



MMi Dashboard

Iron Ore Price Indices

Iron Ore Port Stock (FOT Qingdao) IOPI62 62% Fe Fines RMB/t	
	697
	-8 -1.13%
October 22nd 2019	

Iron Ore Port Stock (FOT Qingdao) IOPI65 65% Fe Fines RMB/t	
	737
	-8 -1.07%
October 22nd 2019	

Iron Port Stock (FOT Qingdao) IOPI58 58% Fe Fines RMB/t	
	622
	-2 -0.32%
October 22nd 2019	

Iron Ore Seaborne (CFR Qingdao) IOSI62 62% Fe Fines USD/dmt	
	87.30
	-0.40 -0.46%
October 22nd 2019	

Iron Ore Seaborne (CFR Qingdao) IOSI65 65% Fe Fines USD/dmt	
	94.65
	1.00 1.07%
October 22nd 2019	

Iron Ore Port Stock (FOT Qingdao) IOPLI 62.5% Fe Lump RMB/t	
	830
	-9 -1.07%
Week Ending October 18th, 2019	

Exchange Traded Contracts

DCE Iron Ore 62% Fines I2001 (Jan) RMB/t	
	616.00
	4.50 0.74%
October 22nd 2019 (3pm close)	

SGX Iron Ore (CFR Qingdao) 62% Fe Fines November'19 USD/dmt	
	83.58
	1.34 1.63%
October 22nd 2019 (5.30 pm Print)	

SHFE Rebar RB2001 (Jan) RMB/t	
	3318
	28.00 0.85%
October 22nd 2019 (3pm close)	

Freight Rates

C3, Tubarao - Qingdao USD/t	
	20.84
	-0.11 -0.50%
October 21st, 2019	

C5, W. Australia - Qingdao USD/t	
	9.00
	-0.12 -1.31%
October 21st, 2019	

Steel Rebar (China Domestic) RMB/t	
	3670
	-70 -1.87%
Week Ending October 18th, 2019	

Inventory Levels

Iron Ore Inventory at Chinese Ports (35) million tonnes	
	117.51
	0.87 0.75%
Week Ending October 18th, 2019	

Steel Inventory in China million tonnes	
	12.44
	-0.71 -5.43%
Week Ending October 18th, 2019	

Steel HRC (China Domestic) RMB/t	
	3510
	-60 -1.68%
Week Ending October 18th, 2019	

Steel Price

IRON ORE PORT STOCK INDEX (IOPI)

October 22nd 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	697	-8	-1.1%	737	728	535	928	91.06	-1.08	-1.2%	96.37	97.36	68.50	126.12
IOPI58	58% Fe Fines	622	-2	-0.3%	643	640	375	823	81.74	-0.26	-0.3%	84.51	85.69	46.88	112.44
IOPI65	65% Fe Fines	737	-8	-1.1%	774	796	654	992	96.51	-1.07	-1.1%	101.41	106.86	85.47	135.34

IRON ORE SEABORNE INDEX (IOSI)

MARKET COMMENTARY

October 22nd 2019		CFR Qingdao, USD/dry tonne							SMM estimates that 71 vessels carrying 10.5 million mt of iron ore arrived at major Chinese ports during October 13-19, down 2.18 million mt from the week ended October 12. This marked the second straight week of decline in iron ore arrivals at Chinese ports. Last week, iron ore deliveries leaving Australian ports shrank 1.15 million mt from the prior week to 12.21 million mt. Shipments that departed Brazilian ports were estimated to flat on the week at 6.23 million mt. SMM expects near-term prices of spot seaborne iron ore to be supported as shipments from Australia during September-October were below typical levels of the previous years. Concluded deals in the physical port stock market inched down. According to SMM, production limits in Tangshan market continue and only vehicles are allowed in and out the plants. In Shandong, there's an orange alert for heavy pollution from October 19-21, and some mills have cut or ceased some of their production about five days as required. Traders in Shandong say there were few inquiries today.
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low ²	High ²	
IOSI62	62% Fe Fines	87.30	-0.40	-0.46%	92.10	95.18	62.95	127.50	
IOSI65	65% Fe Fines	94.65	1.00	1.07%	98.42	106.77	83.20	137.95	

