

October 31, 2018

#### **IRON ORE PORT STOCK INDEX (IOPI)**

October 3	1 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 <sup>2</sup>	Low <sup>2</sup>	High <sup>2</sup>	Price	Change	Change %	MTD	YTD <sup>2</sup>	Low <sup>2</sup>	High <sup>2</sup>
IOPI62	62% Fe Fines	603	5	0.8%	564	495	443	603	77.36	0.59	0.8%	72.55	66.25	75.83	77.89
IOPI58	58% Fe Fines	414	-2	-0.5%	401	351	304	416	51.93	-0.63	-1.2%	50.47	45.63	40.67	52.56
IOPI65	65% Fe Fines	784	6	0.8%	760	646	541	784	101.71	0.70	0.7%	99.05	87.46	96.35	101.71

#### IRON ORE SEABORNE INDEX (IOSI)

#### PLATFORM TRADES AND TENDERS

October 3	1 2018	CFR Qingdao, USD/dry tonne									
Index	Fe Content	Price	Change	Change %	MTD	YTD <sup>3</sup>	Low <sup>3</sup>	High <sup>3</sup>			
IOSI62	62% Fe Fines	75.95	0.05	0.1%	72.31	68.05	63.25	86.20			
IOSI65	65% Fe Fines	100.00	-0.15	-0.1%	98.97	94.17	86.20	101.50			

#### MARKET COMMENTARY

According to SMM, seventy-three vessels carrying 10.56 million mt of iron ore are likely to arrive at major Chinese ports during October 26 to November 1, up 720,000 mt from arrivals during October 19-25. Seaborne iron ore arrivals increased by 550,000 mt in the previous week. Arrivals to Jingtang port are expected to shrink this week while arrivals to Caofeidian port and ports in Shandong province are likely to gain slightly. For the same period, iron ore shipments departing Australian ports will decrease by 70,000 mt to 15.45 million mt; those leaving Brazilian ports will also fall by 90,000 mt to 7.87 million mt. This suggested that tight supplies of Australian materials including Mac fines, Newman fines and Pilbara Blend fines (MNP) across major ports would carry over into the near term.

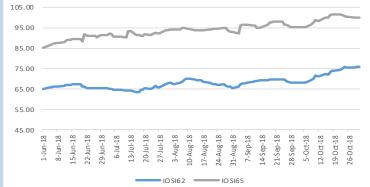
#### IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

Week Ending O	Veek Ending October 26, 2018				RMB/tonne (e	xcluding tax) 4		USD/tonne (excluding tax) 4			
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	695	2.2%	579	695	100.19	4.8%	83.47	100.19
Hebei	Qian'an	65% Fe Concentrate	Dry	780	0.0%	630	780	112.44	-0.5%	90.82	112.44
Liaoning	Anshan	65% Fe Concentrate	Wet	545	0.0%	445	550	78.56	-0.5%	64.15	79.28
Shandong	Zibo	65% Fe Concentrate	Dry	775	0.0%	620	775	111.72	2.2%	89.38	111.72
Week Ending October 26, 2018				This week	Change %	Low <sup>5</sup>	High <sup>5</sup>	<sup>1</sup> Exchange rate applied: RMB/USD = 6.9646 <sup>2</sup> Since March 1 <sup>3</sup> Since June 1			
China Mines Concentrate Composite Index RMB/WT				650 94	0.6%	534 50	650.94	Weekly exchange rate applied: RMB/USD 6.9208 Last 12 months			

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







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

October 31	1 2018		FOT	Qingdao (i	nc. 16% VAT),	RMB/wet to	tonne CFR Qingdao Equivalent (exc. 16% VAT), USD/dry tonne				dry tonne <sup>1</sup>				
Index	Fe Content	June	July	August	September	October	QTD	YTD²	June	July	August	September	October	QTD	YTD <sup>2</sup>
IOPI62	62% Fe Fines	471	482	505	513	564	564	495	65.87	64.29	63.41	65.25	72.55	72.55	66.25
IOPI58	58% Fe Fines	332	349	363	385	401	401	351	43.75	44.14	44.86	45.84	50.47	50.47	45.63
IOPI65	65% Fe Fines	594	638	701	732	760	760	646	79.76	82.19	85.29	92.13	99.05	99.05	87.46

