

# Price Performance



## Base Metals

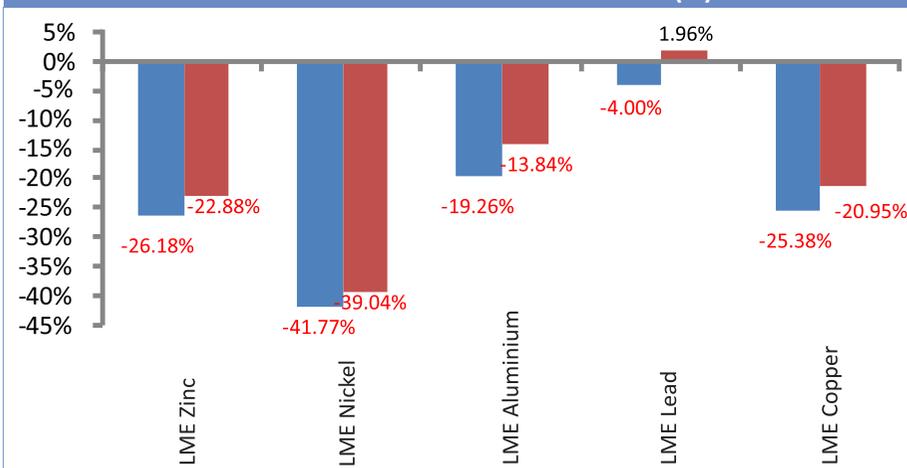
Undoubtedly, 2015 was an eventful year with crucial announcements from across the globe, be it China, Euro Zone or the US. Base metals have had a volatile journey in 2015 as the year started with concerns regarding the Greece debt default. Initially, Euro zone finance ministers approved reform proposals submitted by Greece in order to obtain a four-month extension of its bailout.

In May'15, Greece debt crisis became the bone of contention for the

global markets as default by Athens could ultimately have meant Grexit from the Euro Zone.

Unfortunately, Greece could not pay 1.5 billion Euros to the IMF in time but soon Greek parliament approved new creditor-demanded reforms, clearing way for bailout talks which were stuck for months.

BASE METALS PERFORMANCE IN 2015 (%)



Source: Reuters, Angel Broking

### String of Unfortunate Events from China Shook Global Markets

- Same time around, China's stock market selloff that started in mid-June came as a warning to investors and reminded people of the cons of margin trading. This sudden volatility gave jitters to investors across the globe. Although the government took actions like lending billions of dollars to stock trading companies, having pension funds increase stock holdings and threatening short-sellers with legal action, the loss was irreparable with Chinese stocks losing around 37 percent in this quarter.

Another major setback came in Aug'15 after China's central bank abruptly devalued the yuan by nearly 2 percent, the largest single-day drop since 1994. The People's Bank of China reset the centre of the Yuan's trading band 1.9% lower at 6.2298 per US dollar, its weakest point against the US dollar for almost

three years. This surprise Yuan devaluation to boost the flagging economy hurt the risk appetite severely, following which major global markets crashed down.

### Highly Anticipated US Rate Hike Exerted Pressure throughout 2015

Throughout the year, uncertainty regarding the imminent decision by the Federal Reserve on the US rate hike kept the investors cautious across the globe with hawkish comments and optimism regarding the US economy by policymakers only making the outcome more obvious.

As widely expected, the Federal Reserve raised rates for the first time in nine years at the Dec'15 FOMC meeting, voting unanimously to hike its key interest rate from a range of 0% to 0.25% to a range of 0.25% to 0.5%. Fed Chair Janet Yellen added the rate hike will be followed only by "gradual adjustments" that can be slowed if economic activity doesn't

continue to "expand at a moderate pace."

Additionally, the Committee will carefully monitor actual and expected progress toward its inflation goal in light of the current shortfall of inflation from 2 percent.

The FOMC remained optimistic about labour market as recent indicators, including ongoing job gains and declining unemployment, showed further improvement and confirmed that underutilization of labor resources has diminished appreciably since early this year.

