



## MMi Dashboard

## Iron Ore Price Indices

Iron Ore Port Stock (FOT Qingdao) IOPI62 62% Fe Fines RMB/t	
	<b>917</b>
	-1 -0.11%
July 23rd, 2019	

Iron Ore Port Stock (FOT Qingdao) IOPI65 65% Fe Fines RMB/t	
	<b>989</b>
	4 0.41%
July 23rd, 2019	

Iron Port Stock (FOT Qingdao) IOPI58 58% Fe Fines RMB/t	
	<b>822</b>
	5 0.61%
July 23rd, 2019	

Iron Ore Seaborne (CFR Qingdao) IOSI62 62% Fe Fines USD/dmt	
	<b>119.60</b>
	-1.00 -0.83%
July 23rd, 2019	

Iron Ore Seaborne (CFR Qingdao) IOSI65 65% Fe Fines USD/dmt	
	<b>128.40</b>
	-1.40 -1.08%
July 23rd, 2019	

Iron Ore Port Stock (FOT Qingdao) IOPLI 62.5% Fe Lump RMB/t	
	<b>1049</b>
	3 0.29%
Week Ending July 19th, 2019	

## Exchange Traded Contracts

DCE Iron Ore 62% Fines I1909 (Sept) RMB/t	
	<b>880.00</b>
	-5.00 -0.56%
July 23rd, 2019 (3pm close)	

SGX Iron Ore (CFR Qingdao) 62% Fe Fines August'19 USD/dmt	
	<b>113.27</b>
	-0.78 -0.68%
July 23rd, 2019 (6.00 pm Print)	

SHFE Rebar RB1910 (Oct) RMB/t	
	<b>3941</b>
	-7.00 -0.18%
July 23rd, 2019 (3pm close)	

## Freight Rates

C3, Tubarao - Qingdao USD/t	
	<b>27.31</b>
	-0.21 -0.76%
July 22nd, 2019	

C5, W. Australia - Qingdao USD/t	
	<b>11.15</b>
	0.24 2.25%
July 22nd, 2019	

Steel Rebar (China Domestic) RMB/t	
	<b>4045</b>
	55 1.38%
Week Ending July 19th, 2019	

## Inventory Levels

Iron Ore Inventory at Chinese Ports (35) million tonnes	
	<b>107.10</b>
	2.70 2.59%
Week Ending July 19th, 2019	

Steel Inventory in China million tonnes	
	<b>13.84</b>
	0.41 3.02%
Week Ending July 19th, 2019	

Steel HRC (China Domestic) RMB/t	
	<b>3896</b>
	46 1.19%
Week Ending July 19th, 2019	

## IRON ORE PORT STOCK INDEX (IOPI)

July 23rd, 2019		FOT Qingdao (inc. 13% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne <sup>1</sup>						
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low <sup>2</sup>	High <sup>2</sup>	Price	Change	Change %	MTD	YTD	Low <sup>2</sup>	High <sup>2</sup>
IOPI62	62% Fe Fines	917	-1	-0.1%	915	711	483	928	124.26	-0.25	-0.2%	124.12	95.67	62.54	126.12
IOPI58	58% Fe Fines	822	5	0.6%	807	618	347	823	112.20	0.61	0.5%	110.18	83.19	43.55	112.44
IOPI65	65% Fe Fines	989	4	0.4%	957	786	644	992	134.32	0.44	0.3%	130.04	106.24	85.30	135.34

