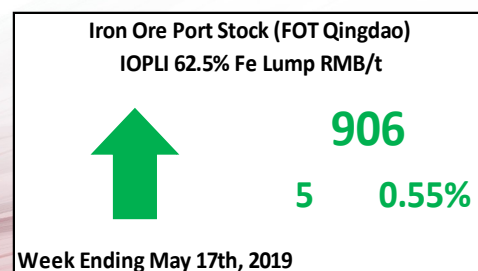
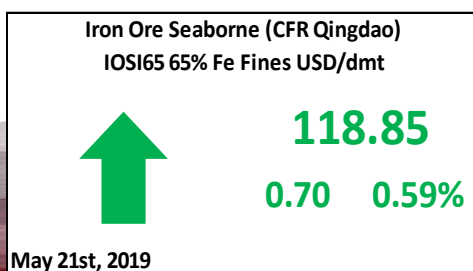
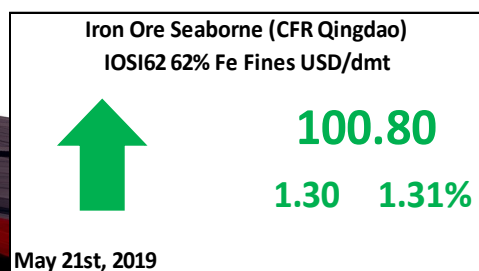
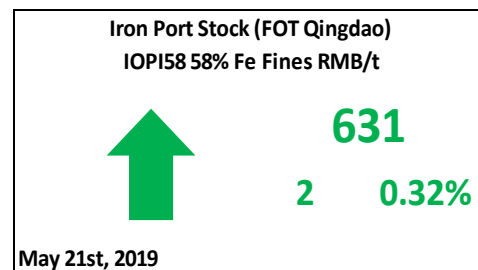
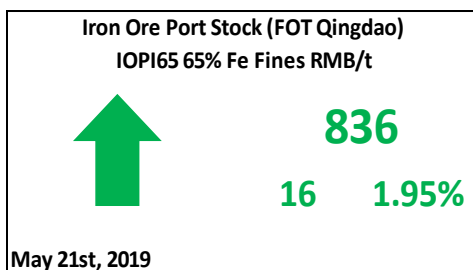
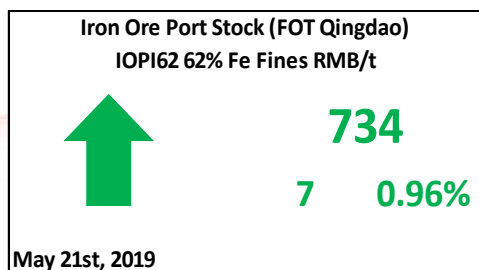


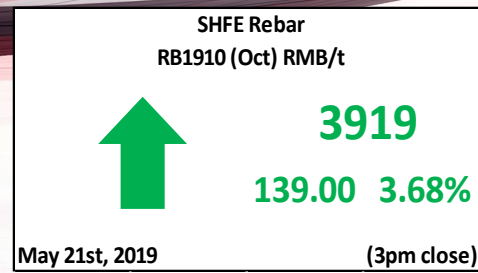
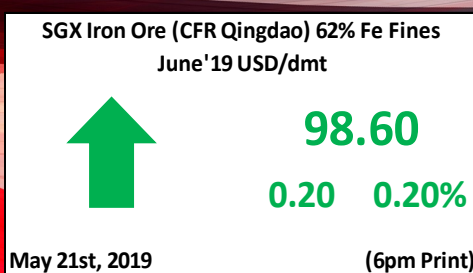
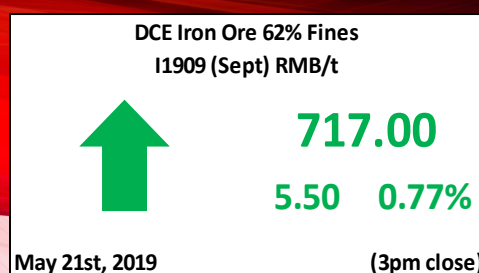


# MMi Dashboard

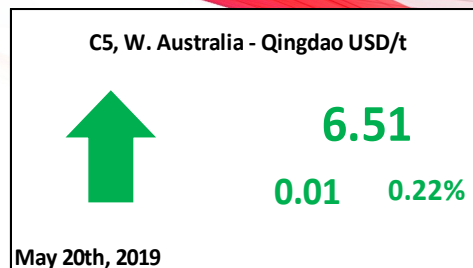
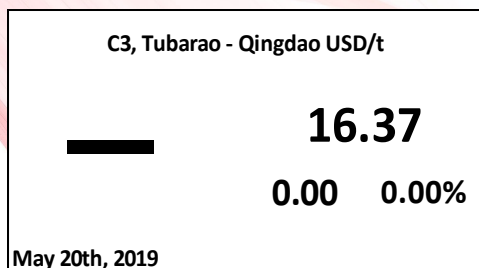
## Iron Ore Price Indices



