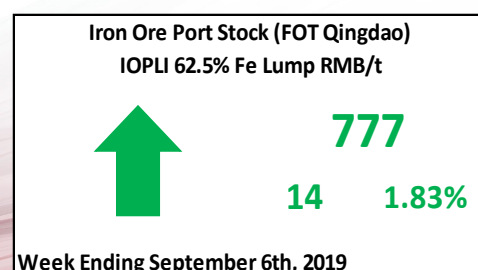
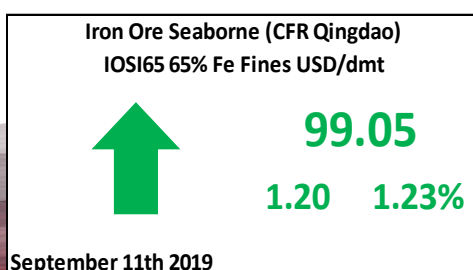
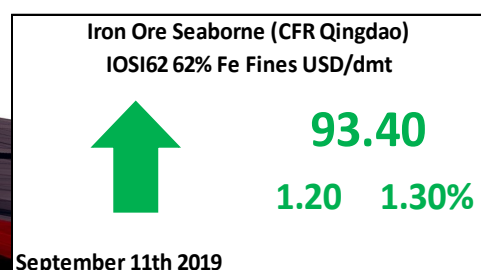
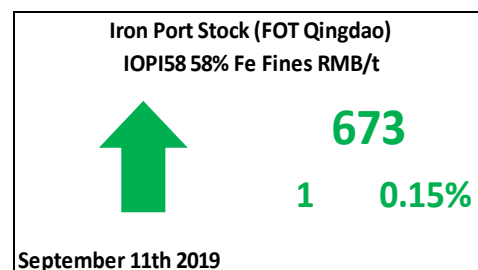
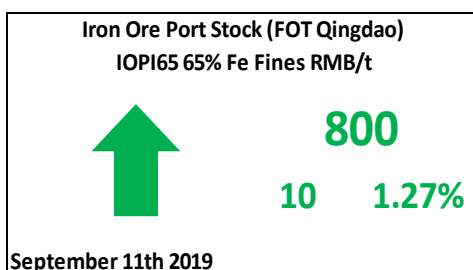
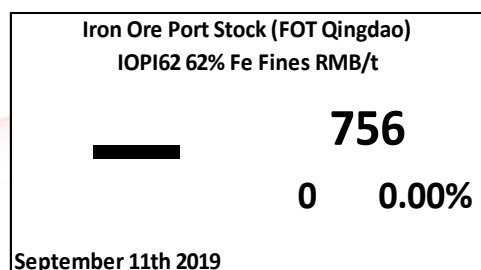


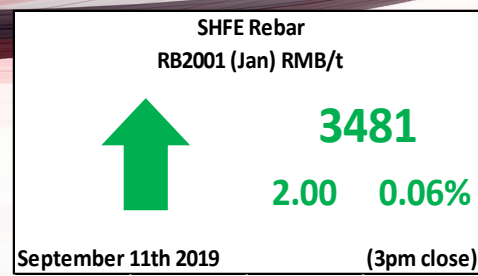
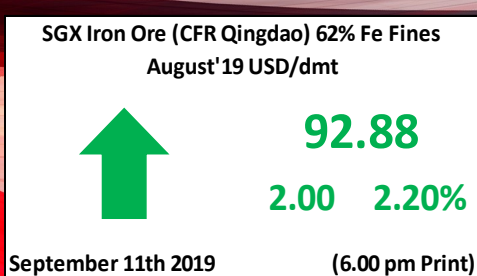
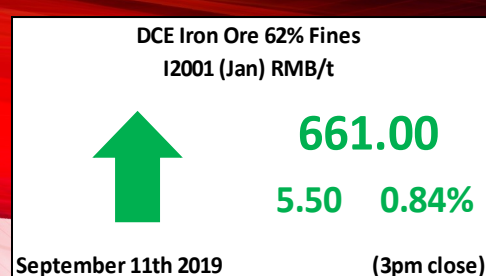