## IRON ORE SEABORNE INDEX (IOSI)

## MARKET COMMENTARY

July 23rd, 2019		CFR Qingdao, USD/dry tonne							Arrivals of seaborne iron ore at Chinese ports declined last week, after two consecutive weeks of gains. SMM estimates that 87 vessels carrying 11.53 million mt of iron ore arrived at major Chinese ports in the week ended July 20, down 5.99 million mt from the week to July 13. Volumes that arrived at Tangshan's two ports sharply decreased last week, and are unlikely to pick up in the near term. For the same week, iron ore deliveries departing Australian ports fell 840,000 mt from the prior week to 13.34 million mt. Shipments that left Brazilian ports expanded 360,000 mt to 6.05 million mt, reflecting a recovery in shipments and output from Brazil. Brazil's Vale said on Monday July 22 that it sold 138 million mt of iron ore and pellets in the first half of 2019, and reaffirmed its revised full-year sales outlook for such materials at 307-332 million mt.
Index	Fe Content	Price	Change	Change %	MTD	YTD	Low <sup>3</sup>	High <sup>3</sup>	
IOSI62	62% Fe Fines	119.60	-1.00	-0.83%	121.60	95.11	62.95	127.50	
IOSI65	65% Fe Fines	128.40	-1.40	-1.08%	130.54	108.76	83.20	137.95	

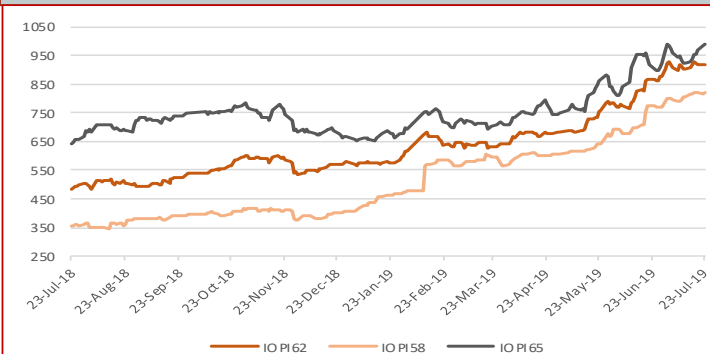
## IRON ORE PORT LUMP INDEX (IOPLI)

Week Ending July 19th, 2019		FOT Qingdao (inc. 16% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 16% VAT), USD/dry tonne <sup>4</sup>						
Index	Fe Content	Price	W-o-W	Change %	MTD	YTD	Low <sup>3</sup>	High <sup>3</sup>	Price	W-o-W	Change %	MTD	YTD	Low <sup>3</sup>	High <sup>3</sup>
IOPLI62	62.5% Fe Lump	1049	3	0.3%	1049	900	613	1051	133.41	0.51	0.38%	133.37	115.30	77.55	133.81

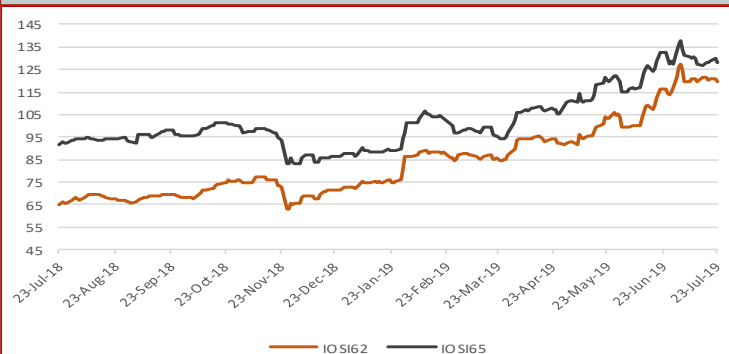
## IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

Week Ending July 19th, 2019				RMB/tonne (excluding tax) <sup>4</sup>				USD/tonne (excluding tax) <sup>4</sup>			
Province	Region	Product	Basis	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>
Hebei	Hanxing	66% Fe Concentrate	Dry	1019	-1.3%	601	1032	148.28	-1.17%	91.97	150.03
Hebei	Qian'an	65% Fe Concentrate	Dry	950	2.7%	680	950	138.24	2.80%	100.26	138.24
Liaoning	Anshan	65% Fe Concentrate	Wet	705	0.0%	465	745	102.59	0.09%	68.21	102.59
Shandong	Zibo	65% Fe Concentrate	Dry	1040	3.0%	660	1040	151.33	3.07%	99.75	151.33
Week Ending July 19th, 2019				This week	Change %	Low <sup>2</sup>	High <sup>2</sup>	<sup>1</sup> Exchange rate applied: RMB/USD = 6.8818 <sup>2</sup> Last 12 months <sup>3</sup> Since June 1 <sup>4</sup> Weekly exchange rate applied: RMB/USD 6.8722			
China Mines Concentrate Composite Index RMB/WT				850.71	1.9%	552.82	850.71				

