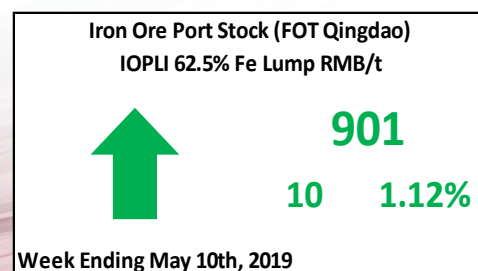
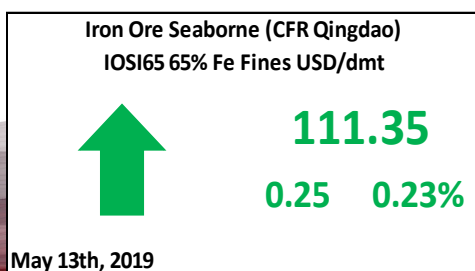
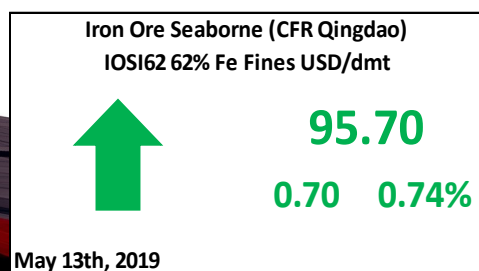
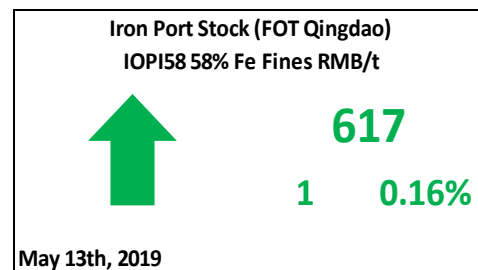
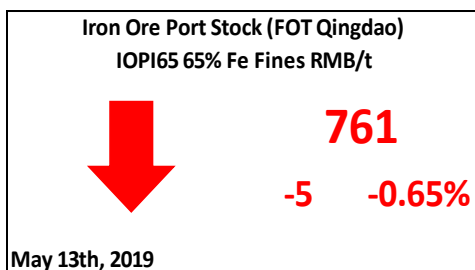
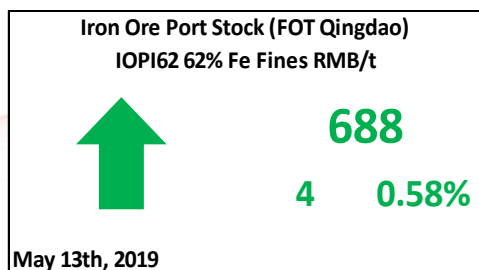


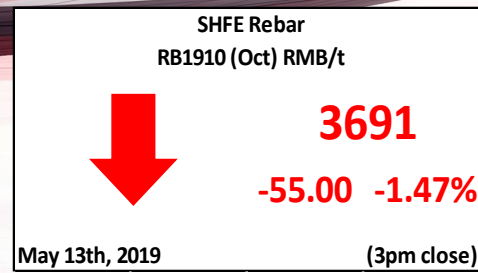
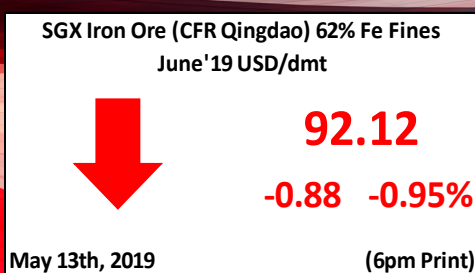
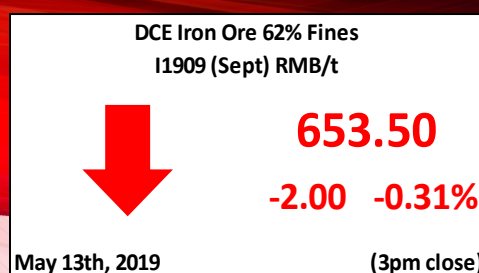


## MMi Dashboard

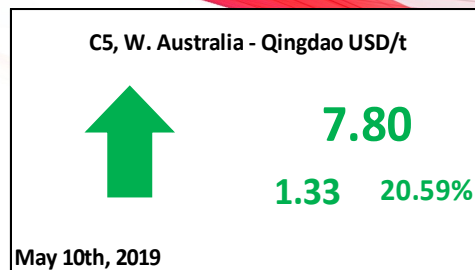
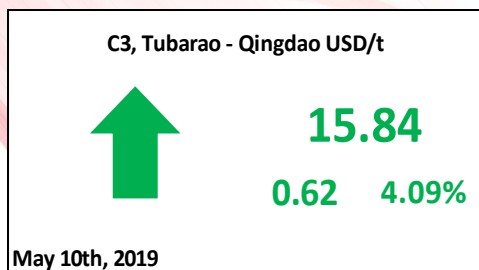
## Iron Ore Price Indices