MMi Dashboard

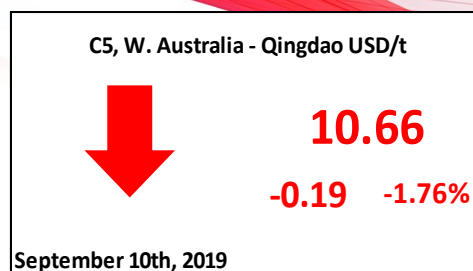
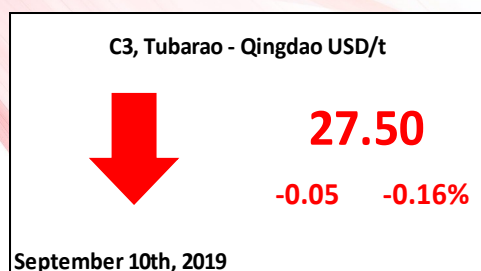
Iron Ore Price Indices



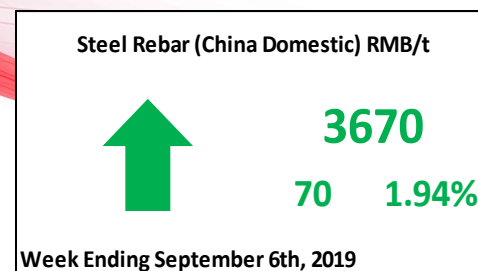
Exchange Traded Contracts



Freight Rates



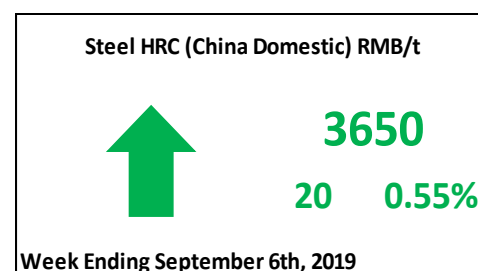
Steel Price



Inventory Levels



Steel Price



IRON ORE PORT STOCK INDEX (IOPI)

September 11th 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	756	0	0.0%	750	725	497	928	98.85	0.01	0.0%	97.94	97.24	64.11	126.12
IOPI58	58% Fe Fines	673	1	0.1%	657	636	374	823	88.54	0.14	0.2%	86.37	85.42	46.88	112.44
IOPI65	65% Fe Fines	800	10	1.3%	790	797	654	992	104.82	1.36	1.3%	103.49	107.24	85.47	135.34

IRON ORE SEABORNE INDEX (IOSI)

MARKET COMMENTARY

September 11th 2019		CFR Qingdao, USD/dry tonne							Futures volatility had market participants step back from concluding large volumes of trades today, though offers did tentatively inch up. Iron ore ports stock prices are still expected potentially rise given mills further stockpiling after the Mid-Autumn Festival holiday. Major Chinese ports saw arrivals of seaborne iron ore dipping for the third consecutive week as of September 7, SMM data showed on Wednesday September 11. SMM estimates that 75 vessels carrying 10.85 million mt of iron ore arrived at major Chinese ports during September 1-7, down 500,000 mt from the week ended August 31. Last week, iron ore deliveries leaving Australian ports shrank 1.47 million mt from the prior week to 13.67 million mt. Shipments that departed Brazilian ports were estimated to extend declines by 1.09 million mt on the week to 6.03 million mt, due to berth maintenance.						
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low ²	High ²							
IOSI62	62% Fe Fines	93.40	1.20	1.30%	92.10	95.50	62.95	127.50							
IOSI65	65% Fe Fines	99.05	1.20	1.23%	98.49	108.05	83.20	137.95							

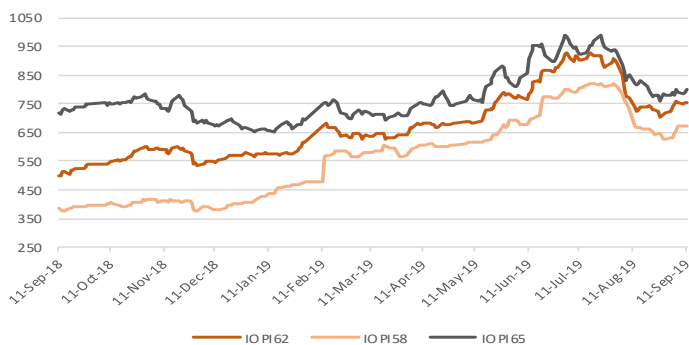
IRON ORE PORT LUMP INDEX (IOPLI)

