

MMi Iron Ore Review

June 2020



MMi Iron Ore Review

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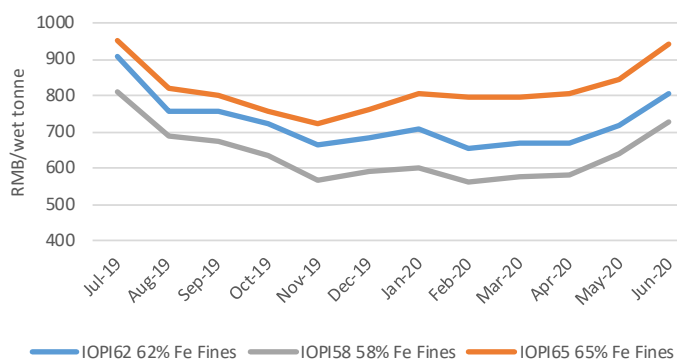
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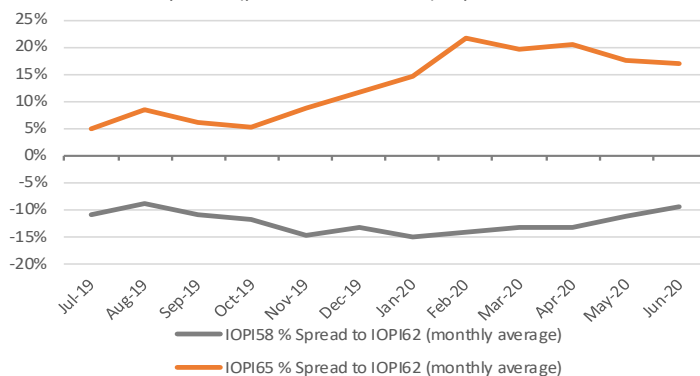
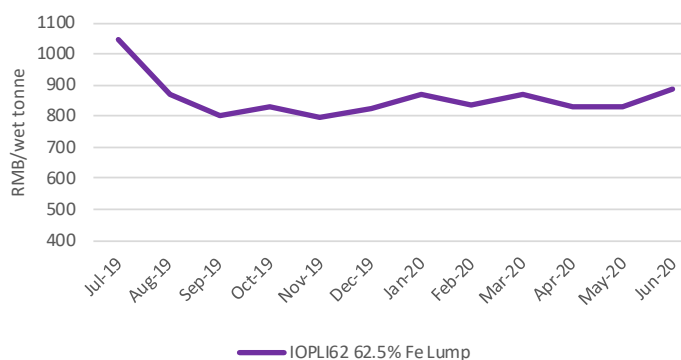
Iron Ore Review—June Update

IRON ORE PORT PRICE INDEX MONTHLY AVERAGES

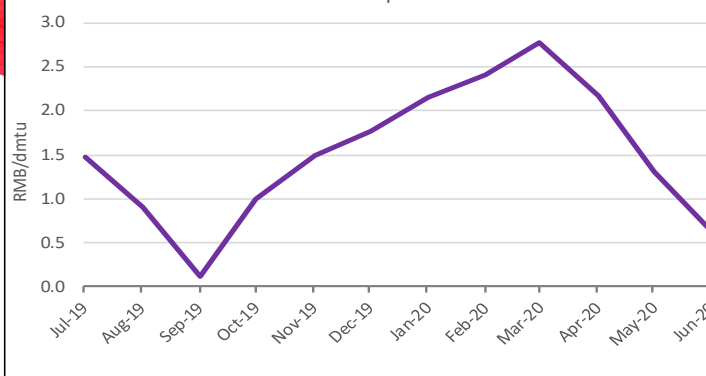
| FOT Qingdao (inc. VAT ¹), RMB/wet tonne | | | | | | | | | | | | | | |
|--|---------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|
| Index | Fe Content | Jul-19 | Aug-19 | Sep-19 | Oct-19 | Nov-19 | Dec-19 | Jan-20 | Feb-20 | Mar-20 | Apr-20 | May-20 | Jun-20 | YTD 2020 |
| IOPI62 | 62% Fe Fines | 909 | 759 | 758 | 721 | 665 | 683 | 706 | 655 | 667 | 668 | 720 | 807 | 702 |
| IOPI58 | 58% Fe Fines | 809 | 691 | 674 | 636 | 567 | 592 | 600 | 563 | 577 | 580 | 638 | 730 | 614 |
| IOPI65 | 65% Fe Fines | 954 | 823 | 803 | 758 | 723 | 764 | 808 | 797 | 798 | 804 | 847 | 943 | 833 |
| CFR Qingdao Equivalent (exc. VAT ¹), USD/dry tonne | | | | | | | | | | | | | | |
| IOPI62 | 62% Fe Fines | 123.29 | 100.18 | 99.15 | 94.29 | 87.30 | 89.84 | 94.23 | 86.23 | 87.61 | 87.15 | 93.74 | 105.69 | 92.23 |
| IOPI58 | 58% Fe Fines | 110.47 | 91.86 | 88.77 | 83.57 | 74.67 | 78.18 | 80.46 | 74.33 | 76.20 | 75.96 | 83.60 | 96.40 | 81.01 |
| IOPI65 | 65% Fe Fines | 129.53 | 108.92 | 105.38 | 99.32 | 95.29 | 100.90 | 108.54 | 105.84 | 105.60 | 105.61 | 110.98 | 124.25 | 110.06 |
| FOT Qingdao (inc. VAT ¹), RMB/wet tonne | | | | | | | | | | | | | | |
| Index | Fe Content | Jul-19 | Aug-19 | Sep-19 | Oct-19 | Nov-19 | Dec-19 | Jan-20 | Feb-20 | Mar-20 | Apr-20 | May-20 | Jun-20 | YTD 2020 |
| IOPLI62 | 62.5% Fe Lump | 1046 | 870 | 804 | 829 | 794 | 825 | 868 | 834 | 868 | 832 | 832 | 888 | 853 |
| CFR Qingdao Equivalent (exc. VAT ¹), USD/dry tonne | | | | | | | | | | | | | | |
| | | Jul-19 | Aug-19 | Sep-19 | Oct-19 | Nov-19 | Dec-19 | Jan-20 | Feb-20 | Mar-20 | Apr-20 | May-20 | Jun-20 | YTD 2020 |
| IOPLI62 | 62.5% Fe Lump | 132.99 | 108.08 | 98.44 | 101.74 | 97.89 | 102.01 | 108.99 | 106.19 | 110.46 | 104.89 | 104.46 | 111.88 | 107.69 |

FOT Qingdao Fines (inc. VAT¹)

Spreads (premiums/discounts) of port indices

FOT Qingdao Lump (inc. VAT¹)

