

## Daily Iron Ore Index Report

May 29, 2018

### IRON ORE PORT STOCK INDEX (IOPI)

May 29, 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	465	0	0.0%	477	480	443	559	63.96	-0.06	-0.1%	66.07	66.48	61.36	77.89
IOPI58	58% Fe Fines	319	0	0.0%	326	325	304	376	42.59	-0.04	-0.1%	43.86	43.74	40.67	50.97
IOPI65	65% Fe Fines	560	1	0.2%	571	590	541	690	77.87	0.08	0.1%	79.96	82.64	75.83	97.10

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

Week Ending May 25, 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	610	0.5%	579	682	95.58	0.2%	90.72	106.86
Hebei	Qian'an	65% Fe Concentrate	Dry	640	0.8%	630	710	100.28	0.4%	98.71	111.25
Liaoning	Anshan	65% Fe Concentrate	Wet	485	6.6%	445	550	75.99	6.2%	69.73	86.18
Shandong	Zibo	65% Fe Concentrate	Dry	665	1.5%	620	690	104.20	1.2%	97.15	108.11
Week Ending May 25, 2018				This week	Change %	Low <sup>2</sup>	High <sup>2</sup>	<sup>1</sup> Exchange rate applied: RMB/USD = 6.4021 <sup>2</sup> Since March 1 <sup>3</sup> Weekly exchange rate applied: RMB/USD 6.3821			
China Mines Composite Index Price, May 2007 = 100				78.78	1.7%	76.01	89.12				

### MARKET COMMENTARY

Quotes for physical iron ore at the port inched up, though not to the same extent as the DCE futures market. Benefitting from relatively higher profits, steel mills are still in productivity mode, preferring higher grade product. This has led to the difference between Carajas Fines and Super Special Fines rising to 327 yuan/mt from 305 yuan/mt. With the recent tight supply of Carajas Fines, this spread may continue to persist.

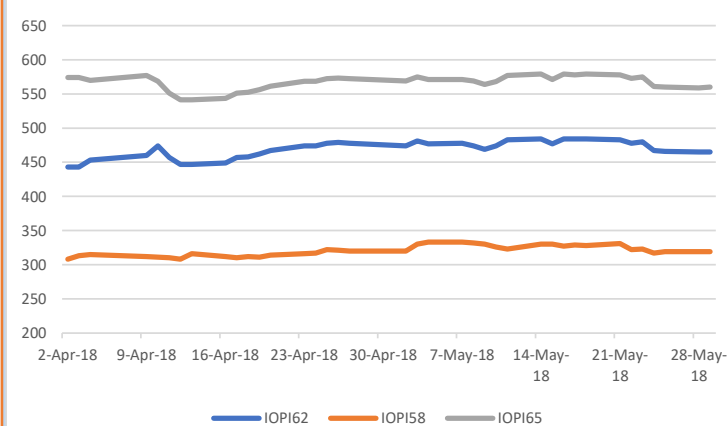
### PLATFORM TRADES AND TENDERS

COREX trades PBF at June index -0.5 for 170,000t for June arrival

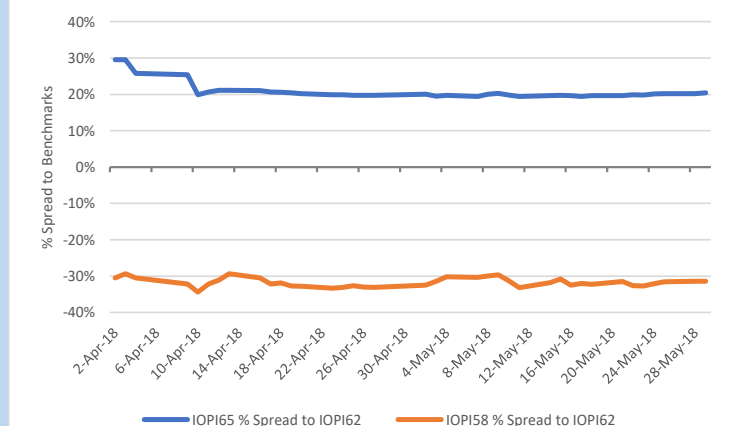
### IRON ORE HIGH/LOW GRADE PREMIUM/DISCOUNT

