



MMi Dashboard

Iron Ore Price Indices

Iron Ore Port Stock (FOT Qingdao) IOPI62 62% Fe Fines RMB/t			
	714		
	6	0.85%	
August 29th 2019			

Iron Ore Port Stock (FOT Qingdao) IOPI65 65% Fe Fines RMB/t			
	785		
	8	1.03%	
August 29th 2019			

Iron Port Stock (FOT Qingdao) IOPI58 58% Fe Fines RMB/t			
	629		
	-7	-1.10%	
August 29th 2019			

Iron Ore Seaborne (CFR Qingdao) IOSI62 62% Fe Fines USD/dmt			
	83.75		
	-0.50	-0.59%	
August 29th 2019			

Iron Ore Seaborne (CFR Qingdao) IOSI65 65% Fe Fines USD/dmt			
	92.35		
	-1.05	-1.12%	
August 29th 2019			

Iron Ore Port Stock (FOT Qingdao) IOPLI 62.5% Fe Lump RMB/t			
	805		
	-14	-1.71%	
Week Ending August 23rd, 2019			

Exchange Traded Contracts

DCE Iron Ore 62% Fines I2001 (Jan) RMB/t			
	580.00		
	-8.00	-1.36%	
August 29th 2019 (3pm close)			

SGX Iron Ore (CFR Qingdao) 62% Fe Fines August'19 USD/dmt			
	80.50		
	-0.84	-1.03%	
August 29th 2019 (6.00 pm Print)			

SHFE Rebar RB1910 (Oct) RMB/t			
	3587		
	-24.00	-0.66%	
August 29th 2019 (3pm close)			

Freight Rates

C3, Tubarao - Qingdao USD/t			
	25.96		
	1.00	3.99%	
August 28th, 2019			

C5, W. Australia - Qingdao USD/t			
	10.55		
	-0.02	-0.14%	
August 28th, 2019			

Steel Price

Steel Rebar (China Domestic) RMB/t			
	3690		
	-30	-0.81%	
Week Ending August 23rd, 2019			

Inventory Levels

Iron Ore Inventory at Chinese Ports (35) million tonnes			
	109.21		
	3.40	3.21%	
Week Ending August 23rd, 2019			

Steel Inventory in China million tonnes			
	14.63		
	-0.11	-0.72%	
Week Ending August 23rd, 2019			

Steel Price

Steel HRC (China Domestic) RMB/t			
	3720		
	-10	-0.27%	
Week Ending August 23rd, 2019			

IRON ORE PORT STOCK INDEX (IOPI)

August 29th 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	714	6	0.8%	761	724	492	928	93.13	0.79	0.9%	100.48	97.23	63.83	126.12
IOPI58	58% Fe Fines	629	-7	-1.1%	694	635	374	823	82.48	-0.99	-1.2%	92.32	85.41	46.88	112.44
IOPI65	65% Fe Fines	785	8	1.0%	825	797	654	992	102.76	1.05	1.0%	109.24	107.44	85.47	135.34

IRON ORE SEABORNE INDEX (IOSI)

MARKET COMMENTARY

August 29th 2019		CFR Qingdao, USD/dry tonne							A day of little activity to note today, with both physical and exchange traded iron ore contracts trading in a narrow band. Concluded transactions picked up due to some mill restocking. According to SMM, the daily average deliveries in Tangshan this week was more than 300,000 mt. Some mills are worrying about future transportation controls given that current policy cuts were lower-than-expected. As for products, PB Fines Tangshan market were relatively firmer than that in other regions, mainly due tighter tradeable. However, it is expected that future arrivals of PB Fines in September may help ease some of the pressure on the product. Nonetheless, the increasing arrival of Vale's products has narrowed the spread between Carajas Fines / BRBF and PB Fines.
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low ²	High ²	
IOSI62	62% Fe Fines	83.75	-0.50	-0.59%	92.99	95.73	62.95	127.50	
IOSI65	65% Fe Fines	92.35	-1.05	-1.12%	101.72	108.60	83.20	137.95	

IRON ORE PORT LUMP INDEX (IOPLI)

