

# MMi Annual Iron Ore Review

**2019**



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## 2019 Iron Ore Annual Review

### IRON ORE PORT PRICE INDEX

FOT Qingdao (inc. VAT<sup>1</sup>), RMB/wet tonne

Index	Fe Content	January	February	March	April	May	June	July	August	September	October	November	December	2019
IOPI62	62% Fe Fines	580	654	639	675	729	825	909	759	758	721	665	683	718
IOPI58	58% Fe Fines	448	569	583	600	637	726	809	691	674	636	567	592	629
IOPI65	65% Fe Fines	670	733	714	753	812	901	954	823	803	758	723	764	785

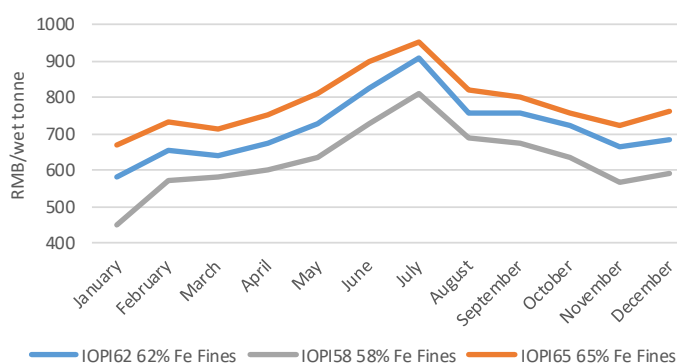
CFR Qingdao Equivalent (exc. VAT <sup>1</sup> ), USD/dry tonne		January	February	March	April	May	June	July	August	September	October	November	December	2019
62% Fe Fines		76.16	87.09	85.37	92.67	98.40	111.42	123.29	100.18	99.15	94.29	87.30	89.84	95.64
58% Fe Fines		57.99	75.22	77.49	82.12	86.39	98.60	110.47	91.86	88.77	83.57	74.67	78.18	83.96
65% Fe Fines		88.64	98.08	95.78	103.92	110.00	121.97	129.53	108.92	105.38	99.32	95.29	100.90	105.02

FOT Qingdao (inc. VAT<sup>1</sup>), RMB/wet tonne

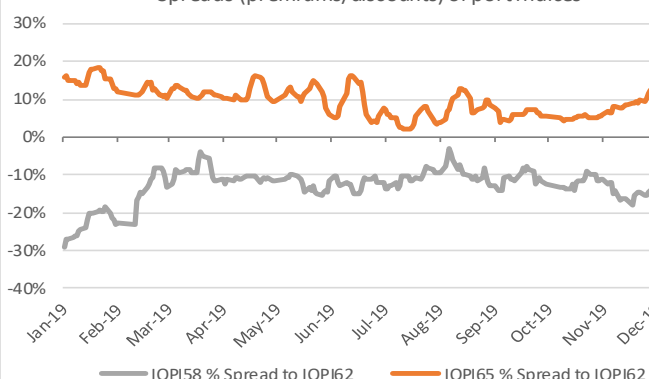
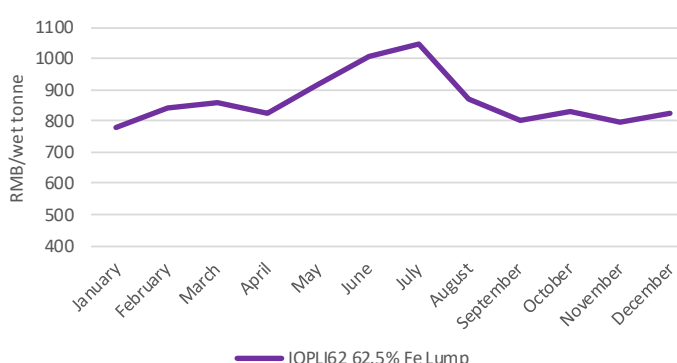
Index	Fe Content	January	February	March	April	May	June	July	August	September	October	November	December	2019
IOPI62	62.5% Fe Lump	782	842	858	827	919	1009	1046	870	804	829	794	825	871

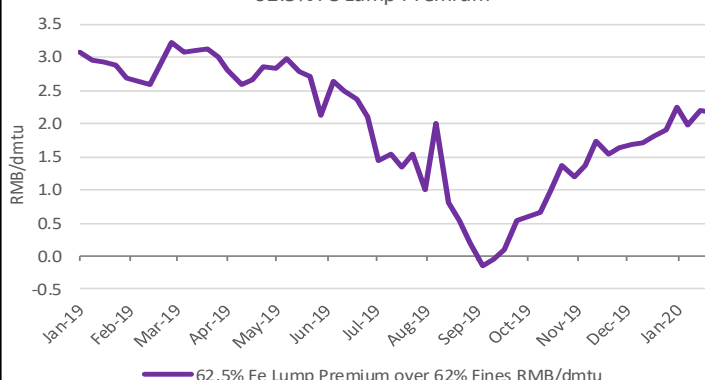
CFR Qingdao Equivalent (exc. VAT <sup>1</sup> ), USD/dry tonne		January	February	March	April	May	June	July	August	September	October	November	December	2019
62.5% Fe Lump		99.57	108.63	111.03	112.86	117.12	128.00	132.99	108.08	98.44	101.74	97.89	102.01	109.94

FOT Qingdao Fines (inc. VAT<sup>1</sup>)

Spreads (premiums/discounts) of port indices

FOT Qingdao Lump (inc. VAT<sup>1</sup>)

62.5% Fe Lump Premium

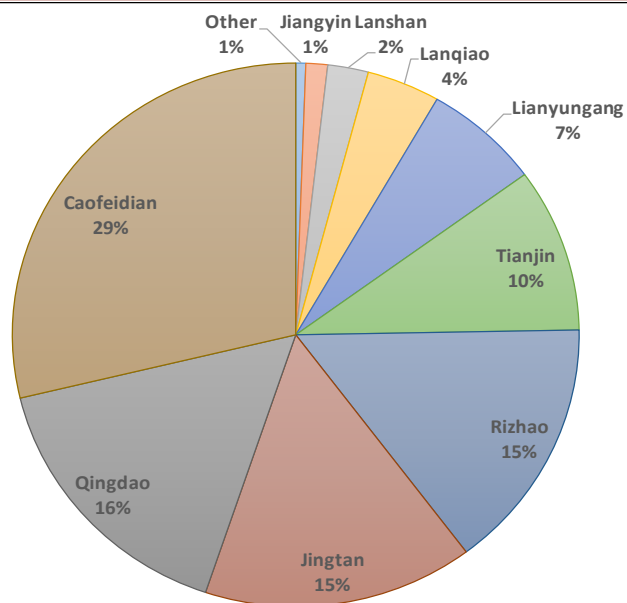
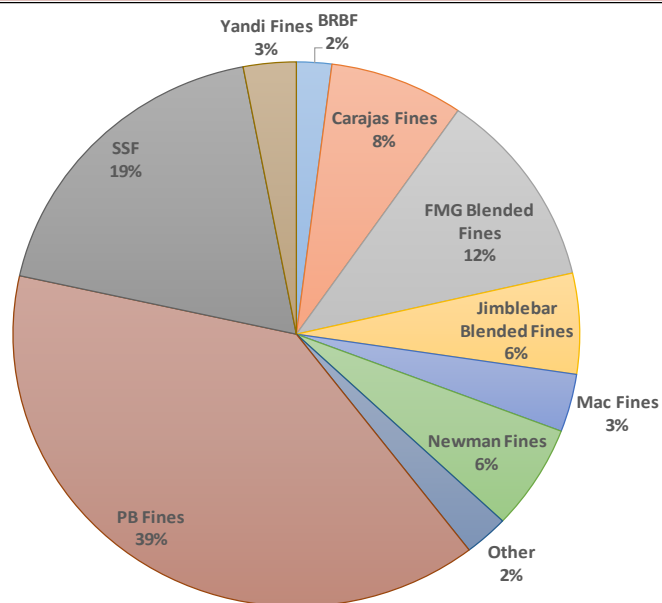