### Copper

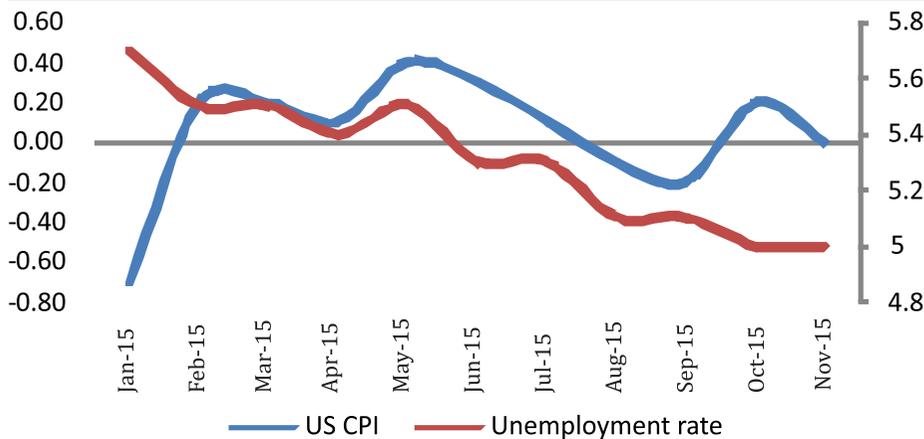


Copper, the leader amongst the base metals, faced heat in 2015 and plunged by around 21 percent as China, which accounts for roughly 40% of the global demand for refined copper, is now aiming for about 7% economic growth in 2015, the slowest in 25 years.

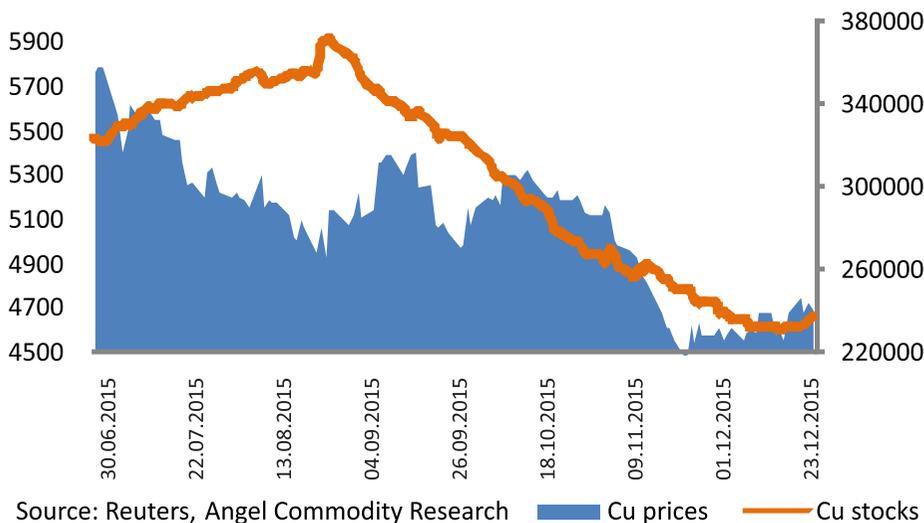
Persistent decline in Chinese stocks despite freezing trading in hundreds of company stocks and a halt to initial public offerings kept investors wary. At the same time, sluggish growth in other parts of the world means that other countries won't pick up the slack.

Besides, China's falling exports and a

**US CPI FAR FROM TARGET; JOBLESS RATE UNDER CONTROL**



**RED METAL TURNS ALL THE MORE RED IN 2015**



Source: Reuters, Angel Commodity Research      ■ Cu prices      — Cu stocks

stalling manufacturing sector prompted the country's central bank to weaken the Yuan by nearly 2% on the hope that it will make exports more competitive and push down borrowing costs. This move was in line with its request to the International Monetary Fund to include the yuan in its basket of reserve currencies known as special drawing rights (SDR). This did not go down well as investors felt cut in the Yuan's value signalled that Beijing will suffer a longer period of lackluster growth before it can revive its flagging economy.

Data is not too supportive either as China's producer prices fell in Nov'15 as the manufacturing sector continued to stagnate, forcing companies to drop their wholesale prices in order to compete to stay in business. Also, data released by the International Copper Study Group (ICSG) showed the global refined copper market showed a 30,000-tonne surplus in September and a 122,000-tonne surplus for the first nine months of 2015 compared to a deficit of around 375,000 tonnes in the first

nine months of last year following significant declines in consumption in the EU, Japan and Russia. The largest decline in consumption was in Russia, where the withdrawal of the country's cathode export tax in September 2014 helped usage drop by a massive 47% in the January to September period.

Another blow came from Chile's Codelco, which accounts for approximately one-third of global copper production, said it would rather restrain its costs than cut output. The world's biggest copper producer has in fact cut its 2016 premium to China for the refined metal by more than a quarter to a three-year low.

Demand side also looks bleak as Chinese imports of copper and copper products totaled 460,000 metric tons in November, up 9.5% on the year, according to China's General Administration of Customs. Despite the uptick, copper imports for the first 11 months of the year were down 2.8% from the same period of 2014 at 4.28 million metric tons.

