

Daily Iron Ore Index Report

September 06, 2018

IRON ORE PORT STOCK INDEX (IOPI)

September 6 2018		FOT Qingdao (inc. 16% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 16% VAT), USD/dry tonne ¹						
Index	Fe Content	Price	Change	Change %	MTD	YTD ²	Low ²	High ²	Price	Change	Change %	MTD	YTD ²	Low ²	High ²
IOPI62	62% Fe Fines	497	1	0.2%	496	483	443	559	64.42	0.18	0.3%	64.18	65.34	61.36	77.89
IOPI58	58% Fe Fines	381	1	0.3%	381	339	304	383	48.49	0.17	0.4%	48.46	44.52	40.67	50.97
IOPI65	65% Fe Fines	727	-2	-0.3%	729	621	541	735	96.01	-0.21	-0.2%	96.27	84.93	75.83	97.10

IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

Week Ending August 31, 2018				RMB/tonne (excluding tax)				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	637	-1.4%	579	682	93.40	-1.0%	84.90	100.00
Hebei	Qian'an	65% Fe Concentrate	Dry	775	1.3%	630	775	113.64	1.7%	92.38	113.64
Liaoning	Anshan	65% Fe Concentrate	Wet	495	0.0%	445	550	72.58	0.4%	65.25	80.65
Shandong	Zibo	65% Fe Concentrate	Dry	725	0.0%	620	725	106.31	0.4%	90.91	106.31
Week Ending August 31, 2018				This week	Change %	Low ⁴	High ⁴	¹ Exchange rate applied: RMB/USD = 6.8217 ² Since March 1			
China Mines Concentrate Composite Index RMB/WT				614.66	4.2%	534.50	628.33	³ Weekly exchange rate applied: RMB/USD 6.8198 ⁴ Last 12 months			

MARKET COMMENTARY

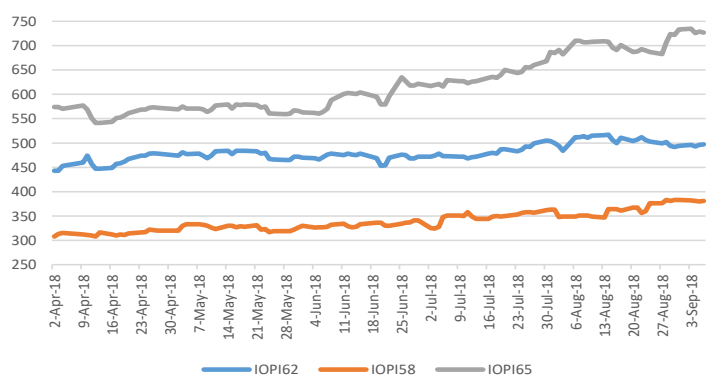
Iron ore port stock quotes rose 5-10yuan/mt with PB Fines trading around 495 yuan/mt. High grade products continued to be in high demand, as mills are unlikely to change their furnace blends. Today, SMM followed developments that the Tangshan government will investigate if some mills that were asked to cut production, have restarted their furnaces.

PLATFORM TRADES AND TENDERS

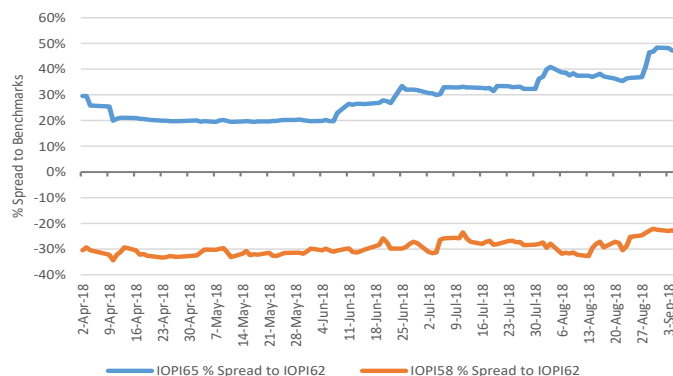
IRON ORE HIGH/LOW GRADE PREMIUM/DISCOUNT