### PORT PRICE DIFFERENTIALS TO QINGDAO PORT FOR PB FINES

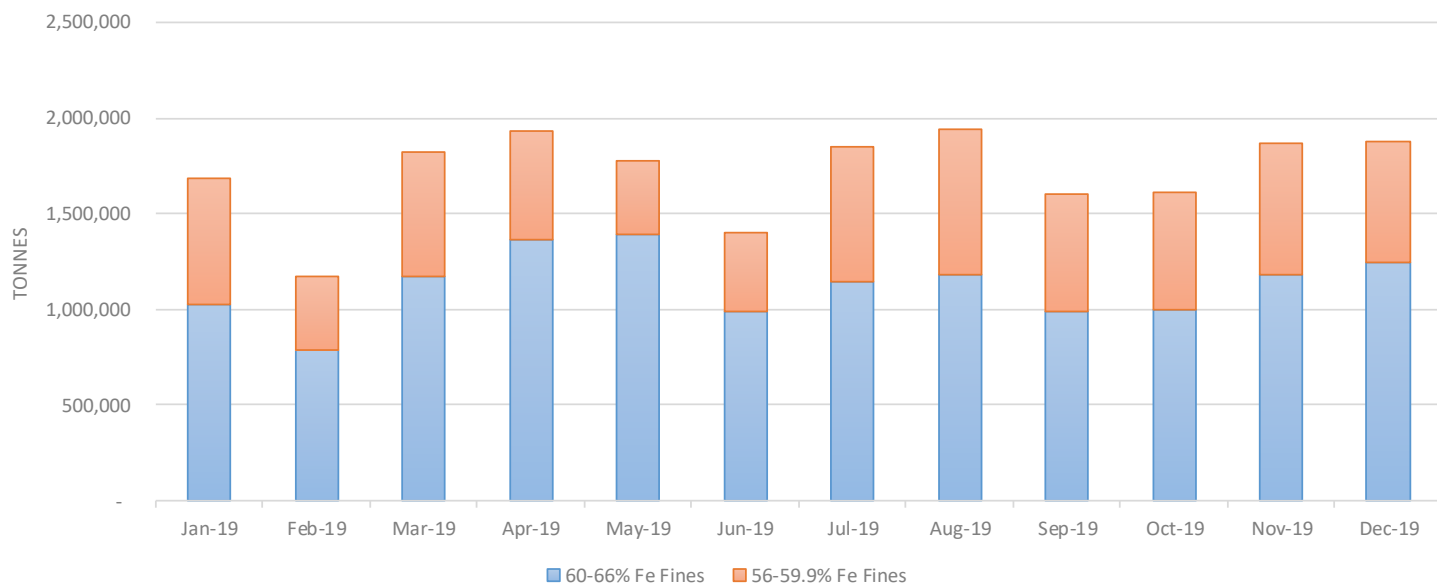
Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

Port	2019 Average Value	Port	2019 Average Value	Port	2019 Average Value	Port	2019 Average Value
Bayuquan	-35.76	Fangcheng	-5.00	Lanqiao	0.00	Qingdao	0.00
Beilun	5.00	Huanghua	-18.00	Lanshan	0.00	Rizhao	0.00
Caofeidian	-5.90	Jiangyin	-21.31	Majishan	0.00	Shekou	0.00
Dalian	-29.39	Jingtang	-5.90	Nantong	-20.51	Tianjin	-13.34

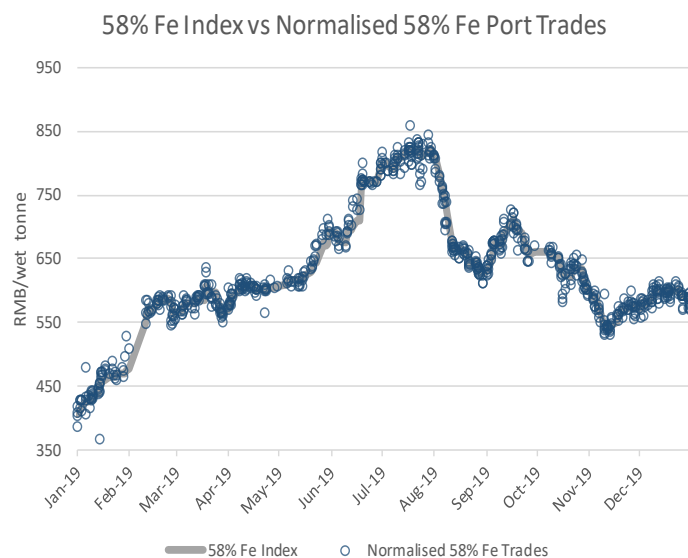
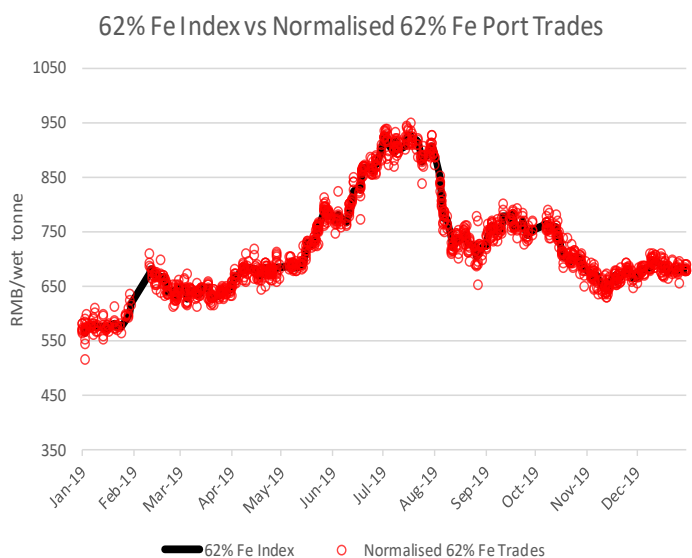
## IRON ORE PORT PRICE INDEX BRAND AND PORT MAKEUP



