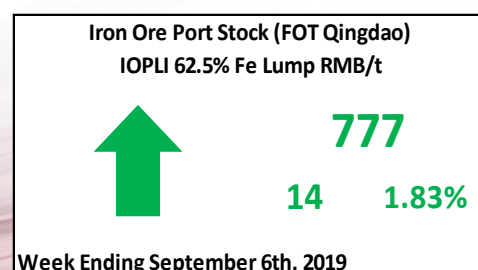
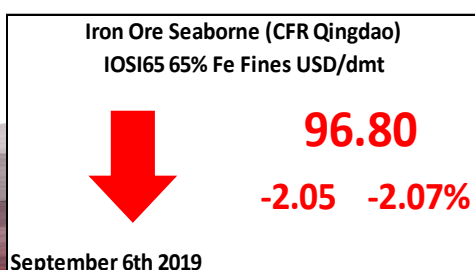
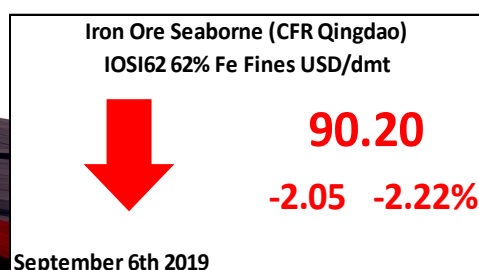
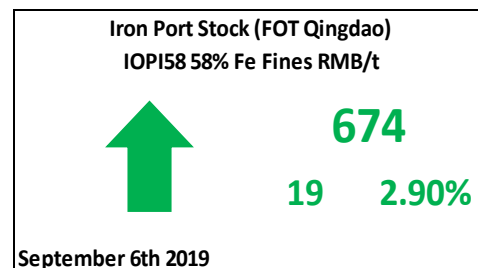
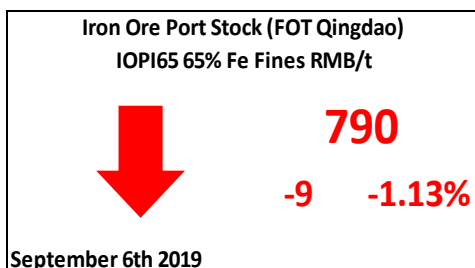
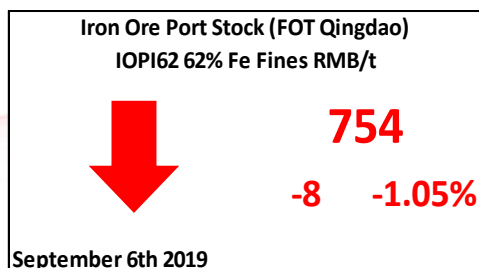


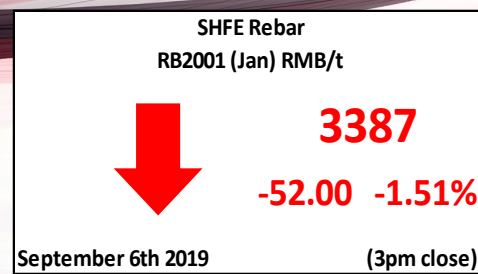
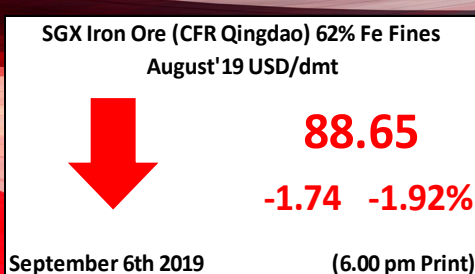
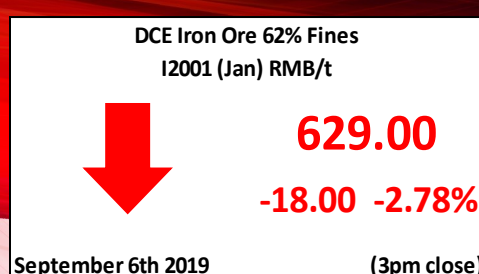