62.5% Fe Lump Premium

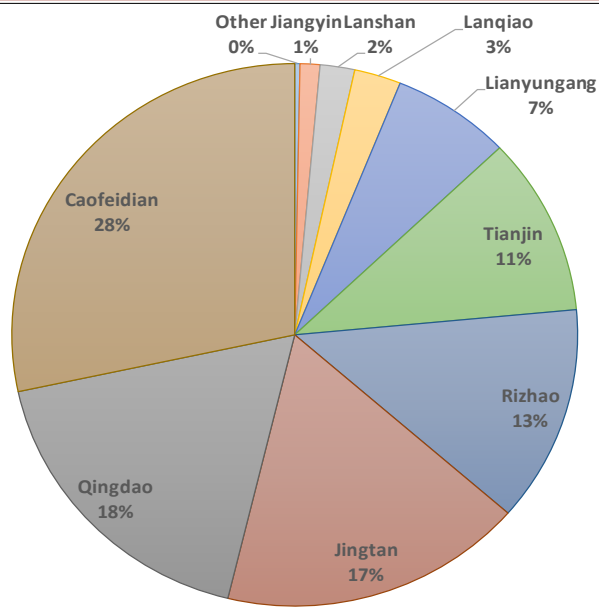
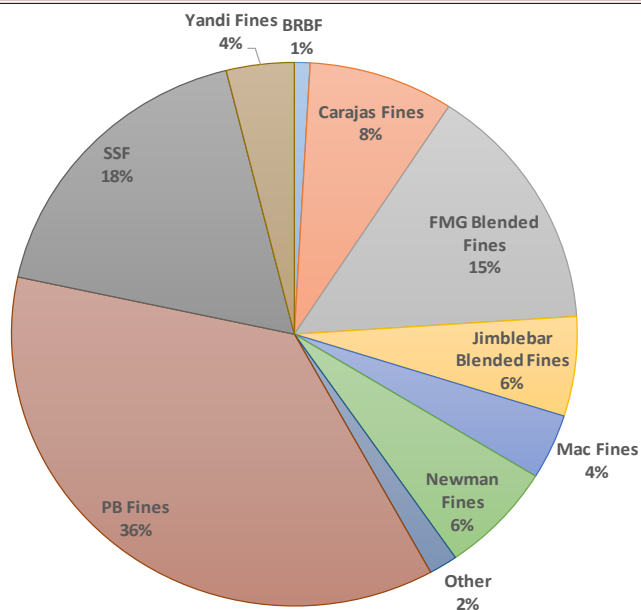


PORT PRICE DIFFERENTIALS TO QINGDAO PORT FOR PB FINES

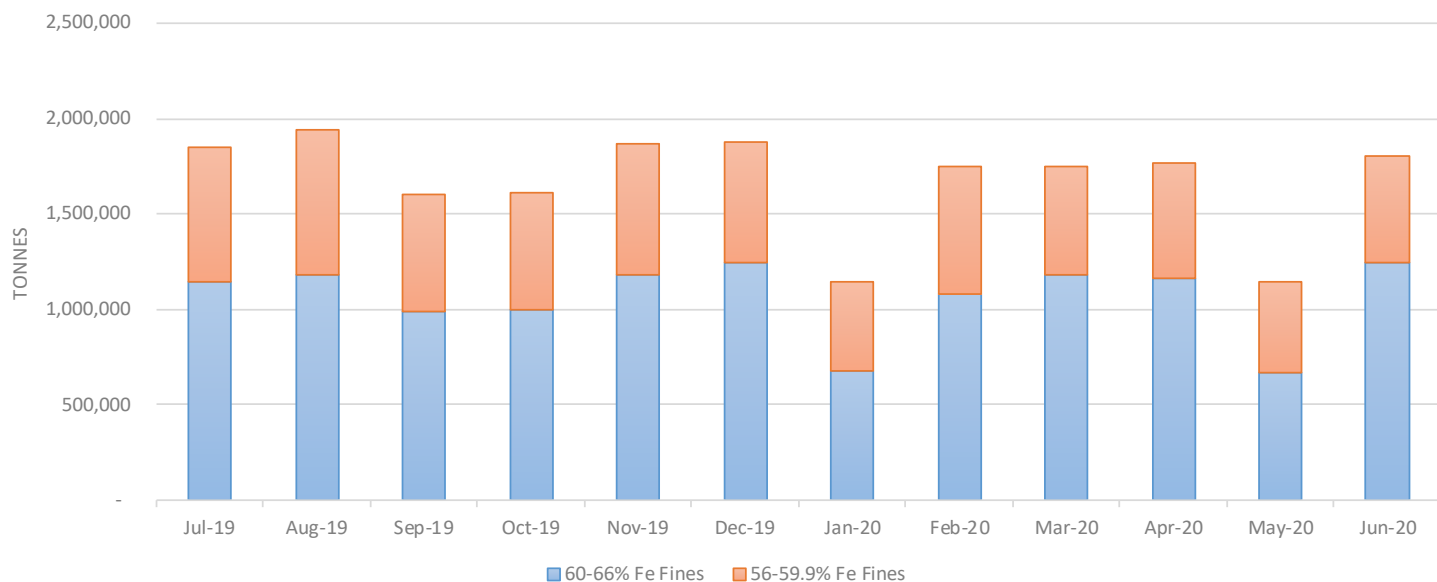
Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne) - June 2020 Average values

| Port | | Port | | Port | | Port | |
|------------|-------|-----------|--------|----------|--------|---------|--------|
| Bayuquan | -5.00 | Fangcheng | -5.00 | Lanqiao | 0.00 | Qingdao | 0.00 |
| Beilun | 0.00 | Huanghua | -5.00 | Lanshan | 0.00 | Rizhao | 0.00 |
| Caofeidian | -0.75 | Jiangyin | -15.50 | Majishan | 0.00 | Shekou | 0.00 |
| Dalian | -5.00 | Jingtang | -0.75 | Nantong | -15.50 | Tianjin | -10.25 |

