

# Daily Iron Ore Index Report

July 13, 2018

## IRON ORE PORT STOCK INDEX (IOPI)

July 13 2018		FOT Qingdao (inc. 16% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 16% 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	472	1	0.2%	473	477	443	559	62.35	0.14	0.2%	62.72	65.57	61.36	77.89
IOPI58	58% Fe Fines	344	-5	-1.4%	343	329	304	376	44.38	-0.70	-1.6%	44.42	43.88	40.67	50.97
IOPI65	65% Fe Fines	627	1	0.2%	623	593	541	690	84.12	0.14	0.2%	83.98	82.55	75.83	97.10

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

Week Ending July 6, 2018				RMB/tonne (excluding tax)				USD/tonne (excluding tax) <sup>3</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	605	1.3%	579	682	91.18	0.1%	87.26	102.78
Hebei	Qian'an	65% Fe Concentrate	Dry	655	0.0%	630	710	98.71	-1.2%	94.95	107.00
Liaoning	Anshan	65% Fe Concentrate	Wet	485	-2.0%	445	550	73.09	-3.2%	67.07	82.89
Shandong	Zibo	65% Fe Concentrate	Dry	660	0.0%	620	690	99.47	-1.2%	93.44	103.99
Week Ending July 6, 2018				This week	Change %	Low <sup>4</sup>	High <sup>4</sup>	<sup>1</sup> Exchange rate applied: RMB/USD = 6.6727 <sup>2</sup> Since March 1 <sup>3</sup> Weekly exchange rate applied: RMB/USD 6.6353 <sup>4</sup> Last 12 months			
China Mines Concentrate Composite Index RMB/WT				552.39	-0.2%	534.50	628.33				

## MARKET COMMENTARY

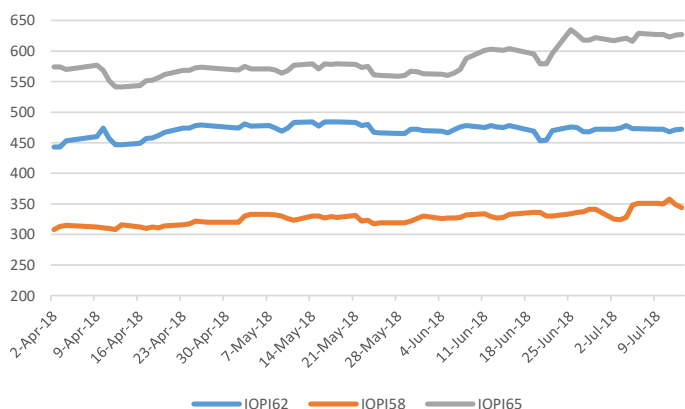
Iron ore port stock inventories across 35 ports shrank 380,000 mt, from a week ago, to 140.15 million mt. Daily average deliveries from ports fell 50,000 mt to 2.56 million mt. Volumes departing Tangshan ports continued to stand at high levels as details of output cuts remained undetermined. Following the Tangshan government's announcement of a shutdown all sintering machines and shaft furnaces in the Lunan, Lubei, Kaiping, Fengnan, Guye, Fengrun districts as well as Luan county, the iron ore port stock market ended the week on a lacklustre note.

## PLATFORM TRADES AND TENDERS

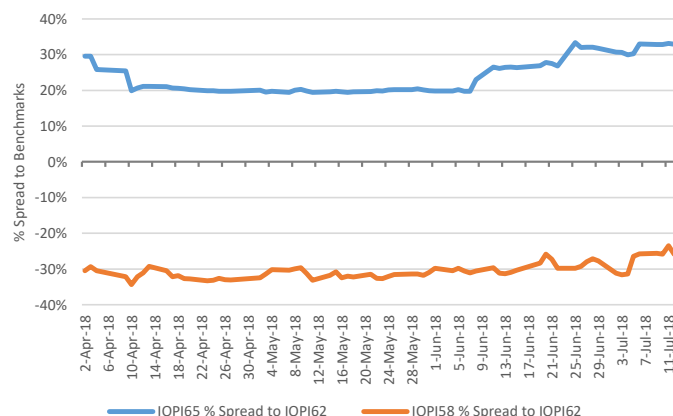
## IRON ORE HIGH/LOW GRADE PREMIUM/DISCOUNT

July 13 2018		PORT STOCK INDEX (RMB/WT)	
Fe Content		Spread to IOPI62	% Spread to IOPI62
58% Fe Fines		-128	-27.12%
65% Fe Fines		155	32.84%

