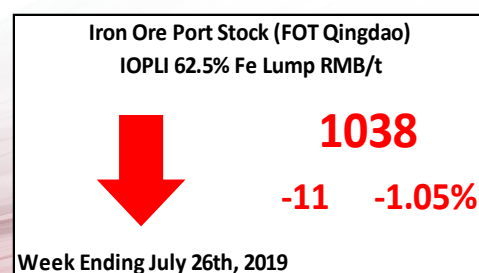
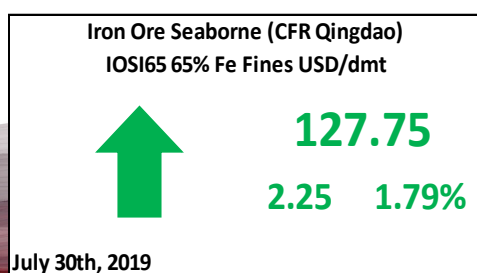
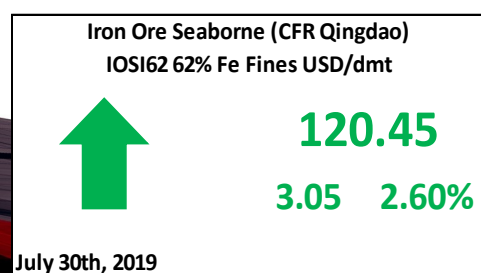
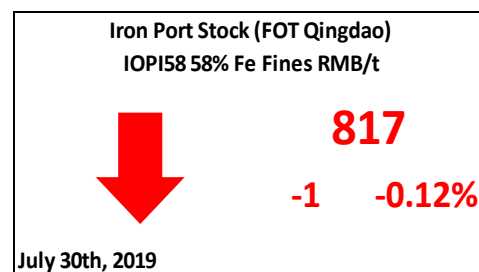
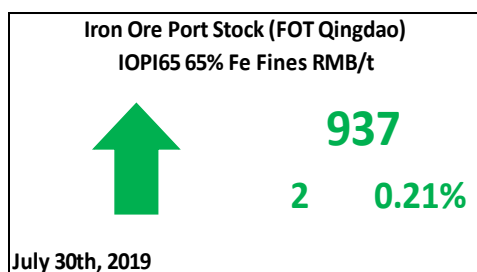
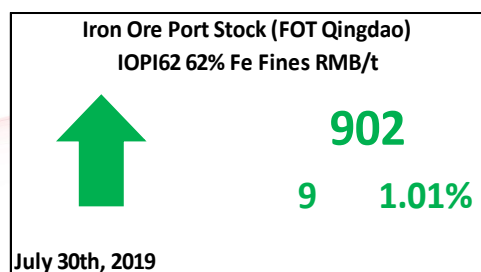


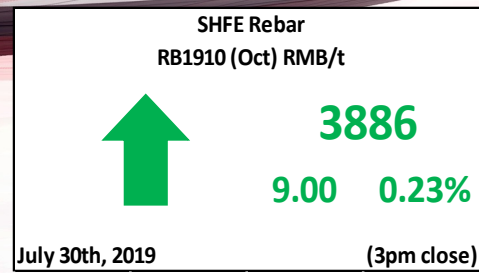
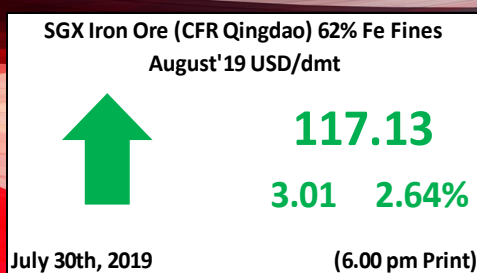
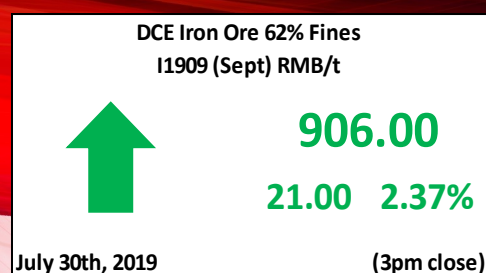


