

## China Metals Sector

### Headwinds from the rising inventory and anti-dumping investigations

|                | Ticker  | Rec | Mkt cap |     | Price | PT   | Up/<br>dn (%) | PBR (x) |       | ROE (%) |       | Yield (%) | ND/E (%) |
|----------------|---------|-----|---------|-----|-------|------|---------------|---------|-------|---------|-------|-----------|----------|
|                |         |     | (US\$b) | Ccy |       |      |               | 2017E   | 2018E | 2017E   | 2018E | 2017E     | 2017E    |
| Glencore       | 805 HK  | NR  | 55.5    | HKD | 30.00 | N/A  | N/A           | 1.2     | 1.1   | 11.0    | 9.5   | 0.4       | 55.4     |
| Zijin          | 2899 HK | Buy | 9.6     | HKD | 2.65  | 3.50 | 32.1          | 1.5     | 1.3   | 11.6    | 13.0  | -         | 97.5     |
| CMoC           | 3993 HK | NR  | 9.4     | HKD | 2.36  | N/A  | N/A           | 1.5     | 1.5   | 8.3     | 9.5   | 1.7       | N/A      |
| CHALCO         | 2600 HK | Buy | 8.9     | HKD | 3.66  | 4.50 | 23.0          | 1.2     | 1.1   | 6.0     | 7.9   | -         | 205.0    |
| Rusal          | 486 HK  | NR  | 7.5     | HKD | 3.84  | N/A  | N/A           | 1.9     | 1.4   | 29.6    | 25.5  | 0.2       | 159.0    |
| Jiangxi Copper | 358 HK  | Buy | 6.8     | HKD | 11.82 | 15.5 | 31.1          | 0.8     | 0.7   | 3.7     | 4.0   | 2.4       | 17.7     |
| Angang         | 347 HK  | Buy | 5.4     | HKD | 4.98  | 6.50 | 30.5          | 0.7     | 0.7   | 4.2     | 5.0   | 1.8       | 39.6     |
| Magang         | 323 HK  | Buy | 3.3     | HKD | 2.54  | 3.50 | 37.8          | 0.7     | 0.7   | 9.1     | 8.8   | -         | 27.9     |
| Zhaojin        | 1818 HK | Buy | 2.7     | HKD | 6.45  | 9.00 | 39.5          | 1.5     | 1.5   | 5.5     | 6.1   | 1.1       | 98.8     |
| MMG            | 1208 HK | NR  | 2.6     | HKD | 2.53  | N/A  | N/A           | 2.4     | 2.0   | 87.6    | 131.5 | -         | 452.1    |
| CGI            | 2099 HK | NR  | 0.6     | HKD | 12.50 | N/A  | N/A           | 0.4     | 0.4   | 0.8     | 2.0   | N/A       | N/A      |
| CGNM           | 1164 HK | NR  | 0.6     | HKD | 0.65  | N/A  | N/A           | N/A     | N/A   | N/A     | N/A   | N/A       | N/A      |

\*closing price dated as of May 4, 2017

Source: CSCI Research estimates for rating companies, Bloomberg

- According to WBMS, global supply surplus in copper has eased and deficit in aluminum narrowed in the first two months of the year. On the contrary, global steel inventory has recovered rapidly, while stocks in iron ore were heading to historical high levels.
- In our view, metal prices will be buoyed by 1) still ongoing expansion of industry activities in China, 2) a weak US dollar, at least in the near term, and 3) deepening supply-side reforms in China. In sub-sectors, we have a more favourable view on the steel and aluminum.
- Stock wise, we continue to prefer Magang and CHALCO, which are on-track to delivering solid earnings growth this year. In gold plays, we continue to prefer Zijin over Zhaojin.

**We prefer steel and aluminum in the metal & mining sector.** We believe gold prices could trade higher from the current level, on the back of geographical tension, higher inflation forecast and weak US dollar. Looking forward to 2018, the investment attractiveness of gold would diminish, as the benchmark interest rate rise and safe-haven buying ebbs, in our view. For base metals, the supply constraints, in particular with the mine disruptions in Chile, Indonesia and Peru, would transfer into a lower supply surplus this year; meanwhile, resilient demand and expectation on the production cut would increase the aluminum supply deficit. For steel, undermined by still close to record high inventories at the Chinese ports, iron ore prices are likely to decline further in the near term and have to knock out high-cost operators to suspend production. The reinforcement of the clearance of 119mn tons of ground steel strip capacity would help bring supply and demand in the Chinese steel market back to a more balanced position. Overall, in the supply reform policy driven market, we foresee the broad metal commodities prices to resume on an uptrend, sharing World Bank's bullish view on the industrial commodities this year.