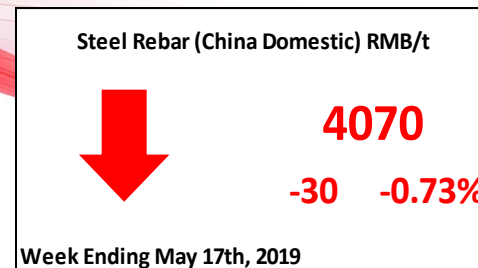
## Exchange Traded Contracts



## Freight Rates



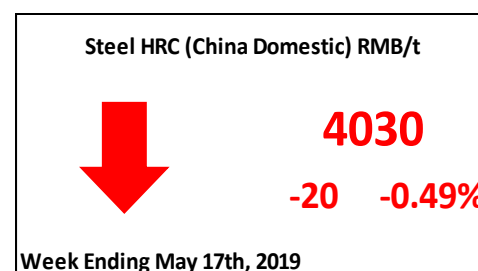
## Steel Price



## Inventory Levels



## Steel Price



## IRON ORE PORT STOCK INDEX (IOPI)

| May 21st, 2019 |              | FOT Qingdao (inc. 13% VAT), RMB/wet tonne |        |          |     |     |                  |                   | CFR Qingdao Equivalent (exc. 13% 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 | 734                                       | 7      | 1.0%     | 701 | 644 | 453              | 734               | 98.56   | 1.10   | 1.1%     | 94.85  | 86.36 | 61.66            | 98.56             |
| IOPI58         | 58% Fe Fines | 631                                       | 2      | 0.3%     | 619 | 557 | 317              | 631               | 85.11   | 0.39   | 0.5%     | 84.28  | 74.37 | 41.71            | 85.11             |
| IOPI65         | 65% Fe Fines | 836                                       | 16     | 2.0%     | 783 | 725 | 559              | 836               | 112.80  | 2.37   | 2.1%     | 106.43 | 97.72 | 77.70            | 112.80            |

## IRON ORE SEABORNE INDEX (IOSI)

## MARKET COMMENTARY

| May 21st, 2019 |              | CFR Qingdao, USD/dry tonne |        |          |        |        |                  |                   | Eighty-four vessels carrying 11.97 million mt of iron ore arrived at major Chinese ports during May 12-18, down 360,000 mt from the previous week, SMM forecasted on Tuesday May 21. Lower shipments from Australia and Brazil will keep iron ore port stocks from building up, and this may continue to support prices. For the same week, iron ore deliveries departing Australian ports decreased 260,000 mt, to stand at 14.82 million mt. Iron ore leaving Brazilian ports was expected to lose 430,000 mt week on week, to 4.75 million mt during May 12-18. Total port stock transactions surged today, receiving an added boost as iron ore DCE Futures market shot higher just prior to closing. Traders seem more excited and some mills are indeed looking to buy, both contributing to today's booming trades. According to SMM, iron ore arrivals are still at low levels whilst mills demand remain high and in addition to low iron ore inventory levels in plants, iron ore prices may continue seeing bullish pricing behaviour. |  |  |  |  |  |  |  |
|----------------|--------------|----------------------------|--------|----------|--------|--------|------------------|-------------------|---|--|--|--|--|--|--|--|
| Index          | Fe Content   | Price                      | Change | Change % | MTD    | YTD    | Low <sup>3</sup> | High <sup>3</sup> |   |  |  |  |  |  |  |  |
| IOSI62         | 62% Fe Fines | 100.80                     | 1.30   | 1.31%    | 95.56  | 86.95  | 62.95            | 100.80            |   |  |  |  |  |  |  |  |
| IOSI65         | 65% Fe Fines | 118.85                     | 0.70   | 0.59%    | 112.68 | 100.76 | 83.20            | 118.85            |   |  |  |  |  |  |  |  |

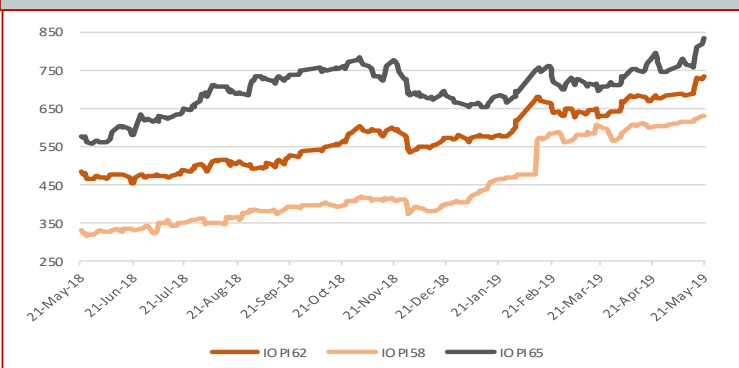
## IRON ORE PORT LUMP INDEX (IOPLI)

| Week Ending May 17th, 2019 |               | FOT Qingdao (inc. 16% VAT), RMB/wet tonne |       |          |     |     |                  |                   | CFR Qingdao Equivalent (exc. 16% VAT), USD/dry tonne <sup>4</sup> |       |          |        |        |                  |                   |
|----------------------------|---------------|---|-------|----------|-----|-----|------------------|-------------------|---|-------|----------|--------|--------|------------------|-------------------|
| Index                      | Fe Content    | Price                                     | W-o-W | Change % | MTD | YTD | Low <sup>3</sup> | High <sup>3</sup> | Price   | W-o-W | Change % | MTD    | YTD    | Low <sup>3</sup> | High <sup>3</sup> |
| IOPLI62                    | 62.5% Fe Lump | 906                                       | 5     | 0.6%     | 899 | 849 | 575              | 906               | 115.09  | -0.77 | -0.66%   | 115.34 | 109.30 | 76.66            | 115.86            |