## IRON ORE PORT INDEX, FOT QINGDAO (RMB/WT)



## IRON ORE HIGH/LOW GRADE PREMIUM/DISCOUNT



## IRON ORE FUTURES CONTRACTS

Closing Date	DCE			SGX		
	13 July 3pm close			13 July 6pm		
Contract	I1809	Change	Change %	Aug'18	Change	Change %
Closing Price	463.0	-0.5	-0.11%	63.39	-0.26	-0.41%
Vol traded ('000 lots)	793.8	-722.2	-47.64%	6.87	2.86	71.45%
Open positions ('000 lots)	906.4	-191.1	-17.42%	89.54	-0.34	-0.37%
Day Low	462.0	9.5	2.10%	63.38	1.18	1.90%
Day High	466.5	1.5	0.32%	63.89	0.14	0.22%

## IRON ORE PORT INVENTORIES

Week Ending July 13, 2018 (million tonnes)				
Province	This week	Change %	Low <sup>4</sup>	High <sup>4</sup>
Jingtang	16.84	-1.23%	14.11	19.00
Qingdao	18.50	-1.23%	15.60	19.97
Caofeidian	19.39	0.36%	16.62	25.30
Tianjin	8.70	1.16%	8.00	11.00
Rizhao	18.43	-1.60%	13.10	19.00
Total (35 Ports)	140.15	-0.57%	123.49	150.04

## FREIGHT RATES

July 12, 2018		FREIGHT RATES - DRY BULK US\$/wet tonne				
Route	Designation	Change	Change %	Low <sup>4</sup>	High <sup>4</sup>	
W. Australia - Qingdao	C5	8.70	0.04	0.47%	4.746	9.98
Tubarao - Qingdao	C3	21.77	0.27	1.25%	11.792	22.536

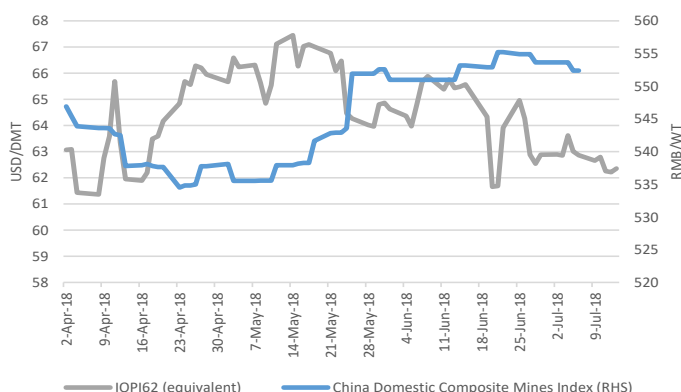
## BLOOMBERG

BLOOMBERG TICKERS		
	FOT Qingdao (RMB/wet tonne)	CFR Qingdao Equivalent (USD/dry tonne)
IOPI62	IRCNQ001	IRCNQ004
IOPI58	IRCNQ002	IRCNQ005
IOPI65	IRCNQ003	IRCNQ006

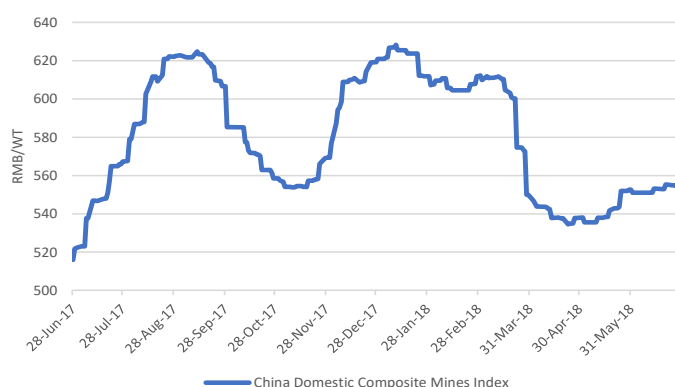
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### MMi BENCHMARK IRON ORE PRICES



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



### IRON ORE BRAND SPOT PRICE ASSESSMENTS

July 13 2018	PORT STOCK INDEX (RMB/WT)		
	Price	Change	Diff to IOPI62
Roy Hill	453	1	-19
SIMEC Fines	440	1	-32
PB Fines	453	0	-19
Newman Fines	481	1	9
MAC Fines	465	1	-7
Jimblebar Blended Fines	422	2	-50
Carajas Fines	641	1	169
Brazilian SSF	511	1	39
Brazilian Blend Fines	506	1	34
RTX Fines	422	1	-50