IRON ORE PORT PRICE INDEX BRAND AND PORT MAKEUP—LAST 12 MONTHS



IRON ORE PORT PRICE INDEX COMPILATION VOLUME

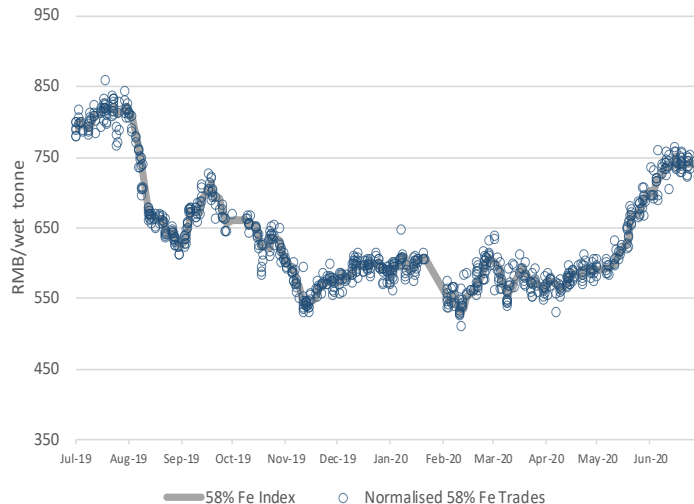


IRON ORE PORT PRICE INDEX COMPILATION

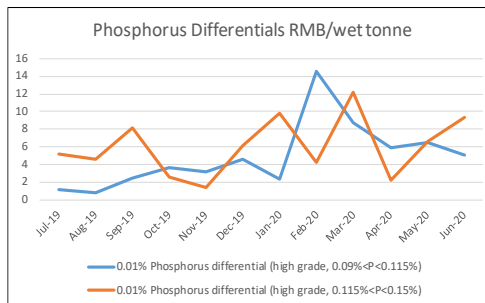
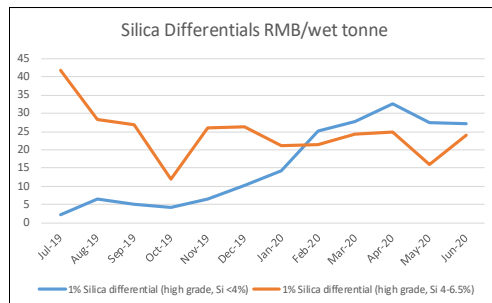
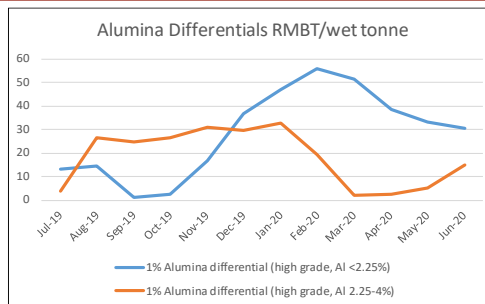
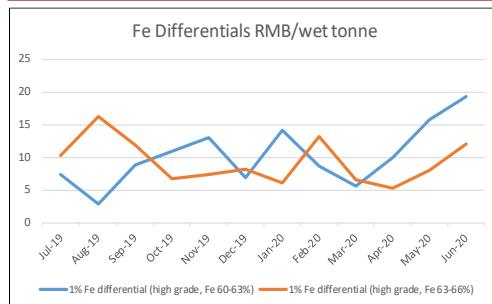
62% Fe Index vs Normalised 62% Fe Port Trades



58% Fe Index vs Normalised 58% Fe Port Trades



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



Outside of Fe, iron ore premiums and discounts such as alumina and silica did not show strong movements and were relatively stable for much of June. Productivity was key in June, boosting Fe premiums.

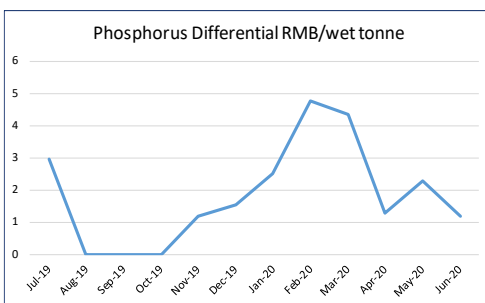
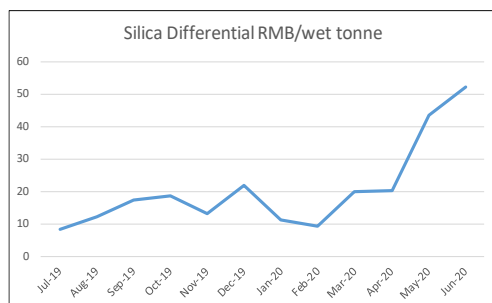
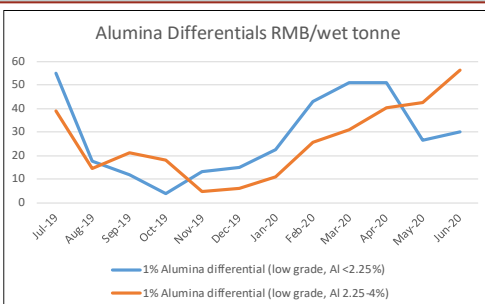
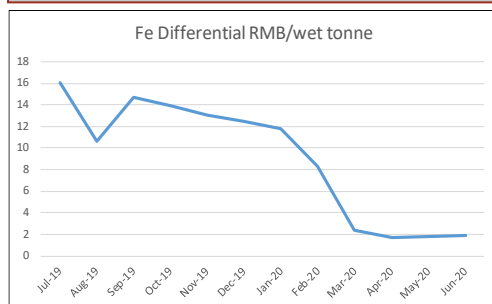
Decreased shipments of low-alumina iron ore from Brazil prompted domestic steel mills to increase use of domestic concentrates. SMM expects domestic iron ore prices to fall in July amid increased supply and weakening demand.

Operating rates at domestic Chinese iron ore mines rose in June as gains in domestic prices incentivised mines to step up production. Much of the decline of iron ore inventory at the mine sites was due to aggressive sales and strong domestic Chinese mill demand.

Despite this, supply of domestic and imported ore is expected to increase in July whilst demand is likely to fall due to production curbs in Tangshan.

Port inventories are likely to rise in July with rising shipments from Australia and Brazil, and falling demand from the steel mills.

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

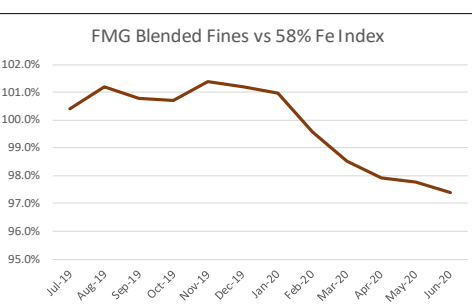
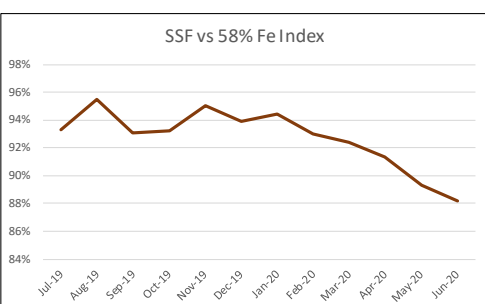
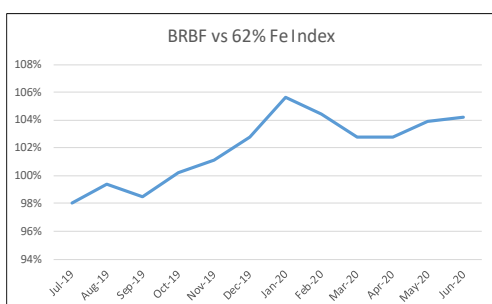
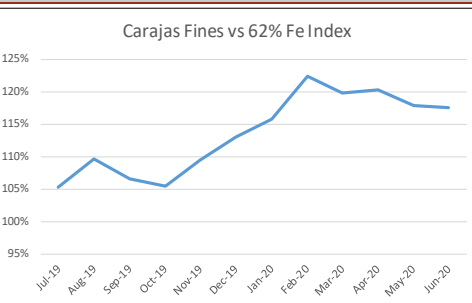
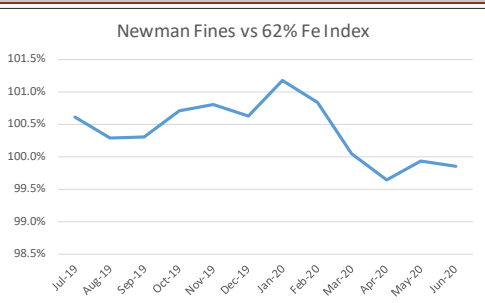
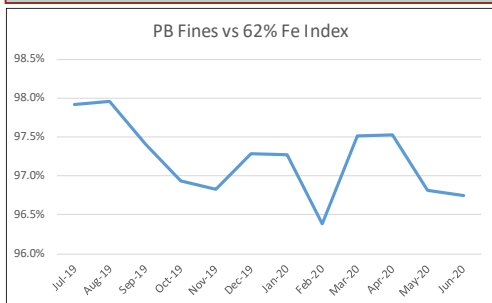


As in May, Fe premiums remained close to zero for low-grade products, consumers continuing to look to silica and alumina as key differentiators.

The relatively soft profit margins shown throughout May increased the appetite for low-grade products, as shown by the rising discounts for alumina and silica, whilst Fe was basically irrelevant.

SSF and FMG blended fines suffered in June, continuing their performance against 58% indices. Easing silica discounts and a return of Fe premiums would likely see this trend reverse.

