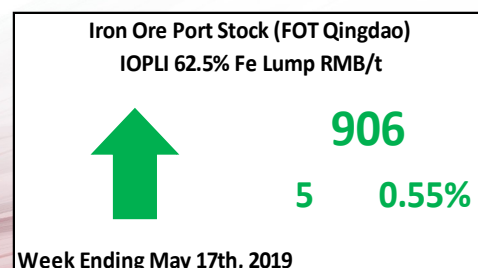
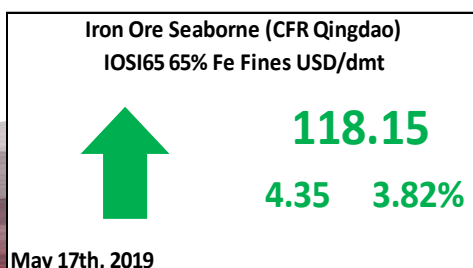
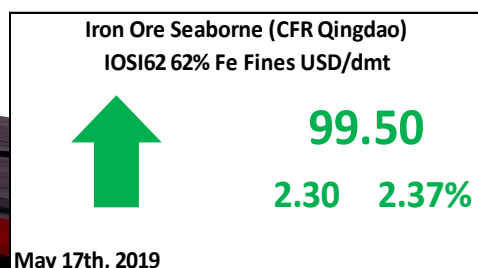
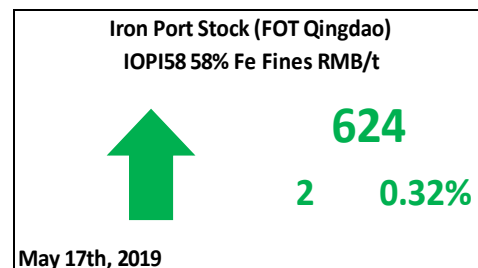
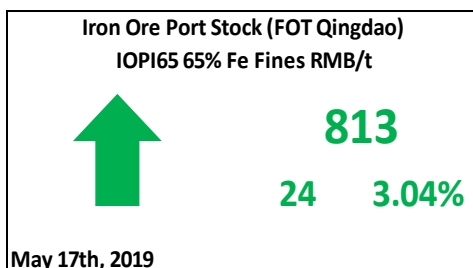
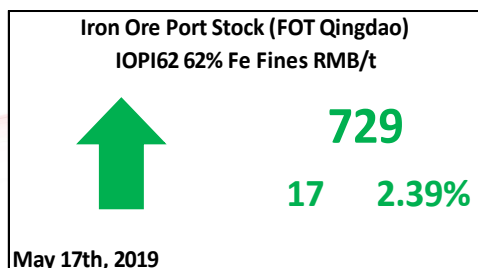


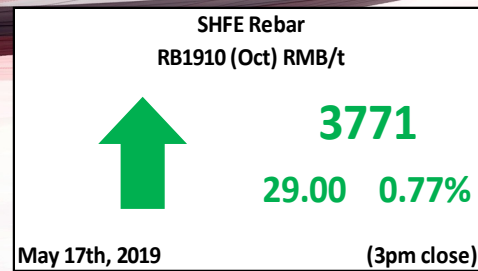
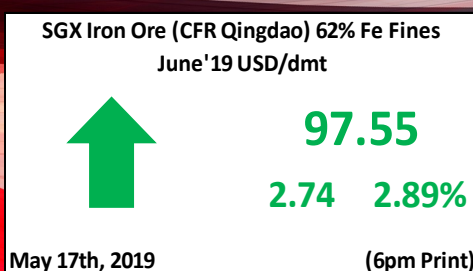
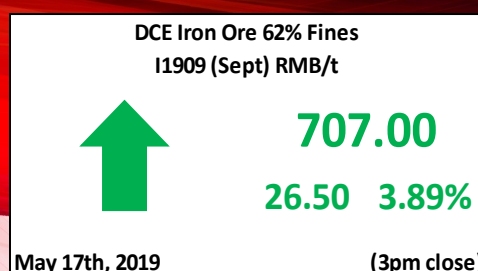