May 29, 2018	PORT STOCK INDEX (RMB/WT)	
Fe Content	Spread to IOPI62	% Spread to IOPI62
58% Fe Fines	-146	-31.40%
65% Fe Fines	95	20.43%

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



### IRON ORE HIGH/LOW GRADE PREMIUM/DISCOUNT



### IRON ORE FUTURES CONTRACTS

Closing Date	DCE			SGX		
	29 May 3pm close			29 May 6pm		
Contract	I1809	Change	Change %	June '18	Change	Change %
Closing Price	464.5	11.0	2.43%	64.61	1.16	1.83%
Vol traded ('000 lots)	2,443.6	243.8	11.08%	6.96	-2.62	-27.37%
Open positions ('000 lots)	1,779.1	-66.0	-3.58%	111.91	0.94	0.84%
Day Low	455.5	2.5	0.55%	63.59	0.15	0.24%
Day High	467.5	9.0	1.96%	64.86	0.26	0.40%

### IRON ORE PORT INVENTORIES

Province	Week Ending May 25, 2018 (million tonnes)			
	This week	Change %	Low <sup>2</sup>	High <sup>2</sup>
Jingtang	17.35	1.46%	17.10	19.00
Qingdao	19.00	2.70%	16.80	19.97
Caofeidian	20.84	-1.23%	20.84	25.30
Tianjin	10.02	3.30%	9.20	11.00
Rizhao	18.87	0.37%	16.88	19.00
Total (35 Ports)	146.51	1.18%	144.80	150.04

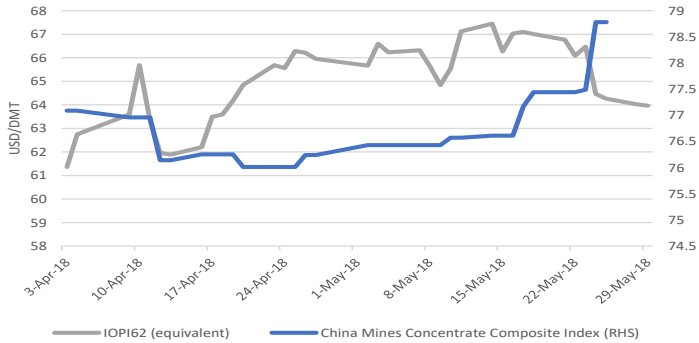
### FREIGHT RATES

May 25, 2018		FREIGHT RATES - DRY BULK US\$/wet tonne				
Route	Designation	Change	Change %	Low <sup>2</sup>	High <sup>2</sup>	
W. Australia - Qingdao	C5	7.02	-0.14	-1.91%	4.383	9.98
Tubarao - Qingdao	C3	16.02	-0.21	-1.32%	10.796	21.273

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MMi BENCHMARK IRON ORE PRICES



CHINA MINES CONCENTRATE COMPOSITE INDEX, BASIS 2007 = 100



IRON ORE BRAND SPOT PRICE ASSESSMENTS

May 29, 2018	PORT STOCK INDEX (RMB/WT)		
	Price	Change	Diff to IOPI62
Roy Hill	451	0	-14
PB Fines	466	0	1
Newman Fines	476	0	11
MAC Fines	455	0	-10
Jimblebar Blended Fines	439	0	-26
Carajas Fines	578	0	113
Brazilian SSF	463	0	-2
Brazilian Blend Fines	465	0	0