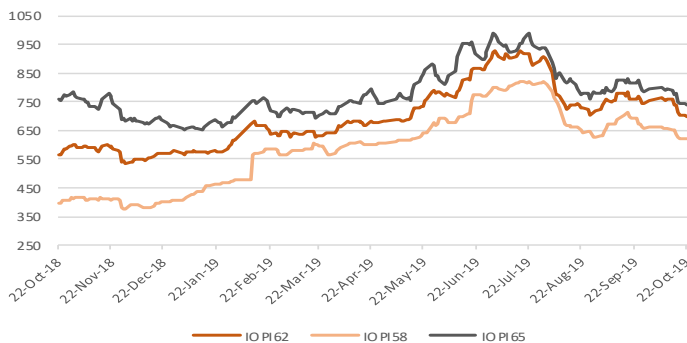
IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending October 18th, 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	830	-9	-1.1%	835	887	710	1051	101.82	-1.15	-1.12%	102.39	112.48	88.56	133.81

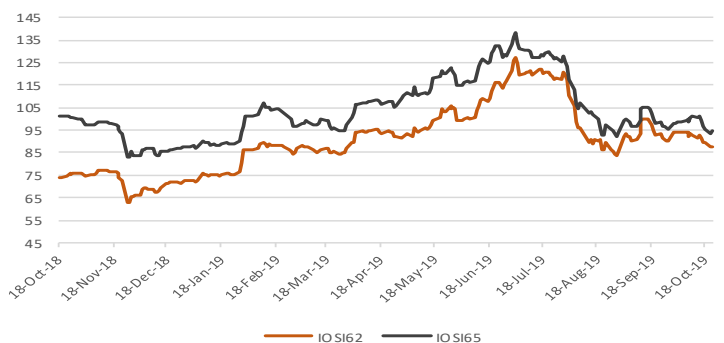
IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

Week Ending October 18th, 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	852	-0.6%	644	1032	120.45	-0.59%	93.58	150.03
Hebei	Qian'an	65% Fe Concentrate	Dry	905	0.0%	690	960	127.95	-0.01%	100.26	139.35
Liaoning	Anshan	65% Fe Concentrate	Wet	650	0.0%	535	745	91.90	-0.01%	77.39	104.66
Shandong	Zibo	65% Fe Concentrate	Dry	895	0.0%	740	1040	126.53	-0.01%	106.55	151.33
Week Ending October 18th, 2019				This week	Change %	Low ²	High ²	¹ Exchange rate applied: RMB/USD = 7.0668 ² Last 12 months ³ Weekly exchange rate applied: RMB/USD 7.0732			
China Mines Concentrate Composite Index RMB/WT				761.97	1.0%	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

October 22nd 2019		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne						
Index	Fe Content	June	July	August	September	MTD	QTD	YTD	June	July	August	September	MTD	QTD	YTD
IOPI62	62% Fe Fines	825	909	759	758	737	737	728	98.40	111.42	123.29	100.18	96.37	96.37	97.36
IOPI58	58% Fe Fines	726	809	691	674	643	643	640	86.39	98.60	110.47	91.86	84.51	84.51	85.69
IOPI65	65% Fe Fines	901	954	823	803	774	774	796	110.00	121.97	129.53	108.92	101.41	101.41	106.86

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

FREIGHT RATES

October 22nd 2019		CFR Qingdao, USD/dry tonne							October 21st, 2019		FREIGHT RATES - DRY BULK US\$/wet tonne				
Index	Fe Content	June	July	August	September	MTD	QTD	YTD	Route	Designation	Change	Change %	Low ²	High ²	
IOSI62	62% Fe Fines	108.57	120.82	92.61	93.76	92.10	91.10	95.18	W. Australia - Qingdao	C5	9.00	-0.12	-1.31%	4.39	11.42
IOSI65	65% Fe Fines	124.49	129.53	101.34	99.42	98.42	98.42	106.77	Tubarao - Qingdao	C3	20.84	-0.11	-0.50%	11.61	29.10