**Deepening supply reform in China - from de-capacity to de-production.** Under MEP's plan to combat winter smog, with targets specifically on steel, aluminum, cement and coal fired power plants, steel makers in Hebei's two largest city centers will have to cut winter production by half. Meanwhile, aluminum smelters in all 28 cities will have to shut down 30% of their capacity and alumina refinery capacities in Shandong, Shanxi, Hebei and Henan will need to be reduced by 50% from Nov to Mar in a bid to combat air pollution.

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## Metals markets

The LME aluminum price reached its highest level of USD1,955/ton in March 2017 and has on average remained stable above USD1,921/ton in 2Q17. The combination of a softer demand outlook and record high inventories is weighing down iron ore prices, with spot prices slipping below USD60/ton on April 19, flat from the level as at the end of last year. On the contrary, copper prices have been reversing on an upward trajectory, falling by 4.4% in the one month period, primarily driven by weaker than expected Chinese PMI data, demand for copper wiring in its power grid, the resolving mine disruptions. Higher gold prices have erased part of the gains for 2017 year to date, as inflation concerns over the short term are diminishing. The price of gold denominated in the USD has decreased 2.2% in the past one month, and is down 2.0% denominated in the RMB.

### **Aluminum- China supply reform to add shortage; though trade protection headwinds**

According to World Bureau of Metal Statistics (“WBMS”), global primary aluminum was in deficit of 101,000 tons during the first two months of 2017, easing from the supply deficit of 1.12mn tons for 2016. Aluminum premiums in key consuming regions continued to improve in 1Q17 with, on average, a 36.1% rise compared to 4Q16. According to National Bureau of Statistics of China, China’s primary aluminum output was up 10.9% in the first quarter of this year, but the growth in March itself has slumped to just 2.5%, partly due to significant cost-push inflation. In terms of regulatory measures, on April 14, 2017, a joint regulation was issued by the NDRC, MIIT, Ministry of Lands and Resources, MEP “On the word to streamline the situation with illegal projects in the primary aluminum industry”. The government of Changji county (Xinjiang) subsequently issued a notice that the construction of three aluminum smelters with a total capacity of 2mn tons per annum is illegal and should be suspended immediately. News flow wise, the international coalition of aluminum trade associations has called for a global forum to be created ahead of the G20 meeting in Hamburg this summer to tackle China’s soaring output.

### **China steel inventory likely down amid production halt during New Silk Road summit**

World Steel Association has recently projected global steel consumption to grow marginally this year, amid China consumption has been projected flat. The global steel capacity utilisation ratio improved to 72.7% in March 2017, up from 67.6% as at end of last year. Regarding the supply reform in China, Hebei, Jiangsu, Shandong, Shanxi, Tianjin, and Yunnan thus far have submitted detailed capacity closure plans to the central government for this year. For example, Hebei, China’s top steel-making province, is set to double capacity cuts from 2016 to more than 30mn tons in 2017. Besides, China will hold New Silk Road summit on May 14-15 and steel mills in surrounding Hebei province and Tianjin city were said to be likely to curb output for 20 days. According to media reports, the clearance of an estimated total 119mn tonnes of ground strip steel capacity would be finished by the end of June this year. According to China Customs, China’s steel exports were 20.7mn tons in the first three months of 2017, down 25.5% from the same period last year. If this pace is maintained for the rest of the year, steel exports will reach around 80mn tons, well below the 108mn recorded in 2016. According to the China Iron and Steel Association, in mid-April (Apr. 11-20) this year the average aggregate daily crude steel output of large and medium-sized steel enterprises in China totalled 1.8579mn tons, up 0.1% compared to early April (Apr. 1-10), decelerating from the previous figures in early April but up 1.2% from late-March (Mar. 21-31).