## 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 23rd, 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	915	915	711	87.09	85.37	98.40	111.42	124.12	124.12	95.67
IOPI58	58% Fe Fines	583	600	637	726	807	807	618	75.22	77.49	86.39	98.60	110.18	110.18	83.19
IOPI65	65% Fe Fines	714	753	812	901	957	957	786	98.08	95.78	110.00	121.97	130.04	130.04	106.24

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

## FREIGHT RATES

July 23rd, 2019		CFR Qingdao, USD/dry tonne							FREIGHT RATES - DRY BULK US\$/wet tonne						
Index	Fe Content	March	April	May	June	MTD	QTD	YTD	Route	Designation	Change	Change %	Low <sup>2</sup>	High <sup>2</sup>	
IOSI62	62% Fe Fines	86.18	93.42	98.68	108.57	121.60	121.60	95.11	W. Australia - Qingdao	C5	11.15	0.24	2.25%	4.39	10.90
IOSI65	65% Fe Fines	97.22	106.75	115.53	124.49	130.54	130.54	108.76	Tubarao - Qingdao	C3	27.31	-0.21	-0.76%	11.61	27.52

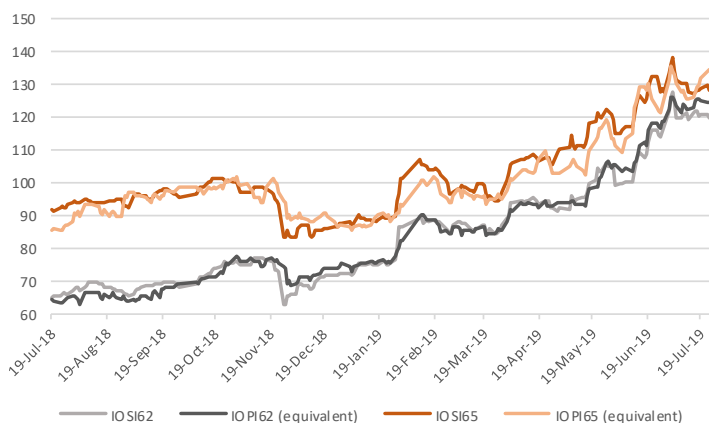
## IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

Week Ending July 19th, 2019		FOT Qingdao (inc. 16% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 16% VAT), USD/dry tonne <sup>1</sup>						
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	1049	1049	900	99.57	111.03	117.12	128.00	133.37	133.37	115.30

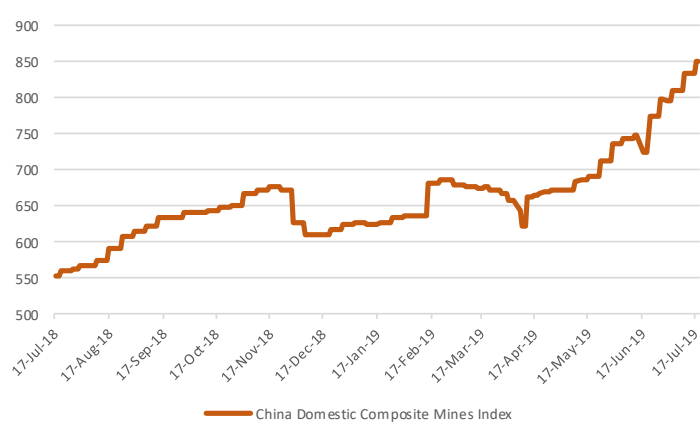
## IRON ORE INDEX PREMIUMS/DISCOUNTS

July 23rd, 2019		PORT STOCK INDEX (RMB/WT)		July 23rd, 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	-95	-10.36%	IOSI65	65% Fe Fines	8.80	7.36%
IOPI65	65% Fe Fines	72	7.85%				