MMi Dashboard

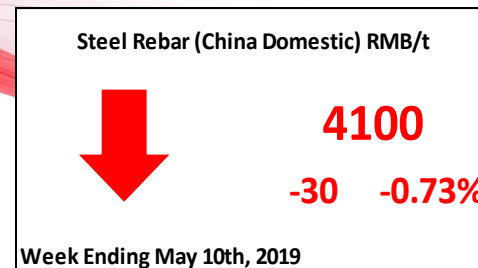
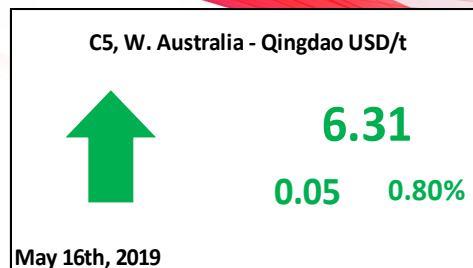
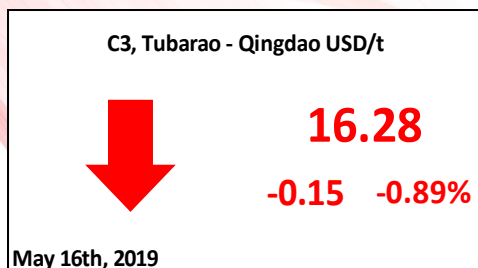
Iron Ore Price Indices



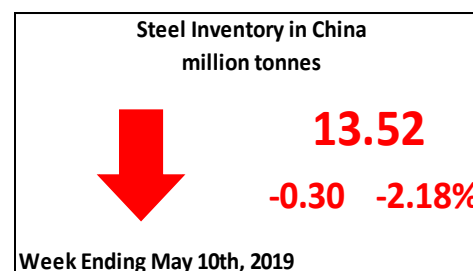
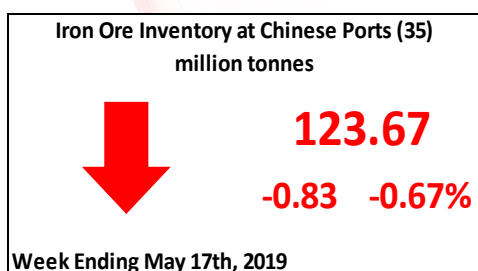
Exchange Traded Contracts



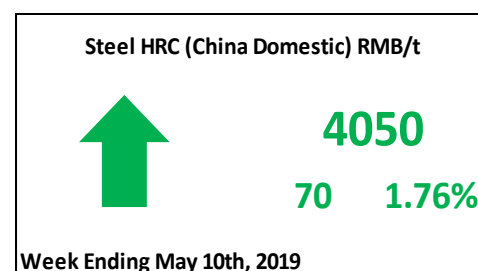
Freight Rates



Inventory Levels



Steel Price



IRON ORE PORT STOCK INDEX (IOPI)

May 17th, 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	729	17	2.4%	695	642	453	729	97.92	2.13	2.2%	94.22	86.10	61.66	97.92
IOPI58	58% Fe Fines	624	2	0.3%	617	555	317	624	84.17	0.07	0.1%	84.16	74.13	41.71	84.59
IOPI65	65% Fe Fines	813	24	3.0%	774	722	559	813	109.66	3.09	2.9%	105.39	97.40	77.70	109.92

IRON ORE SEABORNE INDEX (IOSI)

MARKET COMMENTARY

May 17th, 2019		CFR Qingdao, USD/dry tonne							As of May 17, iron ore stocks across 35 Chinese ports shrank 830,000 mt from a week ago and 21.13 million mt from a year ago, and stood at 123.67 million mt, SMM statistics showed. This marked six consecutive weeks of declines. Stocks across major ports in the east and north continued to dip as arrivals fell. Low arrivals across some ports are expected to keep stocks in Tangshan from growing this week. Daily average deliveries from ports in Tangshan remained above 300,000 mt as output controls across steel mills were smaller than expected. A very strong end to the week for the various iron ore indices, with IOPI62 up 45rmb/wt from last Friday and IOSI62 up \$4.50/dmt over the same period. Spot trades are also up very strongly with a marked increase in concluded trades							
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low ³	High ³								
IOSI62	62% Fe Fines	99.50	2.30	2.37%	95.12	86.81	62.95	99.50								
IOSI65	65% Fe Fines	118.15	4.35	3.82%	112.08	100.56	83.20	117.05								