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

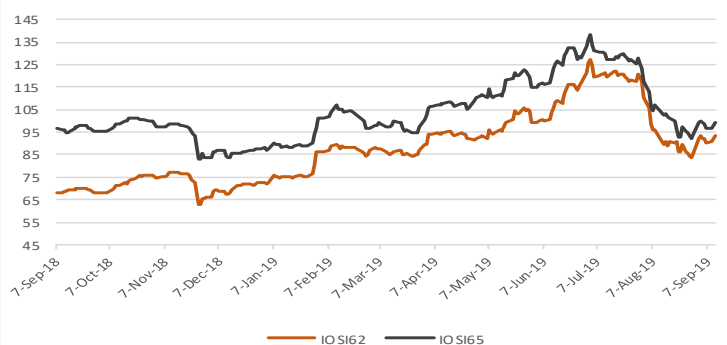
IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

Week Ending September 6th, 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	788	-2.2%	630	1032		111.19	-2.34%	92.31	150.03	
Hebei	Qian'an	65% Fe Concentrate	Dry	840	-1.2%	690	960		118.53	-1.29%	100.26	139.35	
Liaoning	Anshan	65% Fe Concentrate	Wet	660	-4.3%	515	745		93.13	-4.46%	75.46	104.66	
Shandong	Zibo	65% Fe Concentrate	Dry	840	-1.8%	725	1040		118.53	-1.87%	106.23	151.33	
Week Ending September 6th, 2019				This week	Change %	Low ²	High ²	¹ Exchange rate applied: RMB/USD = 7.0843 ² Last 12 months					
China Mines Concentrate Composite Index RMB/WT				731.70	-2.5%	609.04	859.50	³ Weekly exchange rate applied: RMB/USD 7.0870					

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 11th 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	750	823	725	98.40	111.42	123.29	100.18	97.94	109.87	97.24
IOPI58	58% Fe Fines	637	726	809	691	657	737	636	86.39	98.60	110.47	91.86	86.37	99.11	85.42
IOPI65	65% Fe Fines	812	901	954	823	790	875	797	110.00	121.97	129.53	108.92	103.49	117.05	107.24

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

FREIGHT RATES

September 11th 2019		CFR Qingdao, USD/dry tonne							September 10th, 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	92.10	105.25	95.50	W. Australia - Qingdao	C5	10.66	-0.19	-1.76%	4.39	11.42
IOSI65	65% Fe Fines	115.53	124.49	129.53	101.34	98.49	113.61	108.05	Tubarao - Qingdao	C3	27.50	-0.05	-0.16%	11.61	29.10

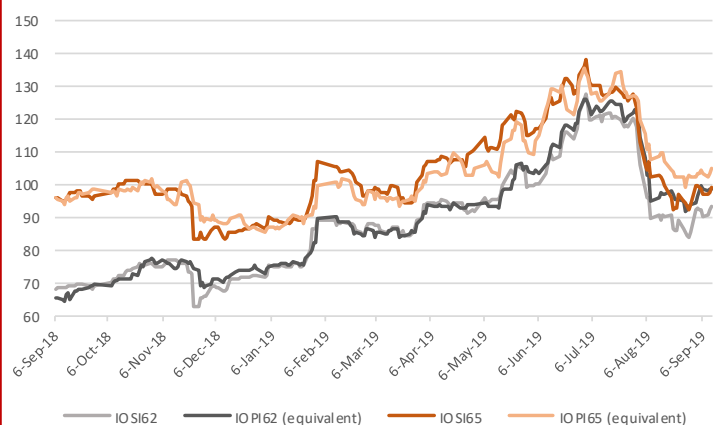
IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

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 11th 2019		PORT STOCK INDEX (RMB/WT)		September 11th 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	-83	-10.98%	IOSI65	65% Fe Fines	5.65	6.05%
IOPI65	65% Fe Fines	44	5.82%				

IRON ORE INDEX COMPARISONS (USD/DMT)