MMi Dashboard

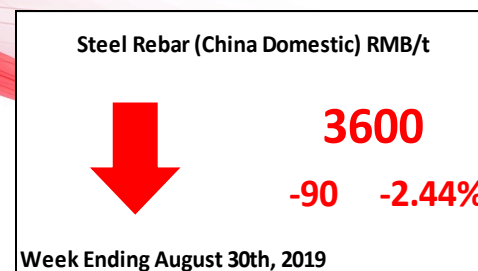
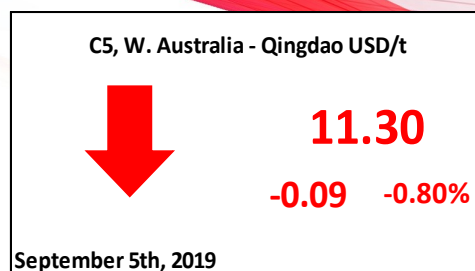
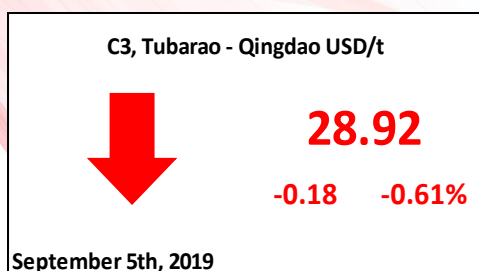
Iron Ore Price Indices



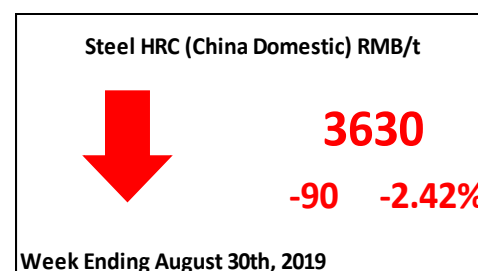
Exchange Traded Contracts



Freight Rates



Inventory Levels



IRON ORE PORT STOCK INDEX (IOPI)

September 6th 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	754	-8	-1.0%	747	724	496	928	98.56	-1.09	-1.1%	97.56	97.22	64.11	126.12
IOPI58	58% Fe Fines	674	19	2.9%	648	635	374	823	88.66	2.60	3.0%	85.08	85.38	46.88	112.44
IOPI65	65% Fe Fines	790	-9	-1.1%	790	797	654	992	103.45	-1.22	-1.2%	103.42	107.29	85.47	135.34

IRON ORE SEABORNE INDEX (IOSI)

MARKET COMMENTARY

September 6th 2019		CFR Qingdao, USD/dry tonne							SMM statistics showed that as of September 6, iron ore stocks across 35 Chinese ports shrank 350,000 mt from a week ago to 110.3 million mt. Year on year, stocks shrank 25.68 million mt. SMM sees little chance for port stocks to grow in the short term, given that shipments from Australia fell for two consecutive weeks in the second half of August and that steel mills may continue to stockpile ahead of the National Day holiday. Daily average deliveries from the 35 ports increased 69,000 mt on a weekly basis and 203,600 mt on a yearly basis, to 2.87 million mt this week week. This marked a third straight week of growth. Concentrated purchases by steel mills raised deliveries from major ports in the east and north, as well as the Yangtze River.							
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low ²	High ²								
IOSI62	62% Fe Fines	90.20	-2.05	-2.22%	92.05	95.56	62.95	127.50								
IOSI65	65% Fe Fines	96.80	-2.05	-2.07%	98.84	108.23	83.20	137.95								

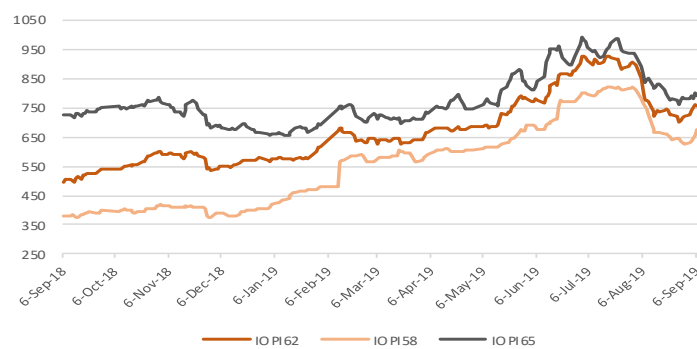
IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending September 6th, 2019		FOT Qingdao (inc. 16% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 16% VAT), USD/dry tonne ³						
Index	Fe Content	Price	W-o-W	Change %	MTD	YTD	Low ²	High ²	Price	W-o-W	Change %	MTD	YTD	Low ²	High ²
IOPLI62	62.5% Fe Lump	777	14	1.8%	777	896	691	1051	94.90	1.66	1.78%	94.90	114.16	87.28	133.81