July 13 2018	PORT STOCK INDEX (RMB/WT)		
	Price	Change	Diff to IOPI58
SSF	282	-5	-62
FMG Blended Fines	335	-5	-9
Robe River	308	-5	-36
Western Fines	286	-7	-58
Atlas Fines	269	-5	-75
Yandi	324	-5	-20

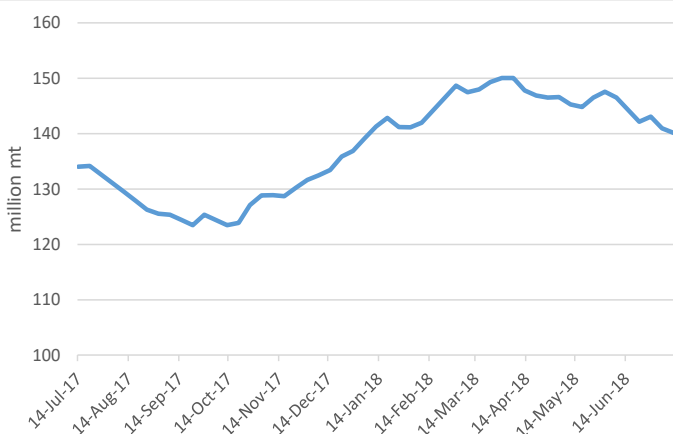
### AVERAGE IRON ORE BRAND SPECIFICATIONS FOR PORT STOCK SALES

July 13 2018	SPECIFICATIONS APPLIED FOR 62% BRAND ASSESSMENTS				
	Fe	Alumina	Silica	Phos	Moisture
Roy Hill	61.00%	2.20%	4.50%	0.055%	8.00%
SIMEC Fines	60.00%	2.30%	6.30%	0.060%	6.00%
PB Fines	61.64%	2.40%	3.56%	0.103%	8.83%
Newman Fines	62.51%	2.40%	4.12%	0.088%	7.53%
MAC Fines	61.46%	2.19%	4.44%	0.087%	7.57%
Jimblebar Blended Fines	61.25%	2.92%	4.29%	0.125%	6.81%
Carajas Fines	65.43%	1.30%	1.91%	0.050%	8.10%
Brazilian SSF	62.00%	1.00%	6.50%	0.040%	6.00%
Brazilian Blend Fines	62.86%	1.38%	5.08%	0.009%	8.50%
RTX Fines	61.00%	3.10%	4.50%	0.135%	7.50%

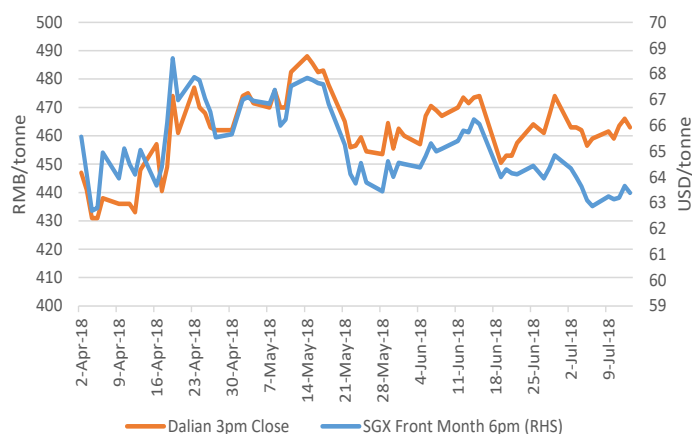
  

July 13 2018	SPECIFICATIONS APPLIED FOR 58% BRAND ASSESSMENTS				
	Fe	Alumina	Silica	Phos	Moisture
SSF	56.58%	3.01%	6.28%	0.060%	9.08%
FMG Blended Fines	58.26%	2.72%	5.81%	0.070%	7.16%
Robe River	56.58%	2.98%	5.52%	0.030%	8.33%
Western Fines	57.61%	2.94%	6.88%	0.070%	7.56%
Atlas Fines	56.59%	2.55%	7.14%	0.080%	8.46%
Yandi	57.19%	1.40%	6.39%	0.040%	8.85%