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

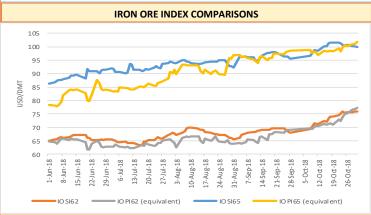
	FREIGHT RATES	
ī		

October 31	L 2018		CFR Qingdao, USD/dry tonne					October 30, 2018	FREIGHT RATES - DRY BULK US				LK US\$/wet t	onne	
Index	Fe Content	June	July	August	September	October	QTD	YTD <sup>3</sup>	Route	Designation		Change	Change %	Low <sup>5</sup>	High <sup>5</sup>
IOSI62	62% Fe Fines	66.10	65.09	67.89	68.79	72.31	72.31	68.05	W. Australia - Qingdao	C5	8.85	0.00	0.00%	5.109	10.002
IOSI65	65% Fe Fines	89.32	91.90	94.04	96.48	98.97	98.97	94.17	Tubarao - Qingdao	C3	21.61	0.08	0.36%	12.705	24.76

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### IRON ORE BRAND SPOT PRICE ASSESMENTS

October 31 2018	PORT	PORT STOCK INDEX (RMB/WT)						
	Price	Change	Diff to IOPI62					
Roy Hill	580	5	-23					
SIMEC Fines	528	5	-75					
PB Fines	586	3	-17					
Newman Fines	604	4	1					
MAC Fines	571	6	-32					
Jimblebar Blended Fines	537	7	-66					
Carajas Fines	770	5	167					
Brazilian SSF	606	5	3					
Brazilian Blend Fines	619	6	16					
RTX Fines	510	5	-93					

October 31 2018	SEABO	DRNE INDEX (US	D/DMT)
	Price	Change	Diff to IOSI62
Roy Hill	69.32	0.50	-6.63
SIMEC Fines	62.32	1.20	-13.63
PB Fines	74.82	0.20	-1.13
Newman Fines	77.31	0.20	1.36
MAC Fines	69.82	-0.60	-6.13
Jimblebar Blended Fines	63.45	-11.58	-12.50
Carajas Fines	97.29	-1.05	21.34
Brazilian SSF	78.76	1.30	2.81
Brazilian Blend Fines	80.76	0.55	4.81
RTX Fines	68.32	-0.95	-7.63

510	3	-93				
PORT STOCK INDEX (RMB/WT)						
Price	Change	Diff to IOPI58				
366	-3	-48				
420	-2	6				
400	16	-14				
398	0	-16				
374	-2	-40				
472	3	58				
	PORT : Price 366 420 400 398 374	PORT STOCK INDEX (R Price Change 366 -3 420 -2 400 16 398 0 374 -2				