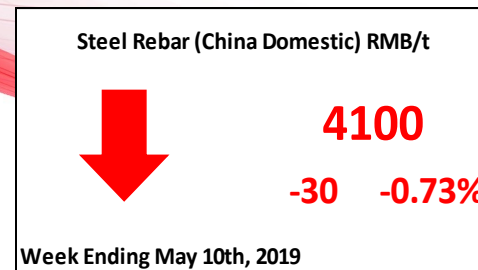
## Exchange Traded Contracts



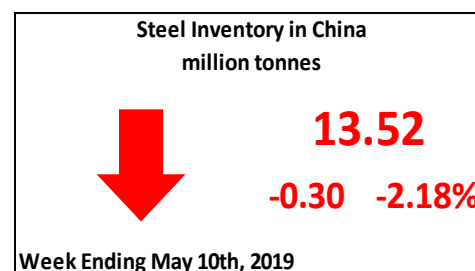
## Freight Rates



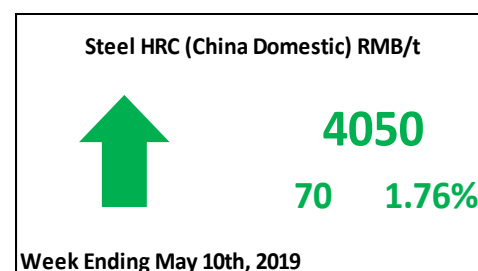
## Steel Price



## Inventory Levels



## Steel Price



## IRON ORE PORT STOCK INDEX (IOPI)

| May 13th, 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 | 688                                       | 4      | 0.6%     | 687 | 639 | 453              | 690               | 93.42   | 0.16   | 0.2%     | 93.72  | 85.68 | 61.66            | 94.28             |
| IOPI58         | 58% Fe Fines | 617                                       | 1      | 0.2%     | 615 | 552 | 317              | 617               | 84.29   | -0.22  | -0.3%    | 84.42  | 73.68 | 41.71            | 84.59             |
| IOPI65         | 65% Fe Fines | 761                                       | -5     | -0.7%    | 769 | 720 | 559              | 794               | 103.76  | -1.15  | -1.1%    | 105.33 | 97.02 | 77.70            | 109.92            |

## IRON ORE SEABORNE INDEX (IOSI)

## MARKET COMMENTARY

| May 13th, 2019 |              | CFR Qingdao, USD/dry tonne |        |          |        |       |                  |                   | A more downbeat trading today with most physical iron ore port stock quotes though some traders found buying appetite amongst a few mills. According to SMM, the recent demand for pellet has boosted the 63% and 65% pellet premiums, bouncing from their respective bottom of 20.6 and 26.6 USD/mt in Mid-April 2019. Lump's high premiums as well as the wide price spread between PB lump and PB fines has boosted pellet demand. The coke price has risen by 200yuan/mt from late April, stimulating changes in the furnace charge ratio. Some mills have increased their recent pellet ratio by almost 1% compared with that in early April while their lump ratio have been reduced by more than 1% during the same period. However, the relatively high pellet inventory at ports, as well as the higher cost performance of domestic concentrates/pellet prices, may put some pressure on imported pellet prices in the near future |  |  |  |  |  |  |  |
|----------------|--------------|----------------------------|--------|----------|--------|-------|------------------|-------------------|--|--|--|--|--|--|--|--|
| Index          | Fe Content   | Price                      | Change | Change % | MTD    | YTD   | Low <sup>3</sup> | High <sup>3</sup> |  |  |  |  |  |  |  |  |
| IOSI62         | 62% Fe Fines | 95.70                      | 0.70   | 0.74%    | 94.21  | 83.36 | 62.95            | 96.05             |  |  |  |  |  |  |  |  |
| IOSI65         | 65% Fe Fines | 111.35                     | 0.25   | 0.23%    | 111.44 | 99.99 | 83.20            | 114.40            |  |  |  |  |  |  |  |  |

## IRON ORE PORT LUMP INDEX (IOPLI)

| Week Ending May 10th, 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 | 901                                       | 10    | 1.1%     | 896 | 846 | 575              | 901               | 115.86  | 0.78  | 0.68%    | 115.47 | 108.98 | 76.63            | 115.86            |