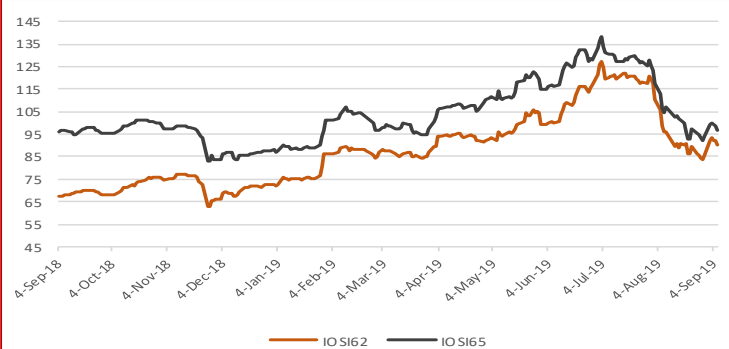
IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

Week Ending August 30th, 2019				RMB/tonne (excluding tax) ³				USD/tonne (excluding tax) ³			
Province	Region	Product	Basis	This week	Change %	Low ²	High ²	This week	Change %	Low ²	High ²
Hebei	Hanxing	66% Fe Concentrate	Dry	806	-1.9%	630	1032	113.86	-2.40%	92.31	150.03
Hebei	Qian'an	65% Fe Concentrate	Dry	850	0.0%	690	960	120.07	-0.46%	100.26	139.35
Liaoning	Anshan	65% Fe Concentrate	Wet	690	0.0%	495	745	97.47	-0.46%	72.58	104.66
Shandong	Zibo	65% Fe Concentrate	Dry	855	-2.3%	725	1040	120.78	-2.74%	106.23	151.33
Week Ending August 30th, 2019				This week	Change %	Low ²	High ²	1 Exchange rate applied: RMB/USD = 7.0855 ² Last 12 months ³ Weekly exchange rate applied: RMB/USD 7.0870			
China Mines Concentrate Composite Index RMB/WT				750.13	-1.7%	609.04	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

September 6th 2019		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne						
Index	Fe Content	May	June	July	August	MTD	QTD	YTD	May	June	July	August	MTD	QTD	YTD
IOPI62	62% Fe Fines	729	825	909	759	747	827	724	98.40	111.42	123.29	100.18	97.56	110.55	97.22
IOPI58	58% Fe Fines	637	726	809	691	648	741	635	86.39	98.60	110.47	91.86	85.08	99.74	85.38
IOPI65	65% Fe Fines	812	901	954	823	790	880	797	110.00	121.97	129.53	108.92	103.42	117.85	107.29

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

FREIGHT RATES

September 6th 2019		CFR Qingdao, USD/dry tonne							September 5th, 2019		FREIGHT RATES - DRY BULK US\$/wet tonne				
Index	Fe Content	May	June	July	August	MTD	QTD	YTD	Route	Designation	Change	Change %	Low ²	High ²	
IOSI62	62% Fe Fines	98.68	108.57	120.82	92.61	92.05	106.07	95.56	W. Australia - Qingdao	C5	11.30	-0.09	-0.80%	4.39	11.42
IOSI65	65% Fe Fines	115.53	124.49	129.53	101.34	98.84	114.59	108.23	Tubarao - Qingdao	C3	28.92	-0.18	-0.61%	11.61	29.10