MMi Dashboard

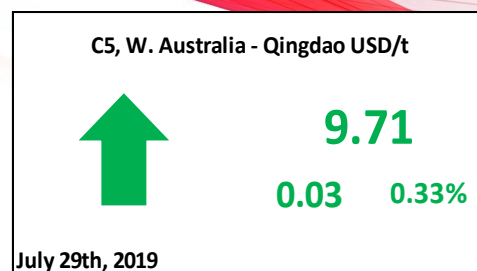
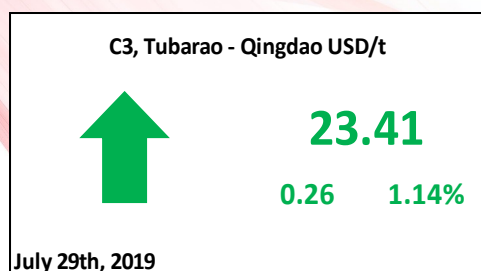
Iron Ore Price Indices



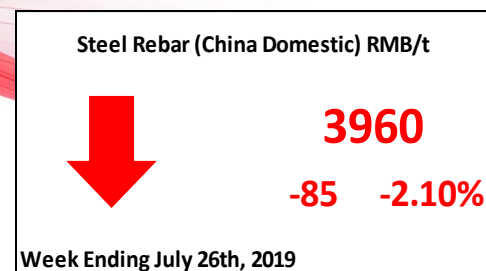
Exchange Traded Contracts



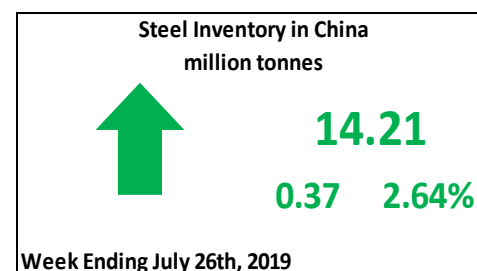
Freight Rates



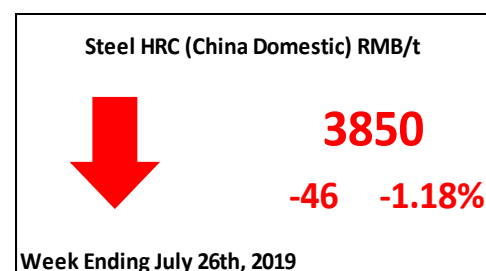
Steel Price



Inventory Levels



Steel Price



IRON ORE PORT STOCK INDEX (IOPI)

July 30th, 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	902	9	1.0%	909	717	484	928	122.09	1.19	1.0%	123.31	96.38	62.54	126.12
IOPI58	58% Fe Fines	817	-1	-0.1%	808	625	347	823	111.42	-0.21	-0.2%	110.39	83.99	43.55	112.44
IOPI65	65% Fe Fines	937	2	0.2%	955	792	654	992	126.97	0.20	0.2%	129.65	106.89	85.47	135.34

IRON ORE SEABORNE INDEX (IOSI)

MARKET COMMENTARY

July 30th, 2019		CFR Qingdao, USD/dry tonne							A document for Tangshan's August production cuts went around the market, stating that the level of cuts were lower to those in July, boosting the iron ore market. Traders were more active so total concluded transactions rose on yesterday. Arrivals of seaborne iron ore at Chinese ports rose last week. Cargoes arriving at Jingtang and Caofeidian ports in Tangshan rose significantly and arrivals at several ports in Shandong grew. SMM estimates that 95 vessels carrying 14.41 million mt of iron ore arrived at major Chinese ports during July 21-27, up 2.88 million mt from the week ended July 20, after arrivals shrank 5.99 million mt in the previous week. During July 21-27, iron ore deliveries departing Australian ports grew 730,000 mt from the prior week to 14.07 million mt. Shipments that left Brazilian ports expanded 340,000 mt to 6.39 million mt. SMM data showed that the weekly deliveries of iron ore from Australian ports stood at 13.9 million mt in the month to July 27, compared with 14.75 million mt in June.						
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low ³	High ³							
IOSI62	62% Fe Fines	120.45	3.05	2.60%	120.90	95.93	62.95	127.50							
IOSI65	65% Fe Fines	127.75	2.25	1.79%	129.71	109.39	83.20	137.95							