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



IRON ORE BRAND SPOT PRICE ASSESSMENTS

September 11th 2019				September 11th 2019			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	720	1	-36	Roy Hill	91.47	1.15	-1.93
SIMEC Fines	684	7	-72	SIMEC Fines	89.37	1.15	-4.03
PB Fines	735	-1	-21	PB Fines	91.97	0.85	-1.43
Newman Fines	758	2	2	Newman Fines	93.45	1.20	0.05
MAC Fines	732	1	-24	MAC Fines	90.67	0.75	-2.73
Jimblebar Blended Fines	677	0	-79	Jimblebar Blended Fines	81.55	-1.25	-11.85
Carajas Fines	802	9	46	Carajas Fines	99.10	1.20	5.70
Brazilian SSF	698	12	-58	Brazilian SSF	90.90	1.20	-2.50
Brazilian Blend Fines	743	5	-13	Brazilian Blend Fines	92.77	1.20	-0.63
RTX Fines	693	0	-63	RTX Fines	85.72	-0.65	-7.68
West Pilbara Fines	713	-1	-43	West Pilbara Fines	91.42	1.15	-1.98
September 11th 2019							
PORT STOCK INDEX (RMB/WT)							
	Price	Change	Diff to IOPI58				
SSF	608	-4	-65				
FMG Blended Fines	675	0	2				
Robe River	618	-1	-55				
Western Fines	613	-7	-60				
Atlas Fines	603	-5	-70				
Yandi	649	-5	-24				

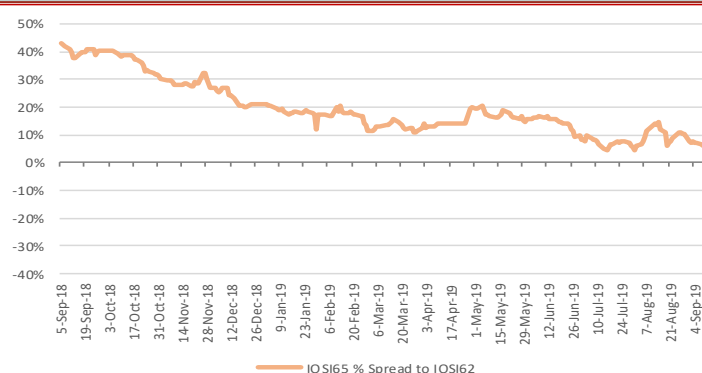
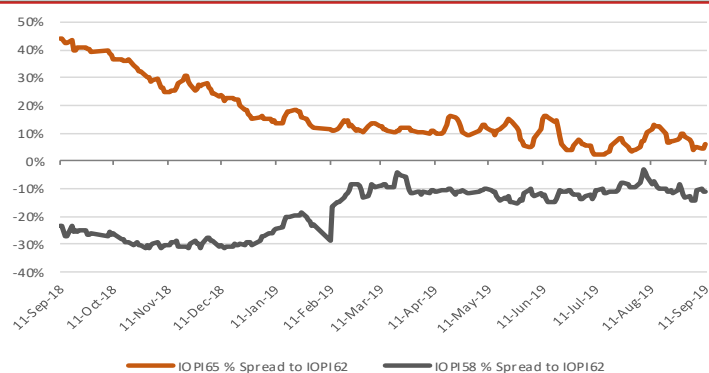
IRON ORE INDEX NORMALISATION DIFFERENTIALS

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%	9.00	2.00	1% Fe	High Grade Fe 60 - 63%	0.50	0.00
	High Grade Fe 63 - 64%	11.00	1.00		High Grade Fe 63 - 64%	1.75	0.00
	High Grade Fe 64 - 65%	11.00	1.00		High Grade Fe 64 - 65%	1.75	0.00
	High Grade Fe 65 - 65.5%	11.00	1.00		High Grade Fe 65 - 65.5%	1.75	0.00
	Low Grade Fe	17.00	0.00	1% Alumina	High Fe Grade Al <2.25%	0.50	0.00
1% Alumina	High Fe Grade Al <2.25%	0.00	0.00		High Fe Grade Al 2.25-4%	3.00	1.00
	High Fe Grade Al 2.25-4%	30.00	0.00		High Fe Grade Si <4%	0.50	0.00
	Low Fe Grade Al <2.25%	10.00	-5.00		High Fe Grade Si 4 - 6.5%	1.25	0.00
	Low Fe Grade Al 2.25-4%	33.00	3.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	0.00	0.00
1% Silica	High Fe Grade Si <4%	5.00	2.00		High Fe Grade 0.115%<P<0.15%	2.00	0.50
	High Fe Grade Si 4-6.5%	29.00	-5.00				
	Low Fe Grade	24.00	3.00				
0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	3.00	0.00				
	High Fe Grade 0.115%<P<0.15%	5.00	0.00				
	Low Fe Grade 0.09%<P<0.15%	0.00	0.00				