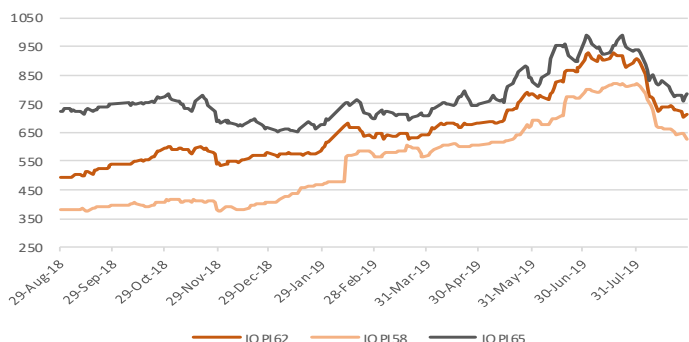
Week Ending August 23rd, 2019		FOT Qingdao (inc. 16% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 16% VAT), USD/dry tonne ³						
Index	Fe Content	Price	W-o-W	Change %	MTD	YTD	Low ²	High ²	Price	W-o-W	Change %	MTD	YTD	Low ²	High ²
IOPLI62	62.5% Fe Lump	805	-14	-1.7%	897	904	660	1051	99.02	-2.04	-2.02%	111.80	115.38	82.60	133.81

IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

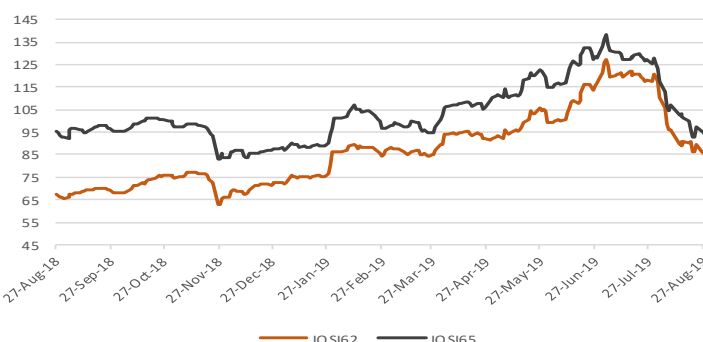
Week Ending August 23rd, 2019				RMB/tonne (excluding tax) ³				USD/tonne (excluding tax) ³			
Province	Region	Product	Basis	This week	Change %	Low ²	High ²	This week	Change %	Low ²	High ²
Hebei	Hanxing	66% Fe Concentrate	Dry	822	-5.0%	630	1032	116.66	-5.21%	92.31	150.03
Hebei	Qian'an	65% Fe Concentrate	Dry	850	0.0%	690	960	120.63	-0.25%	100.26	139.35
Liaoning	Anshan	65% Fe Concentrate	Wet	690	-2.8%	495	745	97.92	-3.06%	72.28	104.66
Shandong	Zibo	65% Fe Concentrate	Dry	875	-2.2%	725	1040	124.18	-2.48%	105.86	151.33
Week Ending August 23rd, 2019				This week	Change %	Low ²	High ²				
China Mines Concentrate Composite Index RMB/WT				763.33	-2.4%	589.76	859.50				

¹ Exchange rate applied: RMB/USD = 7.0858 ² Last 12 months
³ Weekly exchange rate applied: RMB/USD 7.0463

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

August 29th 2019		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne						
Index	Fe Content	April	May	June	July	MTD	QTD	YTD	April	May	June	July	MTD	QTD	YTD
IOPI62	62% Fe Fines	675	729	825	909	761	838	724	85.37	98.40	111.42	123.29	100.48	112.40	97.23
IOPI58	58% Fe Fines	600	637	726	809	694	754	635	77.49	86.39	98.60	110.47	92.32	101.81	85.41
IOPI65	65% Fe Fines	753	812	901	954	825	892	797	95.78	110.00	121.97	129.53	109.24	119.85	107.44