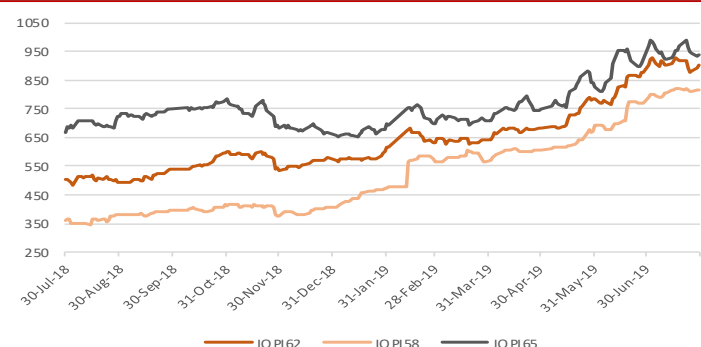
IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending July 26th, 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	1038	-11	-1.0%	1046	905	617	1051	131.84	-1.57	-1.18%	132.99	115.87	77.55	133.81

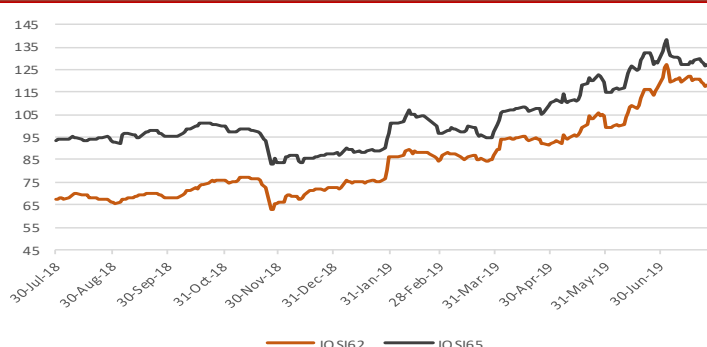
IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

Week Ending July 26th, 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	1026	0.7%	610	1032	149.14	0.58%	91.97	150.03
Hebei	Qian'an	65% Fe Concentrate	Dry	950	0.0%	690	950	138.09	-0.10%	100.26	138.24
Liaoning	Anshan	65% Fe Concentrate	Wet	720	2.1%	465	745	104.66	2.02%	68.21	104.66
Shandong	Zibo	65% Fe Concentrate	Dry	1040	0.0%	660	1040	151.18	-0.10%	99.75	151.33
Week Ending July 26th, 2019				This week	Change %	Low ²	High ²	¹ Exchange rate applied: RMB/USD = 6.8862 ² Last 12 months ³ Since June 1 ⁴ Weekly exchange rate applied: RMB/USD 6.8794			
China Mines Concentrate Composite Index RMB/WT				859.50	1.0%	558.71	859.50				

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

July 30th, 2019		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne						
Index	Fe Content	March	April	May	June	MTD	QTD	YTD	March	April	May	June	MTD	QTD	YTD
IOPI62	62% Fe Fines	639	675	729	825	909	909	717	87.09	85.37	98.40	111.42	123.31	123.31	96.38
IOPI58	58% Fe Fines	583	600	637	726	808	808	625	75.22	77.49	86.39	98.60	110.39	110.39	83.99
IOPI65	65% Fe Fines	714	753	812	901	955	955	792	98.08	95.78	110.00	121.97	129.65	129.65	106.89

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

FREIGHT RATES

July 30th, 2019		CFR Qingdao, USD/dry tonne							July 29th, 2019		FREIGHT RATES - DRY BULK US\$/wet tonne				
Index	Fe Content	March	April	May	June	MTD	QTD	YTD	Route	Designation	Change	Change %	Low ²	High ²	
IOSI62	62% Fe Fines	86.18	93.42	98.68	108.57	120.90	120.90	95.93	W. Australia - Qingdao	C5	9.71	0.03	0.33%	4.39	11.15
IOSI65	65% Fe Fines	97.22	106.75	115.53	124.49	129.71	129.71	109.39	Tubarao - Qingdao	C3	23.41	0.26	1.14%	11.61	27.52