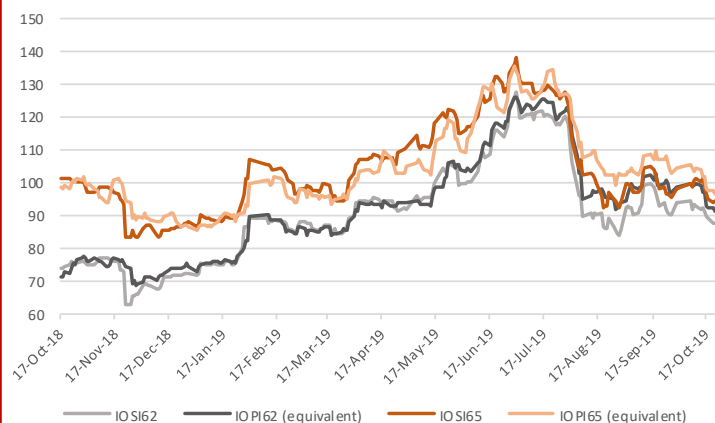
IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending October 18th, 2019		FOT Qingdao (inc. 16% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 16% VAT), USD/dry tonne ¹						
Index	Fe Content	June	July	August	September	MTD	QTD	YTD	May	June	July	September	MTD	QTD	YTD
IOPLI62	62.5% Fe Lump	1009	1046	870	803	835	835	887	128.00	132.99	108.80	98.44	102.39	102.39	112.48

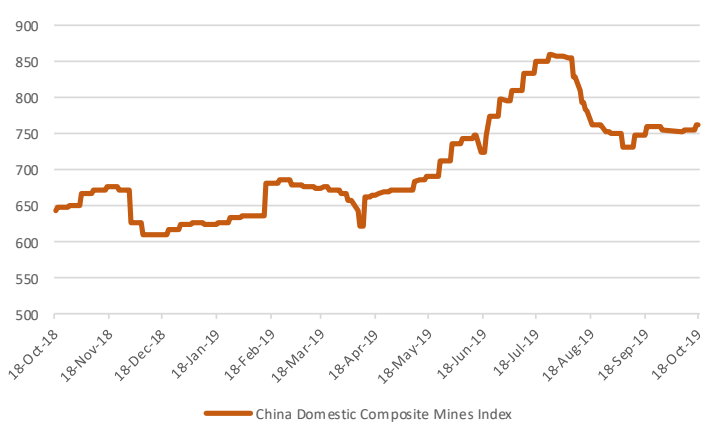
IRON ORE INDEX PREMIUMS/DISCOUNTS

October 22nd 2019		PORT STOCK INDEX (RMB/WT)		October 22nd 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	-75	-10.76%	IOSI65	65% Fe Fines	7.35	8.42%
IOPI65	65% Fe Fines	40	5.74%				

IRON ORE INDEX COMPARISONS (USD/DMT)



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



IRON ORE BRAND SPOT PRICE ASSESSMENTS

October 22nd 2019				October 22nd 2019			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	669	-8	-28	Roy Hill	84.51	-0.15	-2.79
SIMEC Fines	658	-6	-39	SIMEC Fines	81.71	0.20	-5.59
PB Fines	673	-6	-24	PB Fines	85.89	-0.15	-1.41
Newman Fines	703	-8	6	Newman Fines	87.70	-0.31	0.40
MAC Fines	678	-8	-19	MAC Fines	84.01	0.00	-3.29
Jimblebar Blended Fines	616	-2	-81	Jimblebar Blended Fines	73.61	0.77	-13.69
Carajas Fines	740	-8	43	Carajas Fines	93.97	0.36	6.67
Brazilian SSF	689	-6	-8	Brazilian SSF	84.80	0.54	-2.50
Brazilian Blend Fines	702	-8	5	Brazilian Blend Fines	87.05	0.04	-0.25
RTX Fines	642	-3	-55	RTX Fines	78.71	0.15	-8.59
West Pilbara Fines	659	-8	-38	West Pilbara Fines	84.21	-0.20	-3.09
October 22nd 2019							
PORT STOCK INDEX (RMB/WT)							
	Price	Change	Diff to IOPI58				
SSF	561	-15	-61				
FMG Blended Fines	619	-6	-3				
Robe River	567	-13	-55				
Western Fines	570	-12	-52				
Atlas Fines	561	-11	-61				
Yandi	595	-5	-27				