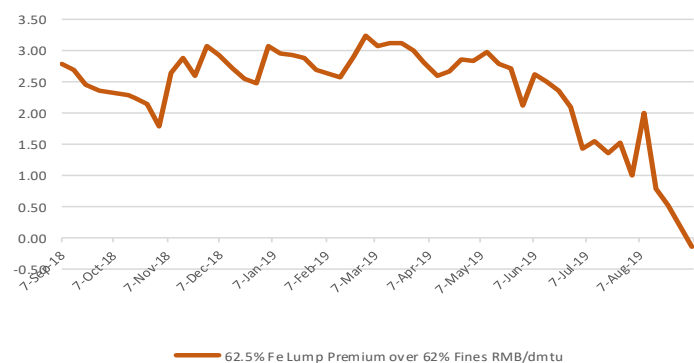
Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

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

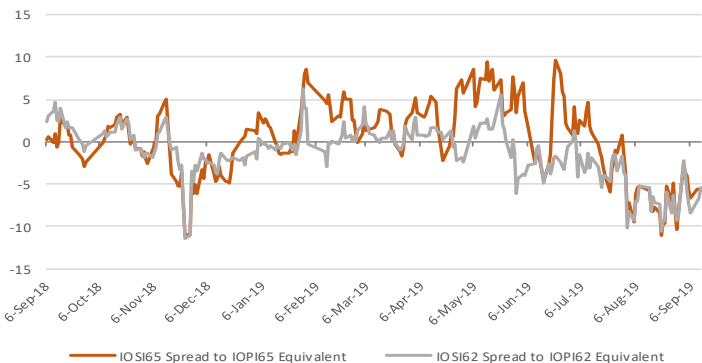
IRON ORE INDEX PREMIUMS/DISCOUNTS



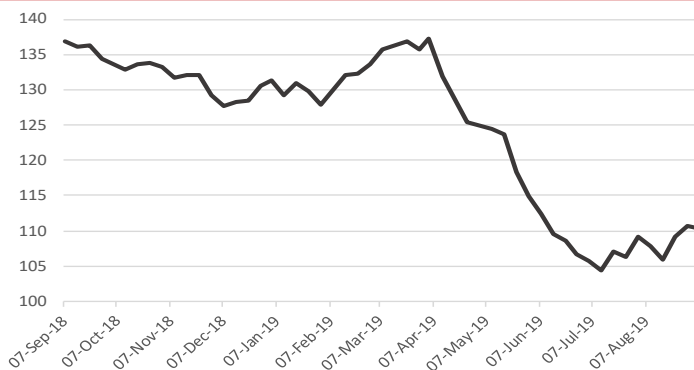
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



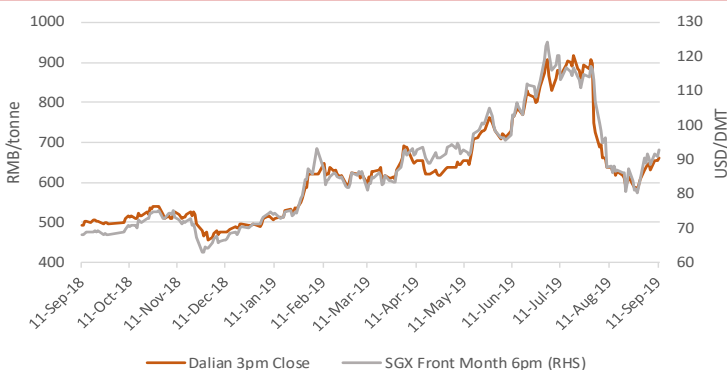
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



IRON ORE PORT INVENTORIES (MILLION TONNES)