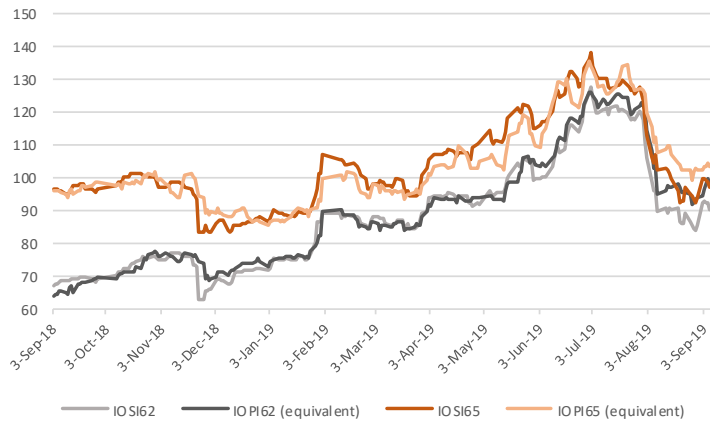
IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending September 6th, 2019		FOT Qingdao (inc. 16% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 16% VAT), USD/dry tonne ¹						
Index	Fe Content	May	June	July	August	MTD	QTD	YTD	May	June	July	August	MTD	QTD	YTD
IOPLI62	62.5% Fe Lump	919	1009	1046	870	777	931	896	117.12	128.00	132.99	108.80	94.90	119.15	114.16

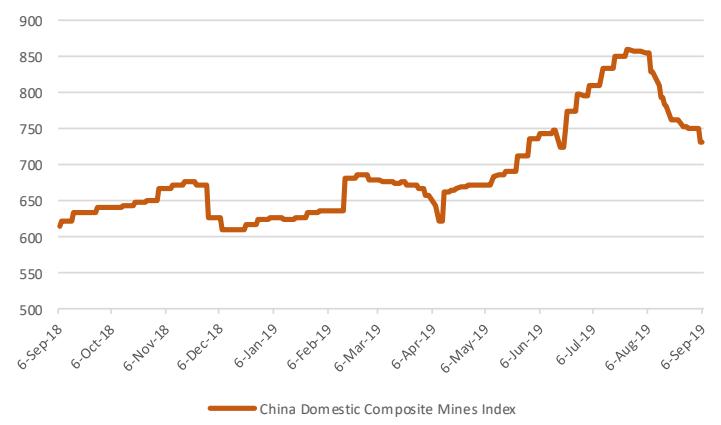
IRON ORE INDEX PREMIUMS/DISCOUNTS

September 6th 2019				PORT STOCK INDEX (RMB/WT)		September 6th 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	-80	-10.61%	IOSI65	65% Fe Fines	6.60	7.32%		
IOPI65	65% Fe Fines	36	4.77%						

IRON ORE INDEX COMPARISONS (USD/DMT)



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



IRON ORE BRAND SPOT PRICE ASSESSMENTS

September 6th 2019				September 6th 2019			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSi62
Roy Hill	717	-7	-37	Roy Hill	86.99	-1.22	-3.21
SIMEC Fines	672	-8	-82	SIMEC Fines	83.49	-0.35	-6.71
PB Fines	738	-8	-16	PB Fines	88.81	-1.55	-1.39
Newman Fines	754	-6	0	Newman Fines	90.42	-2.10	0.22
MAC Fines	730	-8	-24	MAC Fines	86.79	-0.50	-3.41
Jimblebar Blended Fines	691	-7	-63	Jimblebar Blended Fines	77.84	2.05	-12.36
Carajas Fines	794	-8	40	Carajas Fines	96.92	-1.78	6.72
Brazilian SSF	676	-8	-78	Brazilian SSF	85.82	-0.80	-4.38
Brazilian Blend Fines	733	-8	-21	Brazilian Blend Fines	89.07	-1.68	-1.13
RTX Fines	703	-4	-51	RTX Fines	83.29	0.43	-6.91
West Pilbara Fines	714	-8	-40	West Pilbara Fines	86.79	-1.17	-3.41

September 6th 2019			
PORT STOCK INDEX (RMB/WT)			
	Price	Change	Diff to IOPI58
SSF	624	10	-50
FMG Blended Fines	679	18	5
Robe River	629	12	-45
Western Fines	632	10	-42
Atlas Fines	620	10	-54
Yandi	660	15	-14