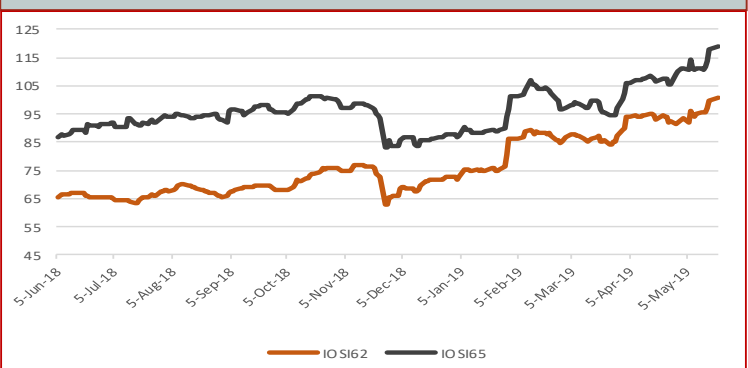
## IRON ORE DOMESTIC CONCENTRATE SPOT PRICE ASSESSMENTS AND COMPOSITE INDEX

| Week Ending May 17th, 2019                     |         |                    |       | RMB/tonne (excluding tax) <sup>4</sup> |          |                  |                   | USD/tonne (excluding tax) <sup>4</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   | 845                                    | 0.7%     | 592              | 845               | 123.35  | -0.65%   | 91.97            | 124.15            |
| Hebei  | Qian'an | 65% Fe Concentrate | Dry   | 795                                    | 0.0%     | 635              | 815               | 116.05  | -1.35%   | 100.26           | 117.64            |
| Liaoning                                       | Anshan  | 65% Fe Concentrate | Wet   | 605                                    | 0.0%     | 450              | 745               | 88.32   | -1.35%   | 68.21            | 89.53             |
| Shandong                                       | Zibo    | 65% Fe Concentrate | Dry   | 835                                    | 1.8%     | 655              | 860               | 121.89  | 0.45%    | 99.75            | 127.11            |
| Week Ending May 17th, 2019                     |         |                    |       | This week                              | Change % | Low <sup>2</sup> | High <sup>2</sup> | <sup>1</sup> Exchange rate applied: RMB/USD = 6.8988 <sup>2</sup> Last 12 months <sup>3</sup> Since June 1<br><sup>4</sup> Weekly exchange rate applied: RMB/USD 6.8503 |          |                  |                   |
| China Mines Concentrate Composite Index RMB/WT |         |                    |       | 690.77                                 | 0.9%     | 535.58           | 686.95            |   |          |                  |                   |

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



## IRON ORE SEABORNE INDEX, CFR QINGDAO (USD/DMT)



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

| May 21st, 2019 |              | FOT Qingdao (inc. 13% VAT), RMB/wet tonne |          |       |       |     |     |     | CFR Qingdao Equivalent (exc. 13% VAT), USD/dry tonne |          |       |       |        |        |       |
|----------------|--------------|---|----------|-------|-------|-----|-----|-----|--|----------|-------|-------|--------|--------|-------|
| Index          | Fe Content   | January                                   | February | March | April | MTD | QTD | YTD | January  | February | March | April | MTD    | QTD    | YTD   |
| IOPI62         | 62% Fe Fines | 580                                       | 654      | 639   | 675   | 701 | 684 | 644 | 72.55  | 76.16    | 87.09 | 85.37 | 94.85  | 93.47  | 86.36 |
| IOPI58         | 58% Fe Fines | 448                                       | 569      | 583   | 600   | 619 | 607 | 557 | 50.47  | 57.99    | 75.22 | 77.49 | 84.28  | 82.91  | 74.37 |
| IOPI65         | 65% Fe Fines | 670                                       | 733      | 714   | 753   | 783 | 764 | 725 | 99.05  | 88.65    | 98.08 | 95.78 | 106.43 | 104.83 | 97.72 |

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

## FREIGHT RATES

| May 21st, 2019 |              | CFR Qingdao, USD/dry tonne |          |       |        |        |        |        | May 20th, 2019         |             |        |          | FREIGHT RATES - DRY BULK US\$/wet tonne |                   |       |  |
|----------------|--------------|----------------------------|----------|-------|--------|--------|--------|--------|------------------------|-------------|--------|----------|---|-------------------|-------|--|
| Index          | Fe Content   | January                    | February | March | April  | MTD    | QTD    | YTD    | Route                  | Designation | Change | Change % | Low <sup>2</sup>                        | High <sup>2</sup> |       |  |
| IOSI62         | 62% Fe Fines | 76.09                      | 87.39    | 86.18 | 93.42  | 95.56  | 94.24  | 86.95  | W. Australia - Qingdao | C5          | 6.51   | 0.01     | 0.22%                                   | 4.39              | 10.00 |  |
| IOSI65         | 65% Fe Fines | 89.92                      | 102.56   | 97.22 | 106.75 | 112.68 | 109.01 | 100.76 | Tubarao - Qingdao      | C3          | 16.37  | 0.00     | 0.00%                                   | 11.61             | 24.76 |  |

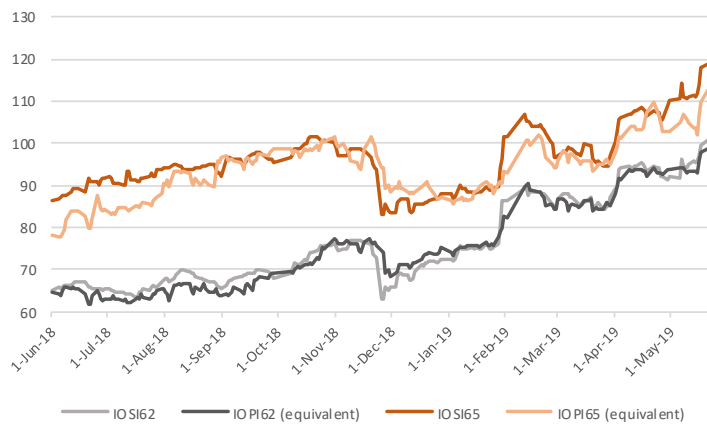
## IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

| Week Ending May 17th, 2019 |               | FOT Qingdao (inc. 16% VAT), RMB/wet tonne |          |       |       |     |     |     | CFR Qingdao Equivalent (exc. 16% VAT), USD/dry tonne <sup>1</sup> |          |       |        |        |        |        |
|----------------------------|---------------|---|----------|-------|-------|-----|-----|-----|---|----------|-------|--------|--------|--------|--------|
| Index                      | Fe Content    | January                                   | February | March | April | MTD | QTD | YTD | January   | February | March | April  | MTD    | QTD    | YTD    |
| IOPLI62                    | 62.5% Fe Lump | 782                                       | 842      | 858   | 872   | 899 | 884 | 849 | 96.21   | 94.22    | 99.57 | 111.03 | 115.34 | 113.98 | 109.33 |