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

FREIGHT RATES

August 29th 2019		CFR Qingdao, USD/dry tonne							August 28th, 2019						
Index	Fe Content	April	May	June	July	MTD	QTD	YTD	Route	Designation	Change	Change %	Low ²	High ²	
IOSI62	62% Fe Fines	93.42	98.68	108.57	120.82	92.99	108.23	95.73	W. Australia - Qingdao	C5	10.55	-0.02	-0.14%	4.39	11.15
IOSI65	65% Fe Fines	106.75	115.53	124.49	129.53	101.72	116.95	108.60	Tubarao - Qingdao	C3	25.96	1.00	3.99%	11.61	27.52

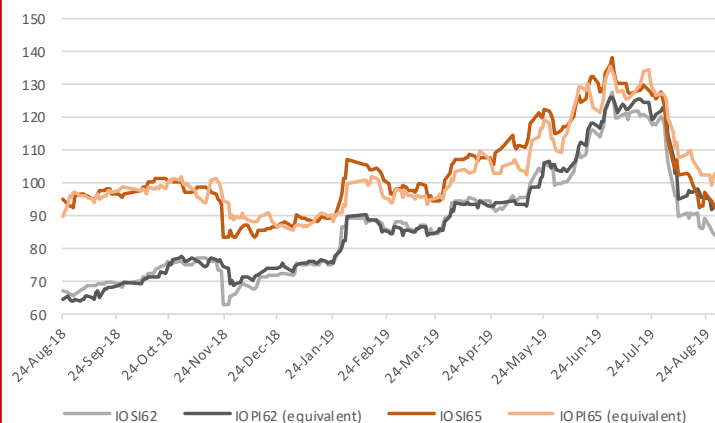
IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending August 23rd, 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	897	972	904	99.57	111.03	117.12	128.00	111.80	122.39	115.38

IRON ORE INDEX PREMIUMS/DISCOUNTS

August 29th 2019		PORT STOCK INDEX (RMB/WT)		August 29th 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	-11.90%	IOSI65	65% Fe Fines	8.60	10.27%
IOPI65	65% Fe Fines	71	9.94%				

IRON ORE INDEX COMPARISONS (USD/DMT)



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



IRON ORE BRAND SPOT PRICE ASSESSMENTS

August 29th 2019				August 29th 2019			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	681	4	-33	Roy Hill	77.67	-1.21	-6.08
SIMEC Fines	644	0	-70	SIMEC Fines	71.55	-2.08	-12.20
PB Fines	694	4	-20	PB Fines	81.20	-0.80	-2.55
Newman Fines	717	7	3	Newman Fines	84.61	-0.56	0.86
MAC Fines	694	1	-20	MAC Fines	75.20	-1.41	-8.55
Jimblebar Blended Fines	630	2	-84	Jimblebar Blended Fines	59.25	-2.69	-24.50
Carajas Fines	794	7	80	Carajas Fines	92.49	-1.14	8.74
Brazilian SSF	672	4	-42	Brazilian SSF	76.56	-2.31	-7.19
Brazilian Blend Fines	709	8	-5	Brazilian Blend Fines	82.19	-1.23	-1.56
RTX Fines	633	3	-81	RTX Fines	69.55	-1.51	-14.20
West Pilbara Fines	676	1	-38	West Pilbara Fines	76.97	-1.19	-6.78

August 29th 2019			
PORT STOCK INDEX (RMB/WT)			
	Price	Change	Diff to IOPI58
SSF	605	4	-24
FMG Blended Fines	637	-6	8
Robe River	604	2	-25
Western Fines	612	3	-17
Atlas Fines	600	4	-29
Yandi	631	0	2