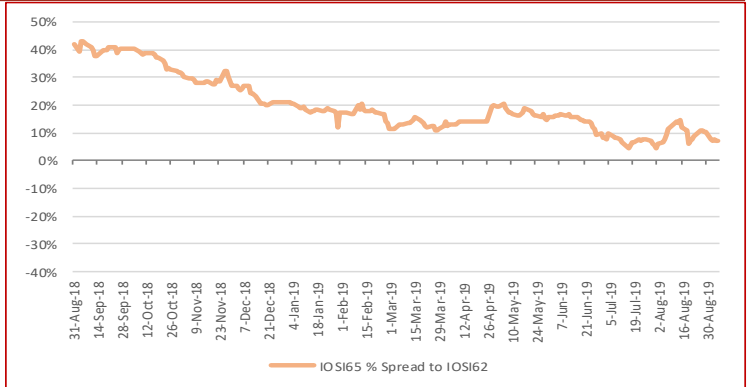
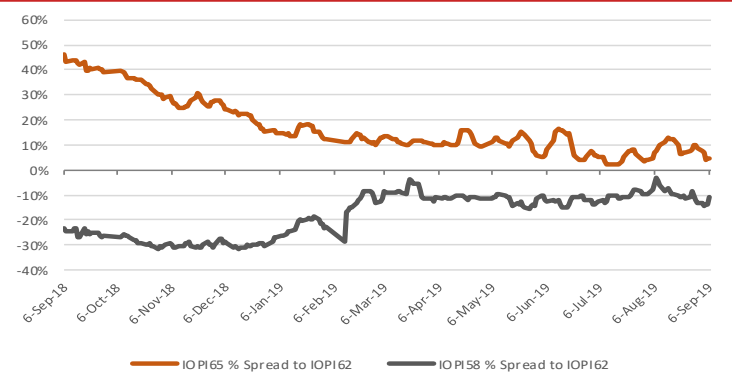
IRON ORE INDEX NORMALISATION DIFFERENTIALS

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%	5.00	0.00	1% Fe	High Grade Fe 60 - 63%	1.00	-0.25
	High Grade Fe 63 - 64%	12.00	0.00		High Grade Fe 63 - 64%	2.00	0.25
	High Grade Fe 64 - 65%	12.00	0.00		High Grade Fe 64 - 65%	2.00	0.25
	High Grade Fe 65 - 65.5%	12.00	0.00		High Grade Fe 65 - 65.5%	2.00	0.25
	Low Grade Fe	15.00	2.00				
1% Alumina	High Fe Grade Al <2.25%	0.00	0.00	1% Alumina	High Fe Grade Al <2.25%	0.50	0.00
	High Fe Grade Al 2.25-4%	20.00	0.00		High Fe Grade Al 2.25-4%	2.25	-1.00
	Low Fe Grade Al <2.25%	15.00	0.00				
	Low Fe Grade Al 2.25-4%	24.00	5.00				
1% Silica	High Fe Grade Si <4%	3.00	0.00	1% Silica	High Fe Grade Si <4%	0.50	0.00
	High Fe Grade Si 4-6.5%	37.00	0.00		High Fe Grade Si 4 - 6.5%	2.00	-0.50
0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	0.00	0.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	0.00	-0.25
	High Fe Grade 0.115%<P<0.15%	7.00	-2.00		High Fe Grade 0.115%<P<0.15%	1.50	-0.50
	Low Fe Grade 0.09<P<0.1%	0.00	0.00				

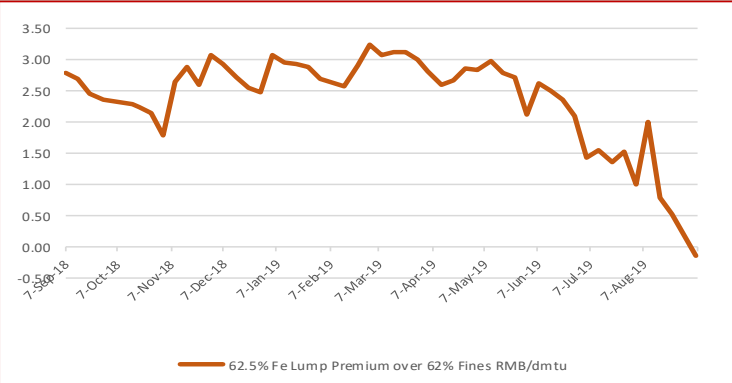
Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