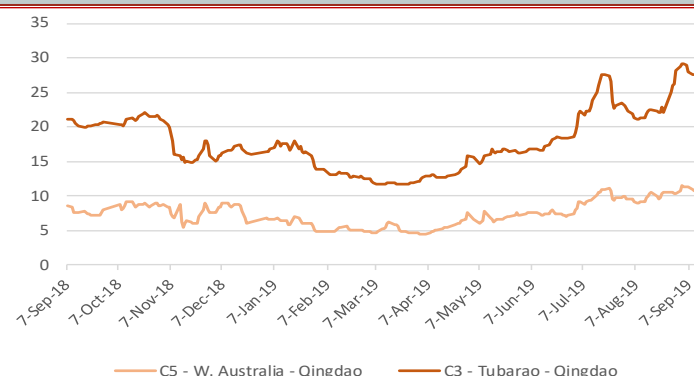
Week Ending September 6th, 2019

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

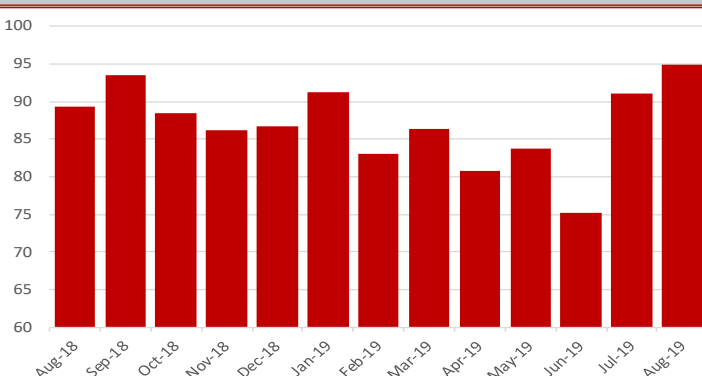
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	Sept 11th 3pm close			Sept 11th 5:30 pm		
Contract	I2001	Change	Change %	Sep'19	Change	Change %
Closing Price	661.00	5.5	0.84%	92.88	2.00	2.20%
Vol traded ('000 lots)	285.38	47.0	19.70%	5.36	-0.86	-13.75%
Open positions ('000 lots)	160.70	14.1	9.65%	157.63	-0.05	-0.03%
Day Low	646.0	3.0	0.47%	90.96	0.08	0.09%
Day High	665.0	5.0	0.76%	92.88	0.83	0.90%

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	6/9/2019	Change	Change %
ReBar HRB400 ϕ 18mm	3,670.0	70	1.94%
Wirerod Q300 ϕ 6.5mm	3,970.0	90	2.32%
HRC Q235/SS400 5.5mm*1500*C	3,650.0	20	0.55%
CRC SPCC/ST12 1.0mm*1250*2500	4,250.0	30	0.71%
Medium & Heavy Plate Q235B 20mm	3,760.0	10	0.27%
GI ST02Z 1.0mm*1000*C	4,490.0	0	0.00%
Colour Coated Plate	6,950.0	-50	-0.71%

CHINESE STEEL MILL PROFITABILITY

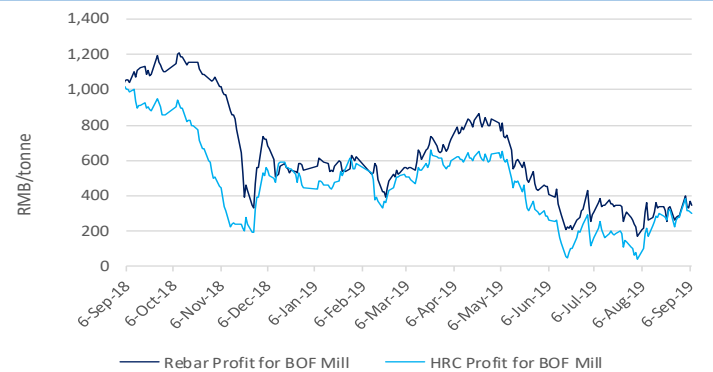
SMM Tracking of Steel Mill P&L - Rebar and Hot-rolled Coil (RMB/tonne)

Category	Price	Change (WoW)	Note
MMI (Fe 62%), USD/mt excluding tax	92.30	8.55	Mmi CFR Equivalent index for 1st Feb
Coke	1,910	-100	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	2,270	50	steel scrap (6mm) in Zhangjiagang, exl. tax
Billet Cost	3,062	56	Q234, incl. tax
Rebar cost - Blast furnace	3,306	51	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	344	29	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	3,378	55	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	302	-5	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.