**Iron ore inventories at Chinese ports still close to record high levels**

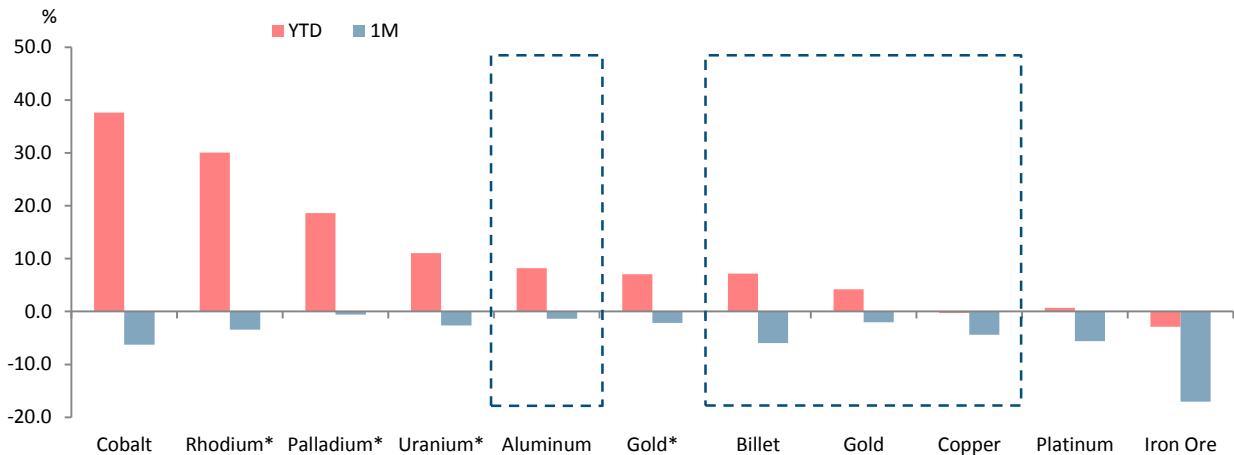
China's imports of iron ore (and concentrate) reached a record high in March since the previous high level in Dec 15, exceeding 95.3mn tons. Port inventory stood at 130.5mn tons at the end of April, not far below the 132.1mn tons reached in March, which was the highest since 2004. China Metallurgical Industry Planning and Research Institute estimates that steel demand in China will drop to 660mn tons in 2017, a decline of 1.9% from 2016. Further slowing in domestic demand coupled with likely lower steel exports, would potentially lead to steel mills lowering output, thereby cutting their need for imported iron ore. On the latest lower production cash cost level for top Australian producers, Rio Tinto, BHP Billiton, Fortescue Metals Group, adding freight and taxes, they can be profitable at a spot price of less than USD40/ton, even for Brazil's Vale the freight charges are higher given the longer shipping distance to China. Vale reported iron ore production up 11% in the first quarter as its massive S11D mine in the Amazon continued to ramp up.

**Rising copper stocks shifting focus temporary from supply to the demand concerns**

Peru copper production grew slowest in two years in Feb, as the Andean country wrestles with infrastructure damage caused by torrential rains, despite contribution from the production at Freeport-McMoRan's Cerro Verde and MMG's Las Bambas. Regulatory restrictions on PT Freeport Indonesia's concentrate exports from the Grasberg mine since mid-January 2017 has resulted in the deferral of about 190 million lb of copper and 280,000oz of gold in first quarter of 2017. PT-FI's concentrate exports resumed April 21, 2017. Supply disruptions at Grasberg in Indonesia, and unprecedented 44-days strike in Feb and Mar at Escondida in Chile, led to Rio Tinto to cut production guidance for copper by 12% for this year. BHP Billiton and Freeport have also cut their copper targets accordingly. According to WBMS data, following a surplus of 215,000 tonnes in 2016, the copper market recorded a surplus of 335,000 tonnes in the first two months of 2017. Crosschecking with the International Copper Study Group ("ICSG"), the global refined copper market had a 51,000 tonne surplus in January, up from a 44,000 tonne surplus in January last year. However, ICSG foresees a global refined copper shortage of 147,000 tonnes in 2017 and 169,000 tonnes in 2018. Besides, the International Lead and Zinc Study Group ("ILZSG") predicts the global zinc market to register a deficit of 226,000 tonnes in 2017. The International Nickel Study Group ("INSG") expects a 40,000-tonne deficit.

**China gold imports in March record high since May 2016 amid domestic output dip**

According to data provided by the China Gold Association, China's mined gold production slipped 8.4% to 80.542mn tonnes in the first quarter of 2017 from a year earlier, with total output down 9.3%. According to the Hong Kong Census and Statistics Department, net-gold imports via main conduit Hong Kong more than doubled MoM to 111.647 tonnes in March. Indian imports were up 582% YoY in March since wedding season began. Should the US dollar become less of a premier currency since the Chinese have gained the Special Drawing Rights with the IMF, then the US currency may be questioned where it is currently the preferred world currency. Central Bank of Russia and Bank of Japan are buying gold. However, the PBoC reported gold holdings for the fifth straight month at 59.24mn oz. Besides, Sharia Gold Standard has been approved by the World Gold Council in conjunction with other entities. US Mint bullion coin four-month cumulative sales are down 51% versus the same period in 2016, while Australia's Perth Mint has slumped to the lowest monthly figure in five years in April. On the contrary, the UK Royal Mint reported gold sales jumped 20 % during the first quarter of 2017.