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

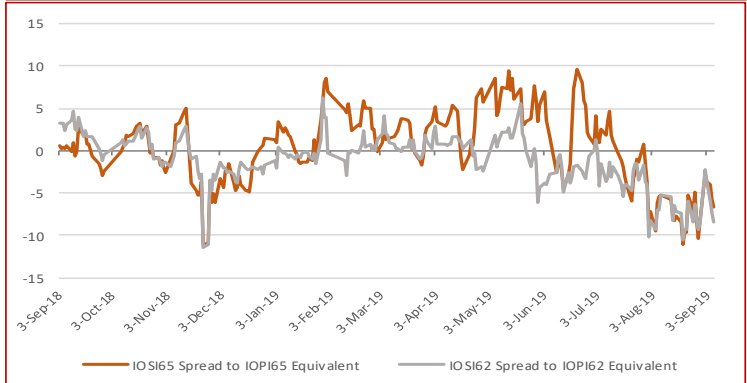
IRON ORE INDEX PREMIUMS/DISCOUNTS



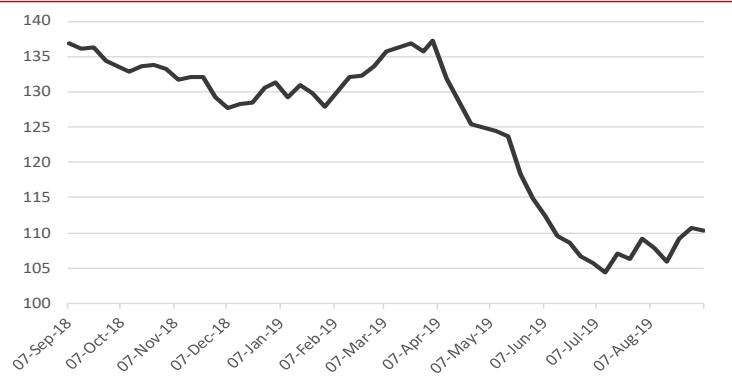
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



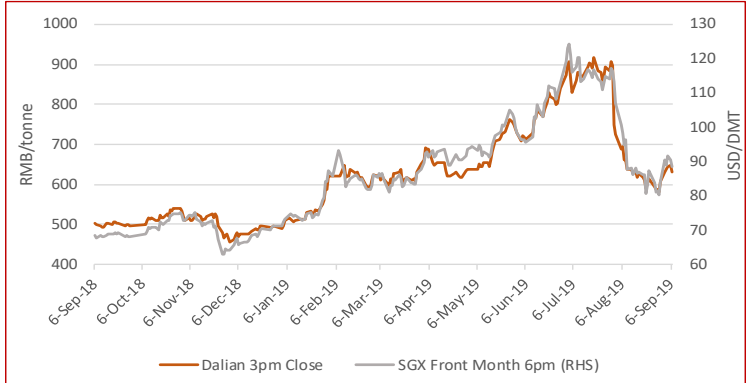
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



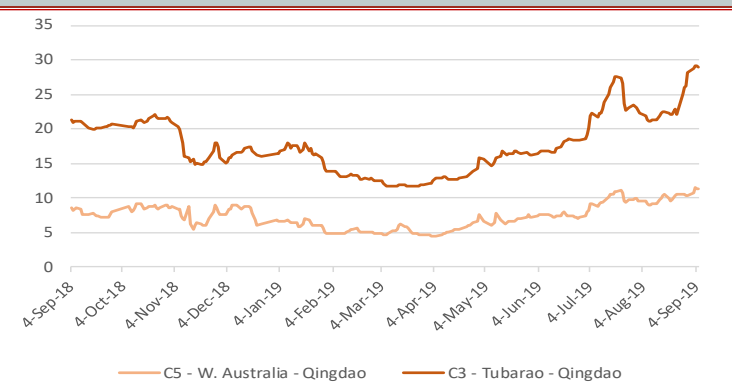
IRON ORE PORT INVENTORIES (MILLION TONNES)

Week Ending September 6th, 2019				
Province	This week	Change %	Low ²	High ²
Jingtang	12.85	-0.70%	10.80	16.37
Qingdao	13.17	-0.75%	12.38	19.01
Caofeidian	14.75	-3.53%	14.32	20.10
Tianjin	7.09	-1.39%	6.39	10.05
Rizhao	12.13	1.42%	11.65	17.10
Total (35 Ports)	110.30	-0.32%	104.40	137.30