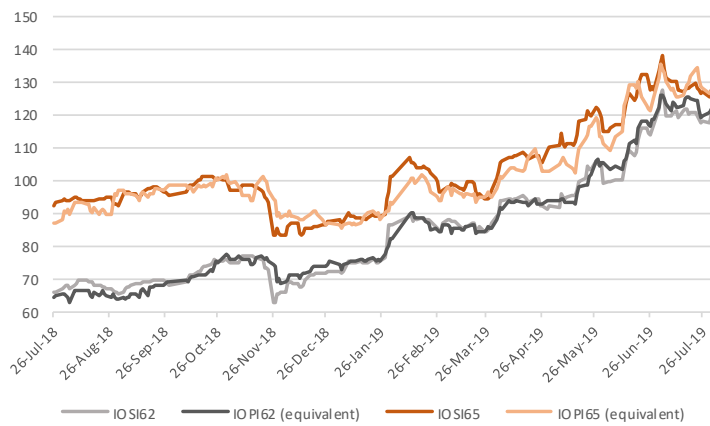
IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending July 26th, 2019		FOT Qingdao (inc. 16% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 16% VAT), USD/dry tonne ¹						
Index	Fe Content	March	April	May	June	MTD	QTD	YTD	March	April	May	June	MTD	QTD	YTD
IOPLI62	62.5% Fe Lump	858	872	919	1009	1046	1046	905	99.57	111.03	117.12	128.00	132.99	132.99	115.87

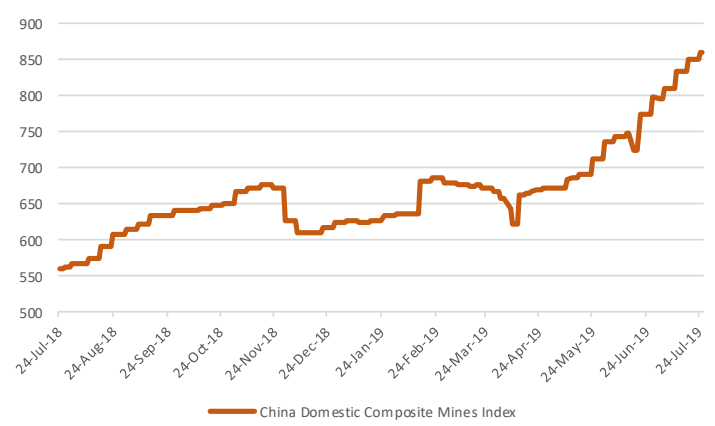
IRON ORE INDEX PREMIUMS/DISCOUNTS

July 30th, 2019		PORT STOCK INDEX (RMB/WT)		July 30th, 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	-85	-9.42%	IOSI65	65% Fe Fines	7.30	6.06%
IOPI65	65% Fe Fines	35	3.88%				

IRON ORE INDEX COMPARISONS (USD/DMT)



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



IRON ORE BRAND SPOT PRICE ASSESSMENTS

July 30th, 2019				July 30th, 2019			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	852	9	-50	Roy Hill	118.00	3.05	-2.45
SIMEC Fines	784	11	-118	SIMEC Fines	116.25	3.05	-4.20
PB Fines	885	8	-17	PB Fines	119.95	3.05	-0.50
Newman Fines	907	9	5	Newman Fines	121.56	3.05	1.11
MAC Fines	865	9	-37	MAC Fines	116.15	3.05	-4.30
Jimblebar Blended Fines	855	10	-47	Jimblebar Blended Fines	110.35	3.05	-10.10
Carajas Fines	940	-1	38	Carajas Fines	127.71	3.05	7.26
Brazilian SSF	795	10	-107	Brazilian SSF	120.76	3.05	0.31
Brazilian Blend Fines	887	29	-15	Brazilian Blend Fines	121.64	3.05	1.19
RTX Fines	869	11	-33	RTX Fines	113.85	3.05	-6.60
West Pilbara Fines	849	9	-53	West Pilbara Fines	117.20	3.05	-3.25

July 30th, 2019			
PORT STOCK INDEX (RMB/WT)			
	Price	Change	Diff to IOPI58
SSF	735	-3	-82
FMG Blended Fines	819	-1	2
Robe River	743	-1	-74
Western Fines	753	-7	-64
Atlas Fines	740	-6	-77
Yandi	805	-7	-12

