

# Market Overview

**“Global growth and commodity demand remains volatile and emerging markets continue to be the key drivers of growth.”**

With slower world economic growth slowing in 2012 driven by continued weakness in developed economies and reduced growth in emerging economies, prices for commodities softened during the year. However, emerging markets remain the key drivers for growth and commodity prices as long-term trends of urbanisation and favourable demographics are expected to support growth in consumption and infrastructure in these markets.

## Zinc

Whilst the market outlook remains strong, with developing markets underpinning global growth, the global economic slowdown in 2012 led to reduced demand for zinc and lead at the beginning of the year. In the second half, the construction and heavy industrial sectors showed particular strength and the long-awaited reacceleration of Chinese economic growth helped buoy zinc markets with consumption reaching about 12.8mt by the end of the year as compared to 12mt last year.

Going forward, a supply shortage is projected alongside robust demand as growth continues in emerging markets fuelled by rapid industrialisation and infrastructure development. This combination of increasing global zinc demand along with lagging supply due to closures of some major zinc operations in 2013 and 2014 is expected to create an imbalance, potentially creating an opportunity for Vedanta and other zinc miners.

In India, we are anticipating strong growth in the near-term, driven by demand from the galvanising industry. Investment in infrastructure projects is expected to further boost demand of industrial metals including zinc.

## Lead

Global production of lead is estimated to have grown strongly in 2012, and it is expected that production will grow around 4–5% on average in the near term driven by the automotive and industrial battery sectors.

India will be one of the key drivers of growth in the Asian region, second only to China. India's domestic market is expected to witness a robust growth of around 6% in the coming years, driven mainly by the UPS battery and replacement battery sectors. The influx of many major automobile manufacturers, making India and other BRIC countries production hubs, underpins the increasing positive outlook for lead.

## Iron Ore

Iron ore prices experienced a sharp drop as a result of destocking activities by traders in China and negative sentiment surrounding the Chinese steel industry, particularly production overcapacity. Iron ore price volatility has been increasing over the past four years coinciding with the increased use of shorter-term contracts and spot trading.

China was the world's largest consumer of steel in 2012, accounting for around 44% of total global consumption. In 2013, China's steel consumption is forecast to increase 4%, relative to 2012, to total 697 million tonnes. The approval of infrastructure investment packages announced in late 2012, particularly expansion to rail networks, as well as continued growth in commercial and residential construction are expected to support higher steel consumption.

In 2013, India's steel consumption is forecast to increase 7%, compared to 2012, to total 84mt. Higher consumption is expected as a result of predicted robust economic growth associated with government spending on infrastructure and higher consumption of consumer durables.

## Copper

Global refined copper production in 2012 was 20.2mt, an increase of 2% over 2011. Global refined supply exceeded consumption slightly by about 50kt with consumption remaining almost flat at 19.7mt during the year.

China was the largest end user of copper in 2012 with a global market share of 42% and remained the preferred destination for exports.



Top: Engineer at control room of Dariba smelting complex, HZL.

Middle: Aluminium rolled products being transported on a conveyor, BALCO.

Commodity prices US\$/mt	FY 2010–11	FY 2011–12	FY 2012–13
Copper	8,138	8,475	<b>7,853</b>
Aluminium	2,257	2,313	<b>1,974</b>
Zinc	2,185	2,098	<b>1,948</b>
Lead	2,244	2,269	<b>2,113</b>
Silver (US\$/oz)	23.9	35.3	<b>30.5</b>
Iron Ore (63 Fe Grade)	144	149	<b>120</b>
Oil – Brent (US\$/bbl)	87	114	<b>110</b>

Source: London Metal Exchange, The London Bullion Market Association, Mysteel Iron Ore Index, Bloomberg.

Global mine production growth was 3.8% in 2012 due to the ramp up in production at some of the new mines mainly in Chile and Peru.

The first half of 2012 saw a tight spot market affected by production disruptions at two major copper concentrate producing mines, one in Indonesia and one in Chile. However, mine production improved from second quarter of 2012 and stable operations continued during the second half, which led to an increase in availability of copper concentrates.

Consumption in the Indian primary copper market remained almost flat in 2012 and the total share for producers of refined copper remained unchanged as imports remained subdued. The demand for refined copper in India is expected to grow to 2mt in 2030, representing a Compound Annual Growth Rate ('CAGR') of 6.7%.

### Aluminium

The global aluminium industry recorded a 3.7% growth in production and a 4.8% growth in consumption during CY 2012.

In 2012, aluminium producers were hit by a 16% drop (over 2011) in prices. Global stock in days of consumption increased to 120 days in 2012, a level last seen in the early 90s when the market was trying to digest the large volumes of metal coming from the former Soviet Union.

Aluminium consumption grew at an uneven pace as governments across the world announced tax cuts, subsidies and benefits to improve consumer confidence. In 2013, China is expected to show robust growth backed by infrastructure spending. A recovery in the US housing market and robust aluminium consumption for transportation is expected to drive overall global primary aluminium consumption to rise by 7.2% to 49.7 million tonnes.

As a growing economy, India is expected to experience strong primary aluminium demand to support electrification and power infrastructure projects.

India's primary aluminium consumption is expected to grow by 8% over 2012 to 2.08mt. Long-term forecasts project consumption of 7.7mt in 2030 which equates to 5.06kg of primary aluminium consumption per capita. When compared to the current per capita primary aluminium consumption of 1.39kg and an aluminium demand of 1.9mt, this underpins the huge potential for demand growth in India.

### Power

The Indian power sector has achieved an annual growth of 11.7% in its installed capacity since the end of the 11th five year plan, to achieve an installed capacity of 223.3GW at the end of March 2013. Of this, 67.8% represented thermal capacity, while 12.3% was from renewable energy sources. Despite the market growth, power supply has lagged behind demand, with supply falling short of India's peak energy demand for FY 2012–13 by 10.6%, as anticipated by the Central Electricity Authority ('CEA'). Per capita consumption of electricity in the country of about 879kwh in 2012 was only about 24% of the world's average, highlighting the growth prospects for the future.

Coal deficits and higher costs due to imports has adversely impacted the industry in recent years. However, the Government of India's efforts to ensure a minimum of 80% of fuel supply to power producers is expected to improve the performance of the power sector.

### Outlook

The key trends of infrastructure development and urbanisation in emerging economies will continue to be the main drivers of demand in the near term as volatility in developed economies remains a challenge. Constrained capital expenditure across the industry should help bring supply back in line providing some support for prices in the coming year, combined with a modest recovery in the US and renewed infrastructure spending in China.

**“Vedanta is well positioned to capitalise on emerging market growth with a significant portion of its assets in India and Africa. For example, India imports over 80% of its crude oil requirements, and we are currently the largest private sector producer of crude oil in India.”**