September 6 2018		PORT STOCK INDEX (RMB/WT)	
Fe Content		Spread to IOPI62	% Spread to IOPI62
58% Fe Fines		-116	-23.34%
65% Fe Fines		230	46.28%

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



IRON ORE HIGH/LOW GRADE PREMIUM/DISCOUNT



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

September 6 2018		FOT Qingdao (inc. 16% VAT), RMB/wet tonne							CFR Qingdao Equivalent (exc. 16% VAT), USD/dry tonne ¹						
Index	Fe Content	May	June	July	August	MTD	QTD	YTD ²	May	June	July	August	MTD	QTD	YTD ²
IOPI62	62% Fe Fines	476	471	482	505	496	494	483	65.87	64.29	63.41	65.25	64.18	64.34	65.34
IOPI58	58% Fe Fines	326	332	349	363	381	358	339	43.75	44.14	44.86	45.84	48.46	45.61	44.52
IOPI65	65% Fe Fines	571	594	638	701	729	675	621	79.76	82.19	85.29	92.13	96.27	89.4	84.93

IRON ORE FUTURES CONTRACTS

Closing Date	DCE			SGX		
	06 Sept 3pm close			06 Sept 6pm		
Contract	I1901	Change	Change %	Sep'18	Change	Change %
Closing Price	502.5	15.5	3.18%	68.45	1.61	2.41%
Vol traded ('000 lots)	158.44	74.6	88.99%	13.49	10.38	334.22%
Open positions ('000 lots)	79.62	12.3	18.30%	102.18	0.36	0.36%
Day Low	493.5	9.5	1.96%	67.64	1.64	2.48%
Day High	502.5	14.0	2.87%	68.45	1.61	2.41%

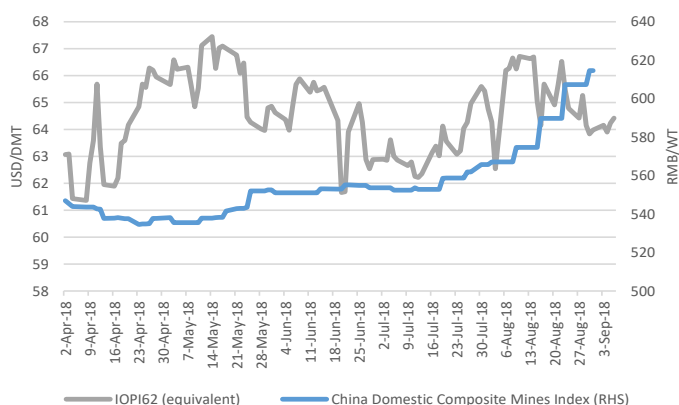
IRON ORE PORT INVENTORIES

Week Ending August 31, 2018 (million tonnes)				
Province	This week	Change %	Low ⁴	High ⁴
Jingtang	16.03	1.78%	14.11	19.00
Qingdao	19.00	0.53%	15.60	19.97
Caofeidian	16.70	-7.22%	16.62	25.30
Tianjin	9.70	-6.73%	8.60	11.00
Rizhao	17.30	3.59%	13.10	19.00
Total (35 Ports)	135.32	-1.57%	123.49	150.04

