	0.20	1.54%	11.61	24.76	

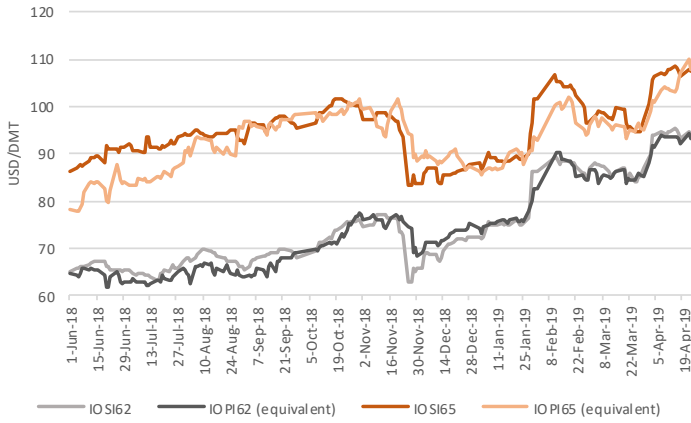
IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending April 19th, 2019		FOT Qingdao (inc. 16% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 16% VAT), USD/dry tonne ¹						
Index	Fe Content	December	January	February	March	MTD	QTD	YTD	December	January	February	March	MTD	QTD	YTD
IOPLI62	62.5% Fe Lump	749	782	842	858	867	866	836	96.21	94.22	99.57	111.03	112.32	112.08	107.75

IRON ORE INDEX PREMIUMS/DISCOUNTS

April 23rd, 2019		PORT STOCK INDEX (RMB/WT)				April 23rd, 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		-11.08%		IOSI65	65% Fe Fines	13.20		14.01%	
IOPI65	65% Fe Fines	103		15.21%							

IRON ORE INDEX COMPARISONS



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



IRON ORE BRAND SPOT PRICE ASSESSMENTS

April 23rd, 2019	PORT STOCK INDEX (RMB/WT)			April 23rd, 2019	SEABORNE INDEX (USD/DMT)		
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	645	-15	-32	Roy Hill	89.37	-0.62	-4.88
SIMEC Fines	633	1	-44	SIMEC Fines	86.57	-0.79	-7.68
PB Fines	659	-8	-18	PB Fines	93.47	-0.22	-0.78
Newman Fines	681	-7	4	Newman Fines	97.14	-0.08	2.89
MAC Fines	657	-5	-20	MAC Fines	89.17	0.56	-5.08
Jimblebar Blended Fines	624	-5	-53	Jimblebar Blended Fines	86.57	0.96	-7.68
Carajas Fines	788	-15	111	Carajas Fines	110.51	1.24	16.26
Brazilian SSF	698	2	21	Brazilian SSF	97.69	0.02	3.44
Brazilian Blend Fines	694	-5	17	Brazilian Blend Fines	98.19	0.02	3.94
RTX Fines	634	-2	-43	RTX Fines	87.30	0.91	-6.95

April 23rd, 2019	PORT STOCK INDEX (RMB/WT)		
	Price	Change	Diff to IOPI58
SSF	572	-1	-30
FMG Blended Fines	609	-1	7
Robe River	572	-1	-30
Western Fines	597	-1	-5
Atlas Fines	579	-1	-23
Yandi	624	-1	22

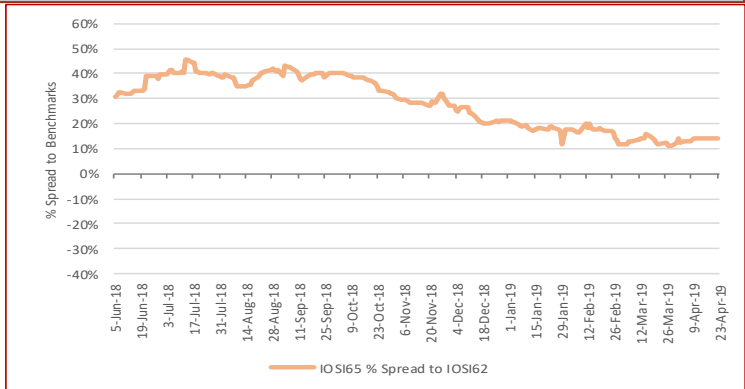
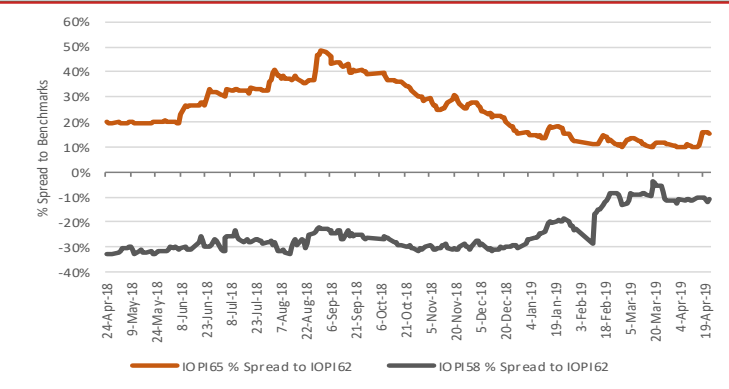
IRON ORE INDEX NORMALISATION DIFFERENTIALS