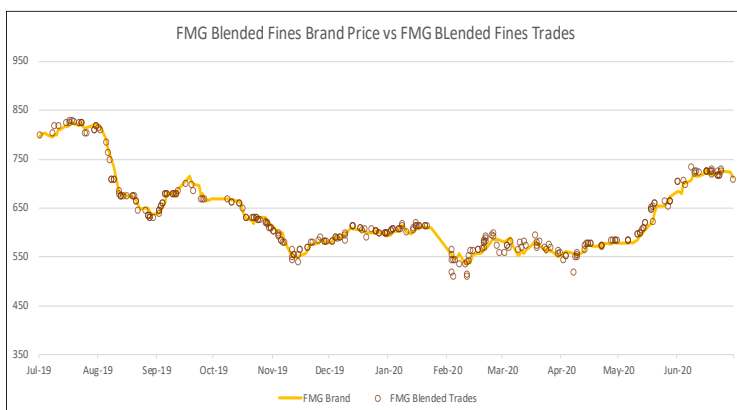
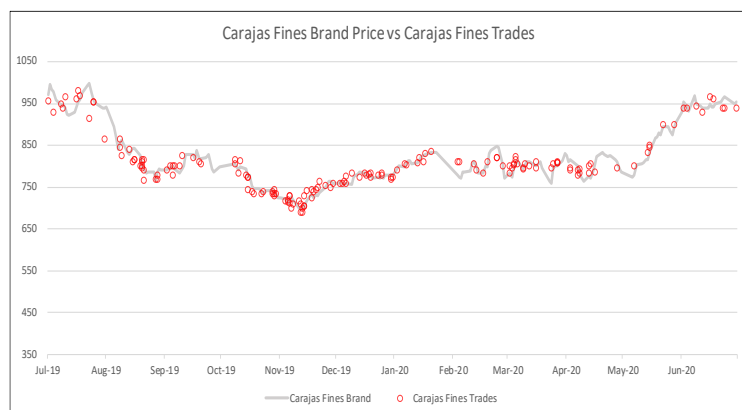
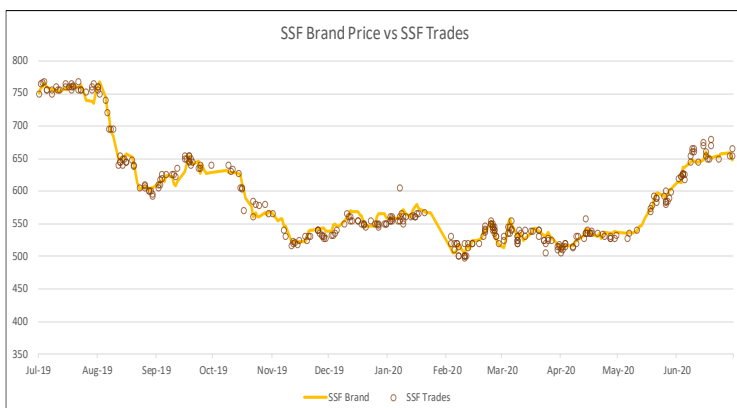
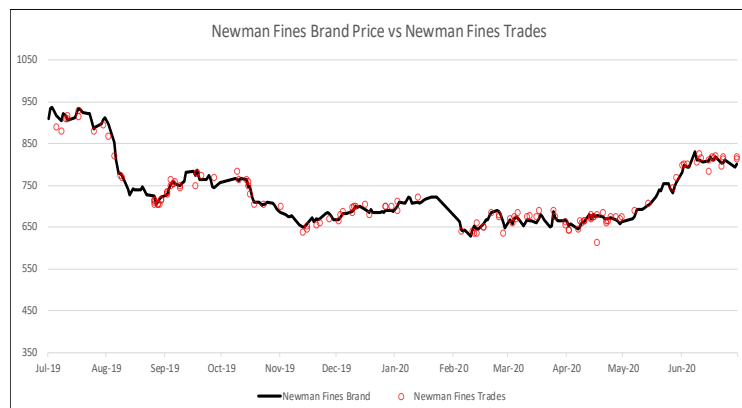
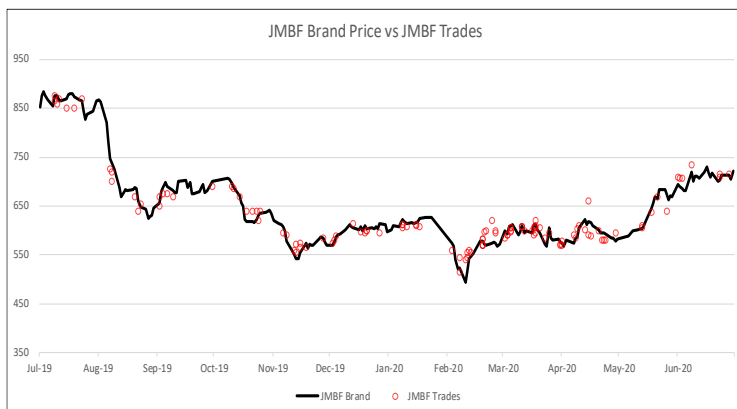
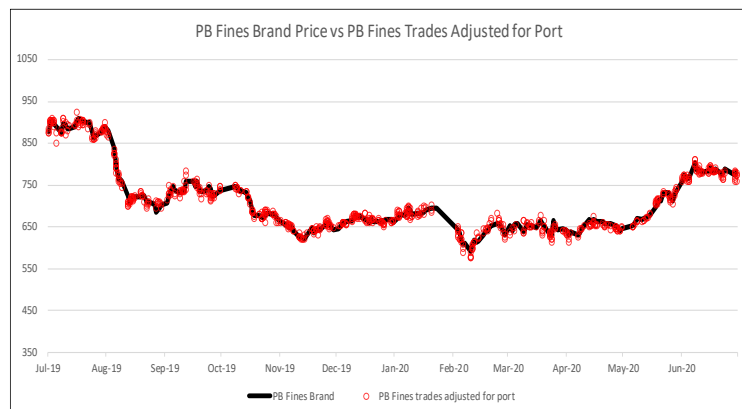
KEY PORT BRAND PRICE ASSESSMENTS VERSUS INDEX (MONTHLY AVERAGES)