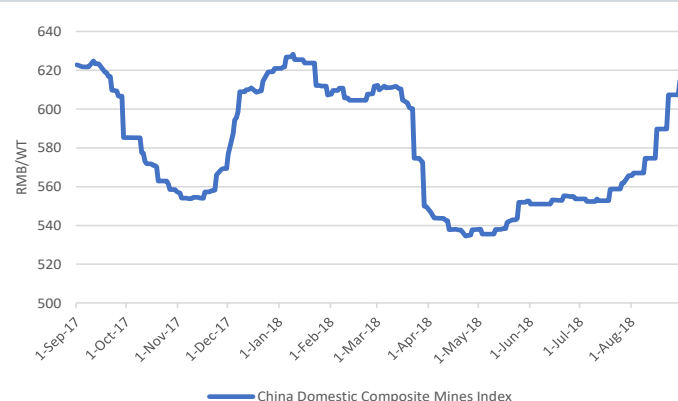
Daily Iron Ore Index Report

September 06, 2018

MMi BENCHMARK IRON ORE PRICES



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



IRON ORE BRAND SPOT PRICE ASSESSMENTS

September 6 2018	PORT STOCK INDEX (RMB/WT)		
	Price	Change	Diff to IOPI62
Newman Fines	483	4	-14
SIMEC Fines	459	7	-38
PB Fines	488	2	-9
Newman Fines	492	1	-5
MAC Fines	480	3	-17
Jimblebar Blended Fines	452	3	-45
Carajas Fines	719	-2	222
Brazilian SSF	559	1	62
Brazilian Blend Fines	546	-1	49
RTX Fines	462	4	-35

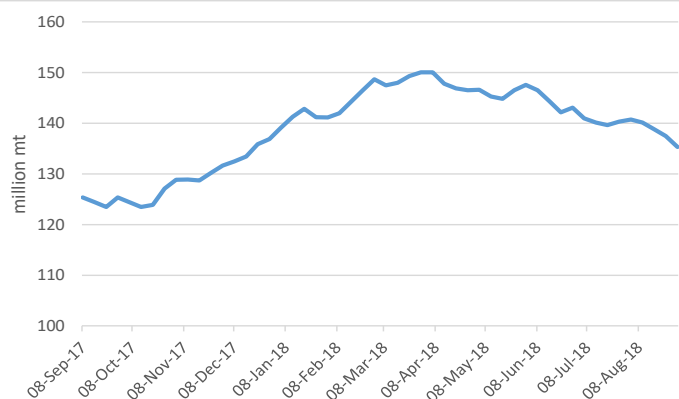
September 6 2018	PORT STOCK INDEX (RMB/WT)		
	Price	Change	Diff to IOPI58
SSF	311	1	-70
FMG Blended Fines	373	1	-8
Robe River	343	1	-38
Western Fines	321	1	-60
Atlas Fines	311	1	-70
Yandi	372	1	-9

AVERAGE IRON ORE BRAND SPECIFICATIONS FOR PORT STOCK SALES

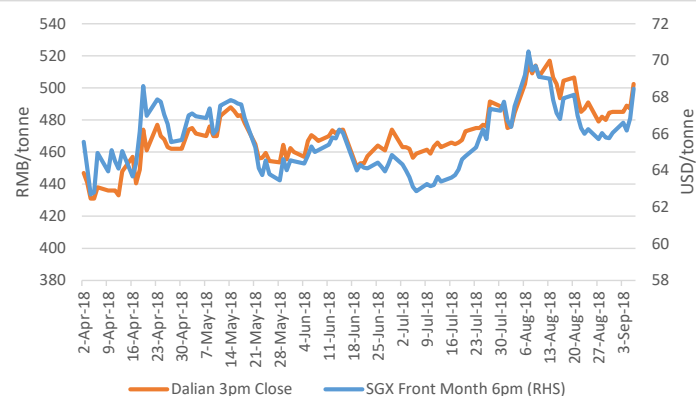
September 6 2018	SPECIFICATIONS APPLIED FOR 62% BRAND ASSESSMENTS				
	Fe	Alumina	Silica	Phos	Moisture
Roy Hill	61.00%	2.20%	4.50%	0.055%	8.00%
SIMEC Fines	60.00%	2.30%	6.30%	0.060%	6.00%
PB Fines	61.66%	2.36%	3.58%	0.100%	9.17%
Newman Fines	62.16%	2.60%	4.30%	0.090%	7.52%
MAC Fines	61.07%	2.32%	4.61%	0.090%	7.58%
Jimblebar Blended Fines	61.42%	2.87%	4.50%	0.110%	6.99%
Carajas Fines	64.90%	1.35%	1.78%	0.080%	8.18%
Brazilian SSF	62.00%	1.00%	6.50%	0.040%	6.00%
Brazilian Blend Fines	62.95%	1.40%	4.90%	0.060%	8.84%
RTX Fines	61.00%	3.10%	4.50%	0.135%	7.50%