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%	11.00	0.00	1% Fe	High Grade Fe 60 - 63%	3.50	0.25
	High Grade Fe 63 - 64%	21.00	-3.00		High Grade Fe 63 - 64%	3.00	0.25
	High Grade Fe 64 - 65%	21.00	-3.00		High Grade Fe 64 - 65%	3.00	0.25
	High Grade Fe 65 - 65.5%	21.00	-3.00		High Grade Fe 65 - 65.5%	3.00	0.25
1% Alumina	Low Grade Fe	13.00	0.00	1% Alumina	High Fe Grade Al <2.25%	3.25	0.25
	High Fe Grade Al <2.25%	35.00	0.00		High Fe Grade Al 2.25-4%	2.00	-0.25
	High Fe Grade Al 2.25-4%	10.00	-3.00				
	Low Fe Grade Al <2.25%	43.00	0.00				
1% Silica	Low Fe Grade Al 2.25-4%	15.00	0.00	1% Silica	High Fe Grade Si <4%	1.75	0.25
	High Fe Grade Si <4%	8.00	0.00		High Fe Grade Si 4 - 6.5%	0.25	0.00
0.01% Phosphorus	High Fe Grade Si 4-6.5%	15.00	-4.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	0.25	-0.50
	Low Fe Grade	2.00	0.00		High Fe Grade 0.115%<P<0.15%	0.50	0.00
	High Fe Grade 0.09%<P<0.115%	6.00	0.00				
	High Fe Grade 0.115%<P<0.15%	2.00	-1.00				
	Low Fe Grade 0.09%<P<0.1%	3.00	3.00				

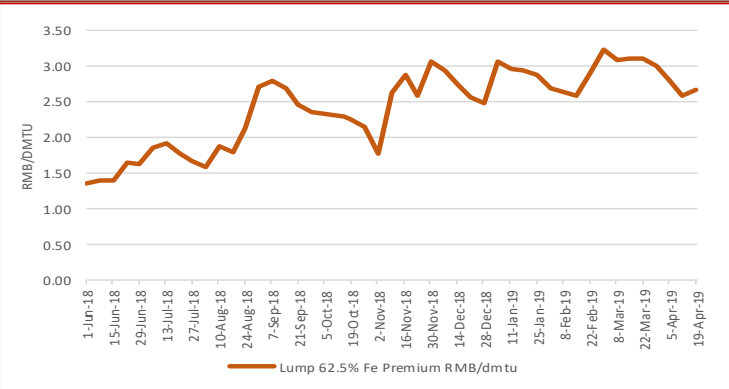
Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