IRON ORE PORT BRAND PRICE ASSESSMENTS MONTHLY AVERAGES

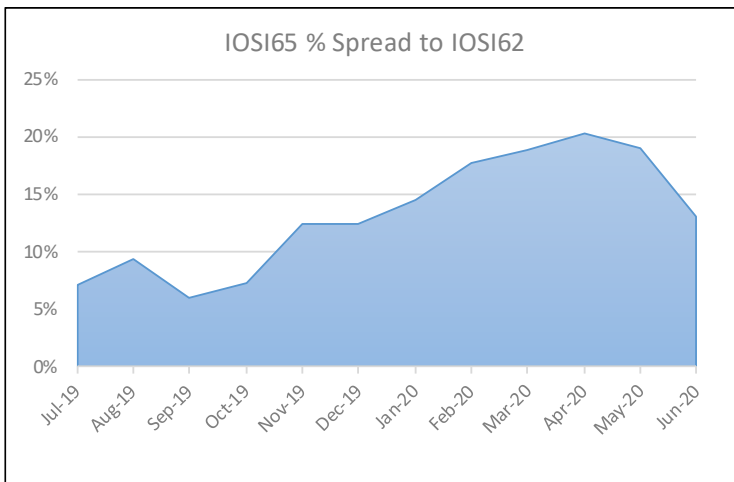
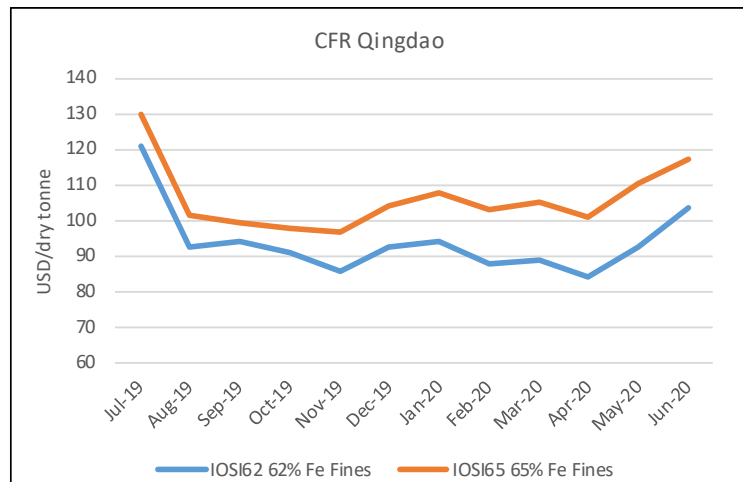
| FOT Qingdao (inc VAT ¹), RMB/wet tonne | | | | | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|
| Brand | Jul-19 | Aug-19 | Sep-19 | Oct-19 | Nov-19 | Dec-19 | Jan-20 | Feb-20 | Mar-20 | Apr-20 | May-20 | Jun-20 | YTD 2020 |
| PB Fines | 890 | 743 | 738 | 699 | 644 | 664 | 686 | 631 | 650 | 652 | 697 | 780 | 682 |
| Newman Fines | 915 | 761 | 760 | 726 | 670 | 687 | 714 | 660 | 667 | 666 | 719 | 805 | 704 |
| MAC Fines | 878 | 742 | 735 | 705 | 633 | 657 | 671 | 628 | 645 | 639 | 688 | 764 | 672 |
| Jimblebar Blended Fines | 858 | 676 | 689 | 631 | 571 | 606 | 618 | 555 | 596 | 593 | 639 | 706 | 617 |
| Carajas Fines | 957 | 832 | 807 | 760 | 728 | 772 | 816 | 802 | 798 | 804 | 848 | 948 | 836 |
| Brazilian Blend Fines | 891 | 754 | 746 | 722 | 672 | 702 | 745 | 684 | 685 | 687 | 748 | 841 | 730 |
| SSF | 755 | 660 | 628 | 593 | 539 | 556 | 567 | 523 | 534 | 530 | 570 | 644 | 560 |
| FMG Blended Fines | 812 | 699 | 679 | 640 | 575 | 599 | 606 | 560 | 569 | 568 | 624 | 712 | 605 |
| Yandi Fines | 836 | 688 | 658 | 612 | 553 | 570 | 596 | 576 | 593 | 594 | 610 | 696 | 611 |

KEY PORT BRAND PRICE ASSESSMENTS AND TRADED PRICES

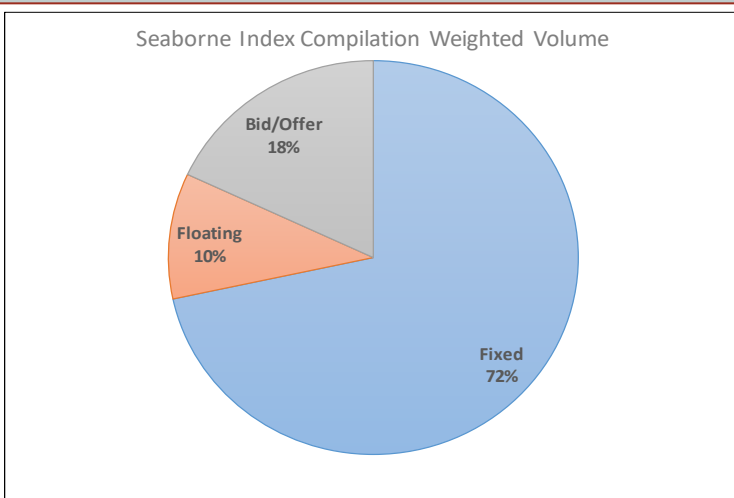
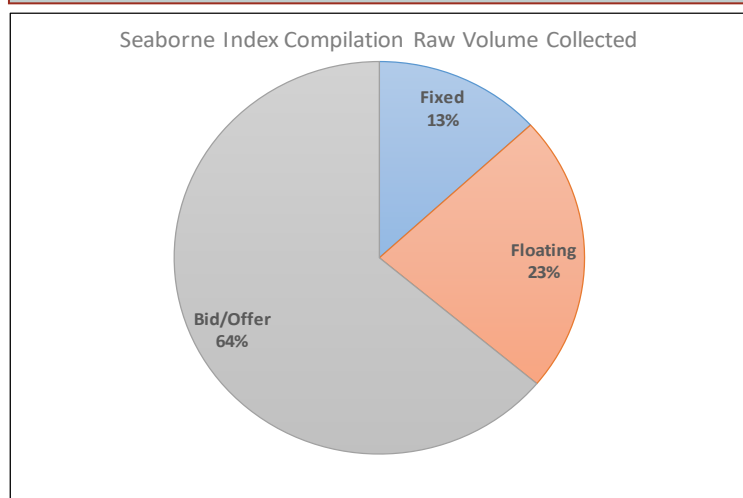


IRON ORE SEABORNE PRICE INDEX MONTHLY AVERAGES

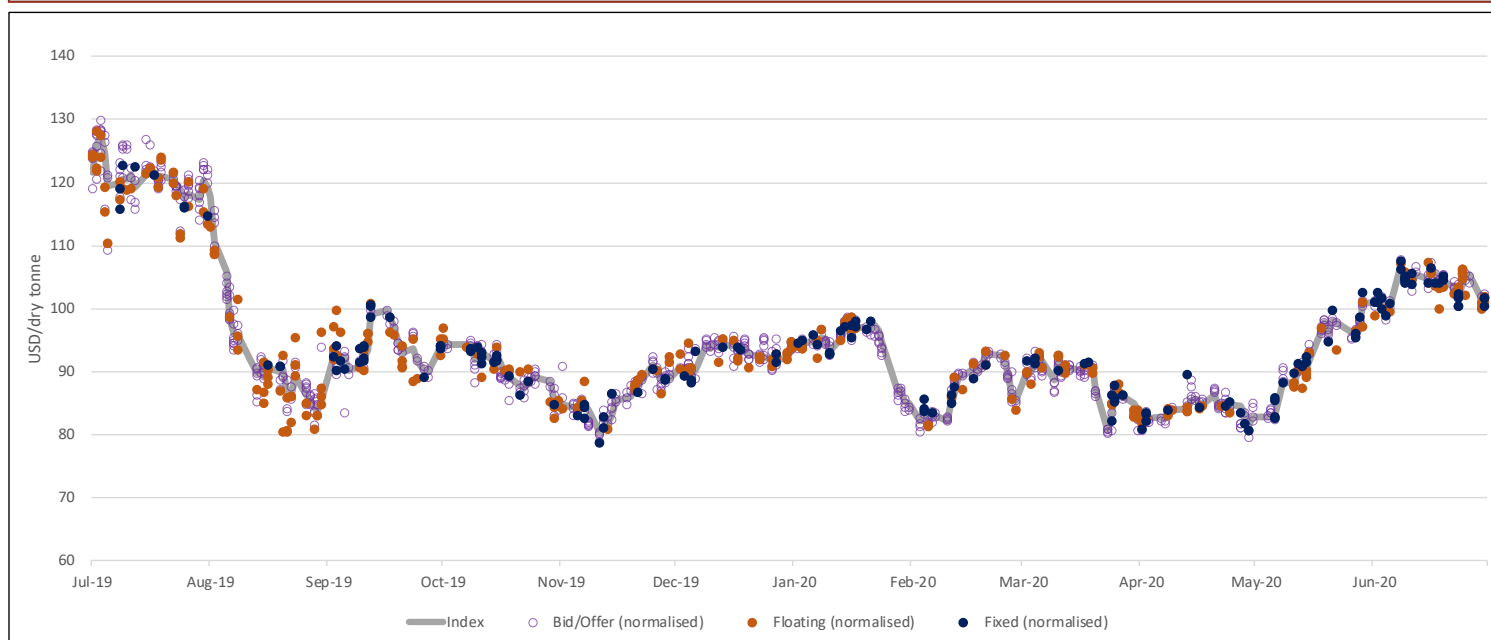
| CFR Qingdao, USD/dry tonne | | | | | | | | | | | | | | |
|----------------------------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|
| Index | Fe Content | Jul-19 | Aug-19 | Sep-19 | Oct-19 | Nov-19 | Dec-19 | Jan-20 | Feb-20 | Mar-20 | Apr-20 | May-20 | Jun-20 | YTD 2020 |
| IOSI62 | 62% Fe Fines | 120.82 | 92.61 | 93.76 | 90.81 | 85.83 | 92.64 | 93.85 | 87.46 | 88.60 | 83.89 | 92.47 | 103.49 | 91.70 |
| IOSI65 | 65% Fe Fines | 129.53 | 101.34 | 99.42 | 97.45 | 96.49 | 104.14 | 107.56 | 102.94 | 105.31 | 100.97 | 110.12 | 117.06 | 107.36 |