## IRON ORE INDEX COMPARISONS (USD/DMT)



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



## IRON ORE BRAND SPOT PRICE ASSESSMENTS

July 23rd, 2019				July 23rd, 2019			
PORT STOCK INDEX (RMB/WT)				SEABORNE INDEX (USD/DMT)			
	Price	Change	Diff to IOPI62		Price	Change	Diff to IOSI62
Roy Hill	867	-3	-50	Roy Hill	116.55	-1.00	-3.05
SIMEC Fines	802	-8	-115	SIMEC Fines	114.27	-1.00	-5.33
PB Fines	899	-1	-18	PB Fines	118.67	-1.00	-0.93
Newman Fines	923	0	6	Newman Fines	120.85	-1.00	1.25
MAC Fines	881	-3	-36	MAC Fines	114.42	-0.50	-5.18
Jimblebar Blended Fines	865	-3	-52	Jimblebar Blended Fines	106.47	0.12	-13.13
Carajas Fines	998	4	81	Carajas Fines	128.40	-1.00	8.80
Brazilian SSF	832	-9	-85	Brazilian SSF	119.60	-1.00	0.00
Brazilian Blend Fines	895	-4	-22	Brazilian Blend Fines	120.85	-1.00	1.25
RTX Fines	868	-2	-49	RTX Fines	111.27	0.12	-8.33
West Pilbara Fines	864	-3	-53	West Pilbara Fines	115.65	-1.00	-3.95

July 23rd, 2019			
PORT STOCK INDEX (RMB/WT)			
	Price	Change	Diff to IOPI58
SSF	763	4	-59
FMG Blended Fines	825	5	3
Robe River	758	5	-64
Western Fines	797	5	-25
Atlas Fines	779	5	-43
Yandi	850	5	28

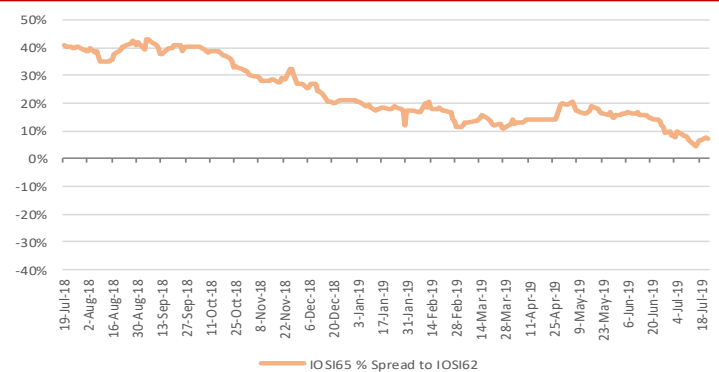
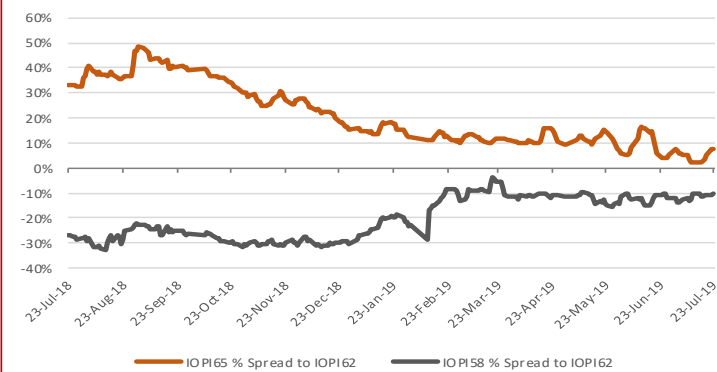
## IRON ORE INDEX NORMALISATION DIFFERENTIALS