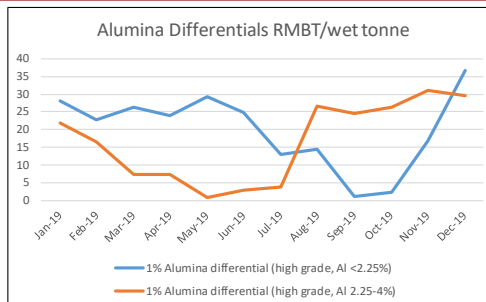
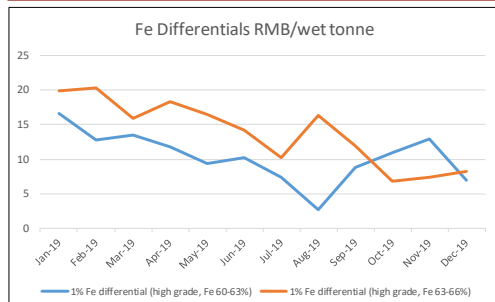
## IRON ORE PORT PRICE INDEX COMPILATION VOLUME



## IRON ORE PORT PRICE INDEX COMPILATION



## 62% FE AND 65% FE PORT PRICE INDEX NORMALISATION DIFFERENTIALS (MONTHLY AVERAGES)

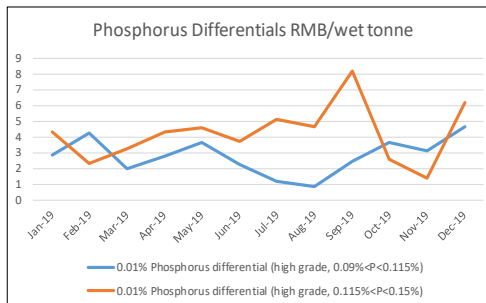
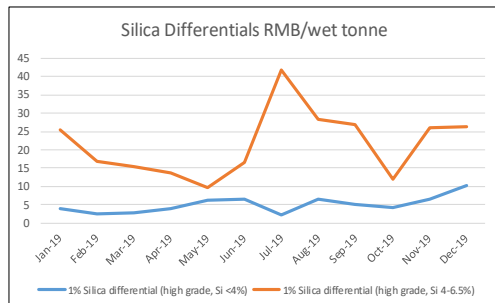


2019 dawned with the recent dam collapse in Brazil, shrinking supplies and post-holiday stockpiling conspiring to keep low-alumina premiums at high levels, which only started easing mid-way through the year as inventories of Carajas and BRBF recovered.

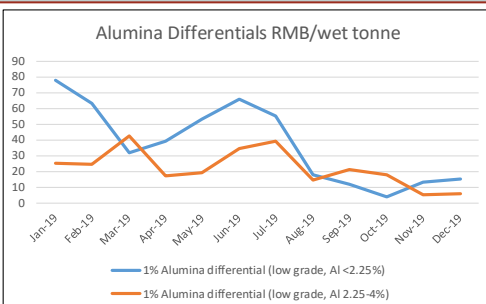
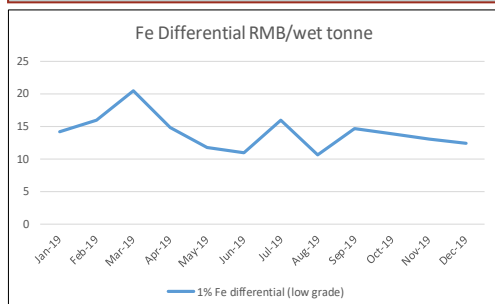
Recovering steel profit margins for the first 6 months of the year allowed for Fe premiums and 2.25-4% alumina premiums to ease through to the middle of the year. Falling steel margins boosted premiums in 2nd half 2019 as production efficiency took precedent. This boosted silica and phosphorous penalties as mills looked to minimize impurities in their pig iron output.

US-Sino trade tensions escalated in August whilst port stock of iron ore expanded for the first time in March. This plentiful ore lead to high quality ore relatively cheap to low-medium grades and discounts for impurities to rise.

2019 ended with rebar steel margins reaching 2019 highs, and steel mills looking for high quality ores at the ports to try boost steel production, culminating in low-alumina premiums rising to 2019 highs.



## 58% FE PORT PRICE INDEX NORMALISATION DIFFERENTIALS (MONTHLY AVERAGES)



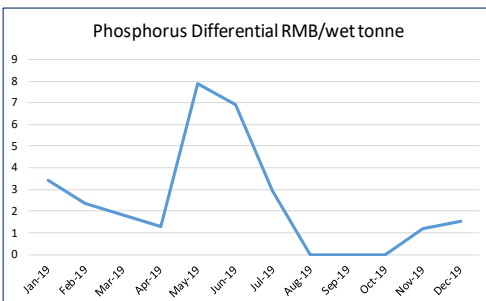
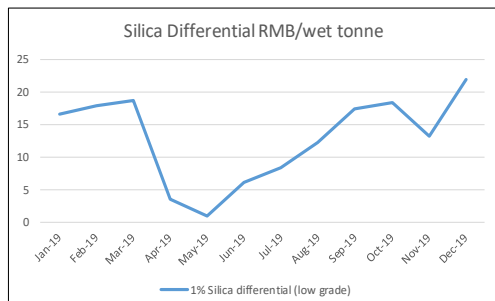
Fe premiums for low-grade iron ore were steady throughout the year, showing that other factors such as silica, alumina and phosphorous were the defining parameters when it came to selecting low-grade ores for 2019

Alumina premiums eased to 2019 lows by the end of the year, whilst silica penalties rose to 2019 highs, hurting relativities of products such as Yandi fines which had reached as high as 105% of the 58% index in the middle of year, to as low as 95% by year end.

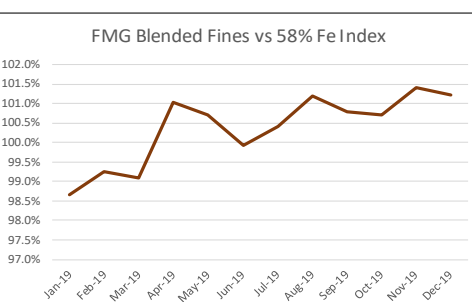
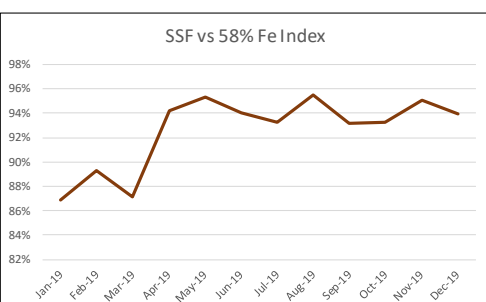
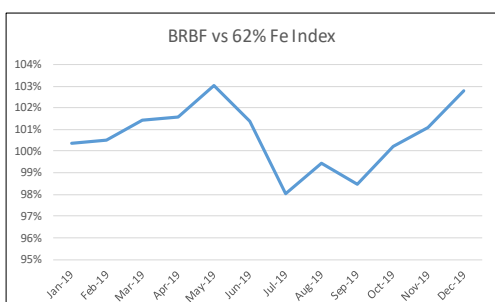
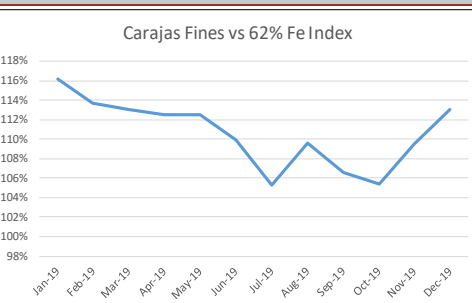
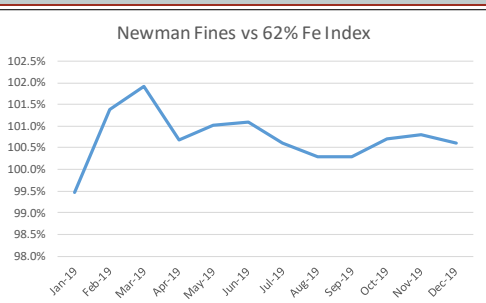
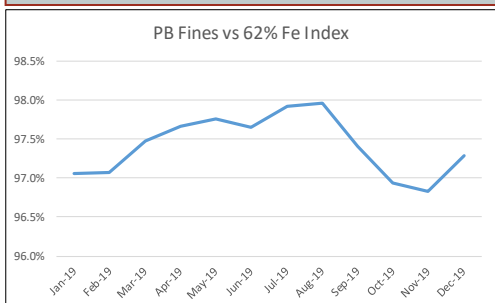
Rising silica penalties benefitted products such as FMG Blended fines whose relativity to the 58% index peaked at years-end.