IRON ORE SEABORNE PRICE INDEX COMPILATION—LAST 12 MONTHS

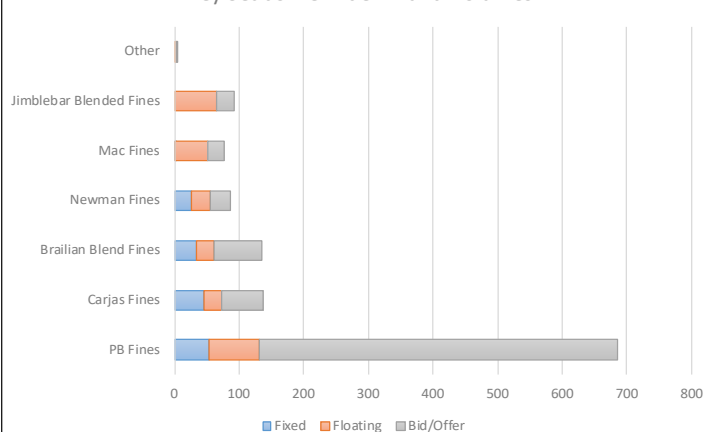


IRON ORE SEABORNE PRICE INDEX COMPILATION

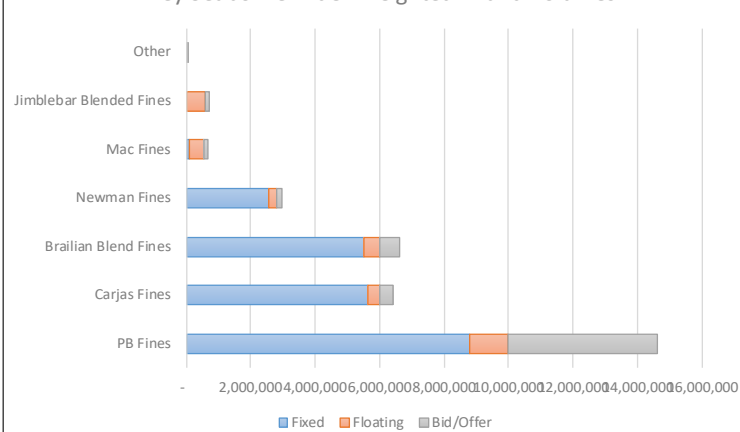


IRON ORE SEABORNE PRICE INDEX COMPILATION—LAST 12 MONTHS

Key Seaborne Index Brand Volumes

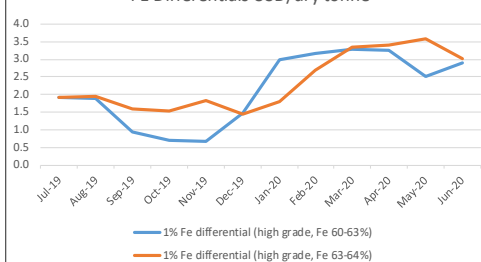


Key Seaborne Index Weighted Brand Volumes

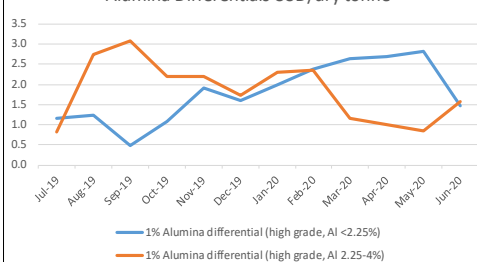


SEABORNE PRICE INDEX NORMALISATION DIFFERENTIALS (MONTHLY AVERAGES)

FE Differentials USD/dry tonne



Alumina Differentials USD/dry tonne



Carajas fines prices continued to recover versus the 62% indices as low inventories and weak supplies boosted its performance.

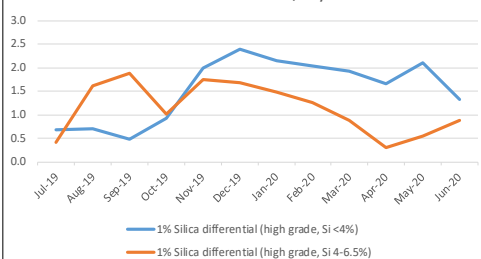
Profits at steel mills contracted in June due to the relatively high prices of iron ore and coke, though some recovery is expected in July as steel prices remain strong and iron ore prices are likely to decline.

Decreased shipments of low-alumina product prompted Chinese steel mills to increase the use of domestic concentrates.

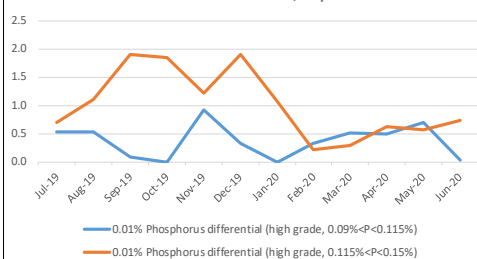
Steel mills are likely to increase maintenance programs at the blast furnace and reduce buying. This maintenance and COVID-19 in Brazil will increase supply-side uncertainty. Nevertheless, increased supply from Australia is likely to offset any potential Brazil short-fall.

Steel demand has shown signs of some weakening due to seasonal factors, hurt further by COVID-19.