**Figure 1: Metals commodities price changes**


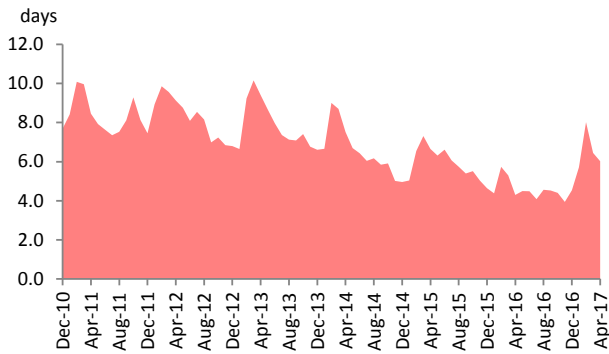
Note: based on denominated currency in RMB, except \* denoted for USD. Source: Bloomberg

**Figure 2: Market prices for metals commodities**

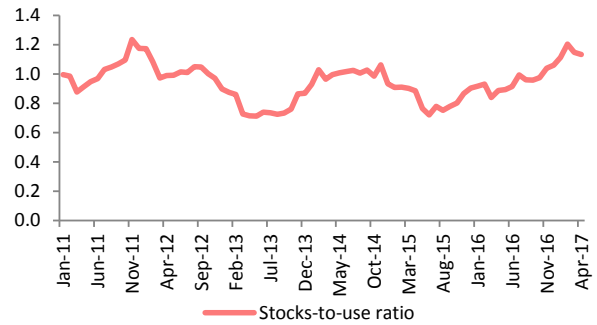
|                             | Units | Price  | 1D %  | 1W %  | 1M %   | 3M %   | 6M %   | YTD %  | 1Y %   | 2015 AVG | 2016 AVG | 2017 AVG | 1Q16 AVG | 2Q16 AVG | 3Q16 AVG | 4Q16 AVG | 1Q17 AVG | 2Q17 AVG |
|-----------------------------|-------|--------|-------|-------|--------|--------|--------|--------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| <b>Precious</b>             |       |        |       |       |        |        |        |        |        |          |          |          |          |          |          |          |          |          |
| Gold                        | USD   | 1,229  | 0.0   | (3.1) | (2.2)  | (0.6)  | (4.1)  | 7.1    | (3.8)  | 1,160    | 1,249    | 1,233    | 1,184    | 1,259    | 1,335    | 1,217    | 1,220    | 1,265    |
| Shanghai Gold               | RMB   | 275    | (0.5) | (3.0) | (2.0)  | 2.1    | (2.8)  | 4.2    | 2.8    | 235      | 268      | 276      | 248      | 265      | 287      | 271      | 273      | 283      |
| LBMA Silver                 | USD   | 16.50  | (2.1) | (5.5) | (10.0) | (4.5)  | (9.8)  | 1.6    | (4.0)  | 16       | 17       | 18       | 15       | 17       | 20       | 17       | 17       | 18       |
| China Silver                | RMB   | 3,980  | (1.2) | (3.1) | (3.8)  | (1.4)  | (3.5)  | (0.4)  | 6.4    | 3,425    | 3,820    | 4,101    | 3,317    | 3,619    | 4,288    | 4,022    | 4,086    | 4,144    |
| <b>PGMs</b>                 |       |        |       |       |        |        |        |        |        |          |          |          |          |          |          |          |          |          |
| Platinum                    | USD   | 909    | 1.2   | (4.1) | (5.6)  | (8.6)  | (9.6)  | 0.7    | (15.0) | 1,055    | 991      | 974      | 919      | 1,007    | 1,089    | 946      | 981      | 954      |
| Palladium                   | USD   | 809    | 1.8   | (2.3) | (0.6)  | 8.5    | 29.9   | 18.6   | 32.8   | 692      | 616      | 778      | 527      | 570      | 679      | 686      | 768      | 804      |
| Rhodium                     | USD   | 995    | (1.0) | (2.0) | (3.4)  | 17.8   | 24.4   | 30.1   | 35.4   | 954      | 696      | 929      | 677      | 696      | 656      | 758      | 894      | 1,022    |
| <b>Base</b>                 |       |        |       |       |        |        |        |        |        |          |          |          |          |          |          |          |          |          |
| <b>Aluminum</b>             |       |        |       |       |        |        |        |        |        |          |          |          |          |          |          |          |          |          |
| LME Cash                    | USD   | 1,907  | (0.5) | (2.5) | (1.0)  | 4.7    | 11.1   | 11.9   | 18.0   | 1,662    | 1,605    | 1,869    | 1,515    | 1,572    | 1,620    | 1,710    | 1,853    | 1,920    |
| LME 3M                      | USD   | 1,913  | (0.6) | (2.6) | (1.3)  | 4.3    | 11.1   | 13.0   | 17.1   | 1,681    | 1,611    | 1,876    | 1,515    | 1,583    | 1,633    | 1,709    | 1,858    | 1,932    |
| SHFE Cash                   | RMB   | 13,810 | (0.1) | (3.4) | (1.4)  | 1.1    | (0.5)  | 8.2    | 9.7    | 12,155   | 12,407   | 13,709   | 11,077   | 12,284   | 12,586   | 13,648   | 13,576   | 14,068   |
| SHFE 3M                     | RMB   | 13,995 | 0.3   | (3.2) | (1.2)  | 1.3    | 4.6    | 9.2    | 12.0   | 12,192   | 12,171   | 13,864   | 11,087   | 12,116   | 12,256   | 13,202   | 13,726   | 14,233   |
| China Alumina (Met grade)   | RMB   | 2,275  | (3.2) | (3.2) | (12.5) | (24.8) | (12.5) | (24.8) | 16.4   | 2,308    | 2,045    | 2,774    | 1,721    | 1,923    | 1,853    | 2,697    | 2,916    | 2,404    |