Strong steel margins at the beginning and end of 2019 were the defining factor for low-grade impurities, with mills looking to boost production rather than maximise the cost-effectiveness of their burden.

Rising environmental issues at the end of the year drove mills to look for low impurity ores, driving low-grade ore prices lower relative to mid-grade 62% Fe products.



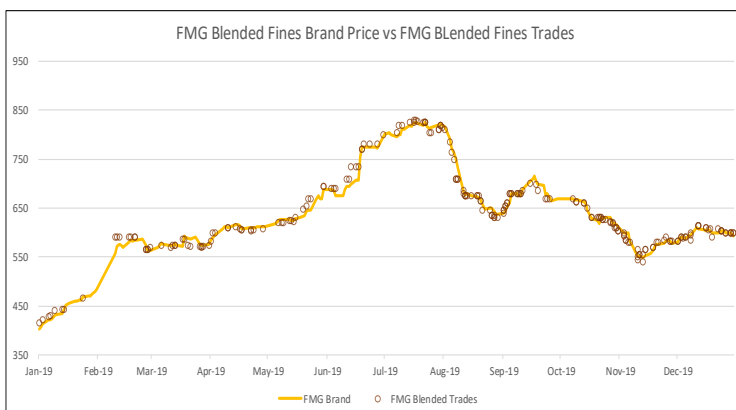
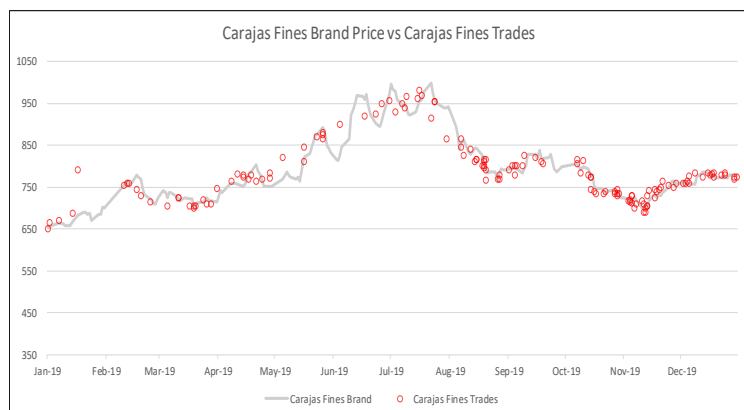
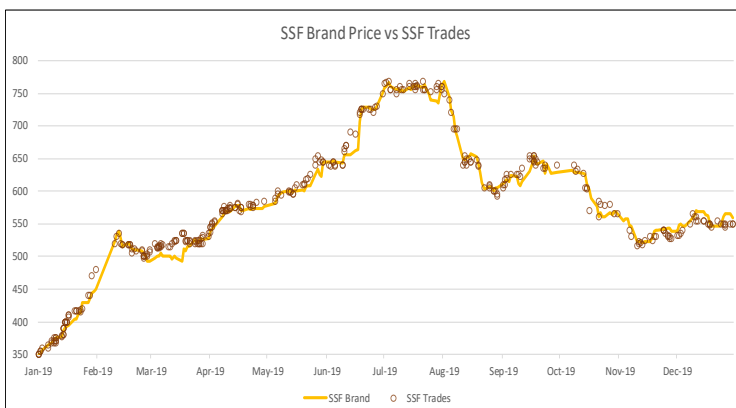
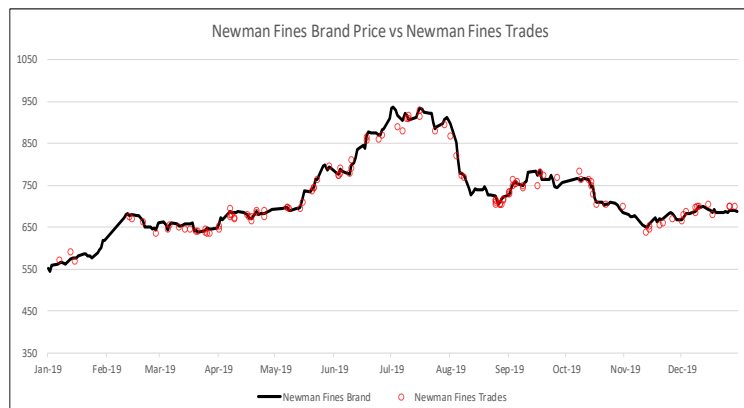
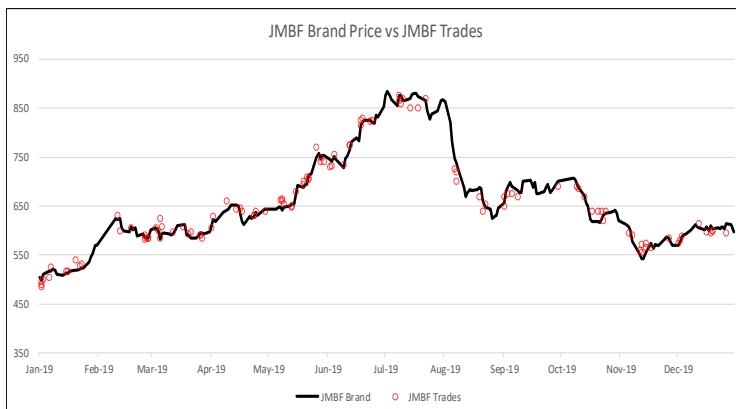
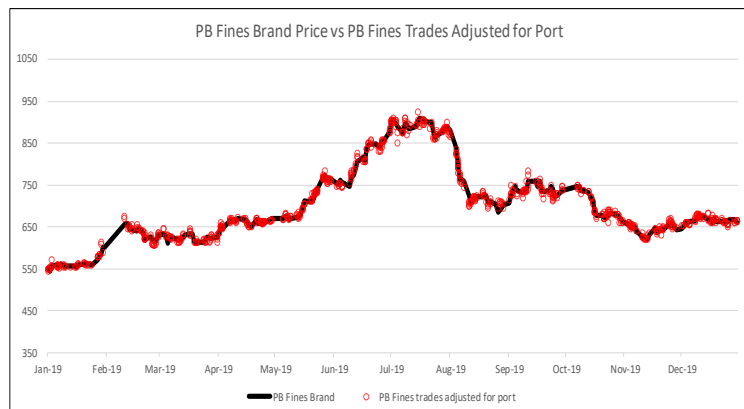
## KEY PORT BRAND PRICE ASSESSMENTS VERSUS INDEX (MONTHLY AVERAGES)