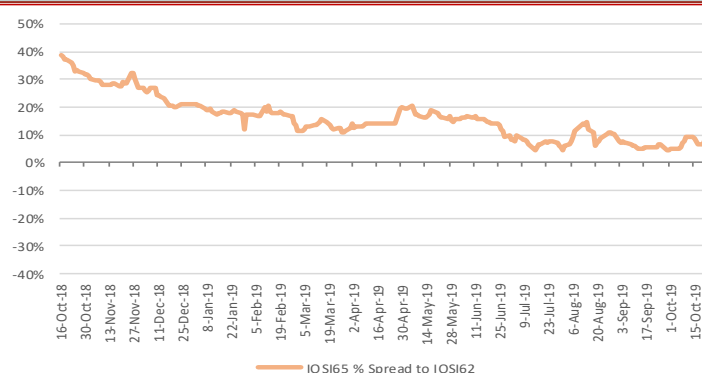
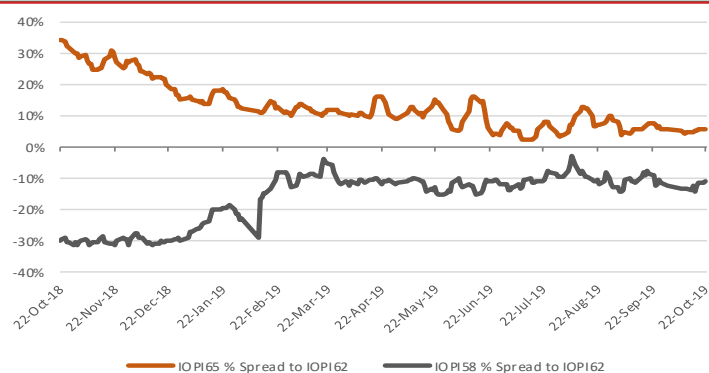
IRON ORE INDEX NORMALISATION DIFFERENTIALS

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%	13.00	0.00	1% Fe	High Grade Fe 60 - 63%	1.00	0.00
	High Grade Fe 63 - 64%	7.00	0.00		High Grade Fe 63 - 64%	1.25	0.00
	High Grade Fe 64 - 65%	7.00	0.00		High Grade Fe 64 - 65%	1.25	0.00
	High Grade Fe 65 - 65.5%	7.00	0.00		High Grade Fe 65 - 65.5%	1.25	0.00
1% Alumina	Low Grade Fe	16.00	2.00	1% Alumina	High Fe Grade Al <2.25%	1.00	0.25
	High Fe Grade Al <2.25%	4.00	0.00		High Fe Grade Al 2.25-4%	2.75	-0.50
	High Fe Grade Al 2.25-4%	32.00	0.00		High Fe Grade Si <4%	1.00	0.25
	Low Fe Grade Al <2.25%	2.00	0.00		High Fe Grade Si 4 - 6.5%	1.50	-0.25
1% Silica	Low Fe Grade Al 2.25-4%	36.00	10.00	1% Silica	High Fe Grade Si <4%	1.00	0.25
	High Fe Grade Si <4%	4.00	0.00		High Fe Grade Si 4 - 6.5%	1.50	-0.25
	High Fe Grade Si 4-6.5%	11.00	-1.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	0.00	0.00
0.01% Phosphorus	Low Fe Grade	19.00	2.00		High Fe Grade 0.115%<P<0.15%	2.25	0.00
	High Fe Grade 0.09%<P<0.115%	5.00	-2.00				
	High Fe Grade 0.115%<P<0.15%	0.00	0.00				
	Low Fe Grade 0.09<P<0.1%	0.00	0.00				

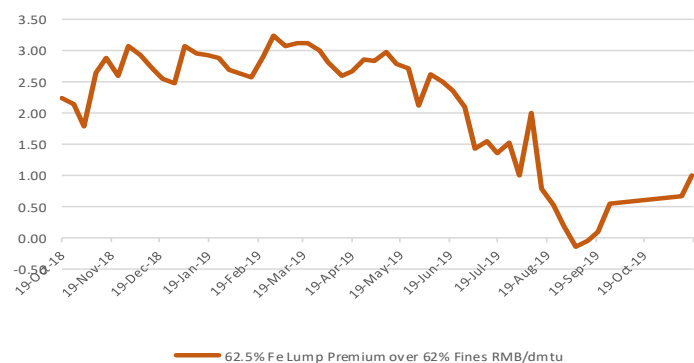
Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

Port	Value	Change	Port	Value	Change	Port	Value	Change	Port	Value	Change
Bayuquan	-50.00	0.00	Fangcheng	-5.00	0.00	Lanshan	0.00	0.00	Qingdao	0.00	0.00
Beilun	5.00	0.00	Jiangyin	-30.00	-10.00	Lianyungang	0.00	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	-50.00	0.00	Lanqiao	0.00	0.00	Nantong	-10.00	0.00	Tianjin	-20.00	5.00