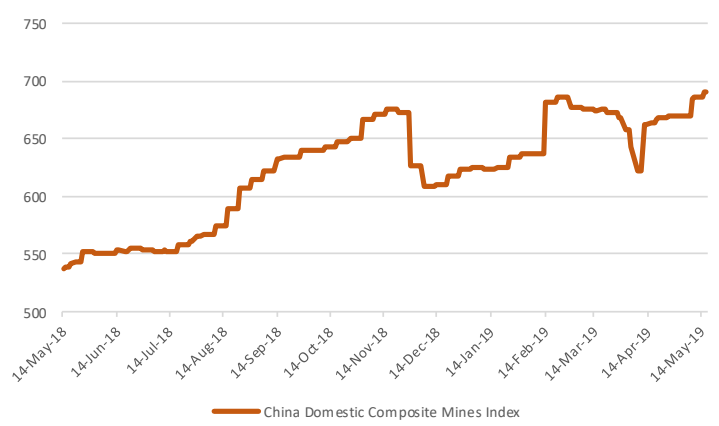
## IRON ORE INDEX PREMIUMS/DISCOUNTS

| May 21st, 2019 |              | PORT STOCK INDEX (RMB/WT) |  |                    |  | May 21st, 2019 |              | SEABORNE INDEX (USD/DMT) |  |                    |  |
|----------------|--------------|---------------------------|--|--------------------|--|----------------|--------------|--------------------------|--|--------------------|--|
| Index          | Fe Content   | Spread to IOPI62          |  | % Spread to IOPI62 |  | Index          | Fe Content   | Spread to IOSI62         |  | % Spread to IOSI62 |  |
| IOPI58         | 58% Fe Fines | -103                      |  | -14.03%            |  | IOSI65         | 65% Fe Fines | 18.05                    |  | 17.91%             |  |
| IOPI65         | 65% Fe Fines | 102                       |  | 13.90%             |  |                |              |                          |  |                    |  |

## IRON ORE INDEX COMPARISONS (USD/DMT)



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



## IRON ORE BRAND SPOT PRICE ASSESSMENTS

| May 21st, 2019          | PORT STOCK INDEX (RMB/WT) |        |                | May 21st, 2019          | SEABORNE INDEX (USD/DMT) |        |                |
|-------------------------|---------------------------|--------|----------------|-------------------------|--------------------------|--------|----------------|
|                         | Price                     | Change | Diff to IOPI62 |                         | Price                    | Change | Diff to IOSI62 |
| Roy Hill                | 708                       | 7      | -26            | Roy Hill                | 97.12                    | 1.31   | -3.68          |
| SIMEC Fines             | 704                       | 10     | -30            | SIMEC Fines             | 95.20                    | 1.31   | -5.60          |
| PB Fines                | 718                       | 7      | -16            | PB Fines                | 100.10                   | 1.39   | -0.70          |
| Newman Fines            | 742                       | 7      | 8              | Newman Fines            | 103.21                   | 1.30   | 2.41           |
| MAC Fines               | 714                       | 8      | -20            | MAC Fines               | 96.15                    | 1.41   | -4.65          |
| Jimblebar Blended Fines | 694                       | 7      | -40            | Jimblebar Blended Fines | 93.20                    | 1.56   | -7.60          |
| Carajas Fines           | 845                       | 15     | 111            | Carajas Fines           | 118.69                   | 1.30   | 17.89          |
| Brazilian SSF           | 768                       | 18     | 34             | Brazilian SSF           | 106.11                   | 1.30   | 5.31           |
| Brazilian Blend Fines   | 761                       | 13     | 27             | Brazilian Blend Fines   | 105.36                   | 1.30   | 4.56           |
| RTX Fines               | 696                       | 9      | -38            | RTX Fines               | 93.60                    | 1.51   | -7.20          |

| May 21st, 2019    | PORT STOCK INDEX (RMB/WT) |        |                |
|-------------------|---------------------------|--------|----------------|
|                   | Price                     | Change | Diff to IOPI58 |
| SSF               | 601                       | -1     | -30            |
| FMG Blended Fines | 635                       | 2      | 4              |
| Robe River        | 595                       | -1     | -36            |
| Western Fines     | 628                       | 1      | -3             |
| Atlas Fines       | 612                       | 0      | -19            |
| Yandi             | 646                       | 1      | 15             |

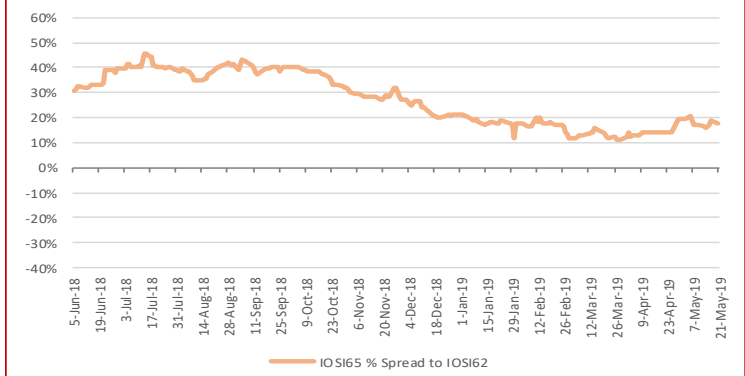
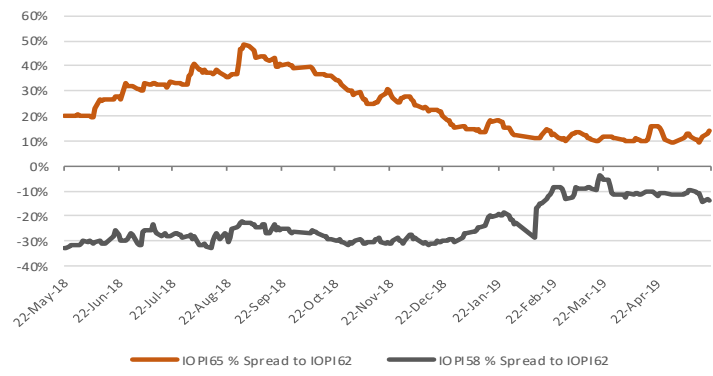
## IRON ORE INDEX NORMALISATION DIFFERENTIALS