| <b>Copper</b>               |       |        |       |       |        |        |        |        |        |          |          |          |          |          |          |          |          |          |
| LME Cash                    | USD   | 5,518  | (0.9) | (3.0) | (4.1)  | (4.3)  | 10.9   | (0.1)  | 13.1   | 5,503    | 4,867    | 5,798    | 4,678    | 4,736    | 4,778    | 5,278    | 5,838    | 5,675    |
| LME 3M                      | USD   | 5,543  | (1.0) | (3.0) | (4.1)  | (4.0)  | 11.1   | 0.1    | 13.9   | 5,493    | 4,870    | 5,818    | 4,669    | 4,728    | 4,793    | 5,291    | 5,855    | 5,704    |
| SHFE Cash                   | RMB   | 45,080 | (0.8) | (2.4) | (4.4)  | (3.5)  | 15.2   | (0.3)  | 22.2   | 40,747   | 38,168   | 46,918   | 36,240   | 36,239   | 37,297   | 42,954   | 47,175   | 46,231   |
| SHFE 3M                     | RMB   | 45,120 | (1.0) | (2.7) | (5.0)  | (4.1)  | 15.1   | (0.7)  | 21.7   | 40,512   | 38,261   | 47,230   | 36,391   | 36,289   | 37,380   | 43,046   | 47,526   | 46,435   |
| <b>Zinc</b>                 |       |        |       |       |        |        |        |        |        |          |          |          |          |          |          |          |          |          |
| LME Cash                    | USD   | 2,566  | (0.0) | (1.9) | (5.3)  | (8.1)  | 5.4    | 0.3    | 36.5   | 1,928    | 2,094    | 2,737    | 1,680    | 1,919    | 2,253    | 2,513    | 2,778    | 2,612    |
| LME 3M                      | USD   | 2,569  | (0.2) | (2.2) | (6.1)  | (8.1)  | 5.0    | (0.3)  | 36.1   | 1,938    | 2,101    | 2,750    | 1,684    | 1,927    | 2,257    | 2,527    | 2,789    | 2,628    |
| SHFE Cash                   | RMB   | 21,615 | (0.5) | (1.2) | (6.5)  | (4.9)  | 9.2    | 4.1    | 45.7   | 15,164   | 16,682   | 22,483   | 13,560   | 15,052   | 17,414   | 20,629   | 22,697   | 21,909   |
| SHFE 3M                     | RMB   | 21,400 | 0.1   | (0.9) | (7.2)  | (6.0)  | 8.1    | 2.4    | 42.9   | 15,119   | 16,758   | 22,477   | 13,664   | 15,135   | 17,474   | 20,687   | 22,756   | 21,731   |
| <b>Ferrous</b>              |       |        |       |       |        |        |        |        |        |          |          |          |          |          |          |          |          |          |
| Tangshan Billet             | RMB   | 2,990  | 0.0   | 4.9   | (6.0)  | 3.1    | 22.5   | 7.2    | 31.1   | 1,855    | 2,155    | 3,046    | 1,724    | 2,085    | 2,177    | 2,618    | 3,093    | 2,920    |
| Tangshan Iron Ore           | RMB   | 680    | 0.0   | 13.3  | (17.1) | (6.9)  | 5.4    | (2.9)  | 9.7    | 580      | 584      | 762      | 496      | 578      | 585      | 674      | 788      | 690      |
| Australia Fe62              | RMB   | 530    | (3.6) | 1.0   | (19.7) | (20.3) | 2.9    | (20.9) | 7.7    | 425      | 468      | 656      | 390      | 427      | 463      | 586      | 692      | 561      |
| Qinhuangdao Coal 5500kc FOB | RMB   | 617    | (4.8) | (4.8) | (9.5)  | 3.4    | (8.2)  | (0.3)  | 63.7   | 405      | 467      | 625      | 366      | 380      | 473      | 656      | 617      | 651      |
| Shanghai 2nd Grade Coke     | RMB   | 1,980  | 0.0   | (3.4) | 1.5    | (7.9)  | (0.5)  | (15.7) | 110.6  | 872      | 1,281    | 2,029    | 742      | 1,005    | 1,217    | 2,146    | 2,032    | 2,022    |
| Uranium                     | USD   | 22.6   | 0.0   | (0.5) | (2.7)  | (10.4) | 20.7   | 11.0   | (18.1) | 37       | 28       | 24       | 33       | 28       | 25       | 21       | 25       | 23       |
| <b>Oil</b>                  |       |        |       |       |        |        |        |        |        |          |          |          |          |          |          |          |          |          |
| WTI                         | USD   | 45.5   | 0.0   | (7.7) | (11.0) | (15.4) | 3.3    | (15.2) | 2.7    | 49       | 43       | 51       | 34       | 46       | 45       | 49       | 52       | 50       |
| Brent                       | USD   | 48     | 0.1   | (6.4) | (10.9) | (14.8) | 6.2    | (14.8) | 7.6    | 54       | 45       | 54       | 35       | 47       | 47       | 51       | 55       | 53       |