Silica Differentials USD/dry tonne

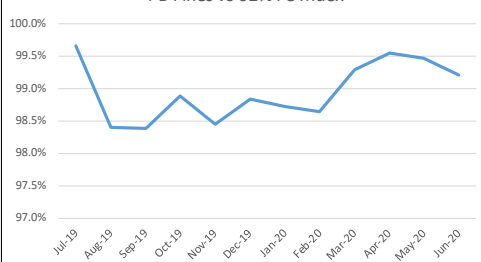


Phos Differentials USD/dry tonne

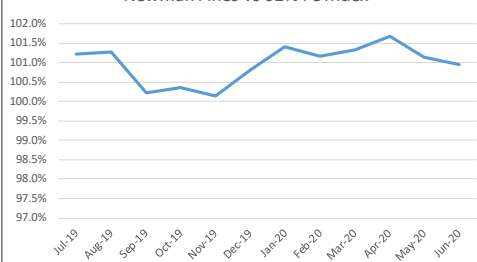


KEY SEABORNE BRAND PRICE ASSESSMENTS VERSUS 62% FE or 65% FE PRICE INDEX

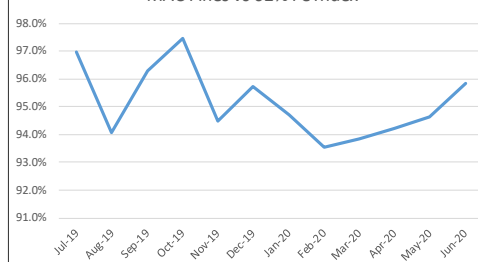
PB Fines vs 62% Fe Index



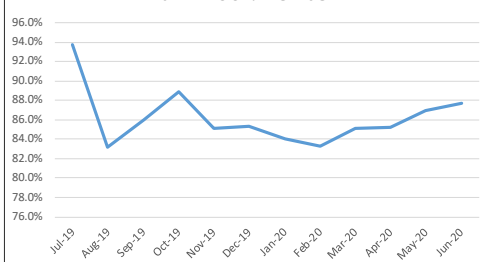
Newman Fines vs 62% Fe Index



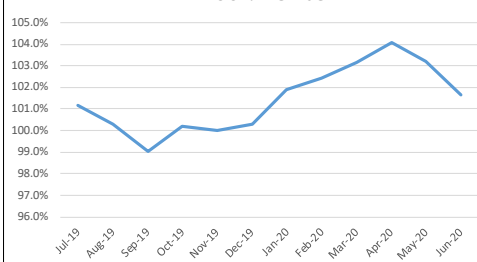
MAC Fines vs 62% Fe Index



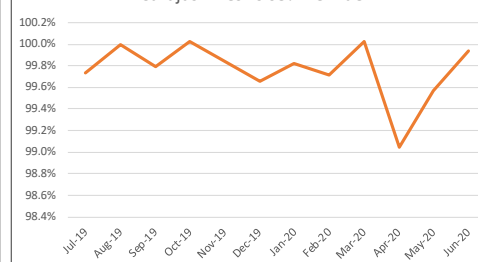
JMBF vs 62% Fe Index



BRBF vs 62% Fe Index



Carajas Fines vs 65% Fe Index

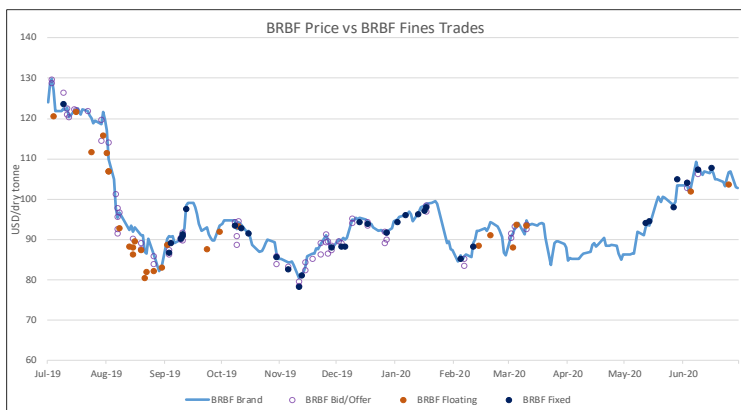
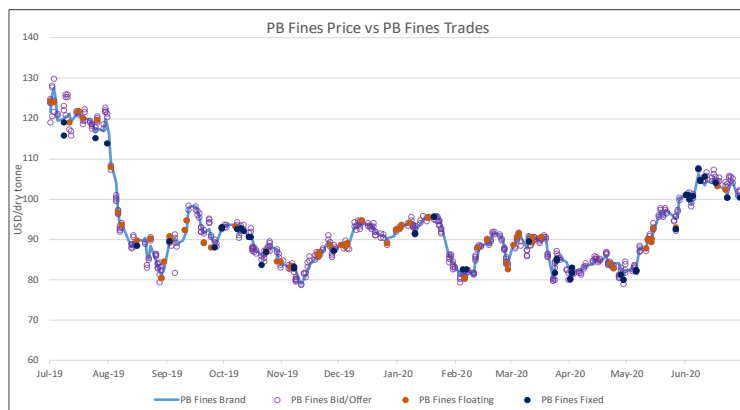


IRON ORE SEABORNE BRAND PRICE ASSESSMENTS

Selected Iron Ore Seaborne Brand Averages, USD/dry tonne

| Brand | Jul-19 | Aug-19 | Sep-19 | Oct-19 | Nov-19 | Dec-19 | Jan-20 | Feb-20 | Mar-20 | Apr-20 | May-20 | Jun-20 | YTD 2020 |
|-------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|
| PB Fines | 108.38 | 120.41 | 91.13 | 92.25 | 89.79 | 84.49 | 91.56 | 82.25 | 88.65 | 87.98 | 83.40 | 102.67 | 90.91 |
| Newman Fines | 110.50 | 122.30 | 93.78 | 93.97 | 91.13 | 85.95 | 93.38 | 95.19 | 88.47 | 89.79 | 85.18 | 104.47 | 92.86 |
| MAC Fines | 105.27 | 117.18 | 87.14 | 90.29 | 88.50 | 81.11 | 88.68 | 88.90 | 81.82 | 83.14 | 78.92 | 99.20 | 86.67 |
| Jimblebar Blended Fines | 103.21 | 113.27 | 77.01 | 80.58 | 80.72 | 73.07 | 79.01 | 78.90 | 72.80 | 75.42 | 71.36 | 90.78 | 78.34 |
| Carajas Fines | 124.05 | 129.18 | 101.34 | 99.21 | 97.48 | 96.34 | 103.78 | 107.36 | 102.65 | 105.33 | 100.01 | 116.99 | 107.04 |
| Brazilian Blend Fines | 112.64 | 122.24 | 92.89 | 92.87 | 91.01 | 85.85 | 92.92 | 95.65 | 89.60 | 91.40 | 87.19 | 105.17 | 94.14 |