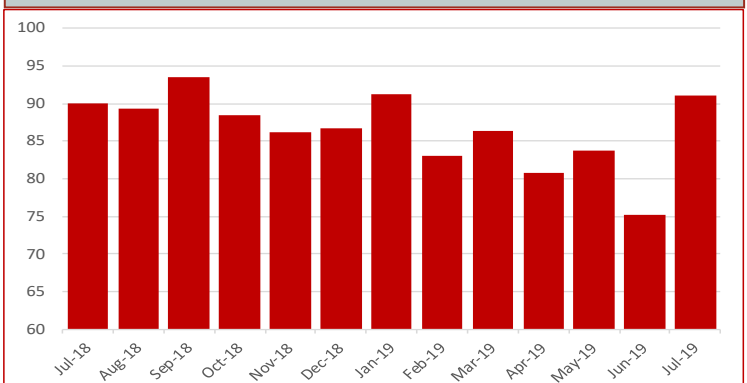
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	Sept 6th 3pm close			Sep 6th 5.30 pm		
	Contract	Change	Change %	Contract	Change	Change %
Closing Price	629.00	-18.0	-2.78%	88.65	-1.74	-1.92%
Vol traded ('000 lots)	263.81	-43.1	-14.04%	2.35	-1.64	-41.09%
Open positions ('000 lots)	157.79	-7.4	-4.48%	156.80	0.39	0.25%
Day Low	629.0	-13.5	-2.10%	88.42	-1.97	-2.18%
Day High	658.0	-5.5	-0.83%	91.45	-1.70	-1.83%

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	30/8/2019	Change	Change %
ReBar HRB400 φ18mm	3,600.0	-90	-2.44%
Wirerod Q300 φ6.5mm	3,880.0	-27	-0.69%
HRC Q235/SS400 5.5mm*1500*C	3,630.0	-90	-2.42%
CRC SPCC/ST12 1.0mm*1250*2500	4,220.0	-30	-0.71%
Medium & Heavy Plate Q235B 20mm	3,750.0	-50	-1.32%
GI ST02Z 1.0mm*1000*C	4,490.0	-20	-0.44%
Colour Coated Plate	7,000.0	-100	-1.41%

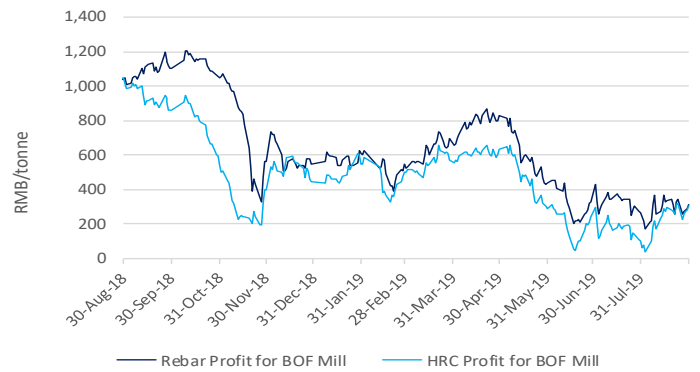
CHINESE STEEL MILL PROFITABILITY

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	83.75	-2.25	Mmi CFR Equivalent index for 1st Feb
Coke	2,010	-100	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	2,220	-90	steel scrap (6mm) in Zhangjiagang, excl. tax
Billet Cost	3,006	-85	Q234, incl. tax
Rebar cost - Blast furnace	3,255	-85	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	315	-25	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	3,323	-84	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	307	-16	based on Shanghai prices, incl. tax

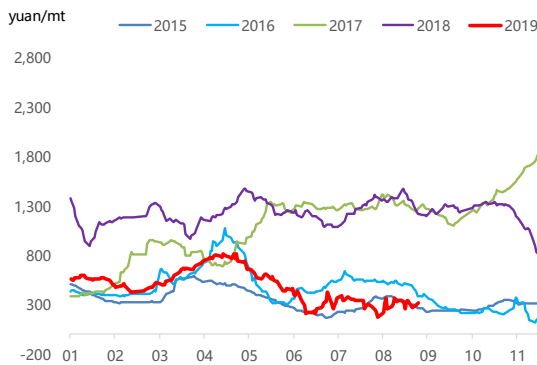
Note: 1. Costs in the table are calculated based on today's market prices and factored our management, sales, financial and depreciations fees.
2. The cost refers to average cost in the industry based on SMM's survey of small, medium and large mills in China