Source: Bloomberg

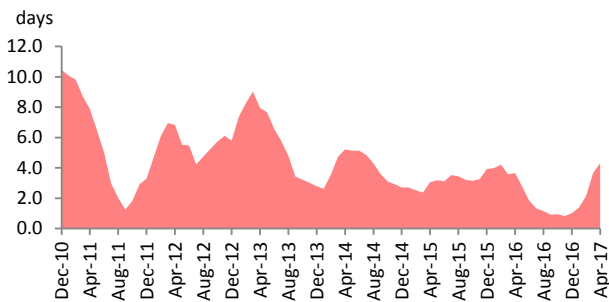
# Metals inventory

**Figure 3: China steel products**


Source: Bloomberg

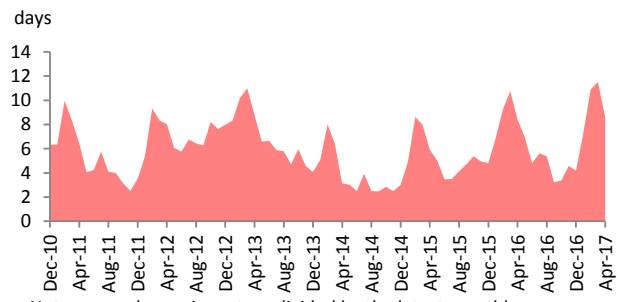
**Figure 4: China iron ore**


Source: Bloomberg

**Figure 5: China aluminum**


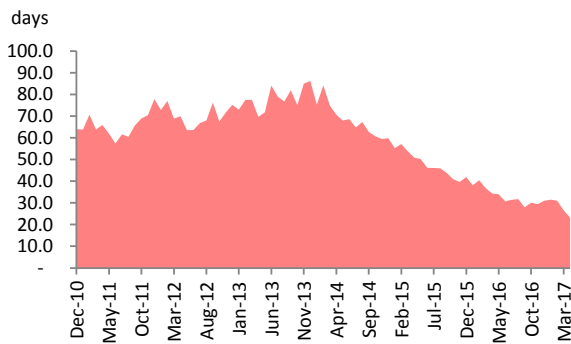
Note: on-exchange inventory divided by the latest monthly consumption figure available.

Source: Bloomberg

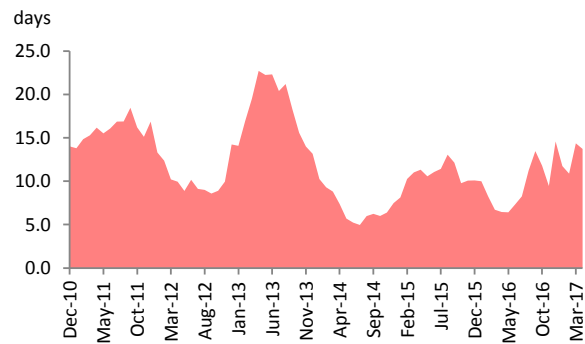
**Figure 6: China copper**


Note: on-exchange inventory divided by the latest monthly consumption figure available.