#### IRON ORE INDEX NORMALISATION DIFFERENTIALS

Port	Stock Index Product Differentials	(RMB/wet tonr	ne)	Seaborne Index Product Differentials (UDS/dry tonne)				
	Applicable range	Value	Change		Applicable range	Value	Change	
	High Grade Fe 60 - 63%	12.00	0.00		High Grade Fe 60 - 63%	2.50	0.00	
	High Grade Fe 63 - 64%	57.00	0.00	1% Fe	High Grade Fe 63 - 64%	2.75	-0.25	
1% Fe	High Grade Fe 64 - 65%	57.00	0.00		High Grade Fe 64 - 65%	2.75	-0.25	
	High Grade Fe 65 - 65.5%	57.00	0.00		High Grade Fe 65 - 65.5%	2.75	-0.25	
	Low Grade Fe	20.00	0.00					
	High Fe Grade Al <2.25%	44.00	0.00		High Fe Grade Al <2.25%	9.75	0.00	
1% Alumina	High Fe Grade Al 2.25-4%	39.00	0.00	1% Alumina	High Fe Grade Al 2.25-4%	0.00	0.00	
170 Alullilla	Low Fe Grade Al <2.25%	85.00	0.00	1% Alumina				
	Low Fe Grade Al 2.25-4%	13.00	0.00					
	High Fe Grade Si <4%	7.00	0.00		High Fe Grade Si <4%	2.50	-0.25	
1% Silica	High Fe Grade Si 4-6.5%	26.00	0.00	1% Silica	High Fe Grade Si 4 - 6.5%	3.75	-0.50	
	Low Fe Grade	6.00	0.00					
0.01% Phosphorus	High Fe Grade 0.09% <p<0.115%< td=""><td>4.00</td><td>0.00</td><td>0.019/</td><td>High Fe Grade 0.09%<p<0.115%< td=""><td>0.50</td><td>0.50</td></p<0.115%<></td></p<0.115%<>	4.00	0.00	0.019/	High Fe Grade 0.09% <p<0.115%< td=""><td>0.50</td><td>0.50</td></p<0.115%<>	0.50	0.50	
	High Fe Grade 0.115% <p<0.15%< td=""><td>14.00</td><td>0.00</td><td>0.01%</td><td>High Fe Grade 0.115%<p<0.15%< td=""><td>1.00</td><td>0.00</td></p<0.15%<></td></p<0.15%<>	14.00	0.00	0.01%	High Fe Grade 0.115% <p<0.15%< td=""><td>1.00</td><td>0.00</td></p<0.15%<>	1.00	0.00	
	Low Fe Grade 0.09 <p<0.1%< td=""><td>2.00</td><td>0.00</td><td>Phosphorus</td><td></td><td></td><td></td></p<0.1%<>	2.00	0.00	Phosphorus				

	Port Stock Differentials to Qingdao Port (RMB/wet tonne)										
Port	Value	Change	Port	Value	Change	Port	Value	Change	Port	Value	Change
Bayuquan	-40.00	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	0.00	Lianyungang	0.00	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	-20.00	0.00	Lanqiao	0.00	0.00	Nantong	-30.00	0.00	Tianjin	-30.00	0.00

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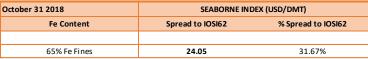


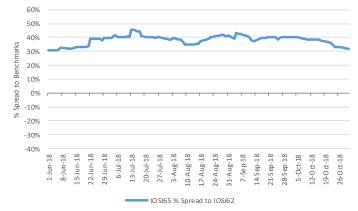
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#### IRON ORE INDEX PREMIUMS/DISCOUNTS

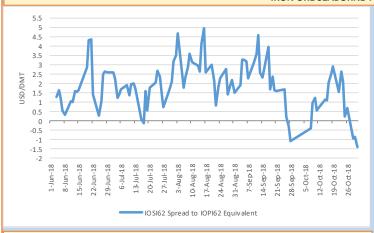
October 31 2018	PORT STOCK IN	NDEX (RMB/WT)
Fe Content	Spread to IOPI62	% Spread to IOPI62
58% Fe Fines	-189	-31.34%
65% Fe Fines	181	30.02%







#### IRON ORE SEABORNE TO PORT STOCK SPREADS





#### TOTAL IRON ORE INVENTORIES AT CHINA PORTS



FOTORE TRADING—FRONT MONTH CLOSING PRICE		
600		
580	83	
560		
540	78	
Feb 520 500 500 480 480		USD/tonne
£ 500	73	/toı
¥ 480	68	JSD
460		_
440	63	
420 ————————————————————————————————————		
400	58	
Ladit paris paris praticular interpretative miss miss man bear secretaria corre		
—— Dalian 3pm Close —— SGX Front Month 6pm (RHS)		

ELITIBE TRADING EPONT MONTH CLOSING DRICE

IRON ORE PORT INVENTORIES							
	Week Ending October 26, 2018 (million tonnes)						
Province	This week	Change %	Low <sup>4</sup>	High <sup>4</sup>			
Jingtang	14.30	5.15%	13.47	19.00			
Qingdao	18.00	0.00%	15.60	19.97			
Caofeidian	18.60	-6.81%	16.70	25.30			
Tianjin	9.30	3.79%	8.50	11.00			
Rizhao	16.05	1.58%	13.16	19.00			
Total (35 Ports)	133.81	0.21%	127.10	150.04			