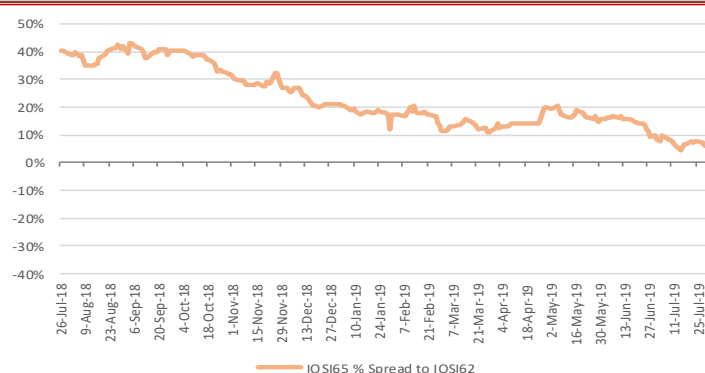
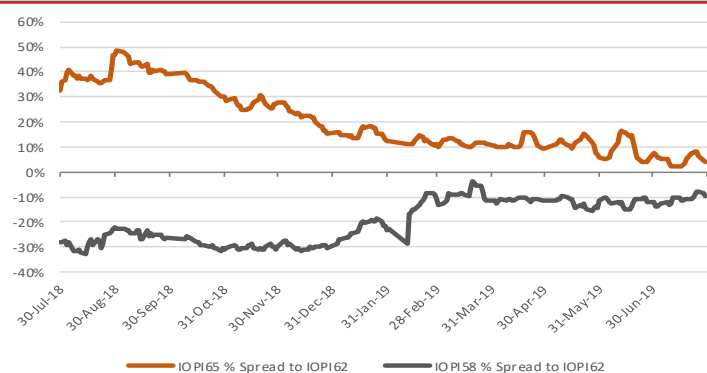
IRON ORE INDEX NORMALISATION DIFFERENTIALS

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%	6.00	1.00	1% Fe	High Grade Fe 60 - 63%	1.50	0.00
	High Grade Fe 63 - 64%	10.00	-3.00		High Grade Fe 63 - 64%	1.75	0.00
	High Grade Fe 64 - 65%	10.00	-3.00		High Grade Fe 64 - 65%	1.75	0.00
	High Grade Fe 65 - 65.5%	10.00	-3.00		High Grade Fe 65 - 65.5%	1.75	0.00
1% Alumina	Low Grade Fe	22.00	0.00	1% Alumina	High Fe Grade Al <2.25%	1.25	0.00
	High Fe Grade Al <2.25%	7.00	-3.00		High Fe Grade Al 2.25-4%	1.00	0.00
	High Fe Grade Al 2.25-4%	6.00	-2.00		High Fe Grade Si <4%	0.50	0.00
	Low Fe Grade Al <2.25%	25.00	-6.00		High Fe Grade Si 4 - 6.5%	0.50	0.00
1% Silica	Low Fe Grade Al 2.25-4%	49.00	0.00	1% Silica	High Fe Grade Si <4%	0.50	0.00
	High Fe Grade Si <4%	1.00	0.00		High Fe Grade Si 4 - 6.5%	0.50	0.00
	High Fe Grade Si 4-6.5%	53.00	-2.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	1.00	0.00
0.01% Phosphorus	Low Fe Grade	22.00	3.00		High Fe Grade 0.115%<P<0.15%	0.75	0.00
	High Fe Grade 0.09%<P<0.115%	0.00	0.00		Low Fe Grade 0.09%<P<0.1%	0.00	0.00
	High Fe Grade 0.115%<P<0.15%	0.00	0.00				
	Low Fe Grade 0.09%<P<0.1%	0.00	0.00				

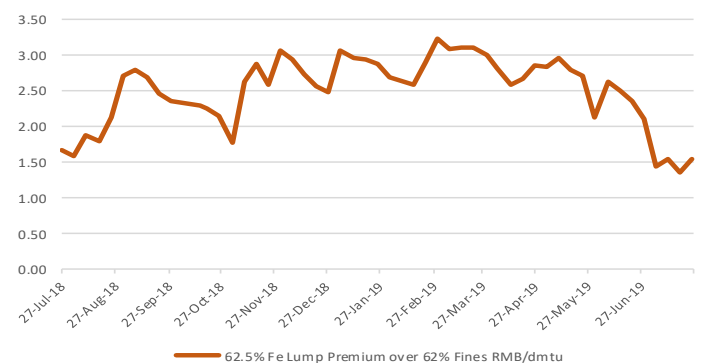
Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