Source: Bloomberg

**Figure 7: Global (ex-China) warehouse aluminum**


Source: Bloomberg

**Figure 8: Global (ex-China) warehouse copper**


Source: Bloomberg

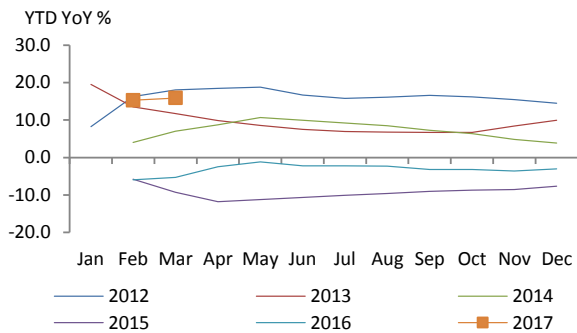
## Metals output

Figure 9: Global production at a glance



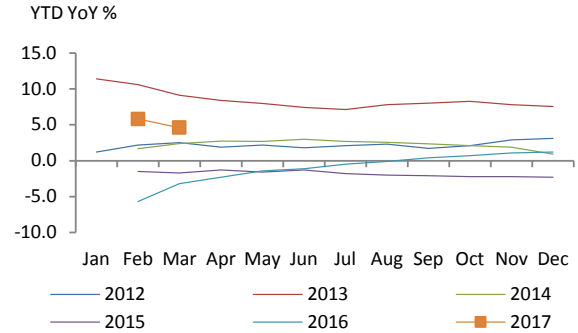
Source: Bloomberg

**Figure 10: China crude iron ore output growth**



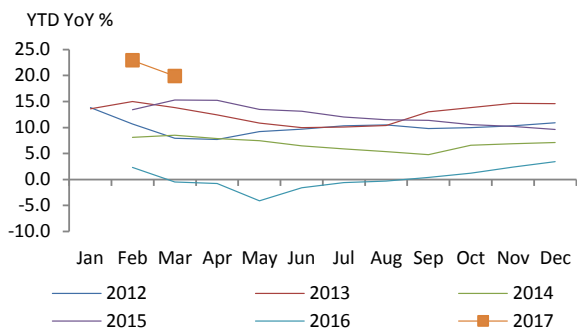
Source: Wind

**Figure 11: China crude steel output growth**



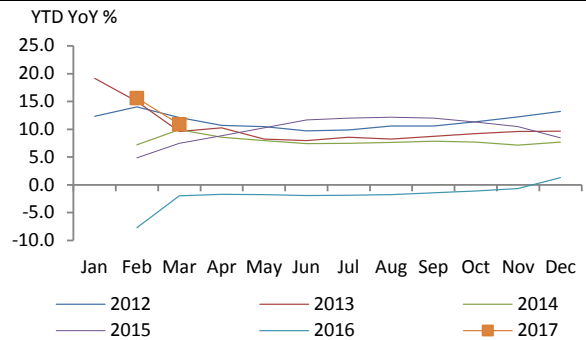
Source: Wind

**Figure 12: China alumina output growth**



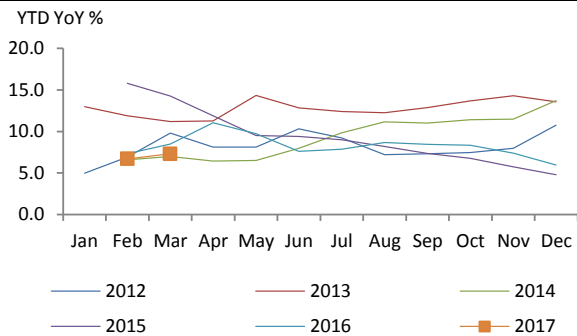
Source: Wind

**Figure 13: China primary aluminum output growth**



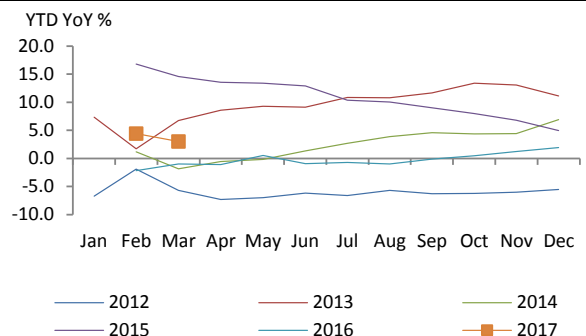
Source: Wind

**Figure 14: China refined copper output growth**



Source: Wind

**Figure 15: China zinc output growth**



Source: Wind

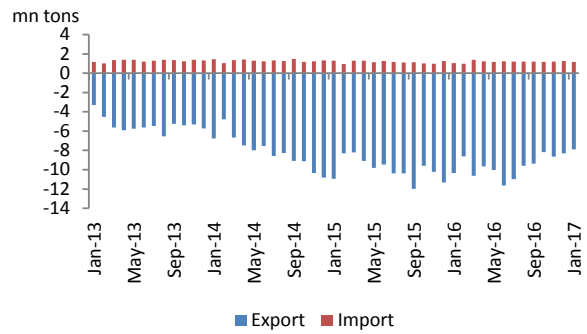
## China imports

**Figure 16: Iron ore and concentrate**



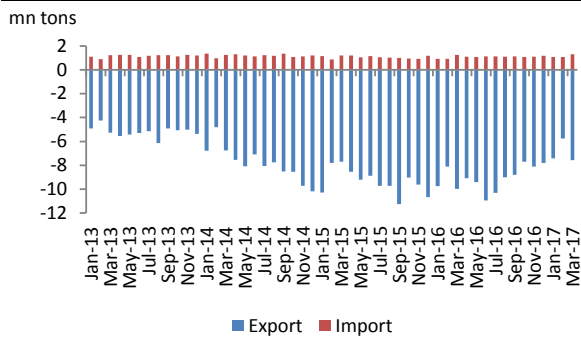
Source: Wind

**Figure 17: Crude steel**



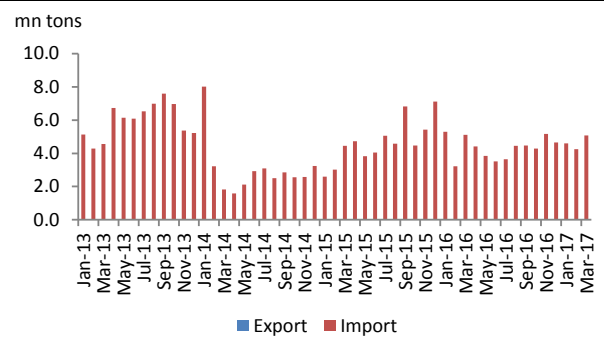