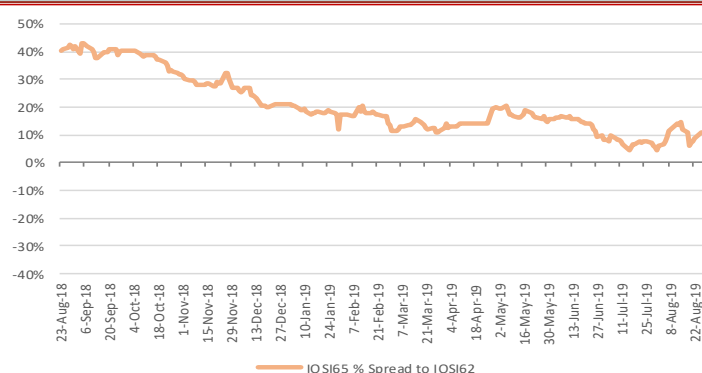
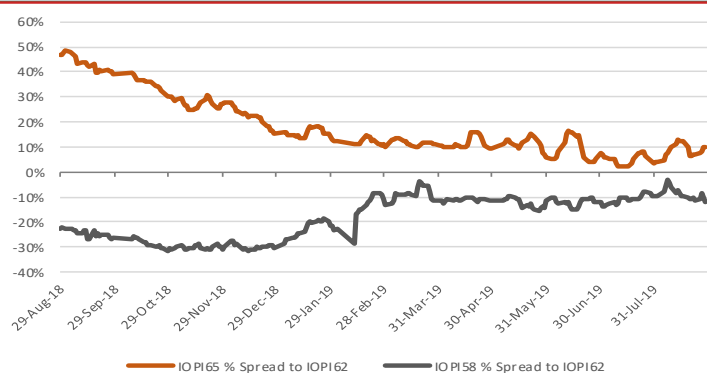
IRON ORE INDEX NORMALISATION DIFFERENTIALS

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	3.00	1% Fe	High Grade Fe 60 - 63%	2.25	0.15
	High Grade Fe 63 - 64%	16.00	0.00		High Grade Fe 63 - 64%	2.00	-0.20
	High Grade Fe 64 - 65%	16.00	0.00		High Grade Fe 64 - 65%	2.00	-0.20
	High Grade Fe 65 - 65.5%	16.00	0.00		High Grade Fe 65 - 65.5%	2.00	-0.20
1% Alumina	Low Grade Fe	9.00	-3.00	1% Alumina	High Fe Grade Al <2.25%	0.75	-0.35
	High Fe Grade Al <2.25%	15.00	-2.00		High Fe Grade Al 2.25-4%	4.50	0.40
	High Fe Grade Al 2.25-4%	47.00	0.00		High Fe Grade Si <4%	0.75	-0.05
	Low Fe Grade Al <2.25%	21.00	3.00		High Fe Grade Si 4 - 6.5%	3.25	0.55
1% Silica	Low Fe Grade Al 2.25-4%	10.00	-6.00	1% Silica	High Fe Grade Si <4%	0.75	-0.05
	High Fe Grade Si <4%	8.00	0.00		High Fe Grade Si 4 - 6.5%	3.25	0.55
	High Fe Grade Si 4-6.5%	30.00	0.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	1.00	0.10
0.01% Phosphorus	Low Fe Grade	10.00	-3.00		High Fe Grade 0.115%<P<0.15%	2.00	0.00
	High Fe Grade 0.09%<P<0.115%	2.00	0.00		Low Fe Grade 0.09%<P<0.15%	0.00	0.00
	High Fe Grade 0.115%<P<0.15%	9.00	0.00				
	Low Fe Grade 0.09%<P<0.15%	0.00	0.00				

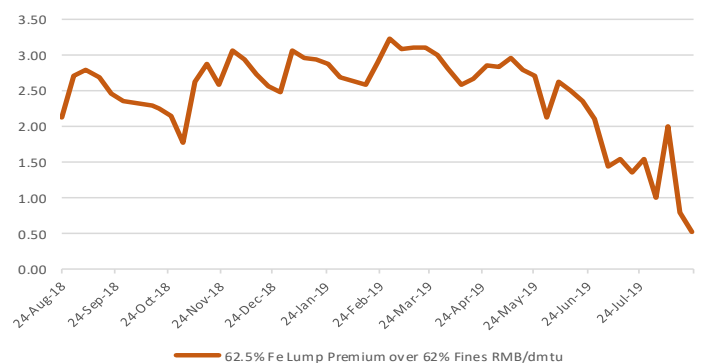
Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

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	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	-20.00	0.00	Tianjin	-10.00	10.00