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

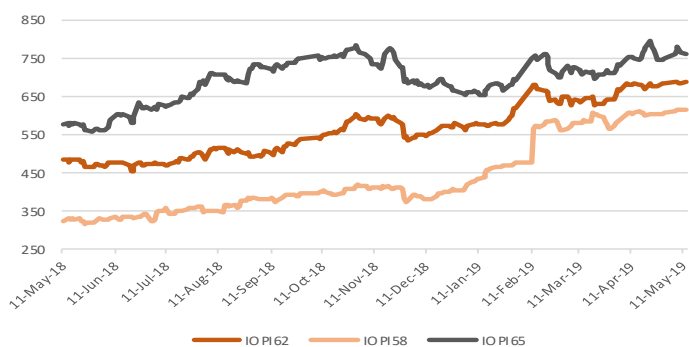
| Week Ending May 10th, 2019 |         |                    |       | RMB/tonne (excluding tax) <sup>4</sup> |          |                  |                   | USD/tonne (excluding tax) <sup>4</sup> |          |                  |                   |
|----------------------------|---------|--------------------|-------|--|----------|------------------|-------------------|--|----------|------------------|-------------------|
| 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   | 839                                    | 1.1%     | 592              | 839               | 124.15                                 | 0.50%    | 91.97            | 124.15            |
| Hebei                      | Qian'an | 65% Fe Concentrate | Dry   | 795                                    | 2.6%     | 635              | 815               | 117.64                                 | 1.99%    | 100.26           | 117.64            |
| Liaoning                   | Anshan  | 65% Fe Concentrate | Wet   | 605                                    | 5.2%     | 450              | 745               | 89.53                                  | 4.61%    | 68.21            | 89.53             |
| Shandong                   | Zibo    | 65% Fe Concentrate | Dry   | 820                                    | 0.0%     | 655              | 860               | 121.34                                 | -0.58%   | 99.75            | 127.11            |

Week Ending May 10th, 2019

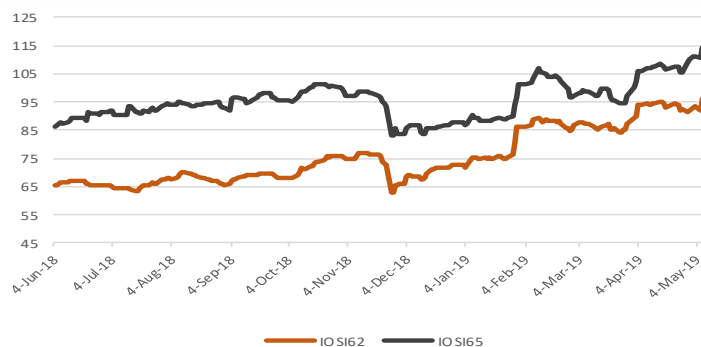
| China Mines Concentrate Composite Index RMB/WT | This week | Change % | Low <sup>2</sup> | High <sup>2</sup> |
|--|-----------|----------|------------------|-------------------|
|  | 684.41    | 2.1%     | 535.58           | 685.87            |

<sup>1</sup> Exchange rate applied: RMB/USD = 6.7954 <sup>2</sup> Last 12 months <sup>3</sup> Since June 1  
<sup>4</sup> Weekly exchange rate applied: RMB/USD 6.7577

## 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 13th, 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   | 687 | 678 | 639 | 72.55  | 76.16    | 87.09 | 85.37 | 93.72  | 92.91  | 85.68 |
| IOPI58         | 58% Fe Fines | 448                                       | 569      | 583   | 600   | 615 | 604 | 552 | 50.47  | 57.99    | 75.22 | 77.49 | 84.42  | 82.63  | 73.68 |
| IOPI65         | 65% Fe Fines | 670                                       | 733      | 714   | 753   | 769 | 757 | 720 | 99.05  | 88.65    | 98.08 | 95.78 | 105.33 | 113.73 | 97.02 |

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

## FREIGHT RATES

| May 13th, 2019 |              | CFR Qingdao, USD/dry tonne |          |       |        |        |        |       | May 10th, 2019                          |             |        |          |                  |                   |       |
|----------------|--------------|----------------------------|----------|-------|--------|--------|--------|-------|---|-------------|--------|----------|------------------|-------------------|-------|
| Index          | Fe Content   | January                    | February | March | April  | MTD    | QTD    | YTD   | FREIGHT RATES - DRY BULK US\$/wet tonne |             |        |          |                  |                   |       |
|                |              |                            |          |       |        |        |        |       | Route                                   | Designation | Change | Change % | Low <sup>2</sup> | High <sup>2</sup> |       |
| IOSI62         | 62% Fe Fines | 76.09                      | 87.39    | 86.18 | 93.42  | 94.21  | 93.64  | 83.36 | W. Australia - Qingdao                  | C5          | 7.80   | 1.33     | 20.59%           | 4.39              | 10.00 |
| IOSI65         | 65% Fe Fines | 89.92                      | 102.56   | 97.22 | 106.75 | 111.44 | 108.04 | 99.99 | Tubarao - Qingdao                       | C3          | 15.84  | 0.62     | 4.09%            | 11.61             | 24.76 |

