

Brady Bulletin - Issue 3, August 2005

Power's crucial role in the aluminium sector

The fundamentals are starting to turn

Going into this year aluminium possessed positive fundamentals, which supported prices throughout the first quarter helping them reach their peak of \$2,032/tonne in early March - their highest in close to a decade. However, since then aluminium has seen a downtrend in prices, touching a low of \$1,675/tonne on July 4th. This underperformance was due to several factors such as slower than expected demand from Western markets, combined with global increases in production and higher aluminium exports coming out of China.

However, a number of the fundamentals are beginning to look more encouraging, which has seen the cash quote move back towards \$2,000/tonne. These include positive economic signals coming out of Japan, South Korea and even Europe. This suggests that, combined with strong economic data from the US (GDP for Q2 shows a 3.4% increase), global growth may soon accelerate. In addition to the improving economic climate - rising production costs which may constrain output growth and the imminent ban on Chinese toll refining, has triggered renewed enthusiasm from fund buyers that has supported aluminium prices' current up-cycle.

The rise in power costs comes, of course, against a background of still high alumina prices - even though spot alumina prices are some way off their recent high. After alumina, power represents the second largest cost to smelters averaging just over one quarter of total costs.

For some smelters, higher power costs can be viewed as the "final nail in the coffin".

Rising power costs in Europe and the US

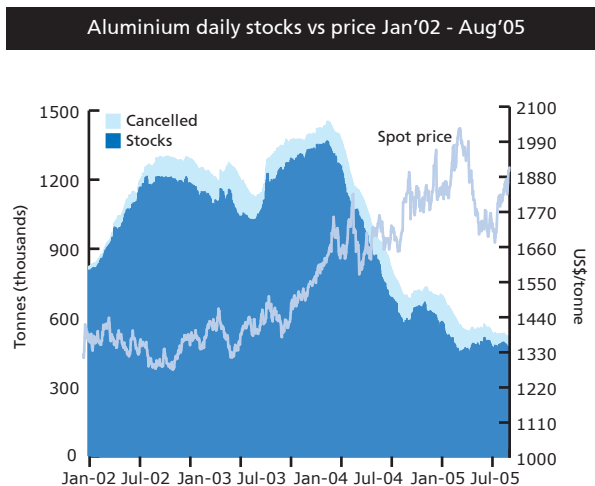
Power price rises across Europe of between 25%-30% this year is causing the closure of a number of aluminium smelters and will lead to a reduction in the aluminium output coming from this region. In Germany, which has seen a 25% increase in power prices this year, power costs have directly led to Norsk Hydro announcing the closure of two of its plants in Stade and Hamburg respectively. The company plans to remove 185,000 tpy, 10% of its overall production, from the European arena by 2007.

Other power-related closures within Europe include: Norsk's Soderberg lines at the Høyanger and Ardal smelters - Norway, Magyar Aluminium's smelter in Inota, Hungary, and the possible closure of two of Alcan's smelters - Lannemezan in France and Steg in Switzerland.

With a significant number of long-term power contracts ending this year and 2006, an increasing proportion of European smelters will see their profitability drop due to higher power prices, putting close to 20% of Europe's 4.5m tpy capacity at risk.

In the US, the smelting industry has also come under pressure from rising power costs, with average power rates reportedly 50% higher than average global rates. Despite Bonneville Power Administration's latest offer of power benefits amounting to \$59m - (split between Alcoa, Columbia Falls Aluminum and Golden Northwest Aluminum) - Alcoa still believes the continued high power prices in the US will put plants such as Intalco and Wenatchee at risk. The risk to aluminium capacity throughout the "Western World" will have a tightening effect upon aluminium inventories further supporting the upside in aluminium prices.

So far, production in both Western Europe and the US have yet to be unduly affected, with Western Europe's output for H1 up 3.4% year-on-year to 2.18m tonnes, although US primary production is down 1.2% to 2.50m tonnes for the same period year-on-year.



Are Chinese exports set to fall?

On August 22nd 2005, China revoked tax rebates on the import of alumina and export of aluminium - implementing an 8% import duty on alumina combined with a 17% VAT charge. This comes as part of the Chinese government's attempt to kurb the rapid growth of the power-hungry toll refining industry due to the increasing strain placed upon the country's power supply. The expansion of the aluminium industry in China has seen a 25.8% year-on-year increase in imported alumina for the first seven months of 2005, together with a 17.5% rise in aluminium production to 4.67m tonnes. In addition, 708,241 tonnes of primary aluminium was exported over the first half of 2005, giving a year-on-year increase of around 40%.