KEY SEABORNE BRAND PRICE ASSESSMENTS AND TRADED PRICES

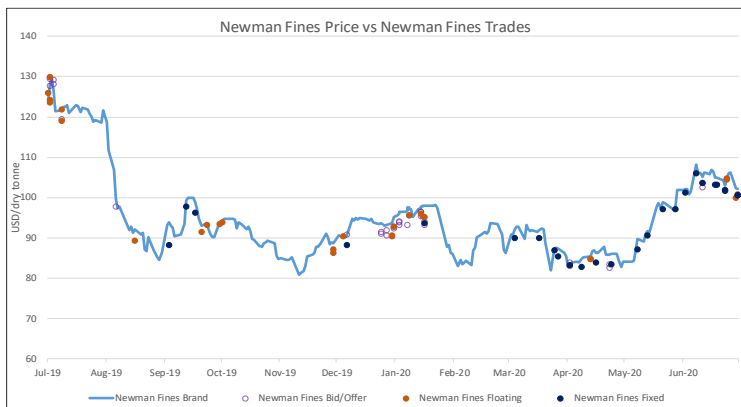
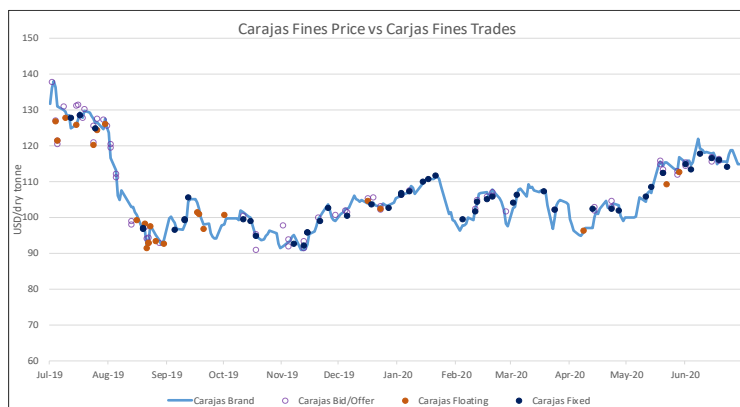


Correlations to PB Fines Brand Assessment

| | |
|--------------------------|--------|
| PB Fines Bid/Offer | 99.05% |
| PB Fines Floating trades | 97.88% |
| PB Fines Fixed trades | 98.88% |

Correlations to BRBF Brand Assessment

| | |
|----------------------|--------|
| BRBF Bid/Offer | 99.21% |
| BRBF Floating trades | 98.64% |
| BRBF Fixed trades | 99.43% |



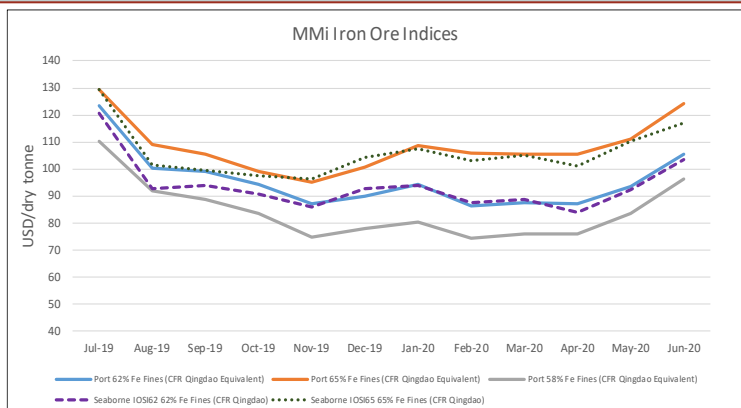
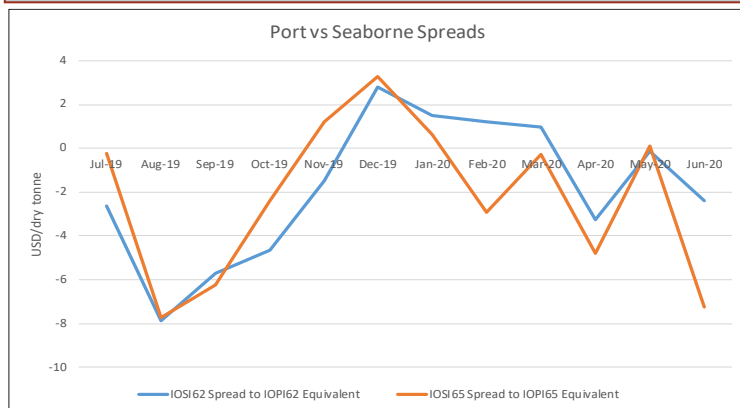
Correlations to Carajas Fines Brand Assessment

| | |
|-------------------------------|--------|
| Carajas Fines Bid/Offer | 97.23% |
| Carajas Fines Floating trades | 98.41% |
| Carajas Fines Fixed trades | 98.21% |

Correlations to Newman Fines Brand Assessment

| | |
|------------------------------|--------|
| Newman Fines Bid/Offer | 99.50% |
| Newman Fines Floating trades | 99.35% |
| Newman Fines Fixed trades | 98.86% |

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 | |
| Fe % | 65.00 | 62.00 | 58.00 | 62.50 | 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. |
| 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: www.mmiprices.com |
| 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) | |
| IOP162 | IRCNQ001 | IRCNQ004 | IOS162 | IRCNO034 | |
| IOP158 | IRCNQ002 | IRCNQ005 | IOS165 | IRCNO035 | |
| IOP165 | IRCNQ003 | IRCNQ006 | | | |
| IOP162 | IRCNO036 | IRCNO037 | | | |

AVERAGE IRON ORE BRAND SPECIFICATIONS FOR JUNE 2020

| PORT STOCK BRANDS | | | | | | SEABORNE BRANDS | | | | | |
|-------------------------|--|---------|--------|--------|----------|-------------------------|--|---------|--------|--------|----------|
| | 62% Fe average brand specifications for July-19 to June-20 | | | | | | Specifications applied for 62% brand assessments | | | | |
| | Fe | Alumina | Silica | Phos | Moisture | | Fe | Alumina | Silica | Phos | Moisture |
| Roy Hill | 60.83% | 2.31% | 4.67% | 0.056% | 9.15% | 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 | 61.52% | 2.35% | 3.81% | 0.100% | 9.41% | PB Fines 62% | 62.00% | 2.60% | 4.30% | 0.090% | 10.00% |
| Newman Fines | 62.44% | 2.26% | 4.13% | 0.085% | 7.79% | Newman Fines | 62.30% | 2.70% | 5.00% | 0.110% | 8.70% |
| MAC Fines | 60.80% | 2.29% | 4.66% | 0.078% | 7.75% | MAC Fines | 60.80% | 2.35% | 4.70% | 0.080% | 7.80% |
| Jimblebar Blended Fines | 60.43% | 3.07% | 4.66% | 0.115% | 7.76% | Jimblebar Blended Fines | 59.50% | 3.70% | 5.80% | 0.135% | 8.30% |
| Carajas Fines | 65.36% | 1.29% | 1.50% | 0.078% | 8.09% | 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 | 62.93% | 1.47% | 4.70% | 0.075% | 7.99% | 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 July-19 to June-20 | | | | |
|-------------------|--|---------|--------|--------|----------|
| | Fe | Alumina | Silica | Phos | Moisture |
| SSF | 56.66% | 3.08% | 6.22% | 0.060% | 8.79% |
| FMG Blended Fines | 58.15% | 2.63% | 5.54% | 0.031% | 8.03% |
| Robe River | 56.36% | 3.17% | 5.70% | 0.039% | 8.82% |
| Western Fines | 57.88% | 2.87% | 7.50% | 0.062% | 7.45% |
| Atlas Fines | 58.00% | 1.85% | 5.50% | 0.090% | 9.00% |
| Yandi | 57.16% | 1.61% | 6.43% | 0.038% | 9.07% |

CONTACT US

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| MMi Singapore Office Details: Level 28, Manulife Tower, 8 Cross Street Singapore. Tel: + 65 6850 7629 E: jarek@mmiprices.com SMM Singapore Office Details: Level 28, Manulife Tower, 8 Cross Street Singapore. Tel: + 65 6850 7630 E: 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 | Visit www.mmiprices.com for full index price histories and archive of daily reports |
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