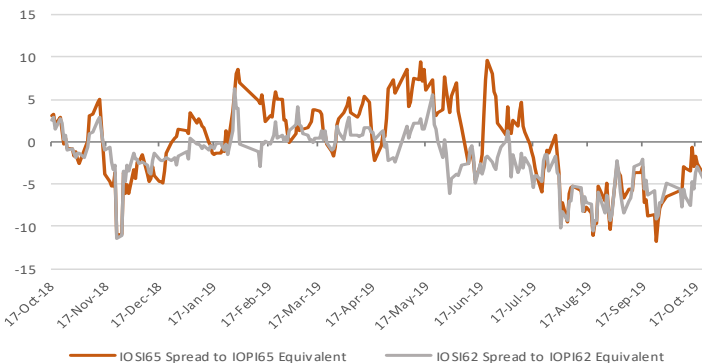
IRON ORE INDEX PREMIUMS/DISCOUNTS



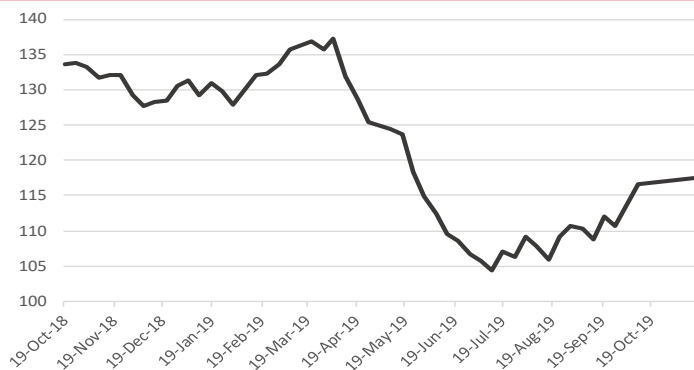
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



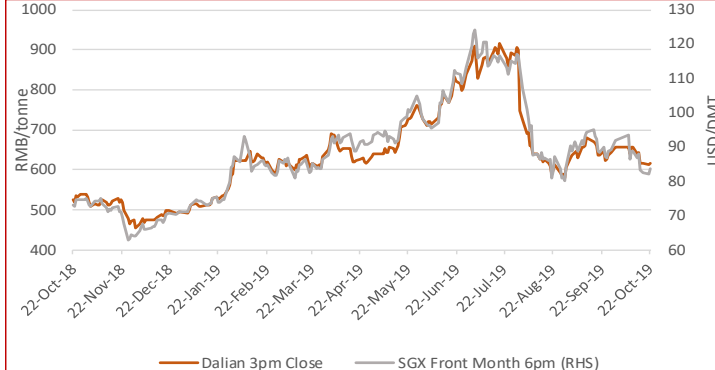
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



IRON ORE PORT INVENTORIES (MILLION TONNES)

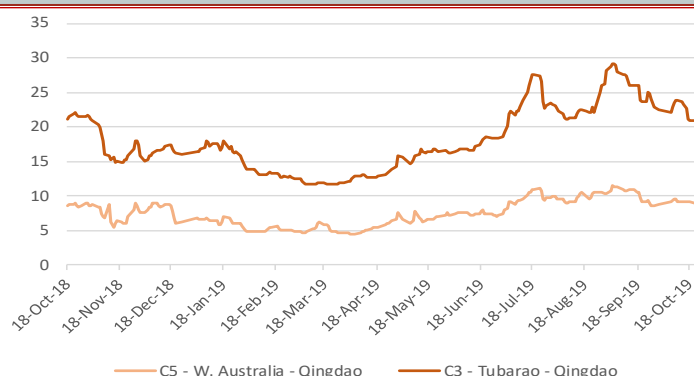
Week Ending October 18th, 2019

Province	This week	Change %	Low ²	High ²
Jingtang	16.68	10.03%	10.80	16.68
Qingdao	13.50	-3.30%	12.38	19.01
Caofeidian	16.72	0.00%	14.32	19.96
Tianjin	7.40	1.79%	6.37	10.05
Rizhao	13.66	4.75%	11.41	17.10
Total (35 Ports)	117.51	0.75%	104.40	137.30