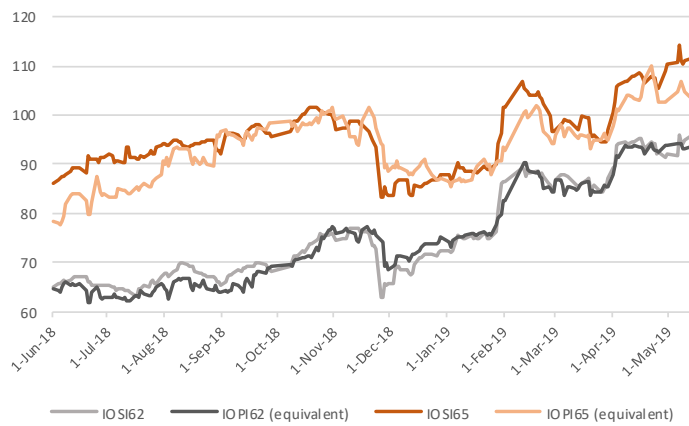
## IRON ORE PORT LUMP INDEX MONTHLY, QUARTERLY AND YEAR-TO-DATE AVERAGES

| Week Ending May 10th, 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   | 896 | 880 | 846 | 96.21   | 94.22    | 99.57 | 111.03 | 115.47 | 113.73 | 108.98 |

## IRON ORE INDEX PREMIUMS/DISCOUNTS

| May 13th, 2019 |              |                  |  | PORT STOCK INDEX (RMB/WT) |  |        |              | May 13th, 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 | -71              |  | -10.32%                   |  | IOSI65 | 65% Fe Fines | 15.65            |  | 16.35%             |  |                          |  |  |  |
| IOPI65         | 65% Fe Fines | 73               |  | 10.61%                    |  |        |              |                  |  |                    |  |                          |  |  |  |

## IRON ORE INDEX COMPARISONS (USD/DMT)



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



## IRON ORE BRAND SPOT PRICE ASSESSMENTS

| May 13th, 2019            |       |        |                | May 13th, 2019           |        |        |                |
|---------------------------|-------|--------|----------------|--------------------------|--------|--------|----------------|
| PORT STOCK INDEX (RMB/WT) |       |        |                | SEABORNE INDEX (USD/DMT) |        |        |                |
|                           | Price | Change | Diff to IOPI62 |                          | Price  | Change | Diff to IOSI62 |
| Roy Hill                  | 663   | 3      | -25            | Roy Hill                 | 91.11  | 1.01   | -4.59          |
| SIMEC Fines               | 656   | 1      | -32            | SIMEC Fines              | 88.49  | 1.19   | -7.21          |
| PB Fines                  | 674   | 4      | -14            | PB Fines                 | 94.66  | 0.61   | -1.04          |
| Newman Fines              | 694   | 3      | 6              | Newman Fines             | 98.36  | 0.50   | 2.66           |
| MAC Fines                 | 668   | 3      | -20            | MAC Fines                | 91.04  | 0.84   | -4.66          |
| Jimblebar Blended Fines   | 651   | 4      | -37            | Jimblebar Blended Fines  | 88.11  | 0.69   | -7.59          |
| Carajas Fines             | 768   | -5     | 80             | Carajas Fines            | 110.76 | 0.45   | 15.06          |
| Brazilian SSF             | 706   | -4     | 18             | Brazilian SSF            | 98.51  | 0.70   | 2.81           |
| Brazilian Blend Fines     | 706   | -1     | 18             | Brazilian Blend Fines    | 99.14  | 0.58   | 3.44           |
| RTX Fines                 | 669   | 4      | -19            | RTX Fines                | 88.99  | 0.74   | -6.71          |

| May 13th, 2019            |       |        |                |
|---------------------------|-------|--------|----------------|
| PORT STOCK INDEX (RMB/WT) |       |        |                |
|                           | Price | Change | Diff to IOPI58 |
| SSF                       | 600   | 2      | -17            |
| FMG Blended Fines         | 627   | 1      | 10             |
| Robe River                | 598   | 2      | -19            |
| Western Fines             | 622   | 1      | 5              |
| Atlas Fines               | 606   | 3      | -11            |
| Yandi                     | 648   | 2      | 31             |

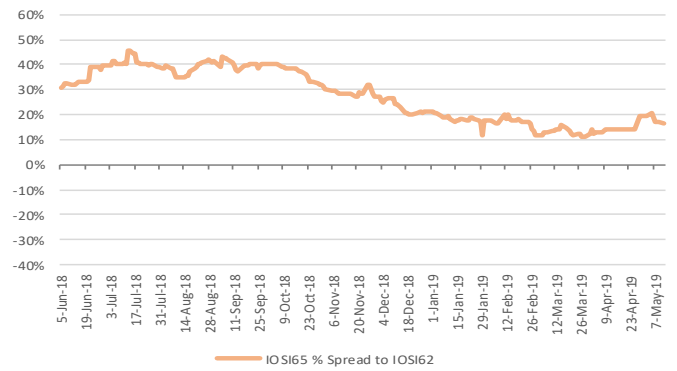
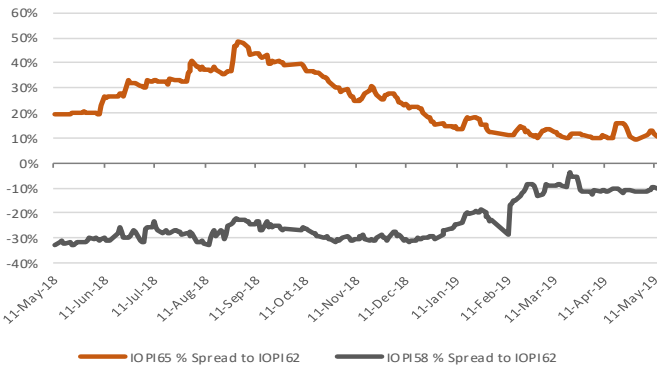
## IRON ORE INDEX NORMALISATION DIFFERENTIALS