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

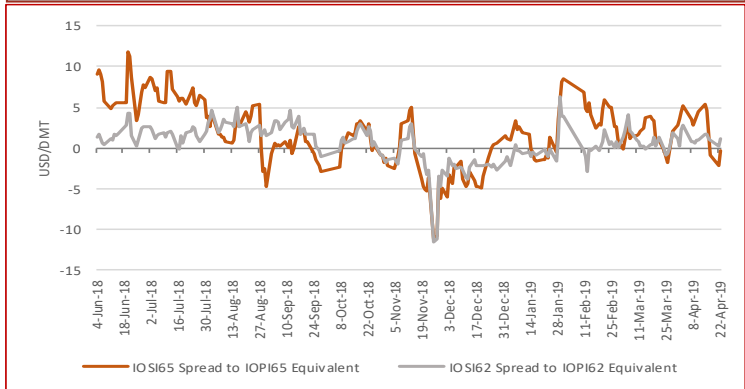
IRON ORE INDEX PREMIUMS/DISCOUNTS



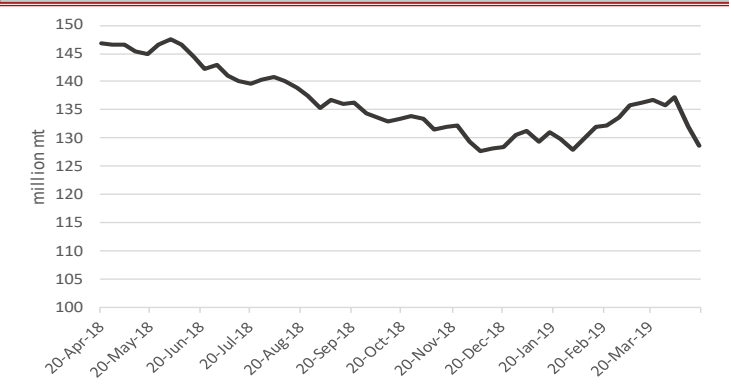
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (62.5% FE LUMP—62% FE FINES)



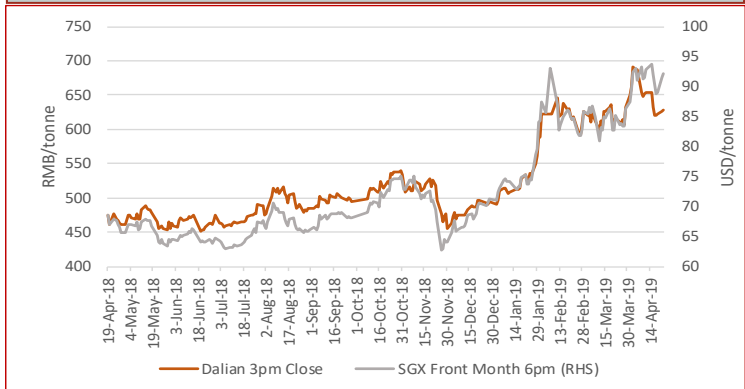
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS



TOTAL IRON ORE INVENTORIES AT CHINA PORTS



FUTURE TRADING—FRONT MONTH CLOSING PRICE



IRON ORE PORT INVENTORIES

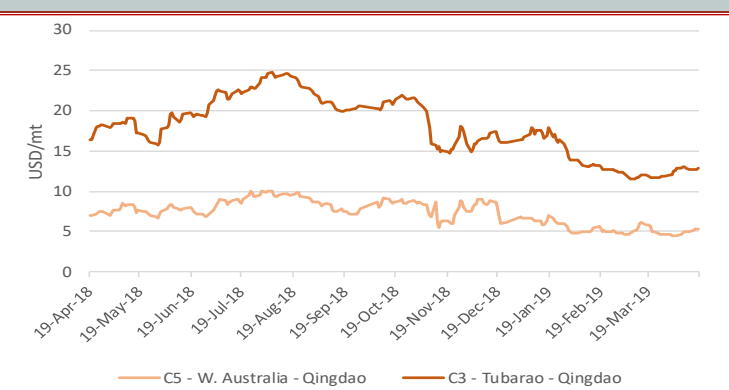
Week Ending April 19th, 2019 (million tonnes)

Province	This week	Change %	Low ²	High ²
Jingtang	15.56	-4.25%	13.29	18.10
Qingdao	17.13	1.78%	16.09	19.70
Caofeidian	16.72	-5.59%	16.30	24.04
Tianjin	7.39	-5.01%	7.39	10.80
Rizhao	16.06	-2.55%	14.00	19.00
Total (35 Ports)	128.69	-2.46%	127.72	147.80

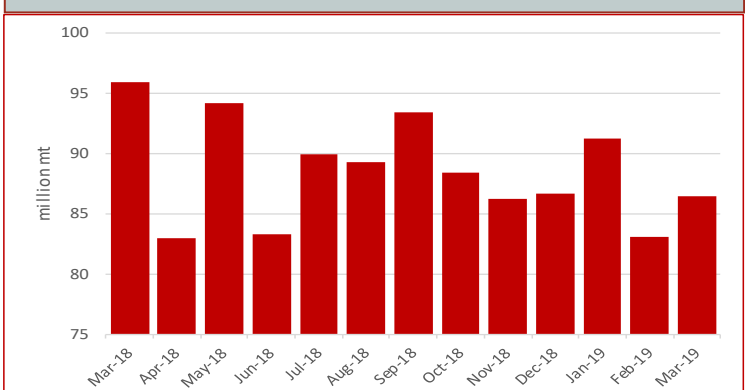
IRON ORE FUTURES CONTRACTS

Closing Date	DCE			SGX		
	23rd Apr 3pm close			23rd Apr Feb 6 pm		
Contract	I1909	Change	Change %	May'19	Change	Change %
Closing Price	629.00	2.0	0.32%	92.05	0.65	0.71%
Vol traded ('000 lots)	145.16	-191.4	-56.86%	14.07	1.95	16.04%
Open positions ('000 lots)	125.57	2.3	1.85%	113.79	-0.39	-0.34%
Day Low	626.0	4.0	0.64%	91.60	1.40	1.55%
Day High	635.0	-7.0	-1.09%	92.95	0.22	0.24%