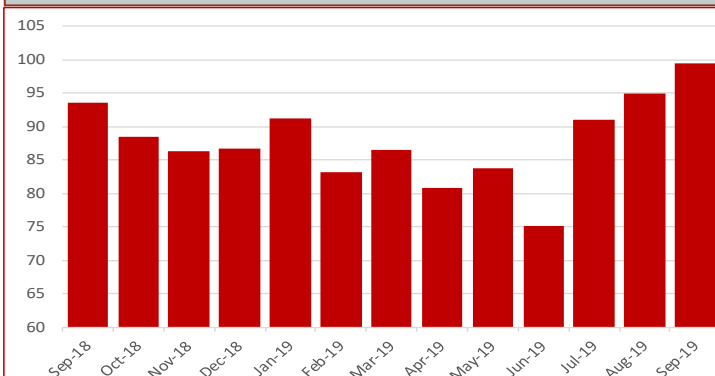
IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	Oct 22nd 3pm close			Oct 22nd 5.30 pm		
Contract	I2001	Change	Change %	Nov'19	Change	Change %
Closing Price	616.00	4.5	0.74%	83.58	1.34	1.63%
Vol traded ('000 lots)	194.59	-15.7	-7.48%	20.18	10.57	110.03%
Open positions ('000 lots)	169.72	0.5	0.31%	130.33	-3.91	-2.91%
Day Low	607.5	3.5	0.58%	82.50	1.10	1.35%
Day High	619.0	-0.5	-0.08%	83.77	0.84	1.01%

DRY BULK FREIGHT RATES (USD/MT)



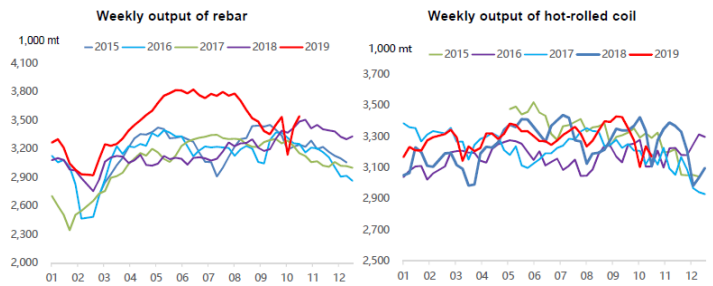
TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)



STEEL SPOT MARKET PRICES—CHINA

Steel Spot Market RMB/tonne

Product	18/10/2019	Change	Change %
ReBar HRB400 ϕ 18mm	3,670.0	-70	-1.87%
Wirerod Q300 ϕ 6.5mm	4,040.0	-60	-1.46%
HRC Q235/SS400 5.5mm*1500*C	3,510.0	-60	-1.68%
CRC SPPC/ST12 1.0mm*1250*2500	4,240.0	-30	-0.70%
Medium & Heavy Plate Q235B 20mm	3,700.0	-60	-1.60%
GI ST02Z 1.0mm*1000*C	4,430.0	-60	-1.34%
Colour Coated Plate	6,900.0	50	0.73%



CHINESE STEEL MILL PROFITABILITY

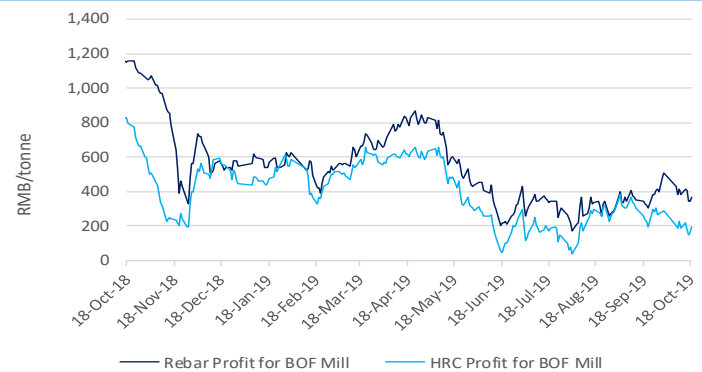
SMM Tracking of Steel Mill P&L - Rebar and Hot-rolled Coil (RMB/tonne)

Category	Price	Change (WoW)	Note
MMI (Fe 62%), USD/mt excluding tax	89.50	-4.10	Mmi CFR Equivalent index for 1st Feb
Coke	1,910	0	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	2,280	-100	steel scrap (6mm) in Zhangjiagang, exl. tax
Billet Cost	3,011	-72	Q234, incl. tax
Rebar cost - Blast furnace	3,250	-73	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	370	-17	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	3,327	-72	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	193	-8	based on Shanghai prices, incl. tax