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	0.00	1% Fe	High Grade Fe 60 - 63%	1.75	0.00
	High Grade Fe 63 - 64%	15.00	0.00		High Grade Fe 63 - 64%	2.00	0.00
	High Grade Fe 64 - 65%	15.00	0.00		High Grade Fe 64 - 65%	2.00	0.00
	High Grade Fe 65 - 65.5%	15.00	0.00		High Grade Fe 65 - 65.5%	2.00	0.00
	Low Grade Fe	19.00	0.00	1% Alumina	High Fe Grade Al <2.25%	1.50	0.00
1% Alumina	High Fe Grade Al <2.25%	22.00	0.00		High Fe Grade Al 2.25-4%	2.00	0.00
	High Fe Grade Al 2.25-4%	9.00	0.00		High Fe Grade Si <4%	0.75	0.00
	Low Fe Grade Al <2.25%	57.00	0.00		High Fe Grade Si 4 - 6.5%	0.75	0.00
	Low Fe Grade Al 2.25-4%	43.00	0.00	0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	1.00	-0.25
1% Silica	High Fe Grade Si <4%	7.00	2.00		High Fe Grade 0.115%<P<0.15%	1.00	-0.25
	High Fe Grade Si 4-6.5%	52.00	3.00				
	Low Fe Grade	5.00	0.00				
0.01% Phosphorus	High Fe Grade 0.09%<P<0.115%	1.00	0.00				
	High Fe Grade 0.115%<P<0.15%	6.00	0.00				
	Low Fe Grade 0.09%<P<0.15%	1.00	0.00				

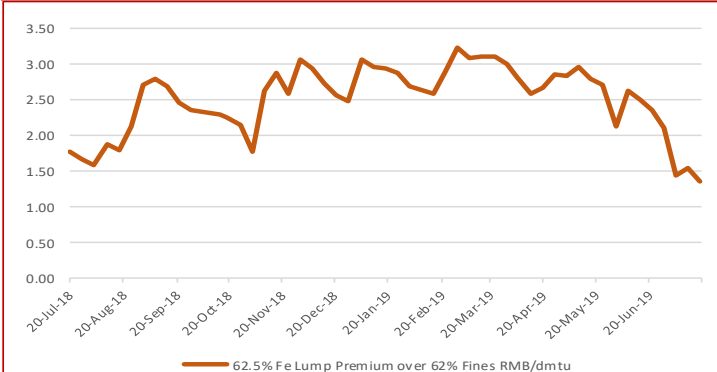
## Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

Port	Value	Change	Port	Value	Change	Port	Value	Change	Port	Value	Change
Bayuquan	-15.00	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	-15.00	0.00	Jingtang	-15.00	0.00	Majishan	0.00	0.00	Shekou	0.00	0.00
Dalian	-15.00	0.00	Lanqiao	0.00	0.00	Nantong	-20.00	0.00	Tianjin	0.00	0.00