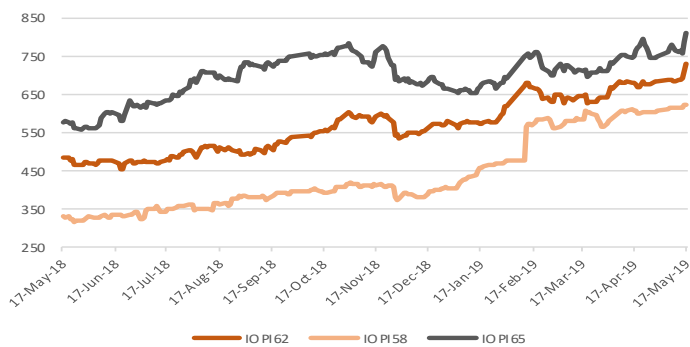
IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending May 17th, 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	906	5	0.6%	899	849	575	906	115.09	-0.77	-0.66%	115.34	109.30	76.66	115.86

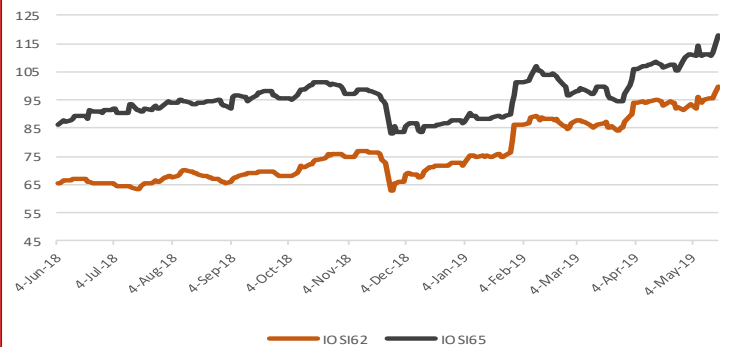
IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

Week Ending May 10th, 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	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 ²	High ²	¹ Exchange rate applied: RMB/USD = 6.8859 ² Last 12 months ³ Since June 1 ⁴ Weekly exchange rate applied: RMB/USD 6.8503			
China Mines Concentrate Composite Index RMB/WT				684.41	2.1%	535.58	686.95				

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 17th, 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	695	681	642	72.55	76.16	87.09	85.37	94.22	93.17	86.10
IOPI58	58% Fe Fines	448	569	583	600	617	606	555	50.47	57.99	75.22	77.49	84.16	82.78	74.13
IOPI65	65% Fe Fines	670	733	714	753	774	760	722	99.05	88.65	98.08	95.78	105.39	104.39	97.40

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

FREIGHT RATES

May 17th, 2019		CFR Qingdao, USD/dry tonne							May 16th, 2019						
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 ²	High ²	
IOSI62	62% Fe Fines	76.09	87.39	86.18	93.42	95.12	94.04	86.81	W. Australia - Qingdao	C5	6.31	0.05	0.80%	4.39	10.00
IOSI65	65% Fe Fines	89.92	102.56	97.22	106.75	112.08	108.68	100.56	Tubarao - Qingdao	C3	16.28	-0.15	-0.89%	11.61	24.76

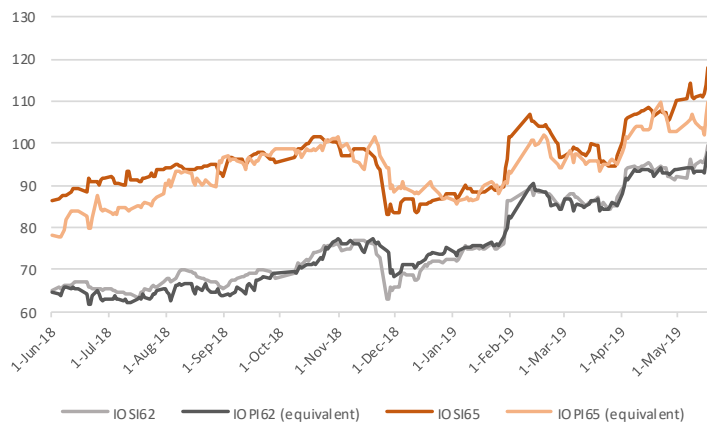
IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending May 17th, 2019		FOT Qingdao (inc. 16% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 16% VAT), USD/dry tonne ¹						
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	899	884	849	96.21	94.22	99.57	111.03	115.34	113.98	109.33