## IRON ORE PORT BRAND PRICE ASSESSMENTS

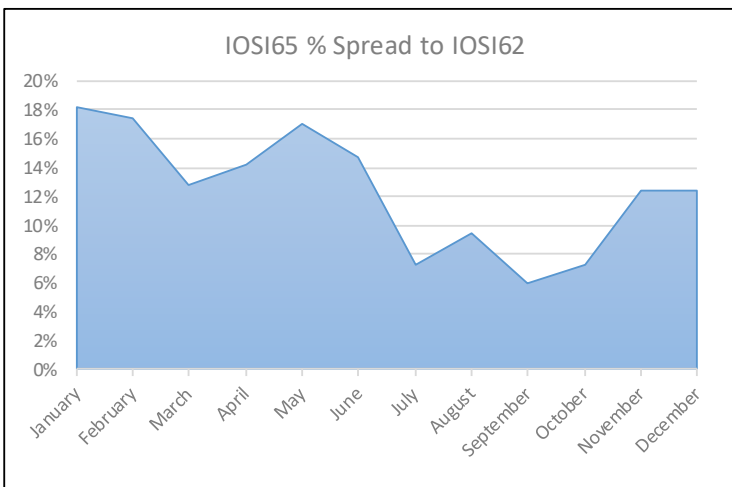
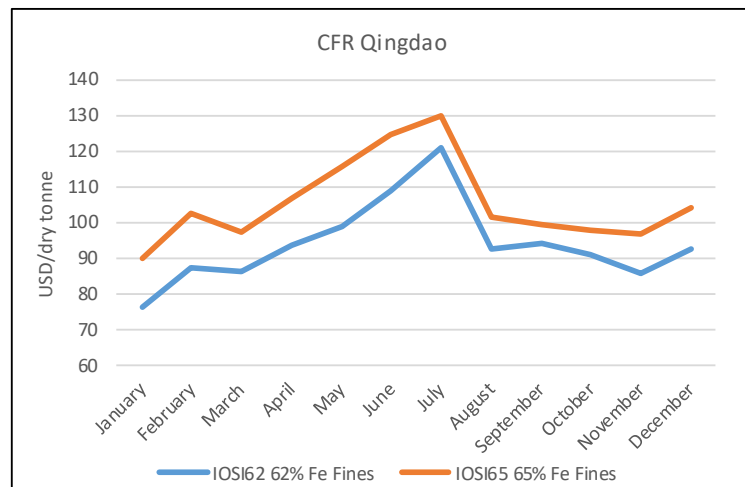
FOT Qingdao (inc VAT <sup>1</sup> ), RMB/wet tonne													
Brand	January	February	March	April	May	June	July	August	September	October	November	December	2019
PB Fines	563	635	623	659	713	806	890	743	738	699	644	664	700
Newman Fines	577	663	651	680	736	834	915	761	760	726	670	687	723
MAC Fines	550	632	618	656	712	807	878	742	735	705	633	657	695
Jimblebar Blended Fines	521	600	596	632	691	793	858	676	689	631	571	606	657
Carajas Fines	673	743	723	759	820	907	957	832	807	760	728	772	792
Brazilian Blend Fines	582	657	648	686	751	836	891	754	746	722	672	702	722
SSF	389	508	508	565	607	683	755	660	628	593	539	556	584
FMG Blended Fines	442	565	578	606	641	725	812	699	679	640	575	599	632
Yandi Fines	484	590	572	616	657	752	836	688	658	612	553	570	634

## KEY PORT BRAND PRICE ASSESSMENTS AND TRADED PRICES

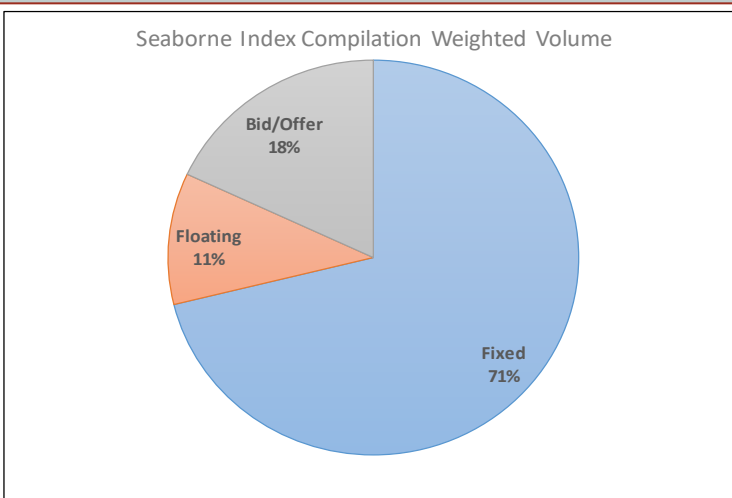
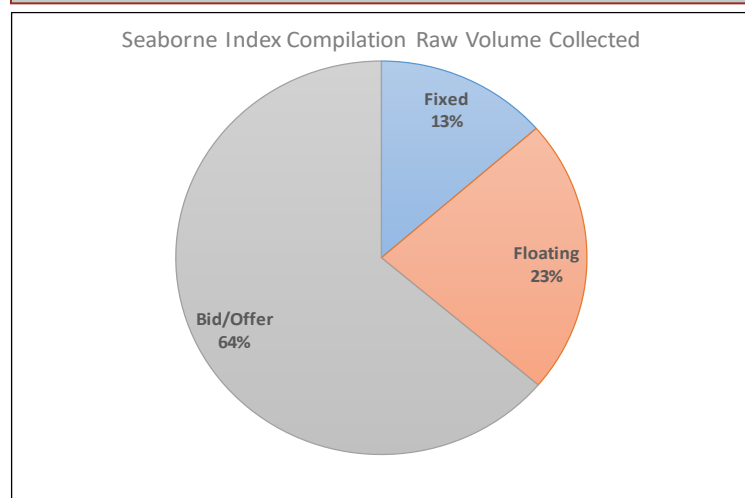