Source: Wind

**Figure 18: Steel products**



Source: Wind

**Figure 19: Bauxite**



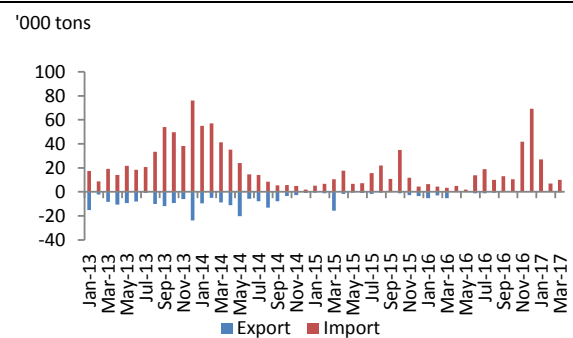
Source: Wind

**Figure 20: Alumina**



Source: Wind

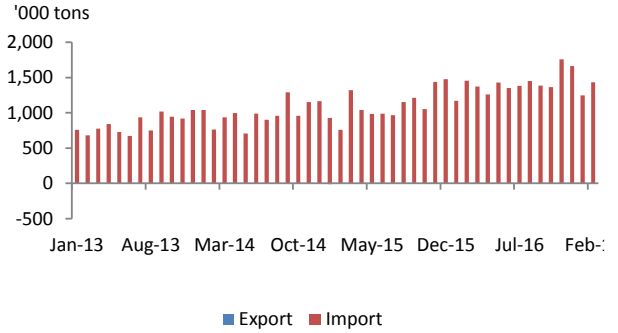
**Figure 21: Primary aluminum**



Source: Wind



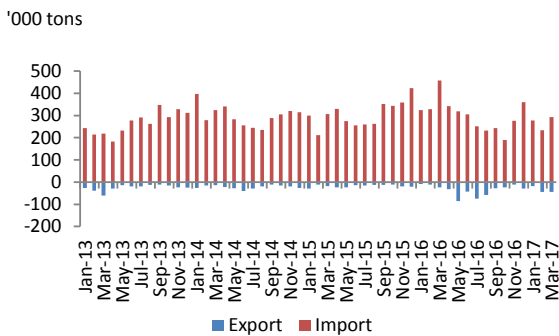
**Figure 22: Unwrought aluminum and aluminum products**      **Figure 23: Copper ores and concentrates**



Source: Wind

Source: Wind

**Figure 24: Refined copper**



Source: Wind

**Figure 25: Unwrought copper and copper products**



Source: Wind



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## Company Rating Definition

The Benchmark: Hong Kong Hang Seng Index; Time Horizon: 12 months

|             |  |
|-------------|--|
| <b>Buy</b>  | 12-month absolute total return: $\geq 10\%$            |
| <b>Hold</b> | 12-month absolute total return: $> -10\%$ but $< 10\%$ |
| <b>Sell</b> | 12-month absolute total return: $\leq -10\%$           |

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