The ban on toll refining is expected to reduce exports of aluminium out of China leading to a further tightening of the market in 2006. However, existing tolling agreements will remain in place until they expire, which will delay the full impact of this development, spacing any reduction in Chinese output over the next six-months to a year.

Power determines the location of the next generation of smelters

With much of the Western World presenting an increasingly uneconomic environment, and uncertainty over the future of aluminium production in China, many of the world's leading producers are searching elsewhere for suitable sites to build the next generation of smelters - with the focus falling heavily upon the Middle East and India.

BHP is reportedly setting its sights on Egypt as a potential location for new capacity. In addition, while Hydro has

announced plans to build a 570,000 tpy smelter in Qatar, Alcan has agreed a joint venture to build a smelter with the capacity of 325,000 tpy in Sohar, Oman. With countries like Iran recently announcing plans to treble its production by 2009, the Middle East looks to become a major producer of aluminium over the next few years due to low production/power costs. Production in the area is already on the increase, most notably with the expansion of Dubal's Jebel Ali smelter capacity to 761,000 tpy by the end of this year.

Other regions undergoing growth in aluminium output include Iceland and India. Iceland currently produces 270,000 tonnes of primary aluminium annually; however, there are plans which will see capacity boosted substantially. Greenfield projects from both Alcoa and Century Aluminium should boost capacity to approximately 787,000 tpy by 2010.

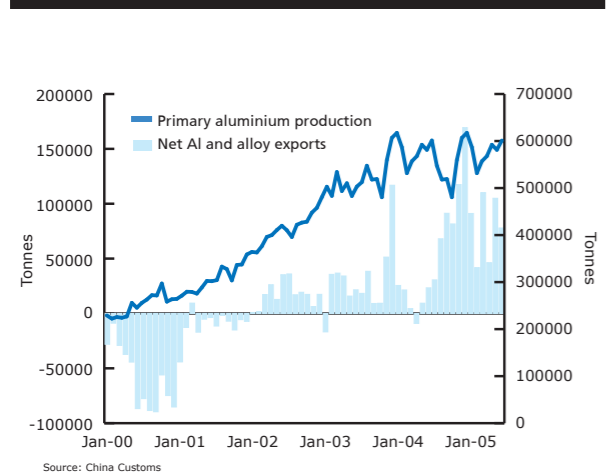
In India, aluminium output is also currently on the increase, having risen 25,000 tpy in Q2 year-on-year to 227,000 tonnes. These figures included those published by India's main aluminium smelters - Hindalco produced 106,000 tonnes, Nalco 87,500 tonnes, Malco 9,400 tonnes and Balco produced 24,700 tonnes of primary aluminium. India's total aluminium capacity is on course to increase to over 900,000 tonnes this year and up to an estimated 1.06m tonnes in 2006.

Supply tightness should support higher prices in 2006

Many of the bullish fundamentals mentioned above, will start to "kick in" during the final quarter of 2005, or in the early part of 2006. After a prolonged period of demand weakness, we expect the completion of the process of inventory adjustment in the semis sector, combined with accelerating economic growth to support a pick-up in the demand for primary aluminium. The prospects for lower exports from China and reduced European output may emerge towards the end of the year. As such, we expect the rate of inventory decline to accelerate as the second half of the year progresses - supporting a bullish outlook for aluminium prices throughout 2006.

The next issue of the Brady Bulletin (published to coincide with LME Week) will analyse the prospects for the whole of the base metals complex. To ensure you receive this report contact: h.gathercole@bradyplc.com. Previous issues are available on www.bradyplc.com.

Chinese growth in production and net exports, 2000-2005



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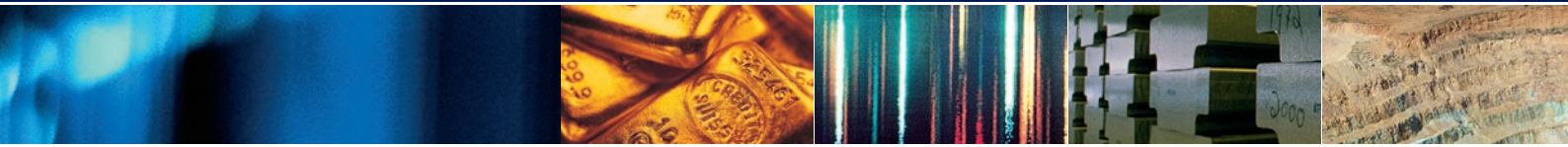
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Trinity specialises in Physical Material Management, Financial Transaction Management, Treasury, Risk & Contract Management. Brady is acknowledged as a leading provider of Trading and Risk Management Software for the global metals marketplace, installed with producers, merchants, banks, brokers and end users around the globe.

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