Port	Value	Change	Port	Value	Change	Port	Value	Change	Port	Value	Change
Bayuquan	-45.00	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	-10.00	0.00	Rizhao	0.00	0.00
Caofeidian	-10.00	0.00	Jingtang	-10.00	0.00	Majishan	0.00	0.00	Shekou	0.00	0.00
Dalian	-40.00	0.00	Lanqiao	0.00	0.00	Nantong	-20.00	0.00	Tianjin	-15.00	0.00

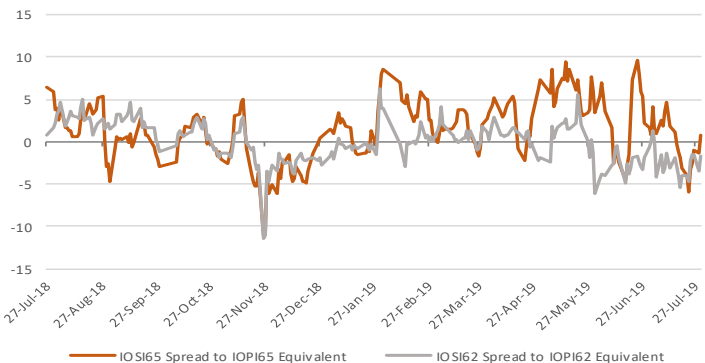
IRON ORE INDEX PREMIUMS/DISCOUNTS



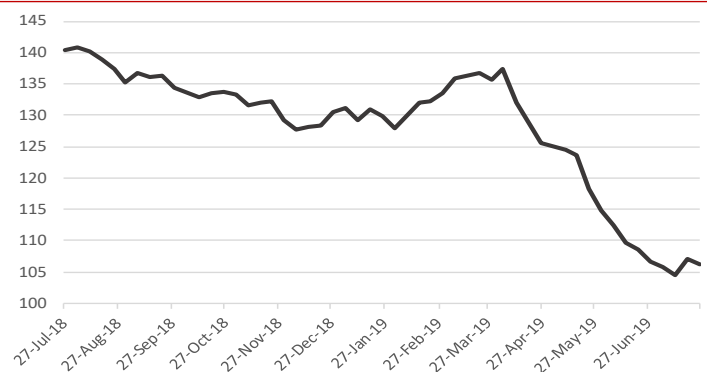
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



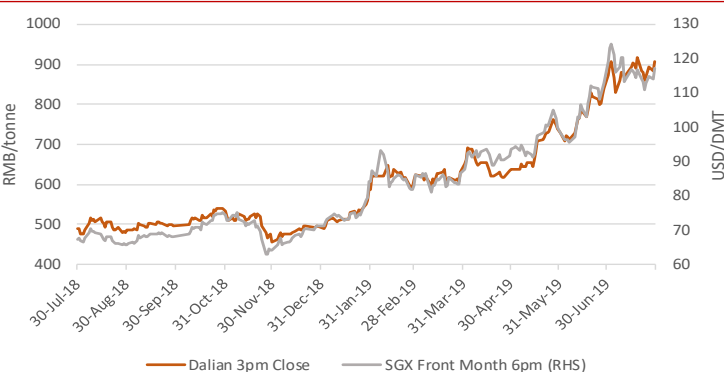
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



IRON ORE PORT INVENTORIES (MILLION TONNES)

Week Ending July 26th, 2019

Province	This week	Change %	Low ²	High ²
Jingtang	11.70	1.56%	10.80	17.10
Qingdao	12.38	-3.81%	12.38	19.01
Caofeidian	14.60	-2.34%	14.48	20.10
Tianjin	6.39	-2.44%	6.39	10.48
Rizhao	12.72	2.75%	11.65	17.53
Total (35 Ports)	106.30	-0.75%	104.40	140.74