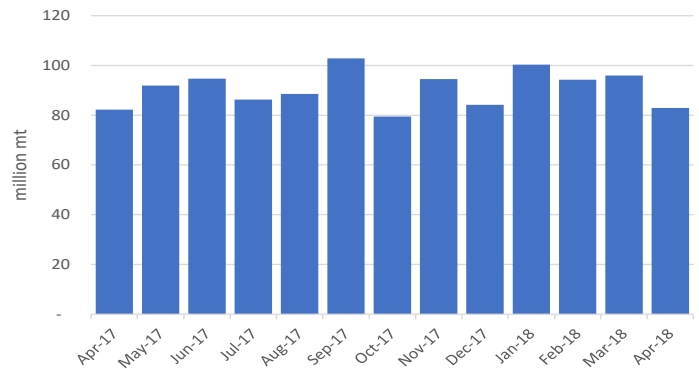
AVERAGE IRON ORE BRAND SPECIFICATIONS FOR PORT STOCK SALES

May 29, 2018	SPECIFICATIONS APPLIED FOR BRAND ASSESSMENTS				
	Fe	Alumina	Silica	Phos	Moisture
Roy Hill	61.00%	2.20%	4.50%	0.055%	8.00%
PB Fines	61.88%	2.19%	3.44%	0.100%	7.85%
Newman Fines	62.95%	2.23%	3.90%	0.050%	7.47%
MAC Fines	61.06%	2.16%	4.56%	0.085%	7.36%
Jimblebar Blended Fines	61.46%	2.70%	4.24%	0.119%	7.41%
Carajas Fines	65.44%	1.35%	1.54%	0.077%	7.79%
Brazilian SSF	62.00%	1.00%	6.50%	0.040%	6.00%
Brazilian Blend Fines	62.50%	1.60%	5.00%	0.060%	8.22%

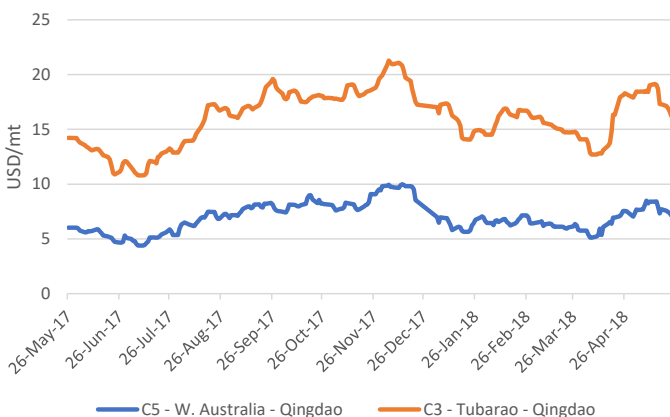
TOTAL IRON ORE INVENTORIES AT CHINA PORTS



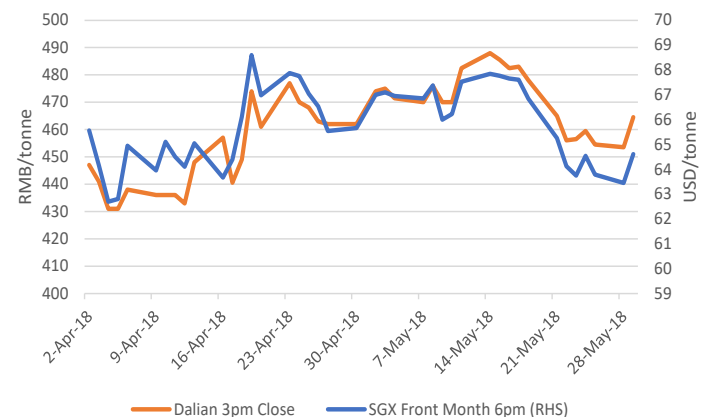
TOTAL CHINA IRON ORE IMPORT VOLUMES



DRY BULK FREIGHT RATES



FUTURE TRADING—FRONT MONTH CLOSING PRICE



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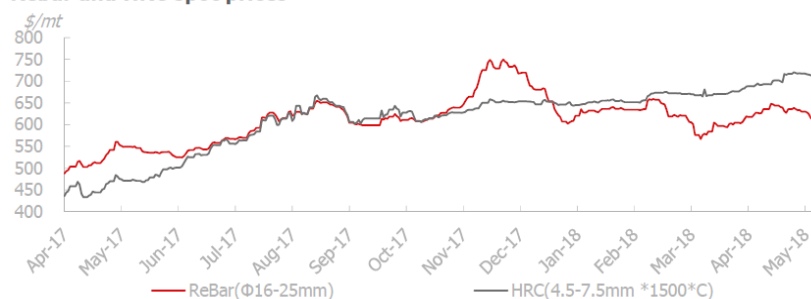
### STEEL SPOT MARKET—CHINA