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

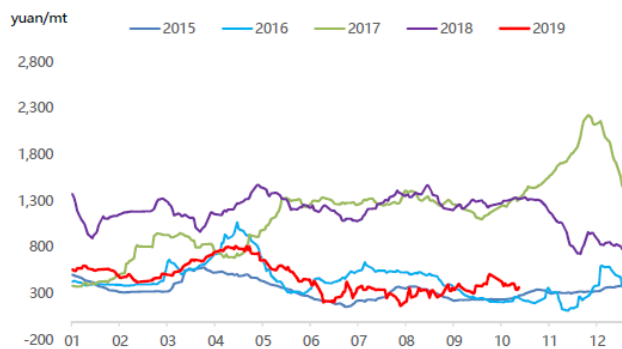
2. The cost refers to average cost in the industry based on SMM's survey of small, medium and large mills in China

CHINESE STEEL MILL PROFITABILITY

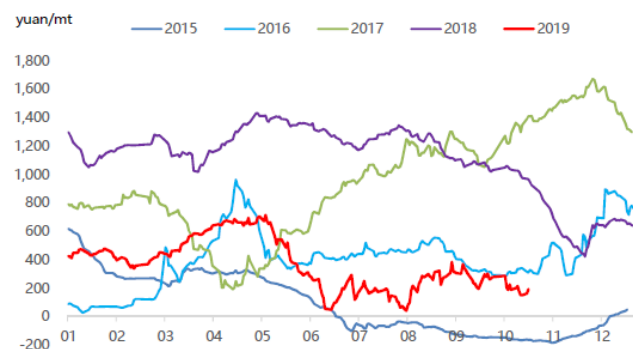


CHINESE STEEL MILL PROFITABILITY

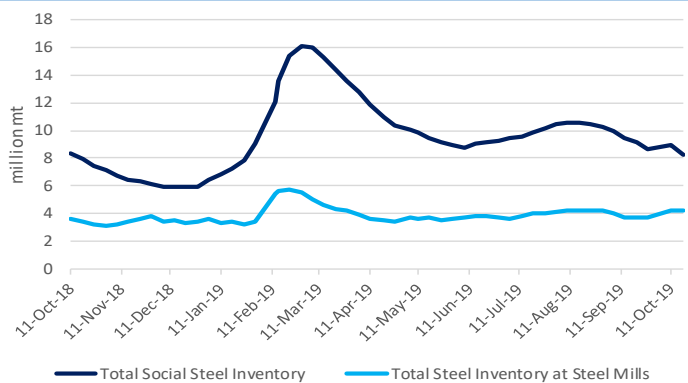
Rebar profits



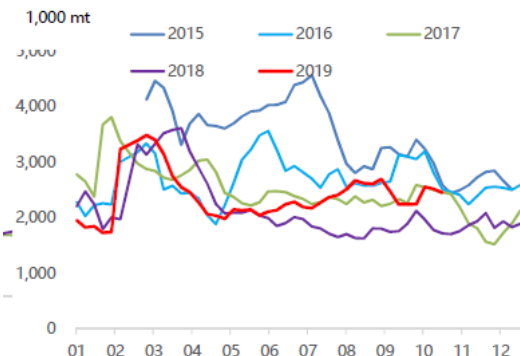
Hot-rolled coil profits



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					
October 22nd 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	61.54%	2.40%	3.68%	0.097%	9.57%	PB Fines 62%	62.00%	2.60%	4.30%	0.090%	10.00%
Newman Fines	62.50%	2.19%	4.13%	0.092%	7.75%	Newman Fines	62.80%	2.20%	4.30%	0.080%	6.40%
MAC Fines	60.88%	2.25%	4.62%	0.080%	7.61%	MAC Fines	61.00%	2.70%	4.70%	0.110%	9.30%
Jimblebar Blended Fines	60.50%	3.04%	4.59%	0.118%	7.65%	Jimblebar Blended Fines	59.50%	3.70%	5.80%	0.135%	8.30%
Carajas Fines	65.45%	1.29%	1.34%	0.078%	8.20%	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	62.92%	1.54%	4.60%	0.069%	8.39%	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%
October 22nd 2019	Specifications applied for 58% brand assessments										
	Fe	Alumina	Silica	Phos	Moisture						
SSF	56.56%	3.05%	6.25%	0.051%	8.12%						
FMG Blended Fines	58.17%	2.65%	5.43%	0.056%	7.91%						
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	57.25%	1.56%	6.36%	0.041%	8.99%						

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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