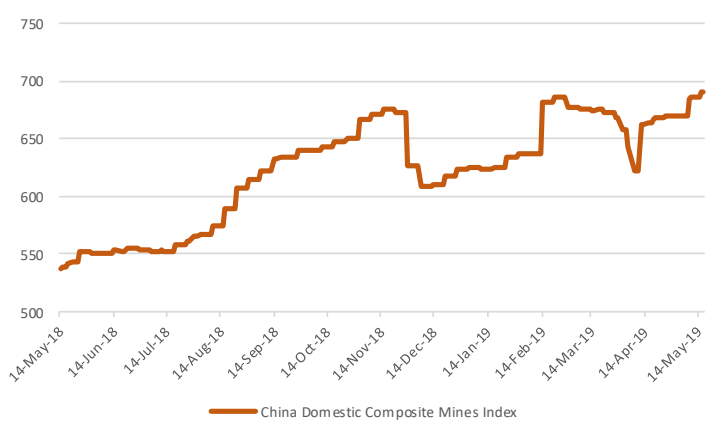
IRON ORE INDEX PREMIUMS/DISCOUNTS

May 17th, 2019		PORT STOCK INDEX (RMB/WT)				May 17th, 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		-14.40%		IOSI65	65% Fe Fines	18.65		18.74%	
IOPI65	65% Fe Fines	84		11.52%							

IRON ORE INDEX COMPARISONS (USD/DMT)



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



IRON ORE BRAND SPOT PRICE ASSESSMENTS

May 17th, 2019	PORT STOCK INDEX (RMB/WT)			May 17th, 2019	SEABORNE INDEX (USD/DMT)		
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	703	18	-26	Roy Hill	95.81	2.54	-3.69
SIMEC Fines	696	22	-33	SIMEC Fines	93.89	2.89	-5.61
PB Fines	713	17	-16	PB Fines	98.71	2.46	-0.79
Newman Fines	737	18	8	Newman Fines	101.91	2.40	2.41
MAC Fines	708	19	-21	MAC Fines	94.74	2.59	-4.76
Jimblebar Blended Fines	692	19	-37	Jimblebar Blended Fines	91.64	2.52	-7.86
Carajas Fines	821	22	92	Carajas Fines	117.39	3.25	17.89
Brazilian SSF	752	26	23	Brazilian SSF	104.81	3.55	5.31
Brazilian Blend Fines	750	21	21	Brazilian Blend Fines	104.06	2.92	4.56
RTX Fines	697	14	-32	RTX Fines	92.09	2.14	-7.41

May 17th, 2019	PORT STOCK INDEX (RMB/WT)		
	Price	Change	Diff to IOPI58
SSF	600	-2	-24
FMG Blended Fines	629	0	5
Robe River	594	-3	-30
Western Fines	623	-1	-1
Atlas Fines	609	0	-15
Yandi	640	1	16

