



Aluminium : Production Cut to Weigh on Later 2016

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Aluminium markets witnessed a sharp downturn in 2015 following an oversupply from major producers and falling demand from major global economies

due to economic slowdown. In fact, aluminium prices slumped by around a quarter in 2015 and over half during the last five years because of production capacity increase and inventory building at major producers. The economic slump in China aggravated the situation though prompting thereby major producers to cut their production. Scenario, however, is unlikely to change in the current year on low infrastructure push resulting into expectations of subdued demand trend.

Overcapacity – A Major Challenge

Global aluminum markets have been in a surplus for almost a decade. Surplus can be defined as supply in excess of demand. Although aluminum producers such as Rio Tinto, Norsk Hydro, and Alcoa have cut capacity since 2007, the Chinese smelting capacity has risen over the period. Global aluminum markets have been reeling under the impact of Chinese aluminum exports.

The aluminium market has a whole host of problems, but at the core are overcapacity and a steadily falling cost structure. Unfortunately, as of yet markets have not seen enough action to address the former while the latter is only accelerating. Aluminium remains the structural underperformer among the base metals, even from current levels. The biggest

change in view over recent times has been around the Chinese cost structure. With thermal coal prices falling, grid based power costs have moved steadily lower. As a result, the price setting tonne has taken a big leg down over 2015, helped by the dramatic fall in the alumina price. For this cycle to reverse, it would take either strong growth in mining cost inflation or a thermal coal price recovery. At the present time, we see neither as likely. Moreover, new supply in Western China continues to come to market with breakeven costs nearer to \$1,200 a tonne.

The fundamental story in aluminium remains around Chinese production. China has added over 16 million tonnes of capacity since 2010, and about 14 million tonnes of production. For the global market, the good

news is that this rate is slowing – China will only add half this volume over the coming five years. The challenge is that this rate is still well in advance of domestic consumption, particularly with scrap set to play a more important role in supply. Therefore, Chinese exports are expected to the rest of the world (through semi-finished products) to remain elevated over the coming years.

Quite simply, the base case aluminium surplus we have in supply – demand balance simply cannot happen. The market will not be able to sustain inventory build of this level, even with strategic stockpiling. The result is that supply will have to be idled and kept offline for the foreseeable future to keep the market in balance. Indeed, given the high level of inventory the market would need to be in

deficit to draw this down before there is any reason to get excited on price. The question raises of course is where these supply cuts will be and China does remain the most likely source of supply cuts (or any positive market news) over H1 2016. Even with this however, we do expect semis exports to rise sequentially once more.

Structural Under Performer

Aluminium would remain as the structural underperformer among the base metals, even from current levels suffering from overcapacity and a steadily falling cost structure. With thermal coal prices falling, grid based power costs have moved steadily lower in China. Further, the rate of capacity addition in China is still well in advance of domestic consumption, particularly with scrap set to play a more important role in supply. We expect Chinese exports to the rest of the world (through semi-finished products) to remain elevated over the coming years. Given the base case aluminium surplus, supply will have to be idled and kept offline for the foreseeable future to keep the market in balance. The question raises of course is where these supply cuts will be and China does remain the most likely source of supply cuts (or any positive market news) over H1 2016. With this bleak outlook, Macquarie team has cut LME aluminium price forecast by 6-18% such that we don't have an average price above \$1,400/t until 2020. Alumina prices also feel an impact, with FY16-17E price forecast cut by 9-21% and medium term expectations moved down from +\$300/t to ~\$230/t.

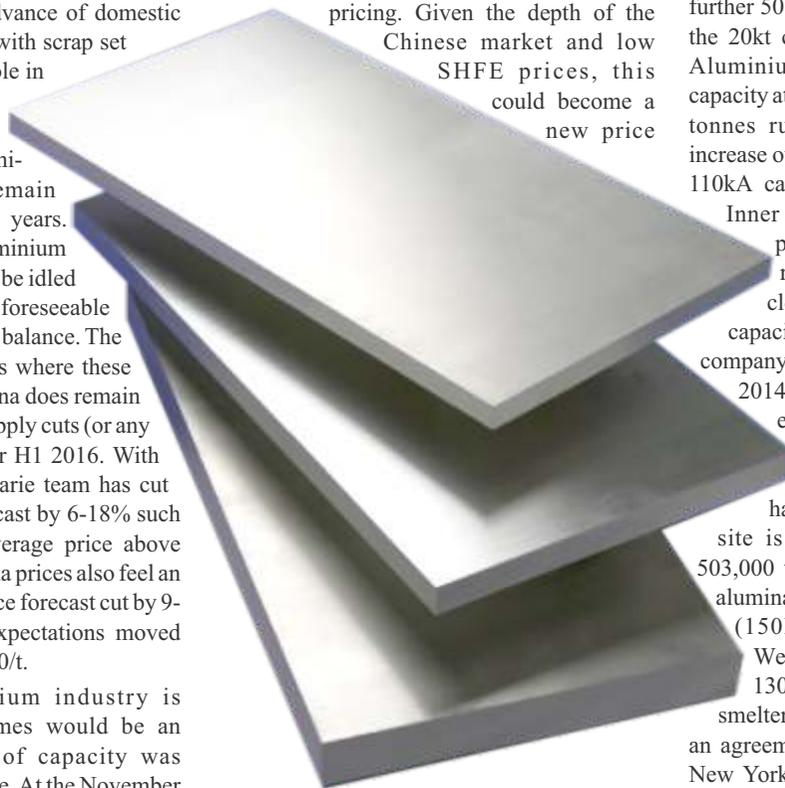
To say the aluminium industry is experiencing difficult times would be an understatement; 1.3Mt of capacity was curtailed in November alone. At the November average LME price of US\$1,468/t (US\$67¢/lb), the lowest since April 2009, 70% of smelters are losing money on a cash cost basis. This is despite material cost reductions in 2015 thanks to lower alumina prices and a stronger US dollar reducing locally denominated electricity costs (and growing power subsidies in China). The China Nonferrous Metals Industry Association is now suggesting the State Reserve Bureau (SRB) purchase 1Mt of aluminium equivalent to 40% of the forecast 2016 surplus.