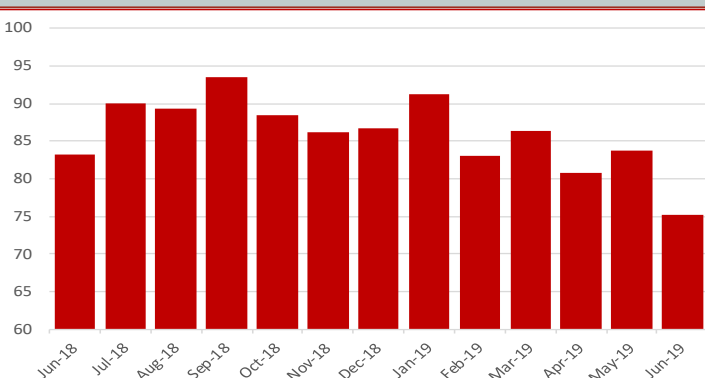
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	July 30th 3pm close			July 30th Feb 5.30 pm		
Contract	I1909	Change	Change %	Aug'19	Change	Change %
Closing Price	906.00	21.0	2.37%	117.13	3.01	2.64%
Vol traded ('000 lots)	67.99	14.2	26.50%	16.30	5.88	56.35%
Open positions ('000 lots)	98.24	-0.6	-0.63%	146.89	2.37	1.64%
Day Low	882.0	1.5	0.17%	114.95	1.22	1.07%
Day High	913.0	21.5	2.41%	117.50	2.70	2.35%

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	26/7/2019	Change	Change %
ReBar HRB400 ϕ 18mm	3,960.0	-85	-2.10%
Wirerod Q300 ϕ 6.5mm	4,220.0	-20	-0.47%
HRC Q235/SS400 5.5mm*1500*C	3,850.0	-46	-1.18%
CRC SPOC/ST12 1.0mm*1250*2500	4,240.0	37	0.88%
Medium & Heavy Plate Q235B 20mm	3,920.0	-26	-0.66%
GI ST02Z 1.0mm*1000*C	4,570.0	10	0.22%
Colour Coated Plate	7,000.0	100	1.45%

CHINESE STEEL MILL PROFITABILITY

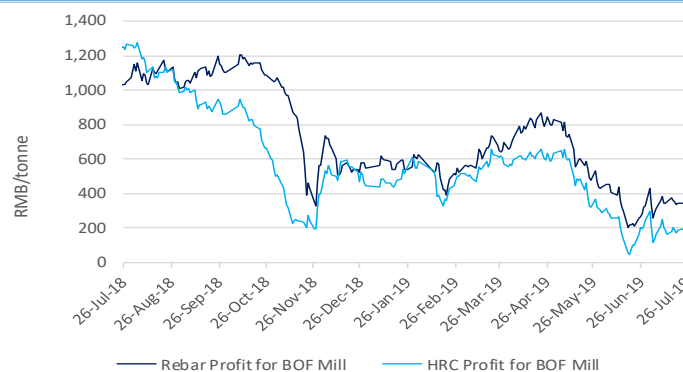
SMM Tracking of Steel Mill P&L - Rebar and Hot-rolled Coil (RMB/tonne)

Category	Price	Change (WoW)	Note
MMI (Fe 62%), USD/mt excluding tax	117.50	-2.75	Mmi CFR Equivalent index for 1st Feb
Coke	2,010	100	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	2,370	0	steel scrap (6mm) in Zhangjiagang, exl. tax
Billet Cost	3,394	18	Q234, incl. tax
Rebar cost - Blast furnace	3,644	17	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	306	-37	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	3,710	18	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	122	-66	based on Shanghai prices, incl. tax