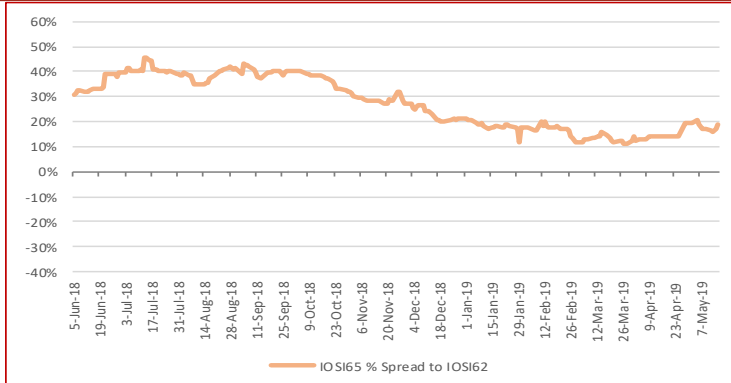
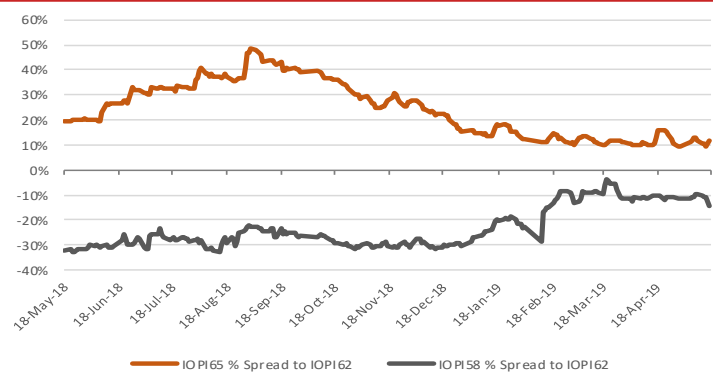
IRON ORE INDEX NORMALISATION DIFFERENTIALS

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%	10.00	0.00	1% Fe	High Grade Fe 60 - 63%	2.75	-0.25
	High Grade Fe 63 - 64%	18.00	2.00		High Grade Fe 63 - 64%	3.50	0.00
	High Grade Fe 64 - 65%	18.00	2.00		High Grade Fe 64 - 65%	3.50	0.00
	High Grade Fe 65 - 65.5%	18.00	2.00		High Grade Fe 65 - 65.5%	3.50	0.00
1% Alumina	Low Grade Fe	10.00	1.00	1% Alumina	High Fe Grade Al <2.25%	4.25	0.50
	High Fe Grade Al <2.25%	30.00	3.00		High Fe Grade Al 2.25-4%	2.25	-0.25
	High Fe Grade Al 2.25-4%	0.00	0.00				
	Low Fe Grade Al <2.25%	49.00	0.00				
1% Silica	Low Fe Grade Al 2.25-4%	16.00	4.00	1% Silica	High Fe Grade Si <4%	2.00	0.25
	High Fe Grade Si <4%	5.00	0.00		High Fe Grade Si 4 - 6.5%	0.00	-0.25
	High Fe Grade Si 4-6.5%	12.00	-2.00				
0.01% Phosphorus	Low Fe Grade	0.00	0.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	0.50	0.00
	High Fe Grade 0.09%<P<0.115%	3.00	0.00		High Fe Grade 0.115%<P<0.15%	0.75	0.25
	High Fe Grade 0.115%<P<0.15%	6.00	2.00				
	Low Fe Grade 0.09<P<0.1%	9.00	3.00				

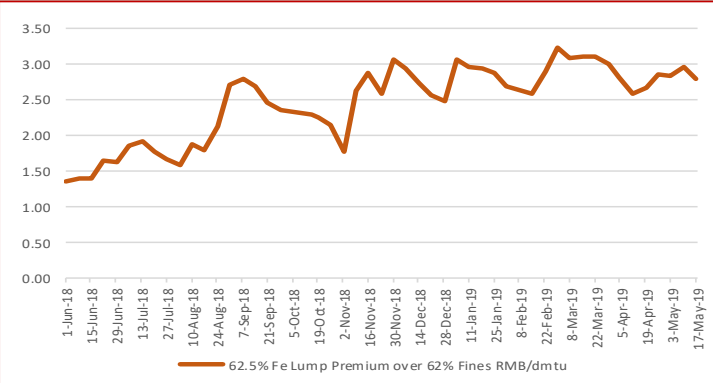
Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

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	-25.00	-5.00	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	-25.00	-5.00	Tianjin	-20.00	0.00