| Port Stock Index Product Differentials (RMB/wet tonne) |                              |       |        | Seaborne Index Product Differentials (USD/dry tonne) |                              |       |        |  |
|--|------------------------------|-------|--------|--|------------------------------|-------|--------|--|
|  | Applicable range             | Value | Change |  | Applicable range             | Value | Change |  |
| 1% Fe  | High Grade Fe 60 - 63%       | 10.00 | 0.00   | 1% Fe  | High Grade Fe 60 - 63%       | 2.75  | 0.00   |  |
|  | High Grade Fe 63 - 64%       | 19.00 | 0.00   |  | High Grade Fe 63 - 64%       | 3.50  | 0.00   |  |
|  | High Grade Fe 64 - 65%       | 19.00 | 0.00   |  | High Grade Fe 64 - 65%       | 3.50  | 0.00   |  |
|  | High Grade Fe 65 - 65.5%     | 19.00 | 0.00   |  | High Grade Fe 65 - 65.5%     | 3.50  | 0.00   |  |
|  | Low Grade Fe                 | 12.00 | 1.00   |  |                              |       |        |  |
| 1% Alumina   | High Fe Grade Al <2.25%      | 36.00 | 6.00   | 1% Alumina   | High Fe Grade Al <2.25%      | 4.25  | 0.00   |  |
|  | High Fe Grade Al 2.25-4%     | 0.00  | 0.00   |  | High Fe Grade Al 2.25-4%     | 2.00  | -0.25  |  |
|  | Low Fe Grade Al <2.25%       | 50.00 | 0.00   |  |                              |       |        |  |
|  | Low Fe Grade Al 2.25-4%      | 20.00 | 2.00   |  |                              |       |        |  |
| 1% Silica  | High Fe Grade Si <4%         | 9.00  | 1.00   | 1% Silica  | High Fe Grade Si <4%         | 2.00  | 0.00   |  |
|  | High Fe Grade Si 4-6.5%      | 11.00 | -1.00  |  | High Fe Grade Si 4 - 6.5%    | 0.00  | 0.00   |  |
| 0.01% Phosphorus                                       | High Fe Grade 0.09%<P<0.115% | 4.00  | 0.00   | 0.01% Phosphorus                                     | High Fe Grade 0.09%<P<0.115% | 0.50  | 0.00   |  |
|  | High Fe Grade 0.115%<P<0.15% | 8.00  | -1.00  |  | High Fe Grade 0.115%<P<0.15% | 0.75  | 0.00   |  |
|  | Low Fe Grade 0.09<P<0.1%     | 10.00 | 1.00   |  |                              |       |        |  |

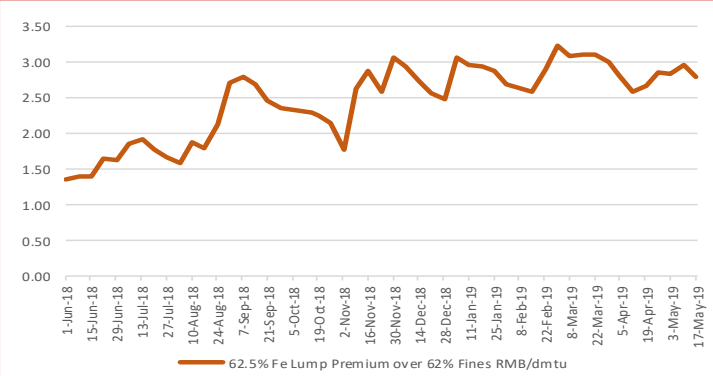
## Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

| Port       | Value  | Change | Port      | Value  | Change | Port        | Value  | Change | Port    | Value  | Change |
|------------|--------|--------|-----------|--------|--------|-------------|--------|--------|---------|--------|--------|
| Bayuquan   | -35.00 | 0.00   | Fangcheng | -5.00  | 0.00   | Lanshan     | 0.00   | 0.00   | Qingdao | 0.00   | 0.00   |
| Beilun     | 5.00   | 0.00   | Jiangyin  | -25.00 | 0.00   | Lianyungang | -5.00  | 0.00   | Rizhao  | 0.00   | 0.00   |
| Caofeidian | 0.00   | 0.00   | Jingtang  | 0.00   | 0.00   | Majishan    | 0.00   | 0.00   | Shekou  | 0.00   | 0.00   |
| Dalian     | -35.00 | 0.00   | Lanqiao   | 0.00   | 0.00   | Nantong     | -25.00 | 0.00   | Tianjin | -20.00 | 0.00   |

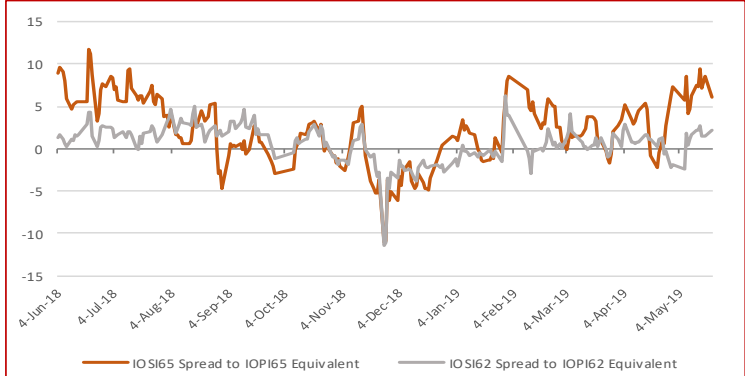
IRON ORE INDEX PREMIUMS/DISCOUNTS



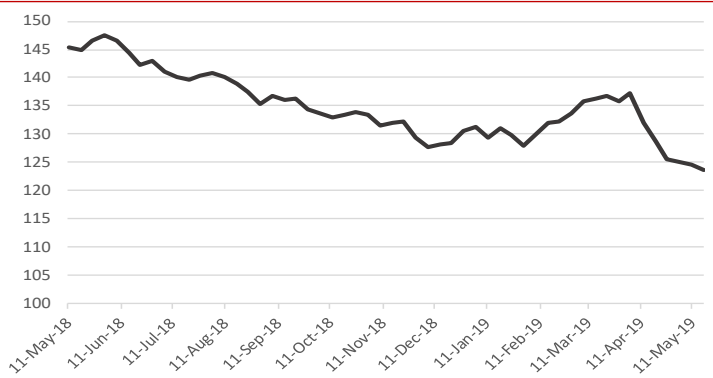
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