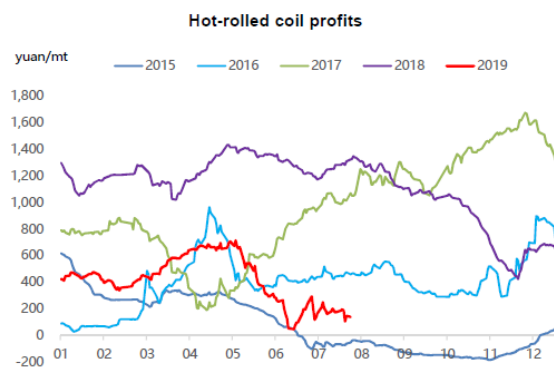
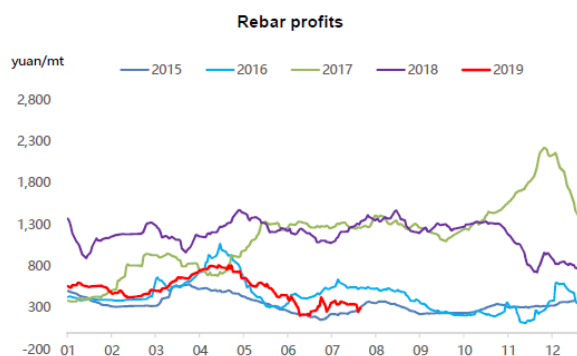
Note: 1 Costs in the table are calculated based on today's market prices and factored our management, sales, financial and depreciations fees.

2. The cost refers to average cost in the industry based on SMM's survey of small, medium and large mills in China

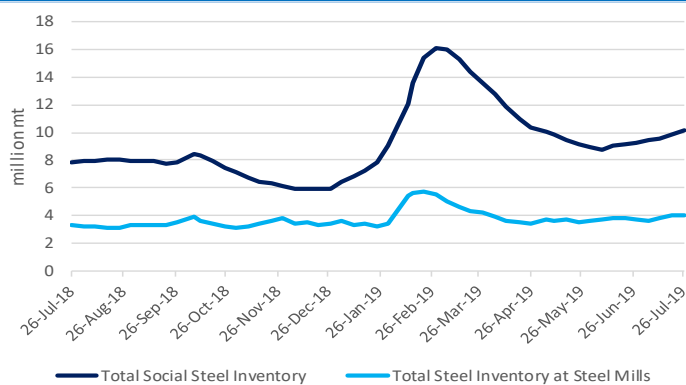
CHINESE STEEL MILL PROFITABILITY



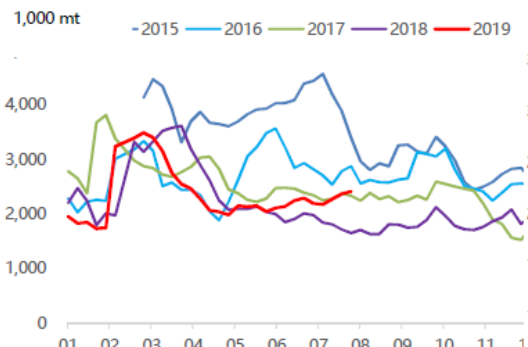
CHINESE STEEL MILL PROFITABILITY



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			
Fe %	65.00	62.00	58.00	62.50	<p>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.</p> <p>For more details on MMi's iron ore methodology please download the guide published on our website at: www.mmiprices.com</p>			
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	
					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					
July 30th, 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	61.49%	2.35%	3.85%	0.100%	9.37%	PB Fines 62%	62.00%	2.60%	4.30%	0.090%	10.00%
Newman Fines	62.57%	2.26%	3.97%	0.079%	7.82%	Newman Fines	62.80%	2.20%	4.30%	0.080%	6.40%
MAC Fines	60.87%	2.24%	4.65%	0.081%	7.57%	MAC Fines	61.00%	2.70%	4.70%	0.110%	9.30%
Jimblebar Blended Fines	60.89%	2.98%	4.42%	0.113%	7.34%	Jimblebar Blended Fines	59.50%	3.70%	5.80%	0.135%	8.30%
Carajas Fines	65.54%	1.23%	1.43%	0.068%	8.31%	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	63.04%	1.56%	4.36%	0.078%	8.71%	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%
West Pilbara Fines	60.10%	2.30%	4.70%	0.075%	8.50%	West Pilbara Fines	60.10%	2.30%	4.70%	0.075%	8.50%
July 30th, 2019	Specifications applied for 58% brand assessments										
	Fe	Alumina	Silica	Phos	Moisture						
SSF	56.70%	3.08%	6.32%	0.059%	8.34%						
FMG Blended Fines	58.21%	2.59%	5.48%	0.062%	7.43%						
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	57.33%	1.51%	6.30%	0.041%	8.85%						

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

Visit 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.