CHINESE STEEL MILL PROFITABILITY

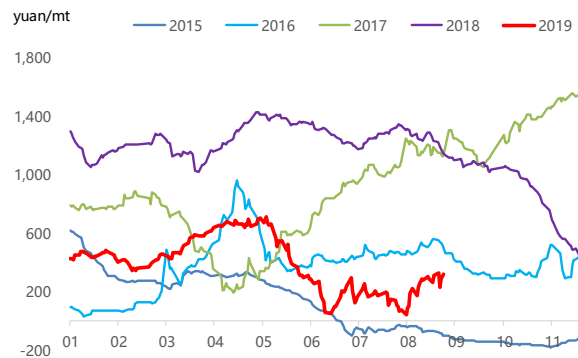


CHINESE STEEL MILL PROFITABILITY

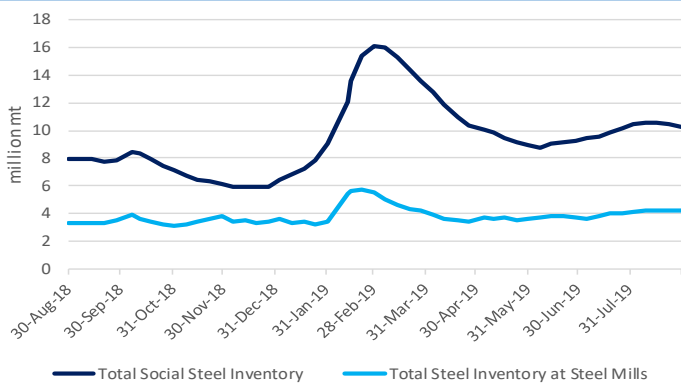
Rebar profits



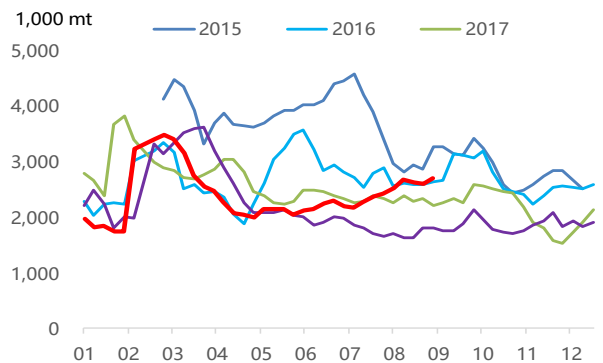
Hot-rolled coil profits



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*					
	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					
September 6th 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	61.51%	2.37%	3.76%	0.097%	9.47%	PB Fines 62%	62.00%	2.60%	4.30%	0.090%	10.00%
Newman Fines	62.54%	2.15%	4.13%	0.088%	7.76%	Newman Fines	62.80%	2.20%	4.30%	0.080%	6.40%
MAC Fines	60.82%	2.24%	4.58%	0.079%	7.59%	MAC Fines	61.00%	2.70%	4.70%	0.110%	9.30%
Jimblebar Blended Fines	60.58%	3.02%	4.58%	0.119%	7.44%	Jimblebar Blended Fines	59.50%	3.70%	5.80%	0.135%	8.30%
Carajas Fines	65.46%	1.31%	1.36%	0.075%	8.30%	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	62.90%	1.54%	4.59%	0.070%	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%
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%
September 6th 2019	Specifications applied for 58% brand assessments										
	Fe	Alumina	Silica	Phos	Moisture						
SSF	56.57%	3.08%	6.34%	0.057%	8.04%						
FMG Blended Fines	58.20%	2.60%	5.44%	0.059%	7.77%						
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	57.30%	1.54%	6.33%	0.041%	8.93%						

BLOOMBERG TICKERS

PORT STOCK INDICES				SEABORNE INDICES	
FOT Qingdao (RMB/wet tonne)		CFR Qingdao Equivalent (USD/dry tonne)		CFR Qingdao (USD/DMT)	
IOPI62	IRCNO001		IRCNO004	IOSI62	IRCNO034
IOPI58	IRCNO002		IRCNO005	IOSI65	IRCNO035
IOPI65	IRCNO003		IRCNO006		
IOPLI62	IRCNO036		IRCNO037		

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