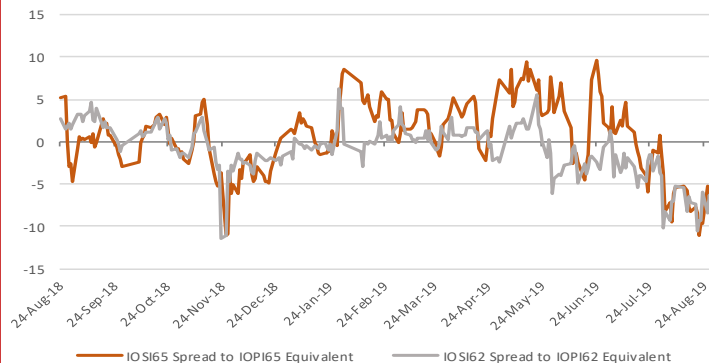
IRON ORE INDEX PREMIUMS/DISCOUNTS



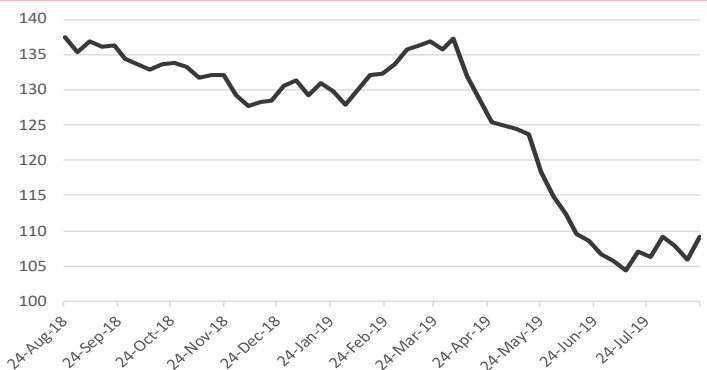
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



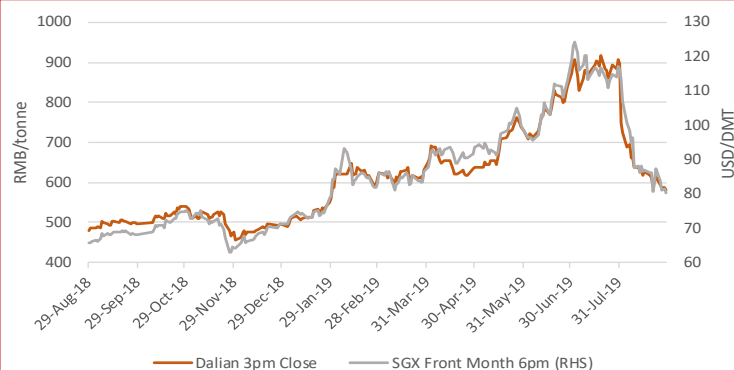
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



IRON ORE PORT INVENTORIES (MILLION TONNES)

Week Ending August 23rd, 2019

Province	This week	Change %	Low ²	High ²
Jingtang	13.11	0.69%	10.80	16.37
Qingdao	13.07	3.16%	12.38	19.01
Caofeidian	14.95	4.40%	14.32	20.10
Tianjin	7.34	3.09%	6.39	10.40
Rizhao	11.87	-6.39%	11.65	17.30
Total (35 Ports)	109.21	3.21%	104.40	137.48