Investor sentiment is subdued too as shown

by the CFTC's Commitment of Traders data wherein net short positions have reached the highest since April 2013.

The only factor that worked in favor was supply disruption concerns after US-based Freeport-McMoRan which vies with Codelco as the world number one copper miner in terms of output, cut in half output at its El Abra mine in Chile and idling two US mines. Freeport also predicted lower output at its giant Grasberg mine in Indonesia. For its part, Chile's state-owned Codelco has vowed to cut costs to the bone and delayed several expansion projects including going underground at Chuquibambilla and pushing back expansion of the Andina complex by two years.

Glencore's decision to curtail production at its Katanga operations in the Democratic Republic of Congo (DRC) and its Mopani mine and smelter in Zambia is likely to suspend 400,000 tonnes of copper production capacity over the next 18 months. Moreover, Chile's second-biggest copper mine Collahuasi, owned by Anglo American and Glencore, has postponed expansion plans, on top of its previously announced cuts. Codelco, the world's largest copper producer, added it would have to rethink or delay expansion projects after lower metal prices weighed on its earnings. Switzerland-based Glencore said could sell its Cobar underground mine in Australia's New South Wales and its Lomas Bayas open-pit operation in northern Chile adding to cuts to its copper production operation.

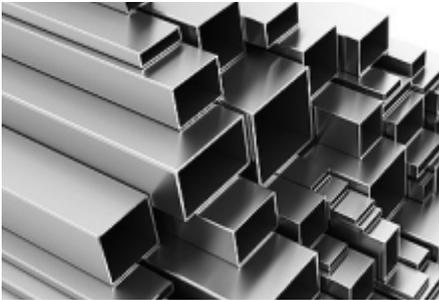
Freeport McMoRan, the world's largest listed copper producer, said will chop around 68,000 per tonnes both next year and in 2017 by suspending its Miami mine in Arizona and reducing output at both its Tyrone mine in New Mexico and its majority-owned El Abra mine in Chile. It also would cut half of the output from its Sierrita mine in Arizona and was considering a full shutdown. The partial curtailment will take about 100m pounds (or 45,000 tonnes) of copper out of the market annually.

Another critical aspect that led to metals decline was the pending decision on US rate hike for the first time in nearly a decade. Ultimately, the Fed lifted its key rate by a quarter-point to a range of 0.25 percent to 0.5 percent in the December FOMC meeting and signaled that further increases will likely be made slowly as the economy strengthens further and inflation rises from undesirably low levels.

Aluminium prices, unlike other base metals could not escape the heat and declined by around 20 percent in 2015 as China's

slowest economic growth in more than two decades is pushing more of the metal onto the world market.

### Aluminium



Despite weak economy and falling global demand, Chinese Aluminium production rose by over 6 per cent in the first 11 month of 2015, feeding a 14 per cent rise in exports to 4.3 million tons of unwrought aluminium compared to the same period last year.

Primary reason being some Chinese aluminium processors source hot metal in liquid form and roll it directly into coil, which garners the VAT rebate upon export but can be easily remelted back into primary metal in a third country. Due to this, Non-Chinese aluminium producers have called for Beijing to abolish the tax incentives, which looks unlikely owing to slowing China's economy.

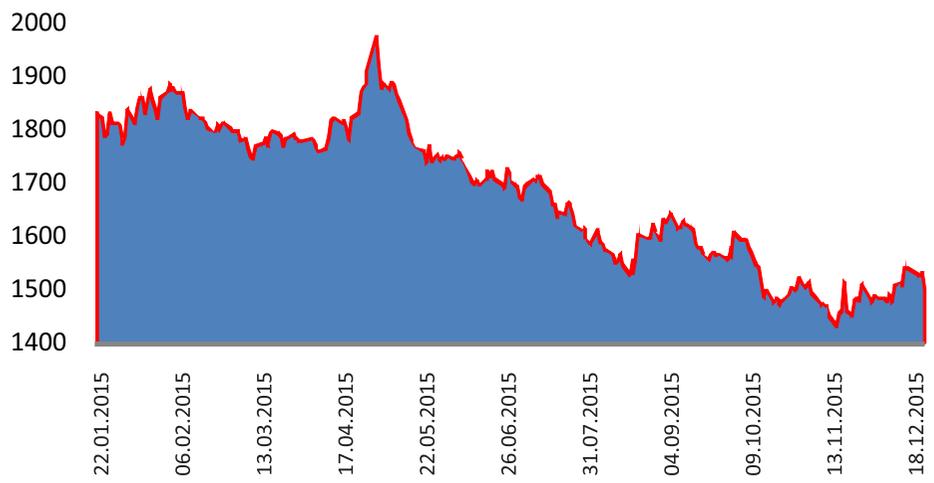
This spurt in production can be attributed to cheap hydropower and new coal mines in the desert region of Xinjiang on the Central Asian border which has allowed for a massive increase in Chinese smelting capacity. As a result, China now accounts for more than half of global supply, up from 18 per cent in 2003.