| 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%       | 9.00  | -1.00  | 1% Fe  | High Grade Fe 60 - 63%       | 3.25  | -0.25  |  |
|  | High Grade Fe 63 - 64%       | 15.00 | 0.00   |  | High Grade Fe 63 - 64%       | 3.00  | 0.00   |  |
|  | High Grade Fe 64 - 65%       | 15.00 | 0.00   |  | High Grade Fe 64 - 65%       | 3.00  | 0.00   |  |
|  | High Grade Fe 65 - 65.5%     | 15.00 | 0.00   |  | High Grade Fe 65 - 65.5%     | 3.00  | 0.00   |  |
|  | Low Grade Fe                 | 9.00  | -1.00  |  |                              |       |        |  |
| 1% Alumina   | High Fe Grade Al <2.25%      | 26.00 | -3.00  | 1% Alumina   | High Fe Grade Al <2.25%      | 2.75  | 0.00   |  |
|  | High Fe Grade Al 2.25-4%     | 0.00  | 0.00   |  | High Fe Grade Al 2.25-4%     | 2.75  | 0.25   |  |
|  | Low Fe Grade Al <2.25%       | 48.00 | 0.00   |  |                              |       |        |  |
|  | Low Fe Grade Al 2.25-4%      | 7.00  | 0.00   |  |                              |       |        |  |
| 1% Silica  | High Fe Grade Si <4%         | 5.00  | -2.00  | 1% Silica  | High Fe Grade Si <4%         | 1.50  | 0.00   |  |
|  | High Fe Grade Si 4-6.5%      | 12.00 | 2.00   |  | High Fe Grade Si 4 - 6.5%    | 0.25  | 0.00   |  |
| 0.01% Phosphorus                                       | High Fe Grade 0.09%<P<0.115% | 3.00  | 0.00   | 0.01% Phosphorus                                     | High Fe Grade 0.09%<P<0.115% | 0.00  | 0.00   |  |
|  | High Fe Grade 0.115%<P<0.15% | 0.00  | 0.00   |  | High Fe Grade 0.115%<P<0.15% | 0.50  | 0.00   |  |
|  | Low Fe Grade 0.09<P<0.1%     | 6.00  | 0.00   |  |                              |       |        |  |

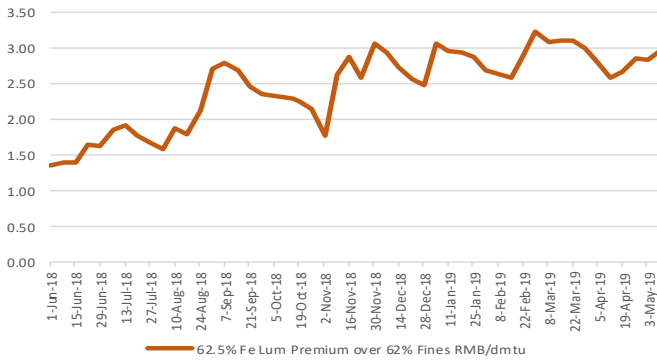
## Port Stock Price Differentials to Qingdao Port for PB Fines (RMB/wet tonne)

| 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  | -20.00 | 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     | -20.00 | 0.00   | Tianjin | -20.00 | 0.00   |