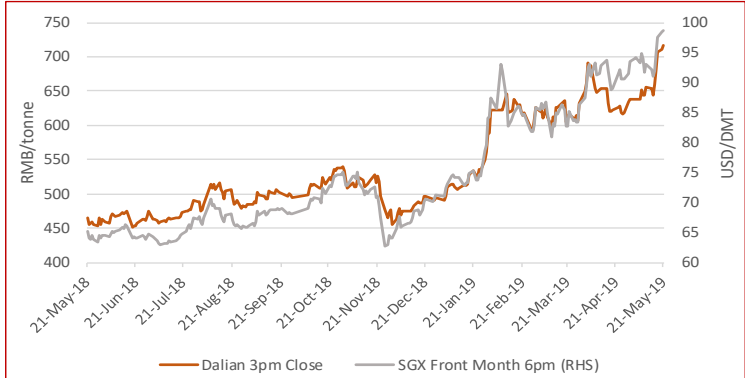
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



IRON ORE PORT INVENTORIES (MILLION TONNES)

| Week Ending May 17th, 2019 |               |               |                  |                   |
|----------------------------|---------------|---------------|------------------|-------------------|
| Province                   | This week     | Change %      | Low <sup>2</sup> | High <sup>2</sup> |
| Jingtang                   | 14.44         | -3.41%        | 13.29            | 18.10             |
| Qingdao                    | 15.95         | -0.68%        | 15.94            | 19.50             |
| Caofeidian                 | 17.65         | 1.38%         | 16.30            | 21.10             |
| Tianjin                    | 7.56          | -1.56%        | 7.39             | 10.48             |
| Rizhao                     | 14.16         | -4.00%        | 14.00            | 19.00             |
| <b>Total (35 Ports)</b>    | <b>123.67</b> | <b>-0.67%</b> | <b>123.67</b>    | <b>147.56</b>     |

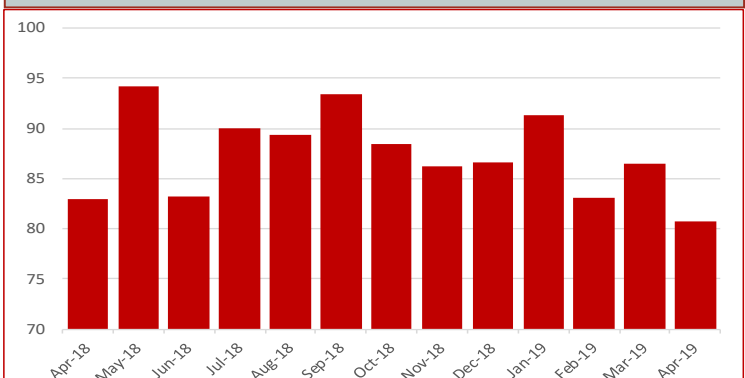
IRON ORE FUTURES CONTRACTS

| Closing Date               | DCE (RMB/WMT)      |        |          | SGX (USD/DMT)     |        |          |
|----------------------------|--------------------|--------|----------|-------------------|--------|----------|
|                            | May 21st 3pm close |        |          | 21st May Feb 6 pm |        |          |
| Contract                   | I1909              | Change | Change % | Jun'19            | Change | Change % |
| Closing Price              | 717.00             | 5.5    | 0.77%    | 98.60             | 0.20   | 0.20%    |
| Vol traded ('000 lots)     | 276.40             | 77.0   | 38.64%   | 13.29             | 2.29   | 20.82%   |
| Open positions ('000 lots) | 161.62             | -2.0   | -1.20%   | 131.11            | -1.87  | -1.41%   |
| Day Low                    | 694.0              | -7.5   | -1.07%   | 96.99             | -0.26  | -0.27%   |
| Day High                   | 720.0              | 4.0    | 0.56%    | 98.60             | -2.90  | -2.86%   |

DRY BULK FREIGHT RATES (USD/MT)

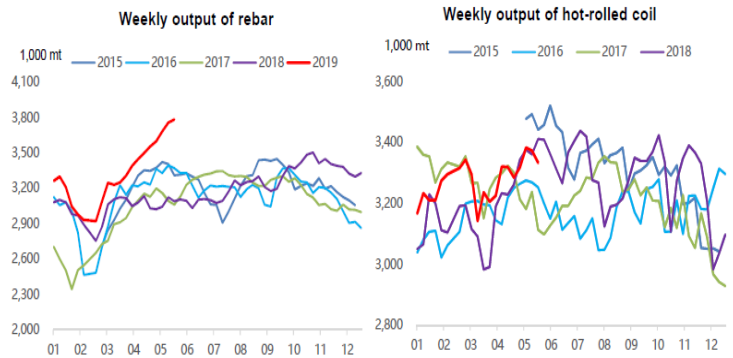


TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)