To take advantage of the same, Chinese state-run producer Chalco, which announced closing its smelter in Liancheng in October, with a capacity to produce 530,000 tonnes a year reversed its decision saying it would only cut capacity by 150,000 tonnes a year after the local government said it would subsidise power supply to the smelter. In line with this, Rusal increased its forecast for a market surplus this year to 373,000 tonnes from 277,000 tonnes previously.

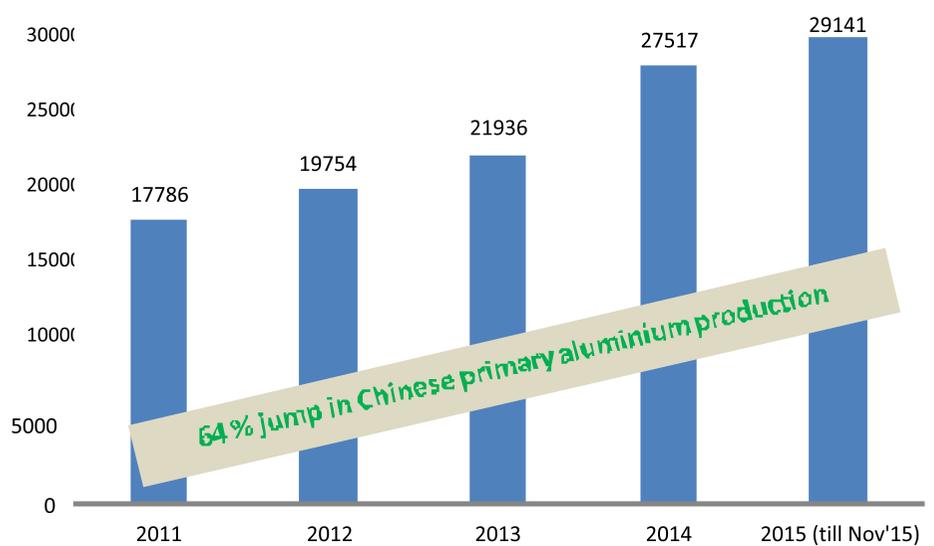
On the contrary, latest report published by the World Bureau of Metal Statistics (WBMS) indicates that global primary aluminum market has recorded a deficit of 279,000 tons during the initial ten months of 2015 compared to deficit of 589,000 reported in the entire year 2014. Global aluminum demand rose by 6.60% during January to October this year to total 47.94 million tonnes compared with the corresponding period last year.

Besides, stocks of the metal used in

### CHINESE EXPORT FLOOD HITS ALUMINIUM



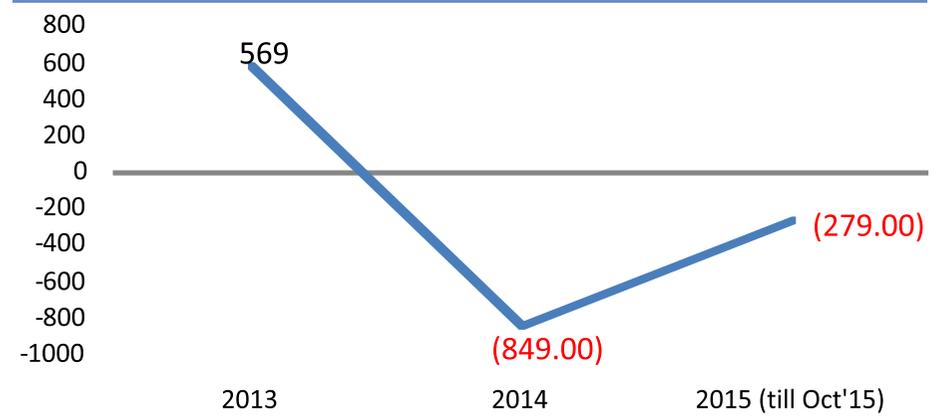
Source: Reuters, Angel Commodity Research



64% jump in Chinese primary aluminium production

Source: International Aluminium Institute, Angel Commodity Research

### ALUMINIUM MARKET TO SHIFT TO SURPLUS IN 2016



— Aluminium market balance (in '000 tonnes)