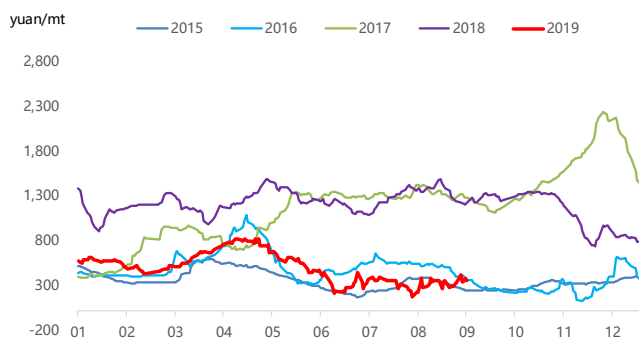
2. The cost refers to average cost in the industry based on SMM's survey of small, medium and large mills in China

CHINESE STEEL MILL PROFITABILITY

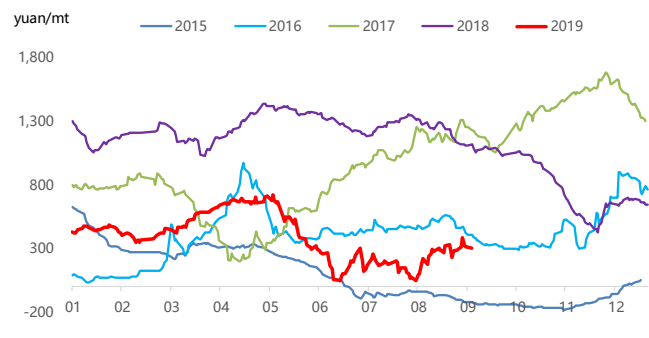


CHINESE STEEL MILL PROFITABILITY

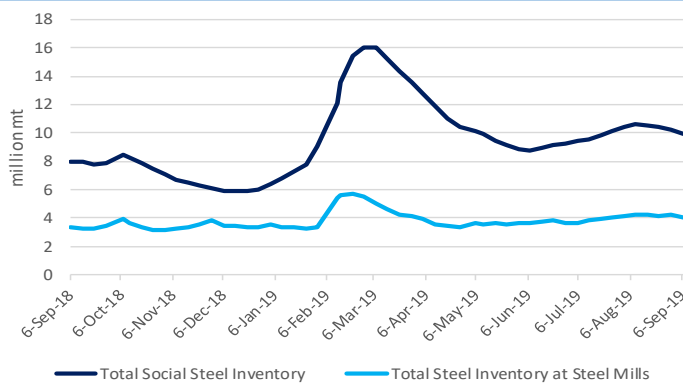
Rebar profits



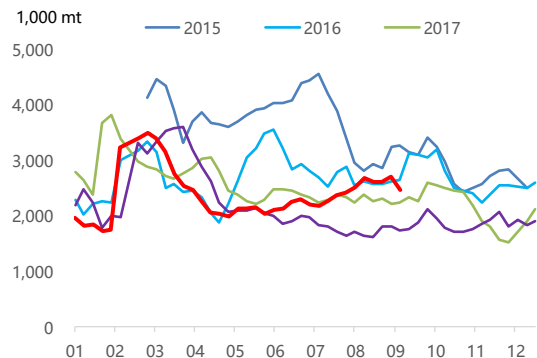
Hot-rolled coil profits



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			
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	0
		0			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					
September 11th 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	61.52%	2.37%	3.76%	0.097%	9.45%	PB Fines 62%	62.00%	2.60%	4.30%	0.090%	10.00%
Newman Fines	62.52%	2.16%	4.15%	0.088%	7.74%	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%	3.04%	4.57%	0.119%	7.51%	Jimblebar Blended Fines	59.50%	3.70%	5.80%	0.135%	8.30%
Carajas Fines	65.46%	1.32%	1.35%	0.075%	8.32%	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 11th 2019	Specifications applied for 58% brand assessments										
	Fe	Alumina	Silica	Phos	Moisture						
SSF	56.58%	3.08%	6.33%	0.057%	8.05%						
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	57.31%	1.54%	6.33%	0.041%	8.90%						

BLOOMBERG TICKERS

PORT STOCK INDICES			SEABORNE INDICES	
	FOT Qingdao (RMB/wet tonne)	CFR Qingdao Equivalent (USD/dry tonne)		CFR Qingdao (USD/DMT)
IOP162	IRCNQ001	IRCNQ004	IOS162	IRCNO034
IOP158	IRCNQ002	IRCNQ005	IOS165	IRCNO035
IOP165	IRCNQ003	IRCNQ006		
IOP162	IRCNO036	IRCNO037		

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