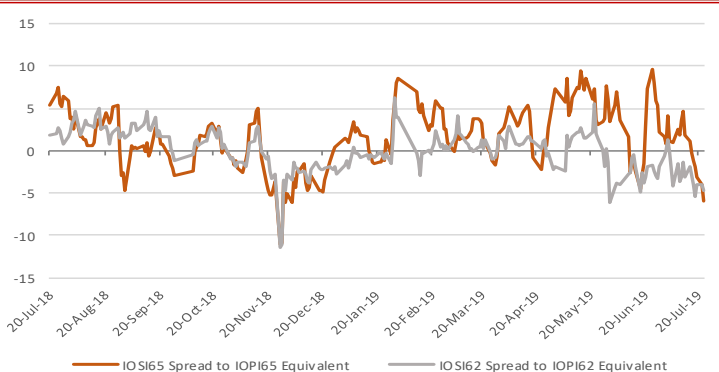
## IRON ORE INDEX PREMIUMS/DISCOUNTS



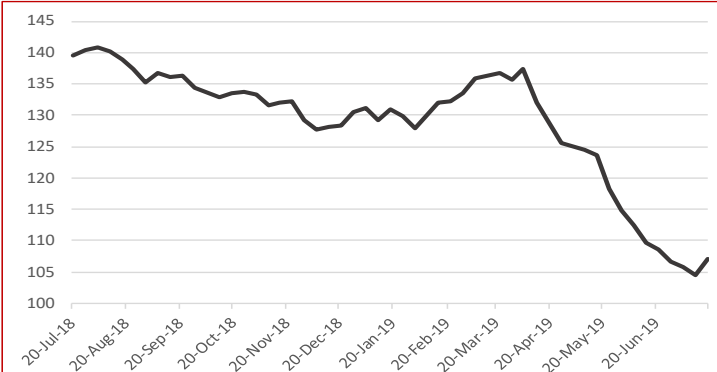
## WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



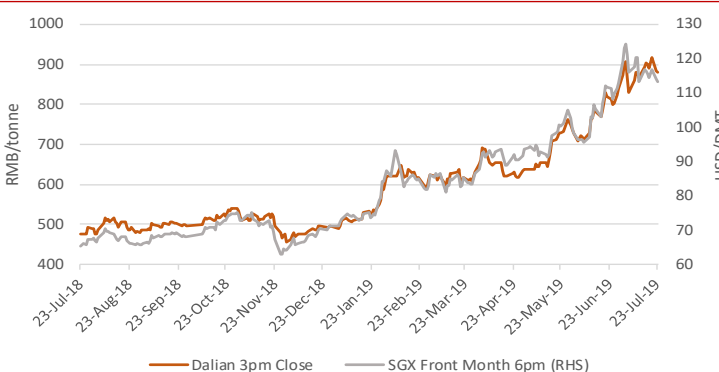
## IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



## TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



## FUTURE TRADING—FRONT MONTH CLOSING PRICE



## IRON ORE PORT INVENTORIES (MILLION TONNES)

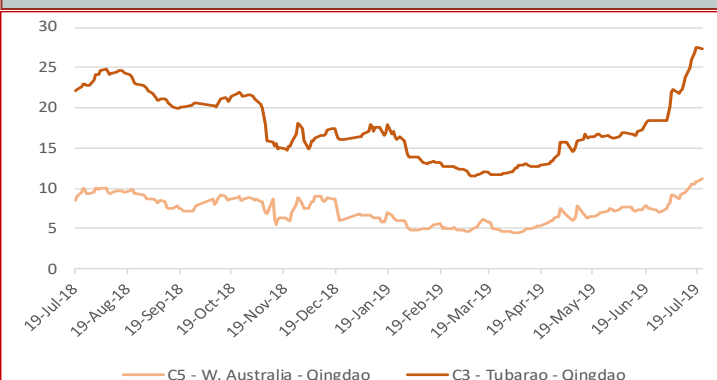
Week Ending July 19th, 2019

Province	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>
Jingtang	11.52	6.67%	10.80	17.20
Qingdao	12.87	-3.74%	12.87	19.01
Caofeidian	14.95	1.91%	14.48	20.10
Tianjin	6.55	0.61%	6.51	10.48
Rizhao	12.38	5.99%	11.65	18.08
Total (35 Ports)	107.10	2.59%	104.40	140.74