### TOTAL IRON ORE INVENTORIES AT CHINA PORTS



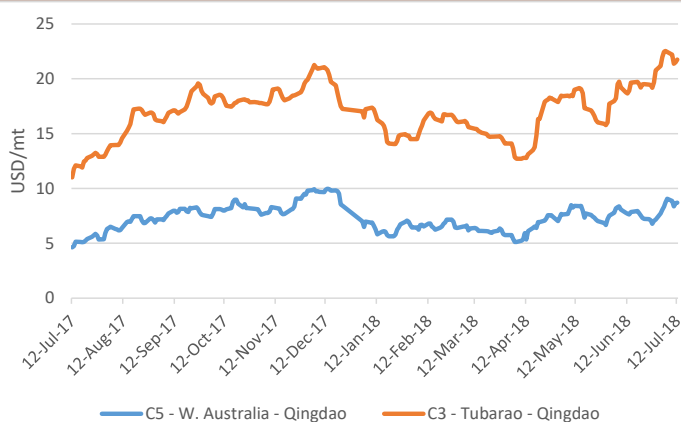
### FUTURE TRADING—FRONT MONTH CLOSING PRICE



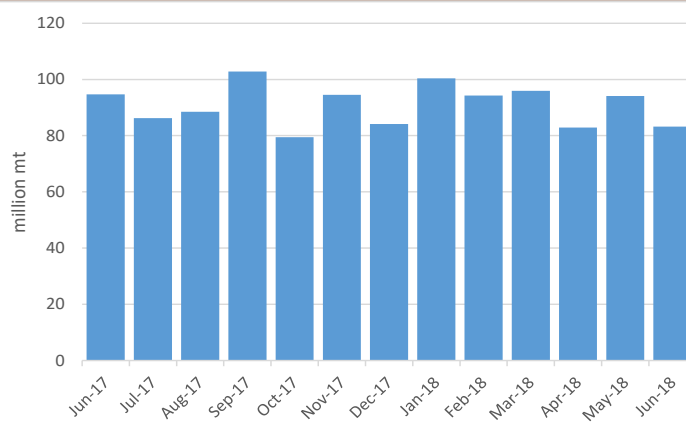
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### DRY BULK FREIGHT RATES



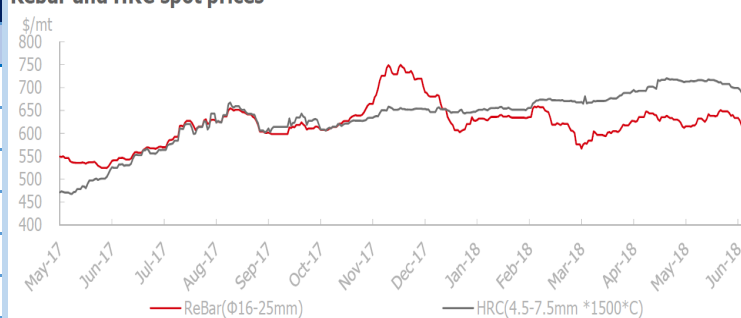
### TOTAL CHINA IRON ORE IMPORT VOLUMES



### Steel Spot Market Prices - China

Product	7/6/2018	Change	Change %
ReBar HRB400 φ18mm	4,015.0	-48.0	-1.18%
Wirerod Q300 φ6.5mm	4,319.0	-49.0	-1.12%
HRC Q235/SS400 5.5mm*1500*C	4,184.0	-80.0	-1.88%
CRC SPCC/ST12 1.0mm*1250*2500	4,660.0	-36.0	-0.77%
Medium & Heavy Plate Q235B 20mm	4,323.0	-53.0	-1.21%
GI ST02Z 1.0mm*1000*C	5,305.0	-30.0	-0.56%
Billet Q235 150*150mm	3,600.0	0.0	0.00%

### Rebar and HRC spot prices



Source: SMM

### CHINESE STEEL EXPORT PRICES

Product	Specification	Export tax (+)/Vate rebate (-)	Change
7/6/2018			
Rebar	BS4449 460B 12-25mm, + chrome	-13%	620 0
Wire Rod	SAE1008 6.5-10mm +chrome	-9%	585 15
Hot-rolled coil	SS400/Q235 4.0-10.0mm	-9%	600 -5
Cold-rolled coil	SPCC 1.0mm	-13%	635 -5
Medium & Heavy plate	A-level Shipe plate 12-25mm	0%	635 0
Galvanised	ST02Z/SGCC 1.0mm	-13%	700 0

Note: Calculation formula for converting export prices of rebar, cold-rolled steel and galvanizing into prices in China's spot market = FOB \* exchange rate \* 1.16 / (1.16 - 0.13); Calculation formula for converting export prices of wire rod and hot-rolled steel into prices in China's spot market = FOB \* exchange rate \* 1.16 / (1.16 - 0.09); Calculation formula for converting export prices of medium-thick plate into prices in China's spot market = FOB \* exchange rate