## IRON ORE SEABORNE PRICE INDEX

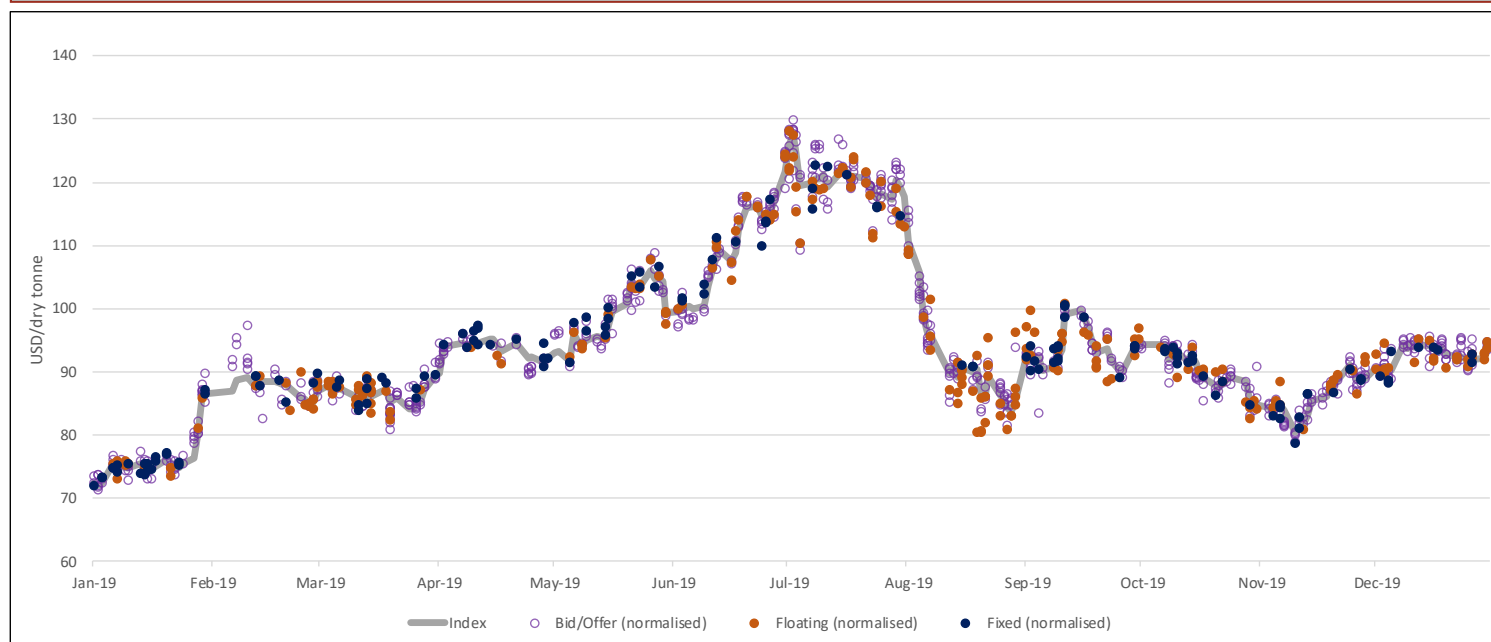
CFR Qingdao, USD/dry tonne													
Index	Fe Content	January	February	March	April	May	June	July	August	September	October	November	December
IOSI62	62% Fe Fines	76.08	87.39	86.18	93.42	98.68	108.57	120.82	92.61	93.76	90.81	85.83	92.64
IOSI65	65% Fe Fines	89.92	102.56	97.22	106.75	115.53	124.49	129.53	101.34	99.42	97.45	96.49	104.14
													<b>2019</b>
													<b>94.00</b>
													<b>105.40</b>



## IRON ORE SEABORNE PRICE INDEX COMPILATION

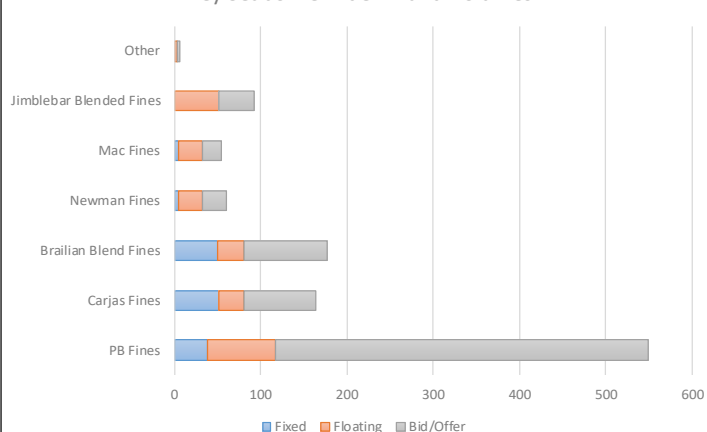


## IRON ORE SEABORNE PRICE INDEX COMPILATION

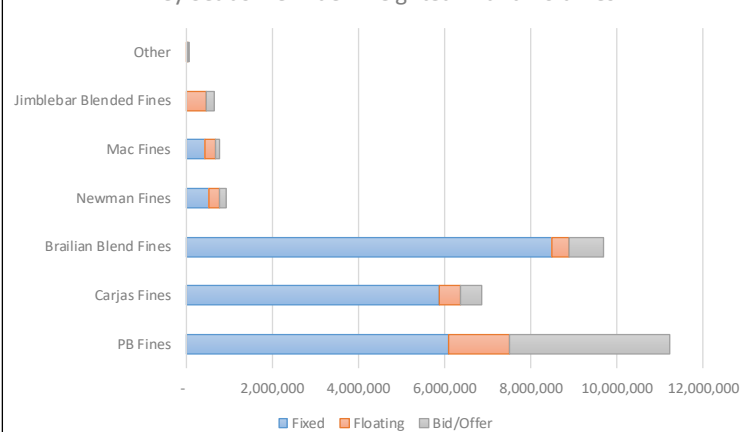


## IRON ORE SEABORNE PRICE INDEX COMPILATION

Key Seaborne Index Brand Volumes

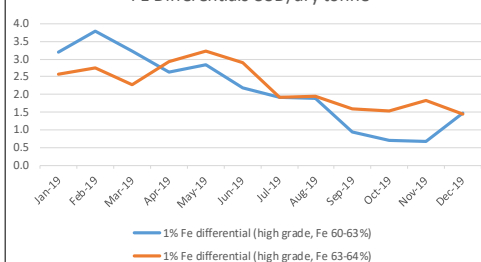


Key Seaborne Index Weighted Brand Volumes

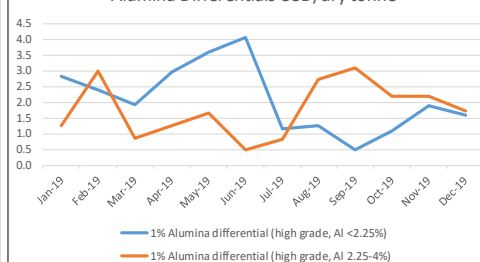


## SEABORNE PRICE INDEX NORMALISATION DIFFERENTIALS (MONTHLY AVERAGES)

FE Differentials USD/dry tonne



Alumina Differentials USD/dry tonne



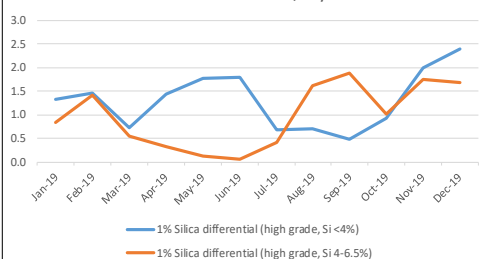
Seaborne FE premiums eased through the year as seaborne volumes slowly recovered from the disruptions caused by the dam bursting in Brazil and damage to Australian export ports following the Q1-2019 hurricane season.