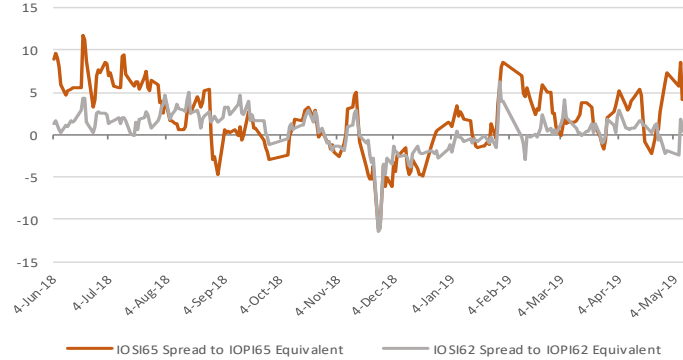
IRON ORE INDEX PREMIUMS/DISCOUNTS



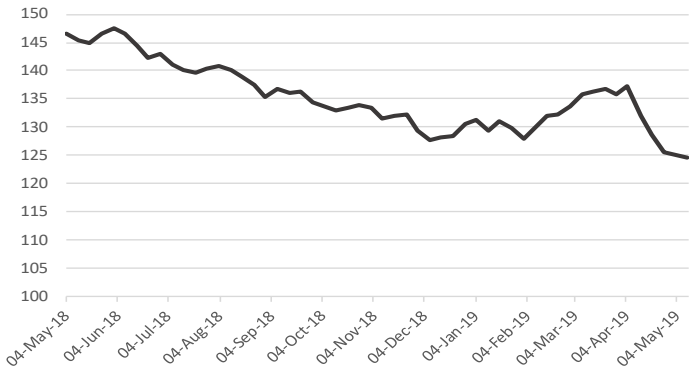
WEEKLY IRON ORE PORT STOCK LUMP PREMIUM (RMB/DMTU)



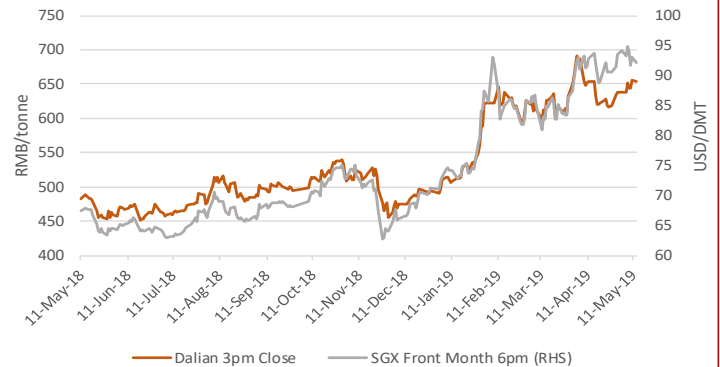
IRON ORE SEABORNE TO PORT STOCK PRICE SPREADS (USD/DMT)



TOTAL IRON ORE INVENTORIES AT CHINA PORTS (MILLION TONNES)



FUTURE TRADING—FRONT MONTH CLOSING PRICE



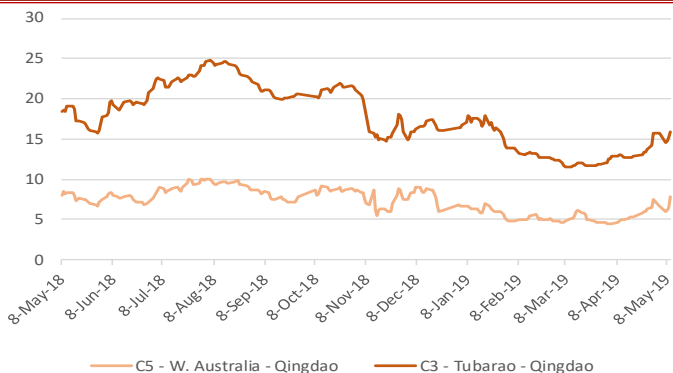
IRON ORE PORT INVENTORIES (MILLION TONNES)

| Week Ending May 10th, 2019 |               |               |                  |                   |
|----------------------------|---------------|---------------|------------------|-------------------|
| Province                   | This week     | Change %      | Low <sup>2</sup> | High <sup>2</sup> |
| Jingtang                   | 14.95         | 2.12%         | 13.29            | 18.10             |
| Qingdao                    | 16.06         | -5.53%        | 16.06            | 19.50             |
| Caofeidian                 | 17.41         | 4.19%         | 16.30            | 23.30             |
| Tianjin                    | 7.68          | -2.78%        | 7.39             | 10.48             |
| Rizhao                     | 14.75         | -3.91%        | 14.00            | 19.00             |
| <b>Total (35 Ports)</b>    | <b>124.50</b> | <b>-0.77%</b> | <b>124.50</b>    | <b>147.56</b>     |