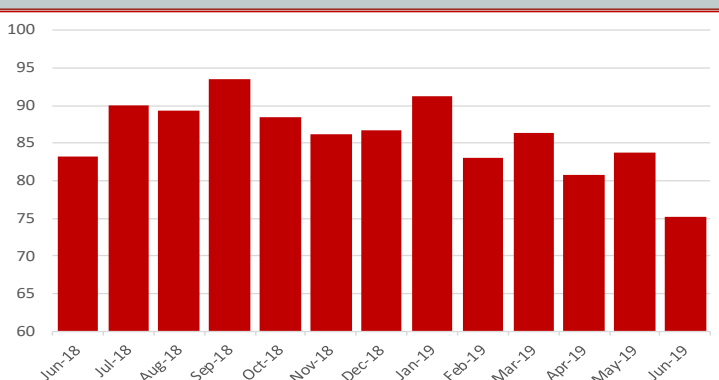
## IRON ORE FUTURES CONTRACTS

Closing Date	DCE (RMB/WMT)			SGX (USD/DMT)		
	July 23rd 3pm close			July 23rd Feb 5:30 pm		
Contract	I1909	Change	Change %	Aug'19	Change	Change %
Closing Price	880.00	-5.0	-0.56%	113.27	-0.78	-0.68%
Vol traded ('000 lots)	83.46	-16.5	-16.53%	12.70	2.39	23.17%
Open positions ('000 lots)	118.21	-5.6	-4.51%	144.80	-2.22	-1.51%
Day Low	874.0	-11.0	-1.24%	113.00	-0.57	-0.50%
Day High	894.0	-17.5	-1.92%	115.00	0.13	0.11%

## 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	19/7/2019	Change	Change %
ReBar HRB400 $\phi$ 18mm	4,045.0	55	1.38%
Wirerod Q300 $\phi$ 6.5mm	4,240.0	0	0.00%
HRC Q235/SS400 5.5mm*1500*C	3,896.0	46	1.19%
CRC SPPC/ST12 1.0mm*1250*2500	4,203.0	3	0.07%
Medium & Heavy Plate Q235B 20mm	3,946.0	16	0.41%
GI ST02Z 1.0mm*1000*C	4,560.0	0	0.00%
Colour Coated Plate	6,900.0	0	0.00%

## CHINESE STEEL MILL PROFITABILITY

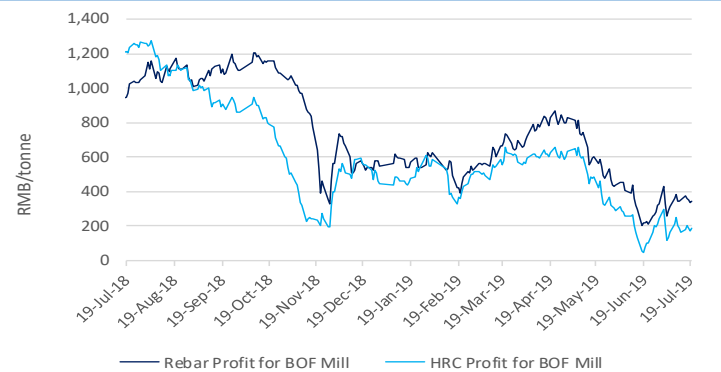
## SMM Tracking of Steel Mill P&amp;L - Rebar and Hot-rolled Coil (RMB/tonne)

Category	Price	Change (WoW)	Note
MMI (Fe 62%), USD/mt excluding tax	120.25	-0.90	Mmi CFR Equivalent index for 1st Feb
Coke	1,910	0	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	2,370	40	steel scrap (6mm) in Zhangjiagang, exl. tax
Billet Cost	3,376	-5	Q234, incl. tax
Rebar cost - Blast furnace	3,627	-4	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	343	-6	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	3,692	-5	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	188	25	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.