Changes to the Jimblebar Fines specifications lowered its relativities to the 62% Fe index, whilst brands such as Newman Fines and BRBF saw premiums to index shrink with the easing of the FE premiums and rising silica discounts.

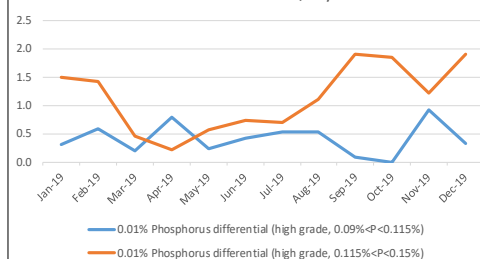
Low-alumina premiums tended to follow steel margins through most of the year, though as volume of high-grade brands recovered as we came into 2020, we see that steel mills started to put a premium on products with low silica and phosphorous levels.

Fixed price sales have dropped significantly in 2019 over those in 2018 and there is an increasing amount of interest in pricing iron ore at the port. Most port stock deals are still made on a cash-on-site basis but as interest firms on developing better methods to price iron ore, it will be interesting to see whether this changes in 2020.

Silica Differentials USD/dry tonne

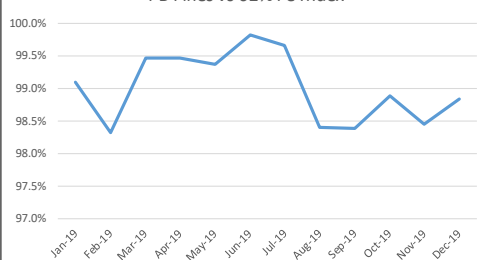


Phos Differentials USD/dry tonne

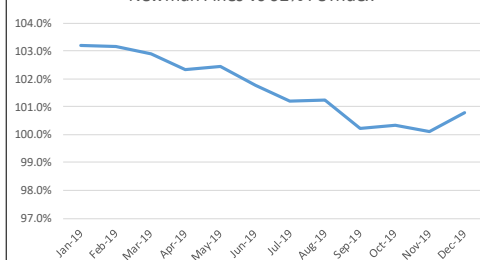


## KEY SEABORNE BRAND PRICE ASSESSMENTS VERSUS 62% FE or 65% FE PRICE INDEX

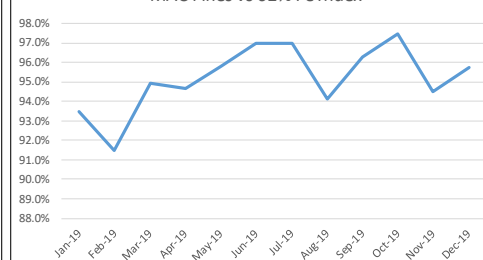
PB Fines vs 62% Fe Index



Newman Fines vs 62% Fe Index



MAC Fines vs 62% Fe Index



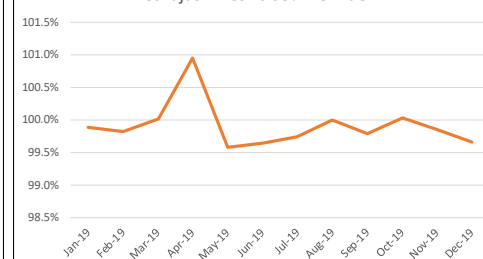
JMBF vs 62% Fe Index



BRBF vs 62% Fe Index



Carajas Fines vs 65% Fe Index

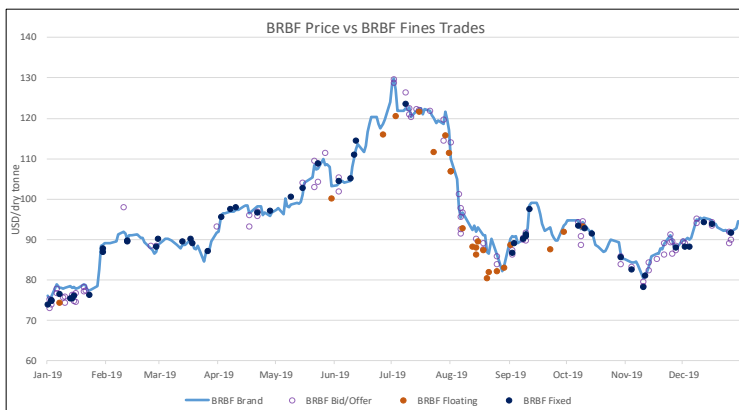
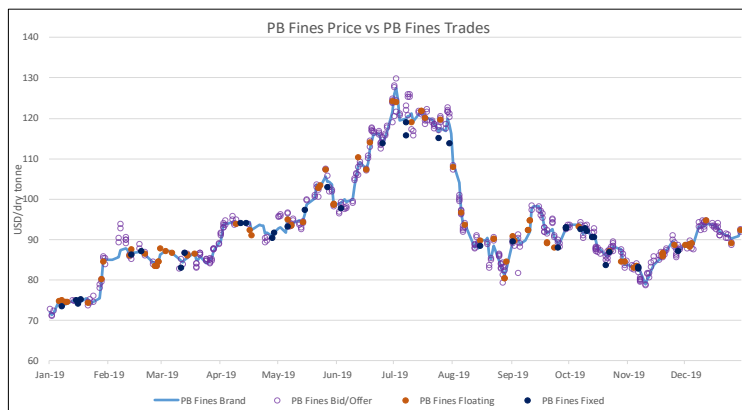


## IRON ORE SEABORNE BRAND PRICE ASSESSMENTS

Selected Iron Ore Seaborne Brand Averages, USD/dry tonne

Brand	January	February	March	April	May	June	July	August	September	October	November	December	2019
PB Fines	75.38	85.91	85.72	92.92	98.06	108.38	120.41	91.13	92.25	89.79	84.49	91.56	93.11
Newman Fines	78.52	90.17	88.69	95.61	101.09	110.50	122.30	93.78	93.97	91.13	85.95	93.38	95.50
MAC Fines	71.11	79.96	81.80	88.43	94.53	105.27	117.18	87.14	90.29	88.50	81.11	88.68	89.64
Jimblebar Blended Fines	66.28	73.42	79.68	86.48	92.12	103.21	113.27	77.01	80.58	80.72	73.07	79.01	83.89
Carajas Fines	89.82	102.38	97.24	107.76	115.04	124.05	129.18	101.34	99.21	97.48	96.34	103.78	105.30
Brazilian Blend Fines	78.95	89.73	88.59	96.66	102.67	112.64	122.24	92.89	92.87	91.01	85.85	92.92	95.66