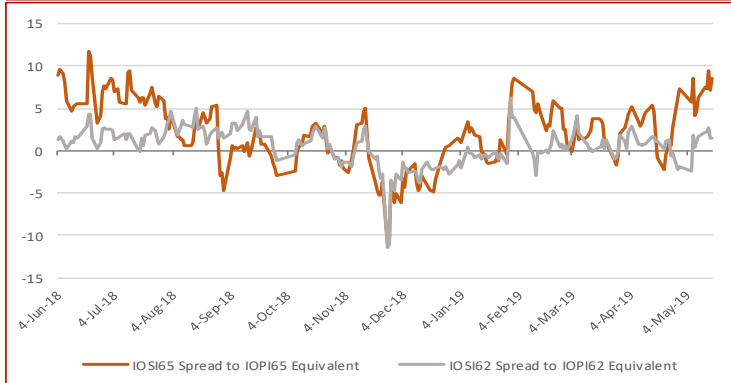
IRON ORE INDEX PREMIUMS/DISCOUNTS



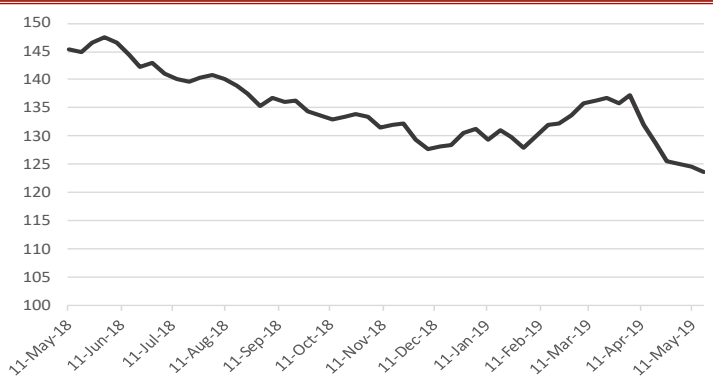
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



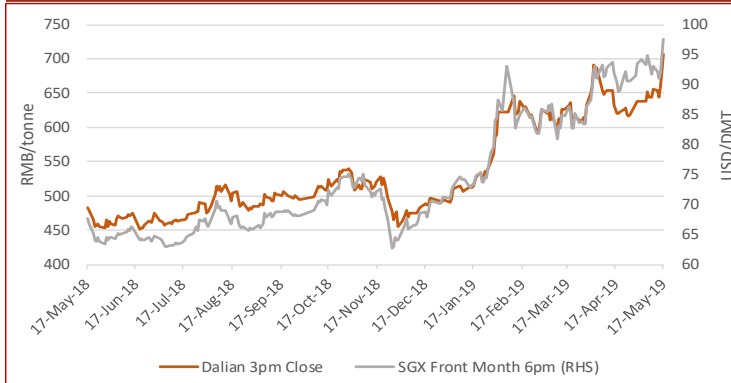
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



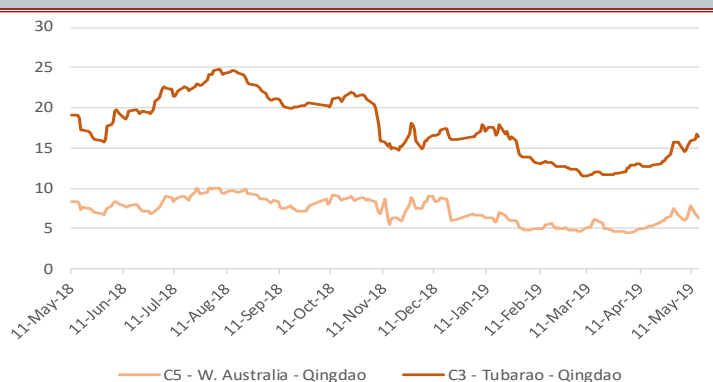
IRON ORE PORT INVENTORIES (MILLION TONNES)

Week Ending May 17th, 2019				
Province	This week	Change %	Low ²	High ²
Jingtang	14.44	-3.41%	13.29	18.10
Qingdao	15.95	-0.68%	15.94	19.50
Caofeidian	17.65	1.38%	16.30	21.10
Tianjin	7.56	-1.56%	7.39	10.48
Rizhao	14.16	-4.00%	14.00	19.00
Total (35 Ports)	123.67	-0.67%	123.67	147.56