### CHINESE STEEL INVENTORIES

Steel Inventories <sup>3</sup> (unit: 1000 tonnes)					
Product	7/6/2018	6/29/2018	Change	Change %	
Rebar	4,758	4,835	-77	-1.59%	
Wirerod	1,249	1,326	-77	-5.81%	
Hot-rolled Coil	2,107	2,086	21	1.01%	
Medium & Thick Plate	895	862	33	3.83%	
Cold-rolled Coil	1,204	1,182	22	1.86%	
<b>Total</b>	<b>10,213</b>	<b>10,291</b>	<b>-78</b>	<b>-0.76%</b>	

<sup>3</sup> SMM statistics cover inventories of major steel products in China's major markets: hot-rolled steel inventories in 33 major cities; rebar and wire inventories in 35 major cities; cold-rolled steel and medium-thick plate inventories in 31 major cities.

### 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	62.86	-0.02	MMI index for 22nd June
Coke	2,270	-50	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	2,020	0	steel scrap (6mm) in Zhangjiagang, excl. tax
Billet Cost	2,837	-30	Q234, incl. tax
Rebar cost - Blast furnace	3,100	-30	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	760	-30	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	3,165	-30	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	1,025	-40	based on Shanghai prices, incl. tax

Note: 1. Costs in the table are calculated based on today's market prices and factor 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

IRON ORE INDEX SPECIFICATIONS, COMPILATION RATIONALE AND DATA EXCLUSIONS

Iron Ore Index Specifications (Port)				Iron Ore Index Compilation Rationale and Data Exclusions	
	65% Fe Fines	62% Fe Fines	58% Fe Fines		
Fe %	65.00	62.00	58.00	MMI iron ore port stock 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:  <u>Data Exclusions*</u> Port Index: 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	
Alumina %	1.40	2.25	2.25		
Silica %	1.50	4.00	5.50		
Phosphorus %	0.06	0.09	0.05		
Sulphur %	0.01	0.02	0.02		
Moisture %	8.00	8.00	9.00		
Sizing	Granular size below 10mm for at least 90% of cargo; maximum of 40% below 150 micron				
Pricing Point	Qingdao Port				
Timing (Seaborne)	Loading within 4 weeks, Delivery within 8 weeks				
Payment Terms	L/C at sight				

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.

IRON ORE PORT INDEX NORMALISATION DIFFERENTIALS

Product Differentials (RMB/wet tonne)				Differentials to Qingdao Port (RMB/wet tonne)		
	Applicable range	Value	Change	Port	Value	Change
1% Fe	High Grade Fe 60 - 63%	20.00	0.00	Bayuquan	-10.00	0.00
	High Grade Fe 63 - 64%	35.00	0.00	Beilun	5.00	0.00
	High Grade Fe 64 - 65%	65.00	0.00	Caofeidian	-5.00	0.00
	High Grade Fe 65 - 65.5%	65.00	0.00	Dalian	0.00	0.00
	Low Grade Fe	15.00	0.00	Fangcheng	0.00	0.00
1% Alumina	High Fe Grade Al <2.25%	22.50	0.00	Jiangyin	-30.00	0.00
	High Fe Grade Al 2.25-4%	22.50	0.00	Jingtang	-5.00	0.00
	Low Fe Grade	22.00	0.00	Lanshan	0.00	0.00
1% Silica	High Fe Grade Si <4%	0.00	0.00	Lanqiao	0.00	0.00
	High Fe Grade Si <4 - 6.5%	0.00	0.00	Lianyungang	0.00	0.00
	High Fe Grade Si <6.5 - 9%	23.00	0.00	Majishan	0.00	0.00
	Low Fe Grade	30.00	0.00	Nantong	-30.00	0.00
0.01% Phosphorus	High Fe Grade 0.08%<P<0.115%	3.00	0.00	Qingdao	0.00	0.00
	High Fe grade 0.115%<P<0.15%	3.00	0.00	Rizhao	0.00	0.00
	Low Fe Grade 0.08 < P < 0.15%	3.00	0.00	Tianjin	-20.00	0.00

CONTACT US

MMI Singapore Office Details: Level 28, Manulife Tower, 8 Cross Street Singapore. Tel: + 65 6850 7629 E: [jarek@mmiprices.com](mailto:jarek@mmiprices.com)

SMM Singapore Office Details: Level 28, Manulife Tower, 8 Cross Street Singapore. Tel: + 65 6850 7630 E: [service.en@smm.cn](mailto:service.en@smm.cn)

SMM Shanghai Office Details: 9th FL, Building 9, Lujiazui Software Park, No.20, Lane 91, Pudong, Shanghai Tel: +86 021 5155 0306 E: [service.en@smm.cn](mailto:service.en@smm.cn)

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