STEEL SPOT MARKET PRICES—CHINA

| Steel Spot Market RMB/tonne     |           |        |          |
|---------------------------------|-----------|--------|----------|
| Product                         | 17/5/2019 | Change | Change % |
| ReBar HRB400 φ18mm              | 4,070.0   | -30    | -0.73%   |
| Wirerod Q300 φ6.5mm             | 4,270.0   | -30    | -0.70%   |
| HRC Q235/SS400 5.5mm*1500*C     | 4,030.0   | -20    | -0.49%   |
| CRC SPPC/ST12 1.0mm*1250*2500   | 4,280.0   | -30    | -0.70%   |
| Medium & Heavy Plate Q235B 20mm | 4,080.0   | -30    | -0.73%   |
| GI ST02Z 1.0mm*1000*C           | 4,620.0   | -20    | -0.43%   |
| Colour Coated Plate             | 7,200.0   | 0      | 0.00%    |



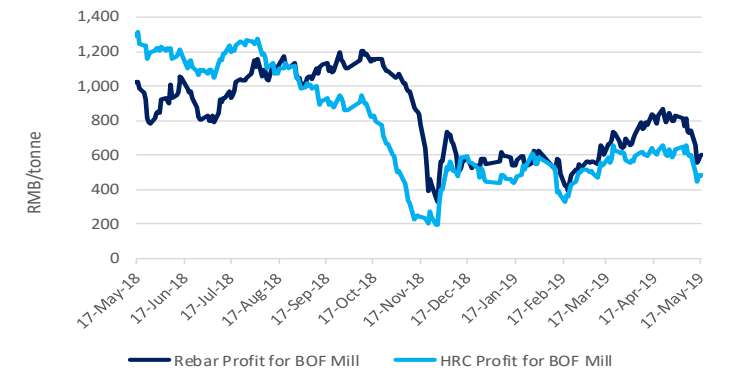
CHINESE STEEL MILL PROFITABILITY

SMM Tracking of Steel Mill P&L - Rebar and Hot-rolled Coil (RMB/tonne)

| Category                               | Price | Change (WoW) | Note  |
|--|-------|--------------|---|
| MMi (Fe 62%), USD/mt excluding tax     | 97.20 | 3.00         | Mmi CFR Equivalent index for 1st Feb              |
| Coke                                   | 2,110 | 100          | 2nd grade met coke, Tangshan, incl. tax           |
| Steel Scrap                            | 2,210 | -40          | steel scrap (6mm) in Zhangjiagang, exl. tax       |
| Billet Cost                            | 3,221 | 100          | Q234, incl. tax                                   |
| Rebar cost - Blast furnace             | 3,468 | 100          | calculated based on theoretical weight, incl. tax |
| Rebar profit - Blast furnace           | 602   | -140         | based on Shanghai prices, incl. tax               |
| Hot-rolled coil cost - Blast furnace   | 3,546 | 100          | based on actual weight, incl. tax                 |
| Hot-rolled coil profit - Blast furnace | 484   | -120         | based on Shanghai prices, incl. tax               |

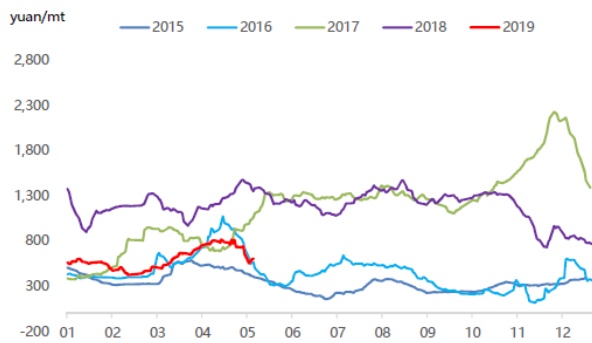
Note: 1. Costs in the table are calculated based on today's market prices and factored our management, sales, financial and depreciations fees.  
2. The cost refers to average cost in the industry based on SMM's survey of small, medium and large mills in China