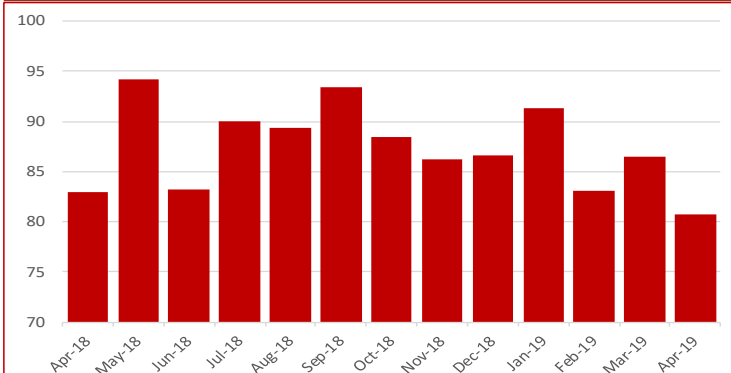
IRON ORE FUTURES CONTRACTS

| Closing Date               | DCE (RMB/WMT)      |        |          | SGX (USD/DMT)     |        |          |
|----------------------------|--------------------|--------|----------|-------------------|--------|----------|
|                            | May 13th 3pm close |        |          | 13th May Feb 6 pm |        |          |
| Contract                   | I1909              | Change | Change % | Jun'19            | Change | Change % |
| Closing Price              | 653.50             | -2.0   | -0.31%   | 92.12             | -0.88  | -0.95%   |
| Vol traded ('000 lots)     | 199.27             | -12.1  | -5.72%   | 10.38             | -2.65  | -20.37%  |
| Open positions ('000 lots) | 145.18             | 3.1    | 2.18%    | 114.80            | 2.21   | 1.96%    |
| Day Low                    | 650.0              | 13.0   | 2.04%    | 91.90             | -0.10  | -0.11%   |
| Day High                   | 660.0              | 2.0    | 0.30%    | 93.09             | -0.27  | -0.29%   |

DRY BULK FREIGHT RATES (USD/MT)



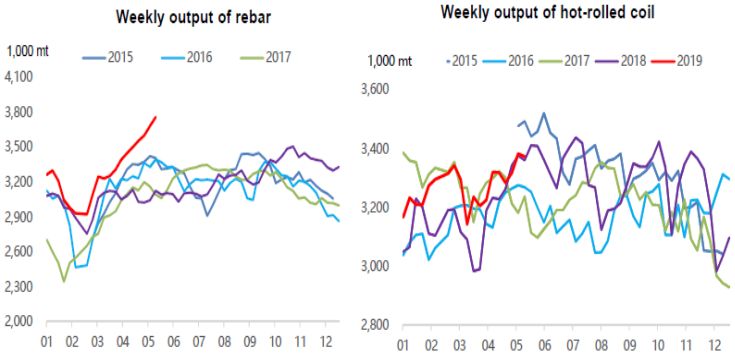
TOTAL CHINA IRON ORE IMPORT VOLUMES (MILLION TONNES)



STEEL SPOT MARKET PRICES—CHINA

Steel Spot Market RMB/tonne

| Product                         | 10/5/2019 | Change | Change % |
|---------------------------------|-----------|--------|----------|
| ReBar HRB400 φ18mm              | 4,100.0   | -30    | -0.73%   |
| Wirerod Q300 φ6.5mm             | 4,300.0   | -20    | -0.46%   |
| HRC Q235/SS400 5.5mm*1500*C     | 4,050.0   | 70     | 1.76%    |
| CRC SPPC/ST12 1.0mm*1250*2500   | 4,310.0   | -30    | -0.69%   |
| Medium & Heavy Plate Q235B 20mm | 4,110.0   | 30     | 0.74%    |
| GI ST02Z 1.0mm*1000*C           | 4,640.0   | 0      | 0.00%    |
| Colour Coated Plate             | 7,200.0   | -100   | -1.37%   |



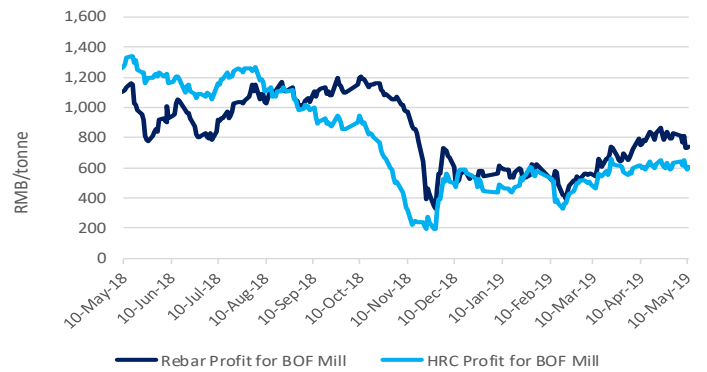
CHINESE STEEL MILL PROFITABILITY

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     | 94.20 | 2.75         | Mmi CFR Equivalent index for 1st Feb              |
| Coke                                   | 2,010 | 0            | 2nd grade met coke, Tangshan, incl. tax           |
| Steel Scrap                            | 2,250 | 20           | steel scrap (6mm) in Zhangjiagang, excl. tax      |
| Billet Cost                            | 3,121 | 42           | Q234, incl. tax                                   |
| Rebar cost - Blast furnace             | 3,368 | 41           | calculated based on theoretical weight, incl. tax |
| Rebar profit - Blast furnace           | 742   | -91          | based on Shanghai prices, incl. tax               |
| Hot-rolled coil cost - Blast furnace   | 3,446 | 42           | based on actual weight, incl. tax                 |
| Hot-rolled coil profit - Blast furnace | 604   | -32          | based on Shanghai prices, incl. tax               |