DRY BULK FREIGHT RATES



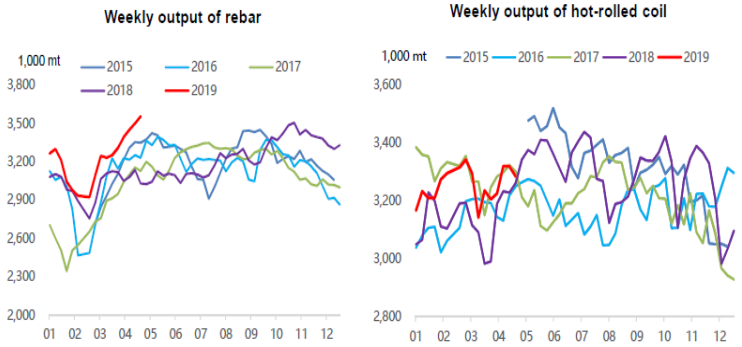
TOTAL CHINA IRON ORE IMPORT VOLUMES



STEEL SPOT MARKET PRICES—CHINA

Steel Spot Market RMB/tonne

Product	19/4/2019	Change	Change %
ReBar HRB400 φ18mm	4,100.0	10	0.24%
Wirerod Q300 φ6.5mm	4,290.0	20	0.47%
HRC Q235/SS400 5.5mm*1500*C	3,980.0	10	0.25%
CRC SPPC/ST12 1.0mm*1250*2500	4,340.0	-10	-0.23%
Medium & Heavy Plate Q235B 20mm	4,070.0	-20	-0.49%
GI ST02Z 1.0mm*1000*C	4,670.0	-40	-0.85%
Colour Coated Plate	7,300.0	50	0.69%



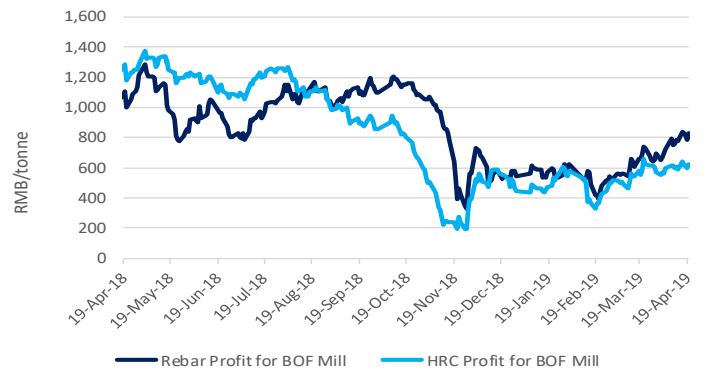
CHINESE STEEL MILL PROFITABILITY

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	93.00	-1.50	Mmi CFR Equivalent index for 1st Feb
Coke	1,910	0	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	2,220	-10	steel scrap (6mm) in Zhangjiagang, excl. tax
Billet Cost	3,054	0	Q234, incl. tax
Rebar cost - Blast furnace	3,282	-22	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	828	52	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	3,356	-22	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	624	32	based on Shanghai prices, incl. tax

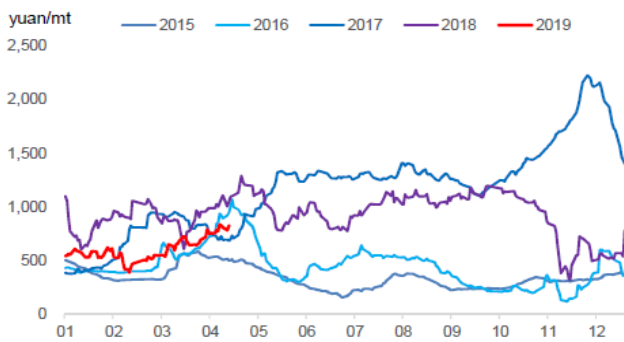
Note: 1. Costs in the table are calculated based on today's market prices and factored our management, sales, financial and depreciations fees.
2. The cost refers to average cost in the industry based on SMM's survey of small, medium and large mills in China