IRON ORE FUTURES CONTRACTS							
		DCE			SGX		
Closing Date	3	1 Oct 3pm clo	se		31 Oct 6 pm		
Contract	11901	Change	Change %	Nov'18	Change	Change %	
Closing Price	533.5	-5.5	-1.02%	74.25	-0.79	-1.05%	
Vol traded ('000 lots)	101.74	19.7	23.98%	4.40	-4.59	-51.06%	
Open positions ('000 lots)	79.35	-1.3	-1.65%	103.43	1.25	1.22%	
Day Low	531.0	-3.5	-0.65%	73.74	-0.30	-0.41%	
Day High	536.0	-6.5	-1.20%	74.29	-0.82	-1.09%	

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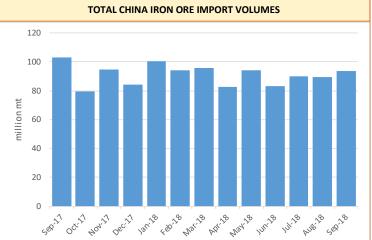
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### **Steel Spot Market Prices - China**

Steel Spot Market RMB/tonne			
Product	26/10/2018	Change	Change %
ReBar HRB400	4,707.0	83	1.79%
Wirerod Q300 ¢6.5mm	4,930.0	59	1.21%
HRC Q235/SS400 5.5mm*1500*C	4,205.0	2	0.05%
CRC SPCC/ST12 1.0mm*1250*2500	4,800.0	-26	-0.54%
Medium & Heavy Plate Q235B 20mm	4,356.0	-34	-0.77%
GI ST02Z 1.0mm*1000*C	5,150.0	-10	-0.19%
Billet Q235 150*150mm	4,000.0	80	2.04%



CHINESE STEEL EXPORT PRICES								
China Export Prices USD/tonne								
Product	Specification	Export tax (+)/Vate rebate (-)		Change				
			26/10/2018					
Rebar	BS4449 460B 12-25mm, + chrome	-13%	560	-10				
Wire Rod	SAE1008 6.5-10mm +chrome	-9%	580	0				
Hot-rolled coil	SS400/Q235 4.0-10.mm	-9%	560	-5				
Cold-rolled coil	SPCC 1.0mm	-13%	600	-5				
Medium & Heavy plate	A-level Shipe plate 12-25mm	0%	610	0				
Galvanised	ST02Z/SGCC 1.0mm	-13%	665	-5				

Note: Calculation formula for converting export prices of rebar, cold-rolled steel and galvanizing into prices in China's spot market = FOB\* exchange rate\*15/(16-0.5); Calculation formula for converting export prices of wire rod and hot-rolled steel into prices in hina's spot market = FOB\* exchange rate \*15/(16-0.99); Calculation formula for converting export prices of medium-thick plate into prices in China's spot market = FOB\* exchange rate

Steel Inventories³ (unit: 1000 tonnes)							
Product	26/10/2018	19/10/2018	Change	Change %			
Rebar	3,789	4,124	-335	-8.12%			
Wirerod	1,216	1,355	-139	-10.26%			
Hot-rolled Coil	2,454	2,445	9	0.37%			
Medium & Thick Plate	1,152	1,161	-9	-0.78%			
Cold-rolled Coil	1,220	1,230	-10	-0.81%			
Total	9,831	10,315	-484	-4.69%			

CHINESE STEEL INVENTORIES

<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 exluding tax	74.95	-0.25	Mmi CFR Equivalent index for 12th October			
Coke	2,510	0	2nd grade met coke, Tangshan, incl. tax			
Steel Scrap	2,430	20	steel scrap (6mm) in Zhangjiagang, exl. tax			
Billet Cost	3,192	5	Q234, incl. tax			
Rebar cost - Blast furnace	3,460	5	calculated based on theoretical w eight, incl. tax			
Rebar profit - Blast furnace	1,090	5	based on Shanghai prices, incl. tax			
Hot-rolled coil cost - Blast furnace	3,517	5	based on actual w eight, incl. tax			
Hot-rolled coil proft - Blast furnace	663	-5	based on Shanghai prices, incl. tax			

Note: 1 Costs in the table are caluclated based on todays market prices and facout our management, sales, financial and depreciations fees.