#### Steel Spot Market RMB/tonne

Product	5/25/2018	Change	Change %	5/18/2018	Change	Change %
ReBar HRB400 φ18mm	3,931.7	-86.0	-2.14%	4,018	-19	-0.46%
Wirerod Q300 φ6.5mm	4,223.9	-72.8	-1.69%	4,297	-3	-0.08%
HRC Q235/SS400 5.5mm*1500*C	4,233.8	-17.6	-0.41%	4,251	55	1.32%
CRC SPCC/ST12 1.0mm*1250*2500	4,610.0	-6.0	-0.13%	4,616	10	0.22%
Medium & Heavy Plate Q235B 20mm	4,553.0	-20.0	-0.44%	4,573	20	0.44%
GI ST02Z 1.0mm*1000*C	5,310.0	-5.0	-0.09%	5,315	10	0.19%
Billet Q235 150*150mm	3,620.0	10.0	0.28%	3,610	30	0.84%

### CHINESE STEEL SPOT MARKET—REBAR & HRC IN USD/TONNE

#### Rebar and HRC spot prices



Source: SMM

### CHINESE STEEL INVENTORIES

#### Steel Inventories<sup>3</sup> (unit: 1000 tonnes)

Product	5/25/2018	5/18/2018	Change	Change %
Rebar	5,505	5,890	-385	-6.54%
Wirerod	1,716	1,902	-186	-9.78%
Hot-rolled Coil	2,046	2,178	-132	-6.06%
Medium & Thick Plate	823	842	-19	-2.26%
Cold-rolled Coil	1,120	1,109	11	0.99%
Total	11,210	11,920	-710	-5.96%

<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
Iron ore Port Index FOT Qingdao (inc. 17% VAT), I	466	-18	MMI index for 25th May 2018
Coke	2,050	100	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	2,090	-50	steel scrap (6mm) in Zhangjiagang, exl. tax
Billet Cost	2,723	22	Q234, incl. tax
Rebar cost - Blast furnace	2,975	23	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	755	-203	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	3,050	22	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	1,170	-52	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 depreciation 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 EXPORT PRICES

#### China Export Prices USD/tonne

Product	Specification	Export tax (+)/Vate rebate (-)	Latest transaction prices		Change
			5/25/2018	5/18/2018	
Rebar	BS4449 460B 12-25mm, + chrome	-13%	620	605	15
Wire Rod	SAE1008 6.5-10mm +chrome	-9%	570	570	0
Hot-rolled coil	SS400/Q235 4.0-10mm	-9%	600	600	0
Cold-rolled coil	SPCC 1.0mm	-13%	630	630	0
Medium & Heavy plate	A-level Shipe plate 12-25mm	0%	620	620	0
Galvanised	ST02Z/SGCC 1.0mm	-13%	690	690	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

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	<p>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.</p> <p>For more details on MMI's iron ore methodology please download the guide published on our website at:</p> <p><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</p>	
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%	8.00	0.00	Bayuquan	-10.00	0.00
	High Grade Fe 63 - 64%	32.00	0.00	Beilun	5.00	3.00
	High Grade Fe 64 - 65%	35.00	0.00	Caofeidian	-5.00	0.00
	High Grade Fe 65 - 65.5%	55.00	0.00	Dalian	0.00	0.00
	Low Grade Fe	6.00	0.00	Fangcheng	0.00	0.00
1% Alumina	High Fe Grade Al <2.25%	12.00	0.00	Jiangyin	-30.00	0.00
	High Fe Grade Al 2.25-4%	12.50	0.00	Jingtang	-5.00	0.00
	Low Fe Grade	12.50	0.00	Lanshan	0.00	0.00
1% Silica	High Fe Grade Si <4%	1.00	0.00	Lanqiao	0.00	0.00
	High Fe Grade Si <4 - 6.5%	10.50	0.00	Lianyungang	0.00	0.00
	High Fe Grade Si <6.5 - 9%	25.00	0.00	Majishan	0.00	0.00
	Low Fe Grade	24.00	0.00	Nantong	-30.00	0.00
0.01% Phosphorus	High Fe Grade 0.08%<P<0.115%	0.00	0.00	Qingdao	0.00	0.00
	High Fe grade 0.115%<P<0.15%	12.50	0.00	Rizhao	0.00	0.00
	Low Fe Grade 0.08 < P < 0.15%	0.00	0.00	Tianjin	-20.00	0.00

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