To sidestep the vagaries of market pricing, which is hurting producers, China Hongqiao Group, the world's largest aluminium producer with an expected 2015 production of 5.7Mt, is

to establish its own private pricing without reference to exchange prices.

Actions on Ground

Global major aluminium producers have started actions in ground in response to steep fall in its demand and capacity overhang. To date, China Hongqiao Group has sold liquid metal from its Shandong production base with reference to Changjiang aluminium prices. It is still too soon to know what the long-term impact will be, and the initially published private prices were just CNY150/t (US\$24/t) higher than Changjiang pricing. AME notes that it is at odds with all commodity market pricing trends over the last decade, which has moved towards spot and exchange pricing. Given the depth of the Chinese market and low SHFE prices, this could become a new price



benchmark in China if it offers producers stability at a premium considered reasonable by buyers, which at current prices is certainly plausible.

Earlier this year, eight major Chinese aluminium producers, including Chalco, China Hongqiao, Yichuan Power Group, Dongxing Aluminium Co., Yunnan Aluminium, Hangzhou Jinjiang and East Hope were planning to establish a new aluminium trading platform. As with the intention to create a private pricing, the intent of the platform is to limit speculative financial participation. The combined production of the eight companies is over 15Mtpa of aluminium, positioning the cohort strongly to establish the new platform.

Aluminium capacity cut announcements continue to come through thick and fast. AME counts a net 880,000 tonnes of aluminium capacity announced for curtailment in November. A total of 1.3Mt of capacity was curtailed, although 480,000 tonnes of capacity was either started or restarted. Most of this activity was in China.

Yichuan Power's Hengkang smelter in Henan will be shuttered and will curtail 200,000 tonnes of 400kA capacity. The facility is suffering heavy losses as it purchases power from the grid. Guizhou Liupanshui Shuangyuan Aluminium will shut 60,000 tonnes of 240kA capacity at its smelter in Guizhou. Bosai's Sichuan Aba will curtail a further 50,000 tonnes of 350kA capacity after the 20kt cut announced in October. Yunnan Aluminium will curtail 100kt of 186kA capacity at its plant in Yunnan, leaving 200,000 tonnes running after an electricity price increase over the winter. CPIC will cut 50kt of 110kA capacity at its Tongshun smelter in Inner Mongolia. The 240,000 A cells producing 120,000 tonnes will remain in production. Chalco will close the remaining 120,000 tonnes of capacity at its Gansu Hualu smelter. The company idled part of the facility in October 2014, but will shut the remainder by the end of the year. Hunan Chuangyuan will curtail 110,000 tonnes of its 280,000 tonnes capacity; despite having access to captive power, the site is unprofitable. Alcoa will curtail 503,000 tonnes of aluminium and 1.2Mt of alumina capacity and will idle the 230kt (150kA) Intalco and 80kt (100kA) Wenatchee smelters. Plans for its 130,000 tonnes (240kA) Massena West smelter changed after the company reached an agreement to receive a package from the New York State government to improve the cost position of the smelter and support growth projects for the casthouse. The Massena East smelter will permanently close after potlines were shutdown in March 2014. Alcoa will also partially curtail refining capacity at its 1.2Mt Point Comfort refinery in Texas.

In addition to these production cuts, some project ramp-ups have been delayed in anticipation of better market conditions. RUSAL will delay the start of its Boguchansk smelter until the March Quarter of 2016. 300kt of the smelter's 600kt capacity was due to be commissioned in the December Quarter of 2015. East Hope will delay the start of the 150kt expansion of its 500kA Xinjiang smelter. Vedanta Resources plans to put on hold its plan

to ramp-up the Jharsuguda aluminium smelter in India from 500ktpa to 800ktpa. The decision is based on the company's expectation of unfavourable aluminium prices in the coming months. Moreover, the Lanjigarh alumina refinery, one of Vedanta's upstream facilities, has already curtailed 50% of its refining capacity due to its failure to source local bauxite feed. Also, Malaysia has imposed a three month ban on bauxite mining. This temporary ban could dent stockpiles in China but is unlikely to curb breakneck output in the aluminium sector.