## KEY SEABORNE BRAND PRICE ASSESSMENTS AND TRADED PRICES

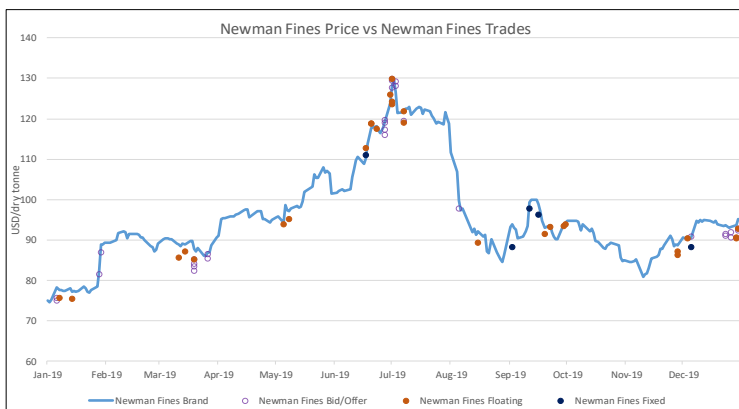
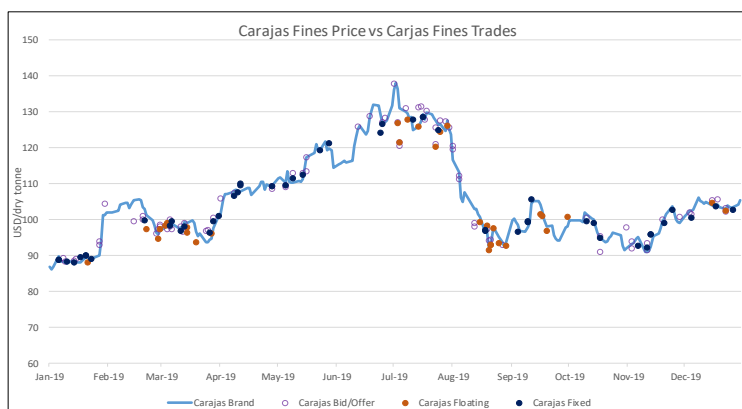


## Correlations to PB Fines Brand Assessment

PB Fines Bid/Offer	99.26%
PB Fines Floating trades	99.47%
PB Fines Fixed trades	99.56%

## Correlations to BRBF Brand Assessment

BRBF Bid/Offer	99.08%
BRBF Floating trades	99.05%
BRBF Fixed trades	99.52%



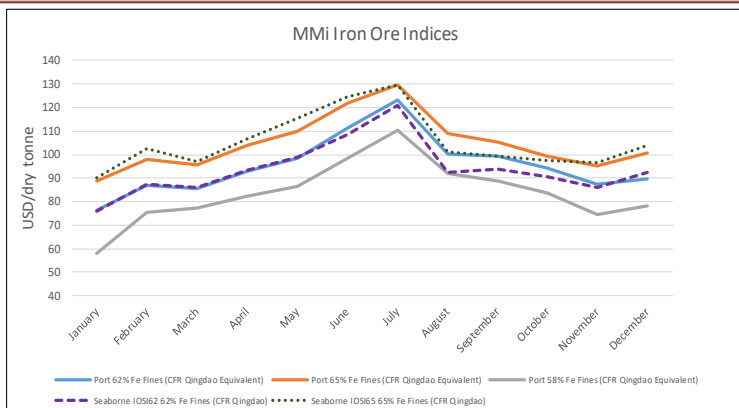
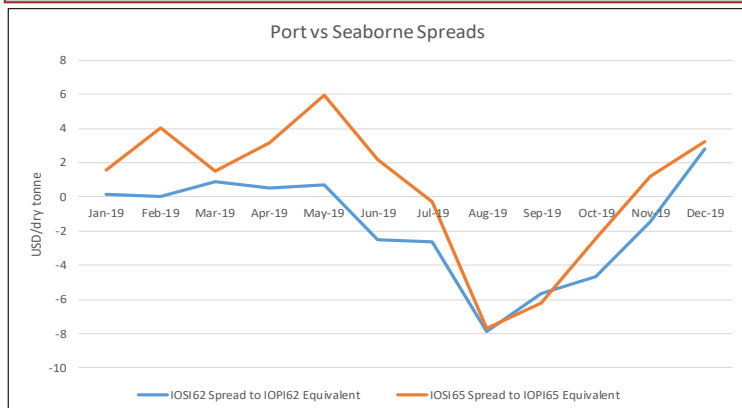
## Correlations to Carajas Fines Brand Assessment

Carajas Fines Bid/Offer	97.67%
Carajas Fines Floating trades	98.45%
Carajas Fines Fixed trades	98.95%

## Correlations to Newman Fines Brand Assessment

Newman Fines Bid/Offer	99.70%
Newman Fines Floating trades	99.46%
Newman Fines Fixed trades	98.65%

## IRON ORE PORT AND SEABORNE PRICE INDEX COMPARISONS



IRON ORE INDEX SPECIFICATIONS AND COMPILATION RATIONALE

Iron Ore Index Specifications (Port and Seaborne)					Index Compilation Rationale
	65% Fe Fines	62% Fe Fines	58% Fe Fines	62.5% Fe Lump	MMi iron ore 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.
Fe %	65.00	62.00	58.00	62.50	
Alumina %	1.40	2.25	2.25	1.50	
Silica%	1.50	4.00	5.50	3.50	
Phosphorus %	0.06	0.09	0.05	0.08	
Sulphur %	0.01	0.02	0.02	0.02	
Moisture %	8.00	8.00	9.00	4.00	For more details on Mmi's iron ore methodology please download the guide published on our website at: <a href="http://www.mmiprices.com">www.mmiprices.com</a>
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	

BLOOMBERG TICKERS

PORT STOCK INDICES			SEABORNE INDICES	
	FOT Qingdao (RMB/wet tonne)	CFR Qingdao Equivalent (USD/dry tonne)		CFR Qingdao (USD/DMT)
IOPI62	IRCNQ001	IRCNQ004	IOSI62	IRCN0034
IOPI58	IRCNQ002	IRCNQ005	IOSI65	IRCN0035
IOPI65	IRCNQ003	IRCNQ006		
IOPLI62	IRCN0036	IRCN0037		

AVERAGE 2019 IRON ORE BRAND SPECIFICATIONS

PORT STOCK BRANDS						SEABORNE BRANDS					
	62% Fe average brand specifications for 2019						Specifications applied for 62% brand assessments				
	Fe	Alumina	Silica	Phos	Moisture		Fe	Alumina	Silica	Phos	Moisture
Roy Hill	60.70%	2.24%	4.89%	0.060%	9.33%	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	61.55%	2.36%	3.75%	0.099%	9.38%	PB Fines 62%	62.00%	2.60%	4.30%	0.090%	10.00%
Newman Fines	62.50%	2.24%	4.09%	0.088%	7.66%	Newman Fines	62.40%	2.20%	4.30%	0.080%	6.40%
MAC Fines	60.83%	2.26%	4.74%	0.083%	7.49%	MAC Fines	61.00%	2.70%	4.70%	0.110%	9.30%
Jimblebar Blended Fines	60.78%	3.01%	4.45%	0.115%	7.47%	Jimblebar Blended Fines	59.50%	3.70%	5.80%	0.135%	8.30%
Carajas Fines	65.41%	1.28%	1.47%	0.077%	8.12%	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	62.67%	1.54%	4.78%	0.071%	8.24%	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%

	58% Fe average brand specifications for 2019				
	Fe	Alumina	Silica	Phos	Moisture
SSF	56.70%	3.07%	6.20%	0.055%	8.69%
FMG Blended Fines	58.22%	2.67%	5.54%	0.061%	7.61%
Robe River	56.31%	3.17%	5.64%	0.041%	9.10%
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	57.19%	1.57%	6.40%	0.039%	8.91%

CONTACT US

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