Source: WBMS, Angel Commodity Research

Technical Levels (30 Days)					
Commodity	Support 1	Support 2	CMP	Resistance 1	Resistance 2
LME Copper (\$/tonne)	3938	3195	4609	5841	7000
MCX Copper (Rs./kg)	265	215	310	393	471
LME Aluminium (\$/tonne)	1319	1124	1470	1724	1948
MCX Aluminium (Rs./kg)	88	75	99	115	130
LME Nickel (\$/tonne)	6062	4849	8505	9851	11063
LME Nickel (Rs./kg)	400	320	571	650	730
LME Lead (\$/tonne)	1510	1283	1742	1962	2189
MCX Lead (Rs./kg)	100	85	117	130	145
LME Zinc (\$/tonne)	1288	939	1569	1818	2121
MCX Zinc (Rs./kg)	85	62	104	120	140

transport and packaging have been steadily falling for the past 20 months in depots certified by the world's biggest and oldest market for industrial metals, the London Metal Exchange (LME). LME inventories have tumbled 46 percent since February 2014 to below three million tonnes, but much of that metal has merely been moved due to tough, new LME warehousing rules. Also, Aluminium stocks held at three major Japanese ports, Yokohama, Nagoya and Osaka fell marginally since Dec'14.

Number of efforts has been taken by the Aluminium industry members to support the falling prices. Russian aluminium giant Rusal said it would consider cutting 200,000 tonnes of annual aluminium output over the next six to nine months. In the US as well, Operations at the Hawesville smelter in Kentucky have been reduced to two lines, or around 40 percent of the plant's 250,000-tonne per year capacity, to produce high-purity metal for local customers. One of three potlines at the Sebree smelter, also in Kentucky, has just been mothballed, taking out around 70,000 tonnes of capacity while Mt Holly in South Carolina is scheduled for full mothballing by the end of this year unless a new power supply deal can be negotiated.

Recently, in a meeting of 14 major producers including Aluminium Corp of China (Chalco) in Yunnan province, China's Nonferrous Metals Industry Association (CNIA) said the producers had also pledged not to open any new capacity for at least one year or to reopen any idled capacity. CNIA added that some 4.41 million tonnes of capacity has been cut so far in 2015, easing the supply glut and domestic inventory has fallen by 200,000 tonnes since October 2015 to 800,000 tonnes. The CNIA said it would have cut a total of 4.91 million tonnes of annual

capacity by the end of the year.

Besides this, Aluminium producer China Hongqiao Group said it will cut annual capacity by 250,000 tonnes immediately, representing 6 percent of the company's total capacity. This was the latest smelter to pledge to curb supplies after similar moves over the past month by the copper, zinc and nickel industries and followed a meeting of 14 major Chinese aluminium smelters in the southwestern city of Kunming in Yunnan province.

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#### Outlook

In 2016, Copper prices are likely to continue the negative trend as serious weakness in Chinese economy will persistently hurt prices. Besides, rally in dollar owing to an expected cycle of U.S. rate hikes will exert pressure.

However, the decline may not be as severe as 2015 as supply glut concerns will be contained citing a number of output cuts across the globe. In addition to that, nine refiners in China recently agreed to reduce sales of spot metal in the next quarter by a combined 200,000 metric tons. The move comes as prices have fallen below production costs and smelters want to support prices. This comes in

addition to earlier decision wherein Copper suppliers including Jiangxi Copper and Tongling Nonferrous Metals Group have pledged to reduce output next year by 350,000 tons.

In line with this, the International Copper Study Group (ICSG) expects the market to remain balanced in 2015 as against an earlier forecast of a surplus of 360,000 tons, while in 2016 a small deficit of around 130,000 tons is likely as demand growth outpaces production growth compared to earlier expectation of surplus of 230,000 at its April meeting. New mine supply is coming on-line in the next few years, mainly from a number of mid-size mines in the Americas, and is expected to keep the market in surplus.

Aluminium prices are likely to continue their negative momentum in 2016 as Norway-based Norsk Hydro, one of the world's largest aluminum producers, stated that China's production of aluminum is expected to be 2-2.5 million tonnes higher than the country's consumption in 2016, resulting in a global oversupply of up to 1 million tonnes. Also, unreasonable subsidies for exports of semi-finished aluminium, which companies say, can be turned back to primary metal outside the country, is hurting the global balance. In contrast, exports of primary aluminium are hit by a 15 per cent tax.

Although prices will trend lower, output cuts by the major producers will buoy some support. Besides, Japanese aluminium buyers have agreed to pay producers a premium of \$110 per tonne for metal to be shipped in the January-March quarter, a 22 percent rise from a \$90 per tonne in the previous quarter. This is the first increase in four quarters, in line with a rise in overseas surcharges for physical aluminium.