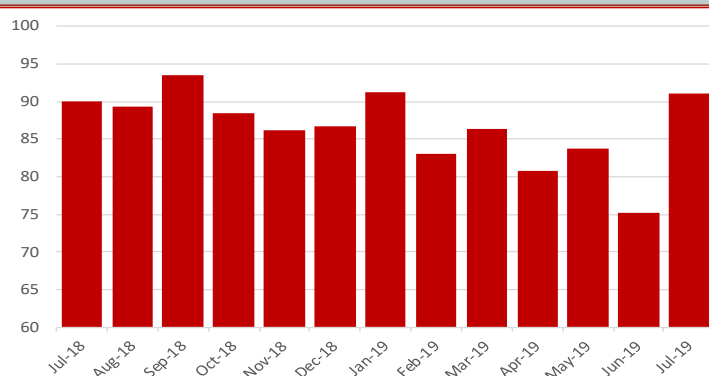
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	Aug 29th 3pm close			Aug 29th 5:30 pm		
Contract	I2001	Change	Change %	Sep'19	Change	Change %
Closing Price	580.00	-8.0	-1.36%	80.50	-0.84	-1.03%
Vol traded ('000 lots)	190.27	-71.4	-27.28%	11.54	-0.46	-3.81%
Open positions ('000 lots)	168.54	-7.5	-4.27%	154.27	-0.71	-0.46%
Day Low	577.0	6.0	1.05%	80.00	-0.04	-0.05%
Day High	592.5	1.5	0.25%	82.22	0.37	0.45%

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	23/8/2019	Change	Change %
ReBar HRB400 ϕ 18mm	3,690.0	-30	-0.81%
Wirerod Q300 ϕ 6.5mm	3,907.0	-93	-2.33%
HRC Q235/SS400 5.5mm*1500*C	3,720.0	-10	-0.27%
CRC SPPC/ST12 1.0mm*1250*2500	4,250.0	10	0.24%
Medium & Heavy Plate Q235B 20mm	3,800.0	-30	-0.78%
GI ST02Z 1.0mm*1000*C	4,510.0	-10	-0.22%
Colour Coated Plate	7,100.0	0	0.00%

CHINESE STEEL MILL PROFITABILITY

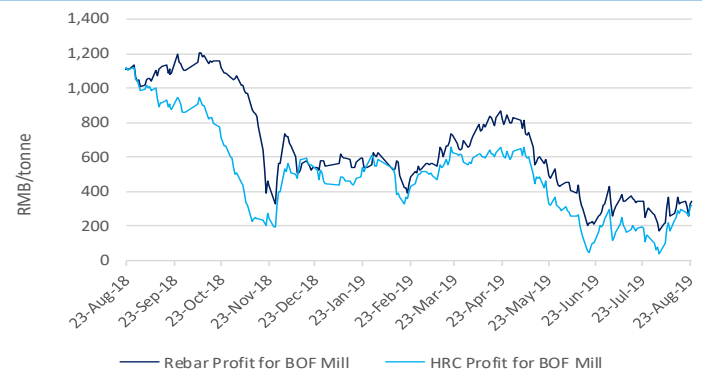
SMM Tracking of Steel Mill P&L - Rebar and Hot-rolled Coil (RMB/tonne)

Category	Price	Change (WoW)	Note
MMI (Fe 62%), USD/mt excluding tax	86.00	-3.20	Mmi CFR Equivalent index for 1st Feb
Coke	2,110	0	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	2,310	40	steel scrap (6mm) in Zhangjiagang, exl. tax
Billet Cost	3,091	-33	Q234, incl. tax
Rebar cost - Blast furnace	3,340	-34	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	340	4	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	3,407	-34	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	323	24	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.

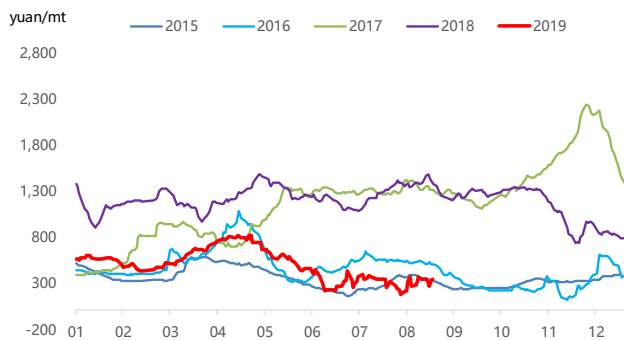
2. The cost refers to average cost in the industry based on SMM's survey of small, medium and large mills in China