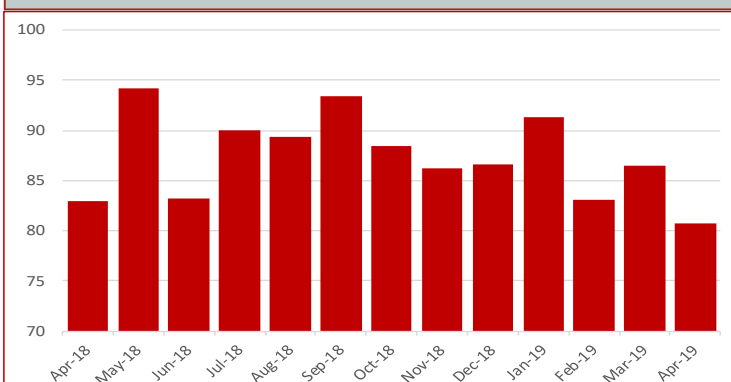
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	May 16th 3pm close			16th May Feb 6 pm		
Contract	11909	Change	Change %	Jun'19	Change	Change %
Closing Price	707.00	26.5	3.89%	97.55	2.74	2.89%
Vol traded ('000 lots)	319.73	2.2	0.70%	35.32	3.12	9.70%
Open positions ('000 lots)	165.44	9.6	6.14%	121.47	-0.85	-0.69%
Day Low	679.5	23.0	3.50%	95.80	3.50	3.79%
Day High	710.0	25.0	3.65%	98.46	1.86	1.93%

DRY BULK FREIGHT RATES (USD/MT)



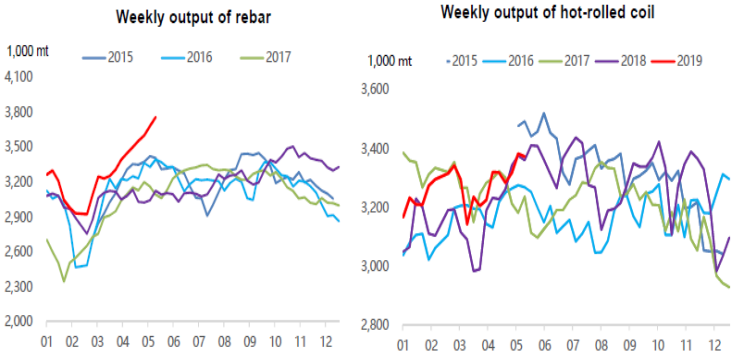
TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)



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 SPCC/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%



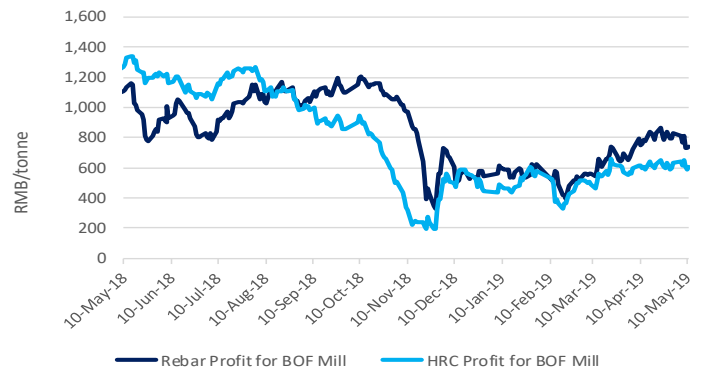
CHINESE STEEL MILL PROFITABILITY

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

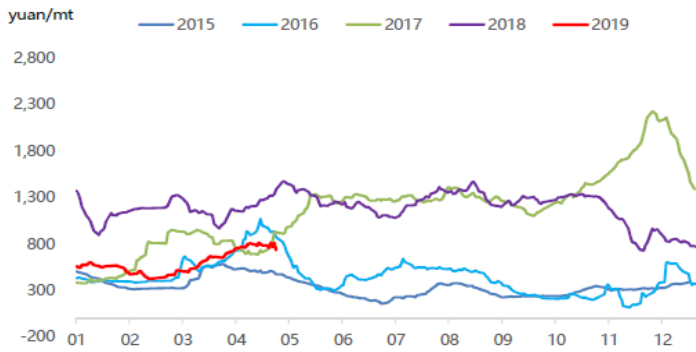
Note: 1. Costs in the table are calculated based on today's market prices and factoring our management, sales, financial and depreciations fees.
2. The cost refers to average cost in the industry based on SMM's survey of small, medium and large mills in China