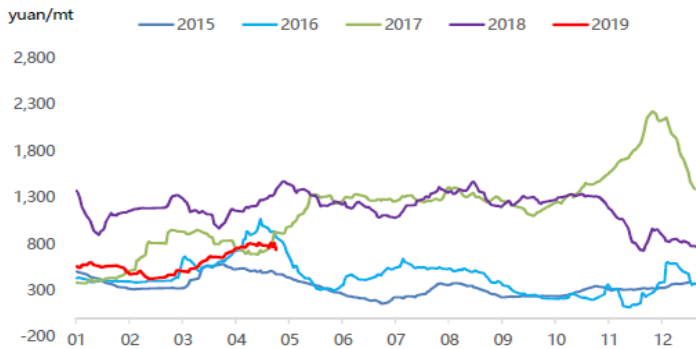
Note: 1. Costs in the table are calculated based on today's market prices and factoring our management, sales, financial and depreciations fees.  
2. The cost refers to average cost in the industry based on SMM's survey of small, medium and large mills in China

CHINESE STEEL MILL PROFITABILITY



CHINESE STEEL MILL PROFITABILITY

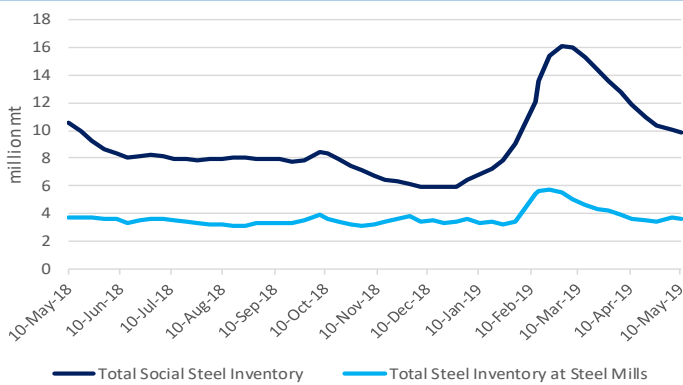
Rebar profits



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   |
|--|---|---------------------|---------------------|--|--|
|  | <b>65% Fe Fines</b>   | <b>62% Fe Fines</b> | <b>58% Fe Fines</b> | <b>62.5% Fe Lump</b>                                   | 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> |
| 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   |  |
| 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% |  |
| 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                                    |  |
| <b>Data Exclusions*</b>  |   |                     |                     |  |  |
|  | <b>62%</b>  | <b>58%</b>          | <b>65%</b>          |  |  |
| Port Index   | 0   | 0                   | 0                   |  |  |
| Seaborne Index   | 0   |                     | 0                   |  |  |
| Lump Index 62.5  | 0   |                     |                     |  |  |
| * Number of price submissions for iron ore indices that were excluded from index calculations today as they 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       |  |         |        |        |          | SEABORNE BRANDS         |  |         |        |        |          |
|-------------------------|--|---------|--------|--------|----------|-------------------------|--|---------|--------|--------|----------|
| May 13th, 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                | 61.59%   | 2.34%   | 3.76%  | 0.098% | 9.24%    | PB Fines 62%            | 62.00%   | 2.60%   | 4.30%  | 0.090% | 10.00%   |
| Newman Fines            | 62.49%   | 2.25%   | 4.19%  | 0.091% | 7.46%    | Newman Fines            | 62.80%   | 2.20%   | 4.30%  | 0.080% | 6.40%    |
| MAC Fines               | 60.85%   | 2.24%   | 4.92%  | 0.085% | 7.77%    | MAC Fines               | 61.00%   | 2.70%   | 4.70%  | 0.110% | 9.30%    |
| Jimblebar Blended Fines | 60.96%   | 2.93%   | 4.55%  | 0.101% | 7.69%    | Jimblebar Blended Fines | 61.79%   | 2.67%   | 4.08%  | 0.115% | 7.16%    |
| Carajas Fines           | 65.40%   | 1.30%   | 1.43%  | 0.082% | 8.28%    | 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   | 62.88%   | 1.38%   | 4.79%  | 0.074% | 8.44%    | 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 13th, 2019          | Specifications applied for 58% brand assessments |         |        |        |          |                         | Specifications applied for 58% brand assessments |         |        |        |          |
|                         | Fe   | Alumina | Silica | Phos   | Moisture |                         | Fe   | Alumina | Silica | Phos   | Moisture |
| SSF                     | 56.72%   | 3.09%   | 5.99%  | 0.051% | 8.95%    |                         |  |         |        |        |          |
| FMG Blended Fines       | 58.25%   | 2.71%   | 5.65%  | 0.064% | 7.37%    |                         |  |         |        |        |          |
| Robe River              | 56.64%   | 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                   | 57.10%   | 1.48%   | 6.52%  | 0.044% | 8.65%    |                         |  |         |        |        |          |

## 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                               |

## CONTACT US

MMi Singapore Office Details: Level 28, Manulife Tower, 8 Cross Street Singapore. Tel: + 65 6850 7629 E: [jarek@mmiprices.com](mailto:jarek@mmiprices.com)  
 SMM Singapore Office Details: Level 28, Manulife Tower, 8 Cross Street Singapore. Tel: + 65 6850 7630 E: [service.en@smm.cn](mailto: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](mailto:service.en@smm.cn)

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