CHINESE STEEL MILL PROFITABILITY

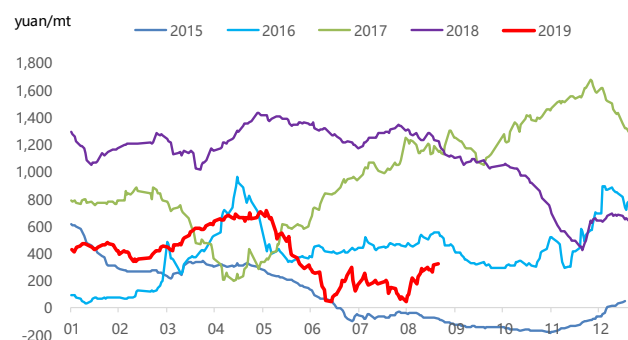


CHINESE STEEL MILL PROFITABILITY

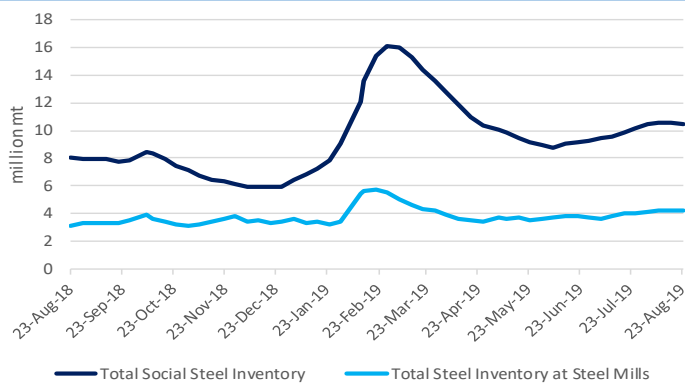
Rebar profits



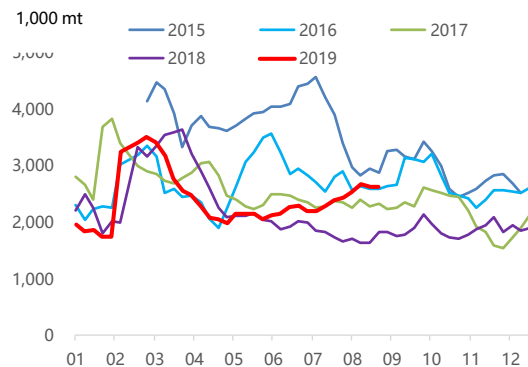
Hot-rolled coil profits



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% Fe Fines	62% Fe Fines	58% Fe Fines	62.5% Fe Lump	
Alumina %	65.00	62.00	58.00	62.50	
Silica%	1.40	2.25	2.25	1.50	
Phosphorus %	1.50	4.00	5.50	3.50	
Sulphur %	0.06	0.09	0.05	0.08	
Moisture %	0.01	0.02	0.02	0.02	
	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
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					
August 29th 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%	2.37%	3.83%	0.099%	9.43%	PB Fines 62%	62.00%	2.60%	4.30%	0.090%	10.00%
Newman Fines	62.55%	2.21%	4.05%	0.085%	7.90%	Newman Fines	62.80%	2.20%	4.30%	0.080%	6.40%
MAC Fines	60.88%	2.24%	4.54%	0.080%	7.61%	MAC Fines	61.00%	2.70%	4.70%	0.110%	9.30%
Jimblebar Blended Fines	60.69%	3.01%	4.57%	0.118%	7.36%	Jimblebar Blended Fines	59.50%	3.70%	5.80%	0.135%	8.30%
Carajas Fines	65.54%	1.27%	1.36%	0.073%	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	62.86%	1.57%	4.53%	0.075%	8.64%	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%
August 29th 2019	Specifications applied for 58% brand assessments										
	Fe	Alumina	Silica	Phos	Moisture						
SSF	56.65%	3.08%	6.33%	0.058%	8.24%						
FMG Blended Fines	58.20%	2.59%	5.45%	0.060%	7.70%						
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	57.32%	1.52%	6.32%	0.041%	8.86%						

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	IOSI62	IRCNO034
IOP158	IRCNQ002	IRCNQ005	IOSI65	IRCNO035
IOP165	IRCNQ003	IRCNQ006		
IOP162	IRCNO036	IRCNO037		

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