September 6 2018	SPECIFICATIONS APPLIED FOR 58% BRAND ASSESSMENTS				
	Fe	Alumina	Silica	Phos	Moisture
SSF	56.51%	3.06%	6.27%	0.050%	9.17%
FMG Blended Fines	58.39%	2.72%	5.84%	0.070%	7.16%
Robe River	56.74%	3.14%	5.05%	0.030%	8.75%
Western Fines	57.70%	2.81%	7.38%	0.060%	7.42%
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



FREIGHT RATES

September 05, 2018		FREIGHT RATES - DRY BULK US\$/wet tonne				
Route	Designation	Change	Change %	Low ⁴	High ⁴	
W. Australia - Qingdao	C5	8.24	-0.29	-3.41%	5.109	10.002
Tubarao - Qingdao	C3	20.94	-0.35	-1.64%	12.705	24.76

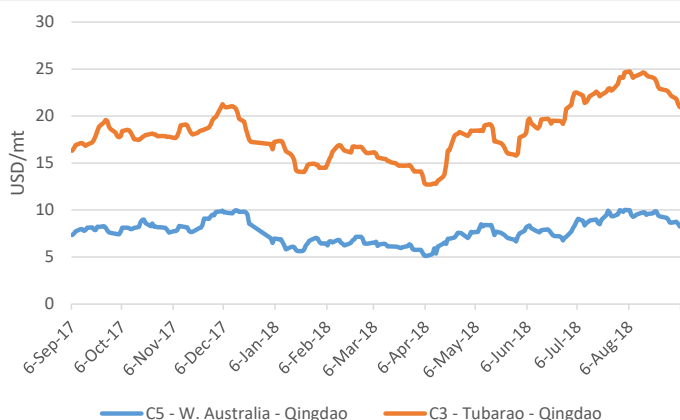
BLOOMBERG

BLOOMBERG TICKERS		
	FOT Qingdao (RMB/wet tonne)	CFR Qingdao Equivalent (USD/dry tonne)
IOPI62	IRCNO001	IRCNO004
IOPI58	IRCNO002	IRCNO005
IOPI65	IRCNO003	IRCNO006

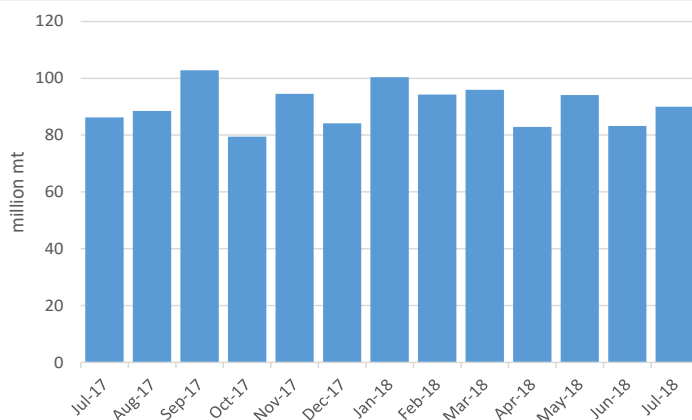
Daily Iron Ore Index Report

September 06, 2018

DRY BULK FREIGHT RATES



TOTAL CHINA IRON ORE IMPORT VOLUMES



Steel Spot Market Prices - China

Steel Spot Market RMB/tonne

Product	31/8/2018	Change	Change %
ReBar HRB400 ϕ 18mm	4,458.0	-88	-1.94%
Wirerod Q300 ϕ 6.5mm	4,695.0	-90	-1.88%
HRC Q235/SS400 5.5mm*1500*C	4,338.0	-66	-1.50%
CRC SPCC/ST12 1.0mm*1250*2500	4,893.0	-23	-0.47%
Medium & Heavy Plate Q235B 20mm	4,500.0	-23	-0.51%
GI ST02Z 1.0mm*1000*C	5,350.0	-50	-0.93%
Billet Q235 150*150mm	3,980.0	-70	-1.73%