CHINESE STEEL MILL PROFITABILITY

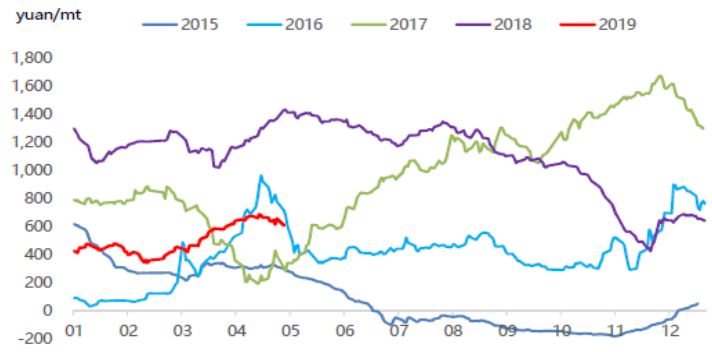


CHINESE STEEL MILL PROFITABILITY

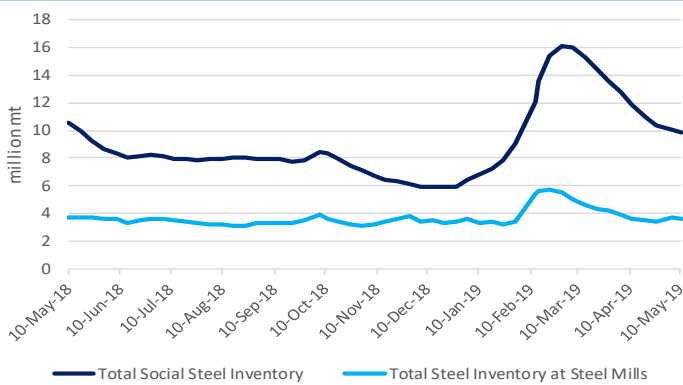
Rebar profits



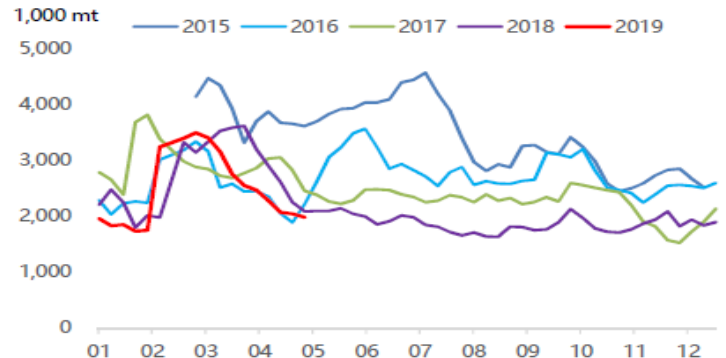
Hot-rolled coil profits



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
	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					
May 17th, 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	61.56%	2.36%	3.78%	0.099%	9.30%	PB Fines 62%	62.00%	2.60%	4.30%	0.090%	10.00%
Newman Fines	62.52%	2.25%	4.16%	0.092%	7.38%	Newman Fines	62.80%	2.20%	4.30%	0.080%	6.40%
MAC Fines	60.84%	2.24%	4.92%	0.085%	7.77%	MAC Fines	61.00%	2.70%	4.70%	0.110%	9.30%
Jimblebar Blended Fines	60.95%	2.96%	4.49%	0.109%	7.41%	Jimblebar Blended Fines	61.79%	2.67%	4.08%	0.115%	7.16%
Carajas Fines	65.44%	1.30%	1.43%	0.084%	8.33%	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	62.82%	1.40%	4.79%	0.072%	8.37%	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 17th, 2019	Specifications applied for 58% brand assessments						Specifications applied for 58% brand assessments				
	Fe	Alumina	Silica	Phos	Moisture		Fe	Alumina	Silica	Phos	Moisture
SSF	56.76%	3.05%	6.07%	0.053%	8.81%						
FMG Blended Fines	58.19%	2.69%	5.55%	0.062%	7.50%						
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	57.13%	1.80%	6.42%	0.047%	8.59%						

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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