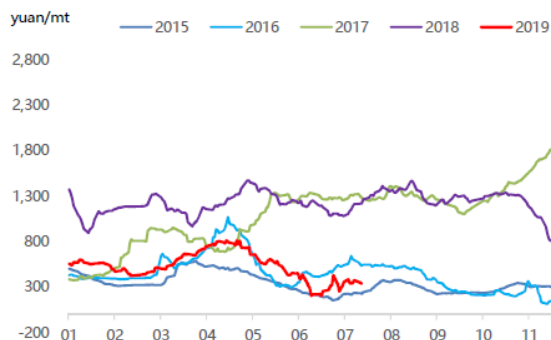
2. The cost refers to average cost in the industry based on SMM's survey of small, medium and large mills in China

## CHINESE STEEL MILL PROFITABILITY

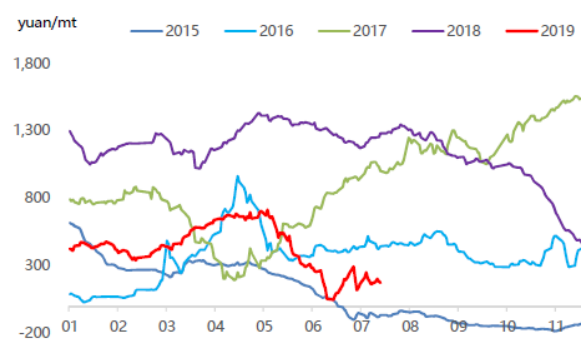


## CHINESE STEEL MILL PROFITABILITY

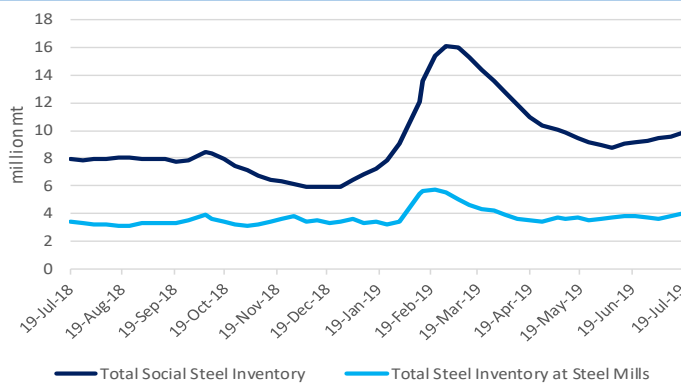
## Rebar profits



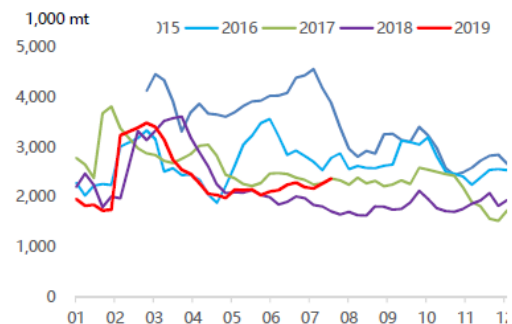
## Hot-rolled coil profits



## 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	
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					
July 23rd, 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	61.50%	2.35%	3.87%	0.101%	9.41%	PB Fines 62%	62.00%	2.60%	4.30%	0.090%	10.00%
Newman Fines	62.56%	2.26%	3.98%	0.084%	7.79%	Newman Fines	62.80%	2.20%	4.30%	0.080%	6.40%
MAC Fines	60.87%	2.24%	4.66%	0.081%	7.55%	MAC Fines	61.00%	2.70%	4.70%	0.110%	9.30%
Jimblebar Blended Fines	60.83%	3.01%	4.41%	0.114%	7.35%	Jimblebar Blended Fines	59.50%	3.70%	5.80%	0.135%	8.30%
Carajas Fines	65.60%	1.23%	1.43%	0.068%	8.42%	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	62.85%	1.45%	4.81%	0.073%	8.28%	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 23rd, 2019	Specifications applied for 58% brand assessments										
	Fe	Alumina	Silica	Phos	Moisture						
SSF	56.72%	3.06%	6.28%	0.058%	8.46%						
FMG Blended Fines	58.19%	2.60%	5.47%	0.062%	7.45%						
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	57.43%	1.53%	6.23%	0.040%	8.80%						

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

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