CHINESE STEEL MILL PROFITABILITY

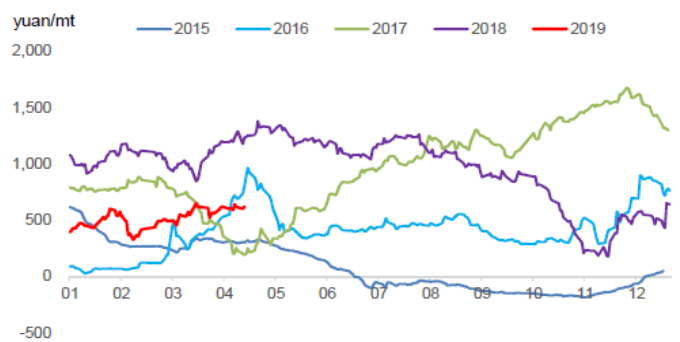


CHINESE STEEL MILL PROFITABILITY

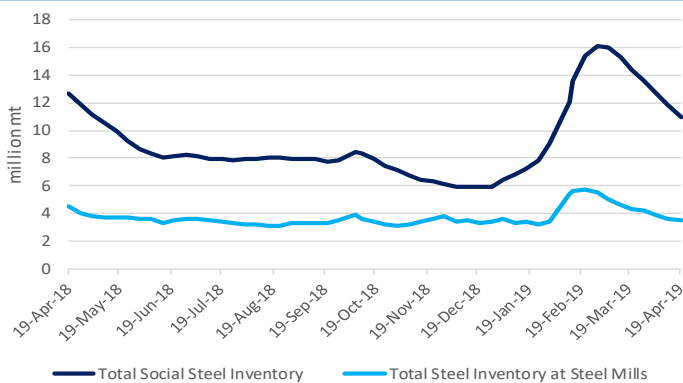
Rebar profits



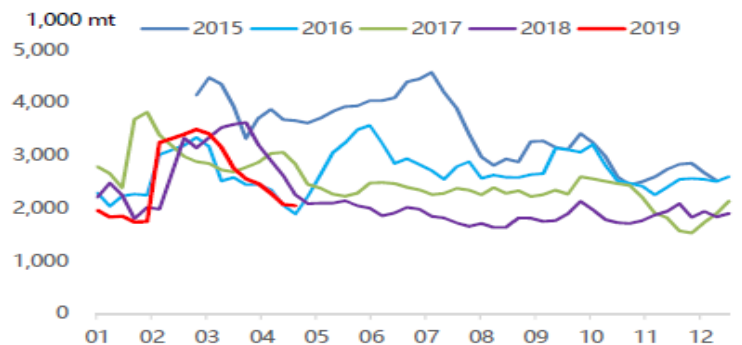
Hot-rolled coil profits



CHINESE STEEL INVENTORIES



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
	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*					
Port Index	62%	58%	65%		
Seaborne Index	0	0	0		
Lump Index 62.5	0				
* Number of price submissions for iron ore indices that were excluded from index calculations today as they were anomalous and could not be verified					

IRON ORE DOMESTIC CONCENTRATE INDEX CALCULATION METHODOLOGY

The compilation method for price index generally refers to the compilation method of CPI price index and other price indices, breakdown the price data and calculate the average value according to a certain method, taking the vertical axis as the regional composite index (average of different grade index) and the horizontal axis as the grade composite index (average of different regional index), a total composite index for domestic ore can be output ultimately. The process system is also adopted in the calculation i.e. each sub-index can be obtained as well.

AVERAGE IRON ORE SPECIFICATIONS APPLIED FOR BRAND PRICE ASSESSMENTS

PORT STOCK BRANDS						SEABORNE BRANDS					
April 23rd, 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	61.00%	2.26%	4.55%	0.054%	9.79%	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%	2.39%	3.68%	0.099%	9.20%	PB Fines 62%	62.00%	2.60%	4.30%	0.090%	10.00%
Newman Fines	62.37%	2.28%	4.19%	0.091%	7.53%	Newman Fines	62.80%	2.20%	4.30%	0.080%	6.40%
MAC Fines	60.84%	2.26%	4.84%	0.086%	7.28%	MAC Fines	61.00%	2.70%	4.70%	0.110%	9.30%
Jimblebar Blended Fines	61.02%	2.94%	4.27%	0.116%	7.43%	Jimblebar Blended Fines	61.79%	2.67%	4.08%	0.115%	7.16%
Carajas Fines	65.29%	1.32%	1.46%	0.076%	8.10%	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	62.69%	1.52%	4.86%	0.072%	8.41%	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%
April 23rd, 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

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