Rebar and HRC spot prices



Source: SMM

CHINESE STEEL EXPORT PRICES

China Export Prices USD/tonne

Product	Specification	Export tax (+)/Vate rebate (-)	Change
			31/8/2018
Rebar	BS4449 460B 12-25mm, + chrome	-13%	565 0
Wire Rod	SAE1008 6.5-10mm +chrome	-9%	580 0
Hot-rolled coil	SS400/Q235 4.0-10.0mm	-9%	575 0
Cold-rolled coil	SPCC 1.0mm	-13%	615 0
Medium & Heavy plate	A-level Ship plate 12-25mm	0%	610 0
Galvanised	ST02Z/SGCC 1.0mm	-13%	685 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 Inventories³ (unit: 1000 tonnes)

Product	31/8/2018	24/8/2018	Change	Change %
Rebar	4,474	4,462	12	0.27%
Wirerod	1,315	1,309	6	0.46%
Hot-rolled Coil	2,183	2,221	-38	-1.71%
Medium & Thick Plate	958	964	-6	-0.62%
Cold-rolled Coil	1,177	1,171	6	0.51%
Total	10,107	10,127	-20	-0.20%

³ 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 (WoV)	Note
MMI (Fe 62%), USD/mt excluding tax	63.98	-0.80	MMI index for 22nd June
Coke	2,510	120	2nd grade met coke, Tangshan, incl. tax
Steel Scrap	2,320	-60	steel scrap (6mm) in Zhangjiagang, excl. tax
Billet Cost	3,021	21	Q234, incl. tax
Rebar cost - Blast furnace	3,293	19	calculated based on theoretical weight, incl. tax
Rebar profit - Blast furnace	1,007	-79	based on Shanghai prices, incl. tax
Hot-rolled coil cost - Blast furnace	3,345	17	based on actual weight, incl. tax
Hot-rolled coil profit - Blast furnace	985	-97	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 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

Daily Iron Ore Index Report

September 06, 2018

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	
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%	12.00	-3.00	Bayuquan	-35.00	0.00
	High Grade Fe 63 - 64%	71.00	0.00	Beilun	5.00	0.00
	High Grade Fe 64 - 65%	71.00	0.00	Caofeidian	-25.00	0.00
	High Grade Fe 65 - 65.5%	71.00	0.00	Dalian	-20.00	0.00
	Low Grade Fe	18.00	0.00	Fangcheng	-5.00	0.00
1% Alumina	High Fe Grade Al <2.25%	60.00	0.00	Jiangyin	-30.00	0.00
	High Fe Grade Al 2.25-4%	19.00	0.00	Jingtang	-25.00	0.00
	Low Fe Grade	30.00	0.00	Lanshan	0.00	0.00
1% Silica	High Fe Grade Si <4%	10.00	0.00	Lanqiao	0.00	0.00
	High Fe Grade Si <4 - 6.5%	10.00	0.00	Lianyungang	0.00	0.00
	High Fe Grade Si <6.5 - 9%	20.00	0.00	Majishan	0.00	0.00
	Low Fe Grade	23.00	0.00	Nantong	-30.00	0.00
0.01% Phosphorus	High Fe Grade 0.08%<P<0.115%	1.00	0.00	Qingdao	0.00	0.00
	High Fe grade 0.115%<P<0.15%	2.00	0.00	Rizhao	0.00	0.00
	Low Fe Grade 0.08 < P < 0.15%	4.00	0.00	Tianjin	-30.00	0.00

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