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

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#### IRON ORE INDEX SPECIFICATIONS. COMPILATION RATIONALE AND DATA EXCLUSIONS

IKON OKE INDEA SPECIFICATIONS, CONFIGERION RATIONALE AND DATA EXCEDSIONS								
Iron Ore Index Specifications (Port and Seaborne)			Iron Ore In	dex Compilation R	ationale and Data	Exclusions		
	65% Fe Fines	62% Fe Fines	58% Fe Fines	MMi iron ore indices are co	mpiled from data provided by	companies that are part of	the iron ore supply chain	
Fe %	65.00	62.00	58.00	and involved in spot market		=		
Alumina %	1.40	2.25	2.25	1	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.			
Silica%	1.50	4.00	5.50	For more details on MMi's iron ore methodology please download the guide published on our website at:  www.mmiprices.com				
Phosphorus %	0.06	0.09	0.05					
Sulphur %	0.01	0.02	0.02		Data Exclusions*			
Moisture %	8.00	8.00	9.00		62%	58%	65%	
Cining	Granular size be	low 10mm for at lea	ast 90% of cargo;	Port Index	0	0	0	
Sizing	maximu	m of 40% below 150	) micron	Seaborne index	0	0	0	
Pricing Point	Qingdao Port (FOT and CFR respectively)			Lump Index	0	0	0	
Timing (Seaborne)	eaborne) Loading within 4 weeks, Delivery within 8 weeks			* Number of price submissions for iron ore indices that were excluded from index calculations today as they			culations today as they	
Payment Terms L/C at sight		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						SEAB	ORNE BRAN	DS		
October 31 2018	ber 31 2018 SPECIFICATIONS APPLIED FOR 62% BRAND ASSESSMENTS				SESSMENTS	SPECIFICATIONS APPLIED FOR 62% BRAND ASSESSN				SESSMENTS	
	Fe	Alumina	Silica	Phos	Moisture		Fe	Alumina	Silica	Phos	Moisture
Roy Hill	61.00%	2.20%	4.50%	0.055%	8.00%	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	61.68%	2.32%	3.55%	0.100%	9.37%	PB Fines 62%	62.00%	2.60%	4.30%	0.090%	10.00%
Newman Fines	62.48%	2.32%	4.16%	0.070%	7.67%	Newman Fines	62.80%	2.20%	4.30%	0.080%	6.40%
MAC Fines	60.85%	2.21%	4.77%	0.090%	7.93%	MAC Fines	61.00%	2.70%	4.70%	0.110%	9.30%
Jimblebar Blended Fines	61.37%	2.80%	4.36%	0.110%	6.80%	Jimblebar Blended Fines	61.79%	2.67%	4.08%	0.115%	7.16%
Carajas Fines	64.79%	1.32%	1.95%	0.070%	8.30%	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	62.66%	1.55%	4.79%	0.060%	8.37%	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%
October 31 2018 SPECIFICATIONS APPLIED FOR 58% BRAND ASSESSMENTS											

October 31 2018	SPECIFICATIONS APPLIED FOR 58% BRAND ASSESSMENTS					
	Fe	Alumina	Silica	Phos	Moisture	
SSF	56.43%	3.00%	6.34%	0.050%	9.44%	
FMG Blended Fines	58.36%	2.79%	5.90%	0.070%	7.13%	
Robe River	56.63%	2.88%	1.85%	0.040%	9.09%	
Western Fines	57.60%	2.93%	6.26%	0.070%	7.83%	
Atlas Fines	56.59%	2.55%	7.14%	0.080%	8.46%	
Yandi	57.15%	1.31%	6.36%	0.030%	8.88%	

### BLOOMBERG TICKERS

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

#### CONTACT US

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