CHINESE STEEL MILL PROFITABILITY

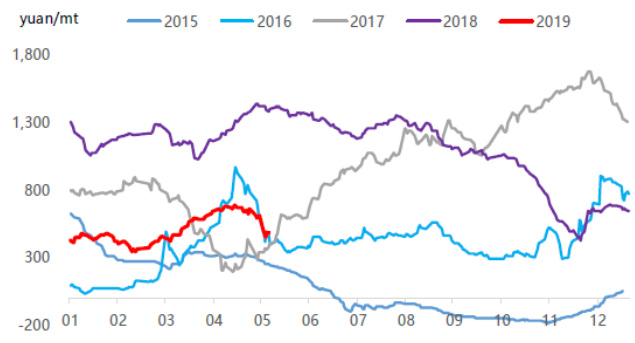


CHINESE STEEL MILL PROFITABILITY

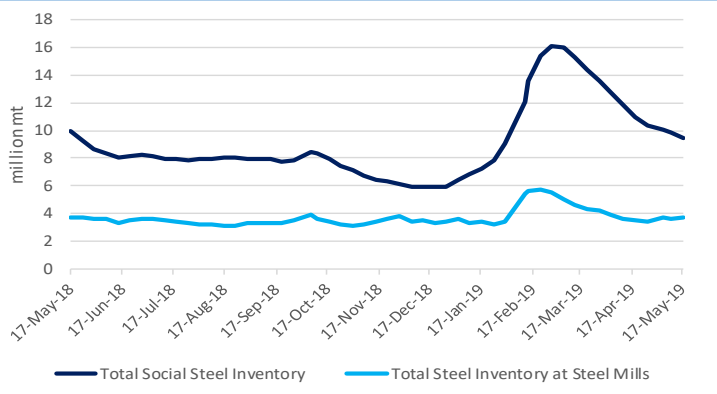
Rebar profits



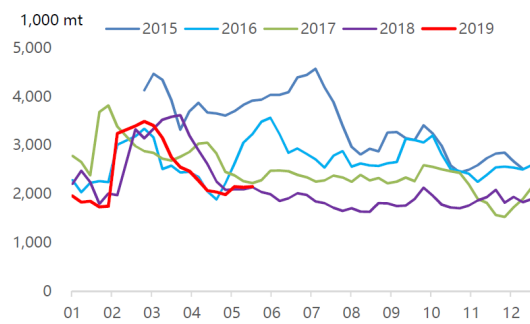
Hot-rolled coil profits



CHINESE STEEL INVENTORIES



In-plant inventory of rebar



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

| Iron Ore Index Specifications (Port and Seaborne) |   |              |              |  | Iron Ore Index Compilation Rationale and Data Exclusions   |                  |  |  |  |  |     |     |     |            |   |   |   |                |   |  |   |                 |   |  |  |
|---|---|--------------|--------------|--|--|------------------|--|--|--|--|-----|-----|-----|------------|---|---|---|----------------|---|--|---|-----------------|---|--|--|
|   | 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.<br><br>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> |                  |  |  |  |  |     |     |     |            |   |   |   |                |   |  |   |                 |   |  |  |
| 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   |  |                  |  |  |  |  |     |     |     |            |   |   |   |                |   |  |   |                 |   |  |  |
| Sizing  | Granular size below 10mm for at least 90% of cargo; maximum of 40% below 150 micron |              |              | Size below 6.3mm max 15%<br>Size above 31.15mm max 25% | <table border="1"> <thead> <tr> <th colspan="4">Data Exclusions*</th> </tr> <tr> <th></th> <th>62%</th> <th>58%</th> <th>65%</th> </tr> </thead> <tbody> <tr> <td>Port Index</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Seaborne Index</td> <td>0</td> <td></td> <td>0</td> </tr> <tr> <td>Lump Index 62.5</td> <td>0</td> <td></td> <td></td> </tr> </tbody> </table>   | Data Exclusions* |  |  |  |  | 62% | 58% | 65% | Port Index | 0 | 0 | 0 | Seaborne Index | 0 |  | 0 | Lump Index 62.5 | 0 |  |  |
| Data Exclusions*                                  |   |              |              |  |  |                  |  |  |  |  |     |     |     |            |   |   |   |                |   |  |   |                 |   |  |  |
|   | 62%   | 58%          | 65%          |  |  |                  |  |  |  |  |     |     |     |            |   |   |   |                |   |  |   |                 |   |  |  |
| Port Index  | 0   | 0            | 0            |  |  |                  |  |  |  |  |     |     |     |            |   |   |   |                |   |  |   |                 |   |  |  |
| Seaborne Index                                    | 0   |              | 0            |  |  |                  |  |  |  |  |     |     |     |            |   |   |   |                |   |  |   |                 |   |  |  |
| Lump Index 62.5                                   | 0   |              |              |  |  |                  |  |  |  |  |     |     |     |            |   |   |   |                |   |  |   |                 |   |  |  |
| 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                                    |  |                  |  |  |  |  |     |     |     |            |   |   |   |                |   |  |   |                 |   |  |  |

## 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       |  |         |        |        |          | SEABORNE BRANDS         |  |         |        |        |          |
|-------------------------|--|---------|--------|--------|----------|-------------------------|--|---------|--------|--------|----------|
| May 21st, 2019          | Specifications applied for 62% brand assessments |         |        |        |          |                         | Specifications applied for 62% brand assessments |         |        |        |          |
|                         | Fe   | Alumina | Silica | Phos   | Moisture |                         | Fe   | Alumina | Silica | Phos   | Moisture |
| Roy Hill                | 61.16%   | 2.25%   | 4.61%  | 0.052% | 9.35%    | 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                | 61.56%   | 2.35%   | 3.79%  | 0.099% | 9.29%    | PB Fines 62%            | 62.00%   | 2.60%   | 4.30%  | 0.090% | 10.00%   |
| Newman Fines            | 62.53%   | 2.26%   | 4.12%  | 0.092% | 7.36%    | Newman Fines            | 62.80%   | 2.20%   | 4.30%  | 0.080% | 6.40%    |
| MAC Fines               | 60.84%   | 2.24%   | 4.92%  | 0.085% | 7.77%    | MAC Fines               | 61.00%   | 2.70%   | 4.70%  | 0.110% | 9.30%    |
| Jimblebar Blended Fines | 60.91%   | 2.99%   | 4.51%  | 0.109% | 7.41%    | Jimblebar Blended Fines | 61.79%   | 2.67%   | 4.08%  | 0.115% | 7.16%    |
| Carajas Fines           | 65.44%   | 1.30%   | 1.43%  | 0.084% | 8.33%    | 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   | 62.82%   | 1.40%   | 4.79%  | 0.072% | 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%    |
| May 21st, 2019          | Specifications applied for 58% brand assessments |         |        |        |          |                         | Specifications applied for 58% brand assessments |         |        |        |          |
|                         | Fe   | Alumina | Silica | Phos   | Moisture |                         | Fe   | Alumina | Silica | Phos   | Moisture |
| SSF                     | 56.76%   | 3.05%   | 6.08%  | 0.053% | 8.78%    |                         |  |         |        |        |          |
| FMG Blended Fines       | 58.18%   | 2.68%   | 5.54%  | 0.062% | 7.51%    |                         |  |         |        |        |          |
| Robe River              | 56.28%   | 2.91%   | 5.58%  | 0.035% | 9.29%    |                         |  |         |        |        |          |
| 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                   | 57.13%   | 1.80%   | 6.42%  | 0.047% | 8.59%    |                         |  |         |        |        |          |

## BLOOMBERG TICKERS

| PORT STOCK INDICES |                             |  |  |
|--------------------|-----------------------------|--|--|
|                    | FOT Qingdao (RMB/wet tonne) |  | CFR Qingdao Equivalent (USD/dry tonne) |
| IOP162             | IRCNQ001                    |  | IRCNQ004                               |
| IOP158             | IRCNQ002                    |  | IRCNQ005                               |
| IOP165             | IRCNQ003                    |  | IRCNQ006                               |

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