Falling Inventory

In short, LME's aluminum inventory has been steadily dropping after reaching about 5.5 million metric tons in mid 2013. According to Market Realist, that drop was compounded in October with aluminum inventory at LME warehouses down 138,900 mt. LME warehouses recorded a total aluminum inventory of 3.03 mmt, according to the news source, of which nearly 36% is from cancelled warrants. All the metal that enters LME warehouses is on warrant and these warrants are cancelled when the bearer requests the physical delivery of the metal. From late October through Nov. 2, cancelled warrants grew by more than 23% despite total aluminum inventory with LME warehouses decreasing over the same period. This indicates that buyers have been deferring execution of purchase orders probably because of a slump in demand. The increase in cancelled warrants is unlikely to be related to real demand. With the large tonnages like that, it's likely to be finance-related. It's likely to be material moving to an ex-LME location.

Surging Exports from China

China's surging exports of aluminum are becoming as contentious as its fast-rising shipments of steel as prices of the metal used in automobiles to beverage cans continue to hover just above their six-year low. Despite a dip last month, China's aluminum exports are up 14.4% so far this year, according to official data, as companies take advantage of their ability to produce at a lower cost than international rivals to seize market share. While major aluminum companies like US based Alcoa Inc. have cut production this year, Chinese output has risen by 18% year-to-date, according to the International Aluminum Institute, a supply flood that has helped keep prices depressed.

Benchmark three-month aluminum futures were trading at around \$1,492 a ton on the London Metal Exchange in late Asia, slightly

higher than a six-year low of \$1,462.50 a ton touched on Oct. 29. There's little sign China will cut back soon, meaning few expect any imminent recovery in aluminum prices. Chinese producers have added about 3 million tons of new annual smelting capacity this year, and could add another 1 million tons before year-end. The capacity additions are very bearish for prices. It has driven the Chinese market into increasing oversupply and forced them to export more. Protests against China's aluminum export rise have been growing louder, with producers from the U.S. to India demanding measures to shore up their domestic industries. Due to a rise in imports from China, domestic Indian producers are getting choked. There is tremendous subsidization of aluminum production in China. India's import tax on aluminum should be increased to 10% from the current level of 5% and 2.5% on primary aluminum and aluminum scrap, respectively.



China's share of global aluminum production has expanded to 50% from 11% in 2000, said Heidi Brock, president of the Aluminum Association, which represents primary aluminum producers in the U.S. and other countries, in a recent speech. "We would urge the Chinese government to make concrete commitments to address the problems of both overproduction and emissions from their domestic primarily aluminum production," he said. China's Non-Ferrous Metals Industry Association has hit back at suggestions companies there are dumping aluminum on international markets, saying that China's government has room to increase tax rebates on exported aluminum products. Chinese smelters can withstand low international prices in part because of the government support they receive, analysts say. Chinese producers often benefit from "opaque" tax credits, or cheap loans made to them by local governments that are conditional on them keeping up production and staffing levels, according to a report by Nomura. Even when Chinese smelters look set to cut output, closures may prove temporary.

Nomura cites the example of Chinese state-run producer Chalco, which announced it, would close its smelter in Liancheng in October, with a capacity to produce 530,000 tons a year. After the local government said it would subsidize power supply to the smelter, Chalco reversed its decision, saying it would only cut capacity by 150,000 tons a year.

In all, while Chinese producers have closed 3 million tons of annual aluminum-producing capacity since 2010, they have added an additional 17 million tons worth, Nomura said. Much new capacity is being added in the northwest of the country, where power supplies tend to be cheaper: Energy expenditure accounts for around 40%-50% of aluminum-producing costs. One key factor fueling China's exports has been that aluminum prices in the U.S., Europe and the rest of Asia have continued to command a premium over LME prices despite measures by the exchange to reduce delivery times from its warehouses. The premiums paid for immediate delivery in the U.S. have stabilized to around \$175 a ton, up from around \$155 a ton in early October. Such a markup incentivizes more exports of aluminum from China, where local market prices have fallen farther than international prices.

The burden of balancing the aluminum market looks set to be borne mostly by producers elsewhere. Alcoa on Nov. 3 said it would cut smelting capacity by 503,000 tons per annum. U.S. based Century Aluminium has also announced cuts at its Sebree smelter. This is a direct result of Chinese overcapacity and the improper export of heavily-subsidized Chinese aluminum products that has caused the significant decline in the price of aluminum. Rusal, the world's biggest aluminum producer, will consider a cut of 200,000 tons of annual output over the next six to nine months.

Deficit in 2016

Aluminium price is likely to drop in 2016, before rising slightly in 2017. Despite the supply cuts coming through, the weaker demand growth and new capacity piling into the market (albeit more slowly) will keep near-term prices under pressure. Aluminum markets are set to record a deficit of 360,000 metric tonnes in 2016, "driven by strong aluminum demand, smaller production increases and smelter curtailments." Alcoa also projected a 1 million ton deficit in the alumina market. This means Alcoa expects demand would be more than supply in aluminum as well as alumina markets in 2016.