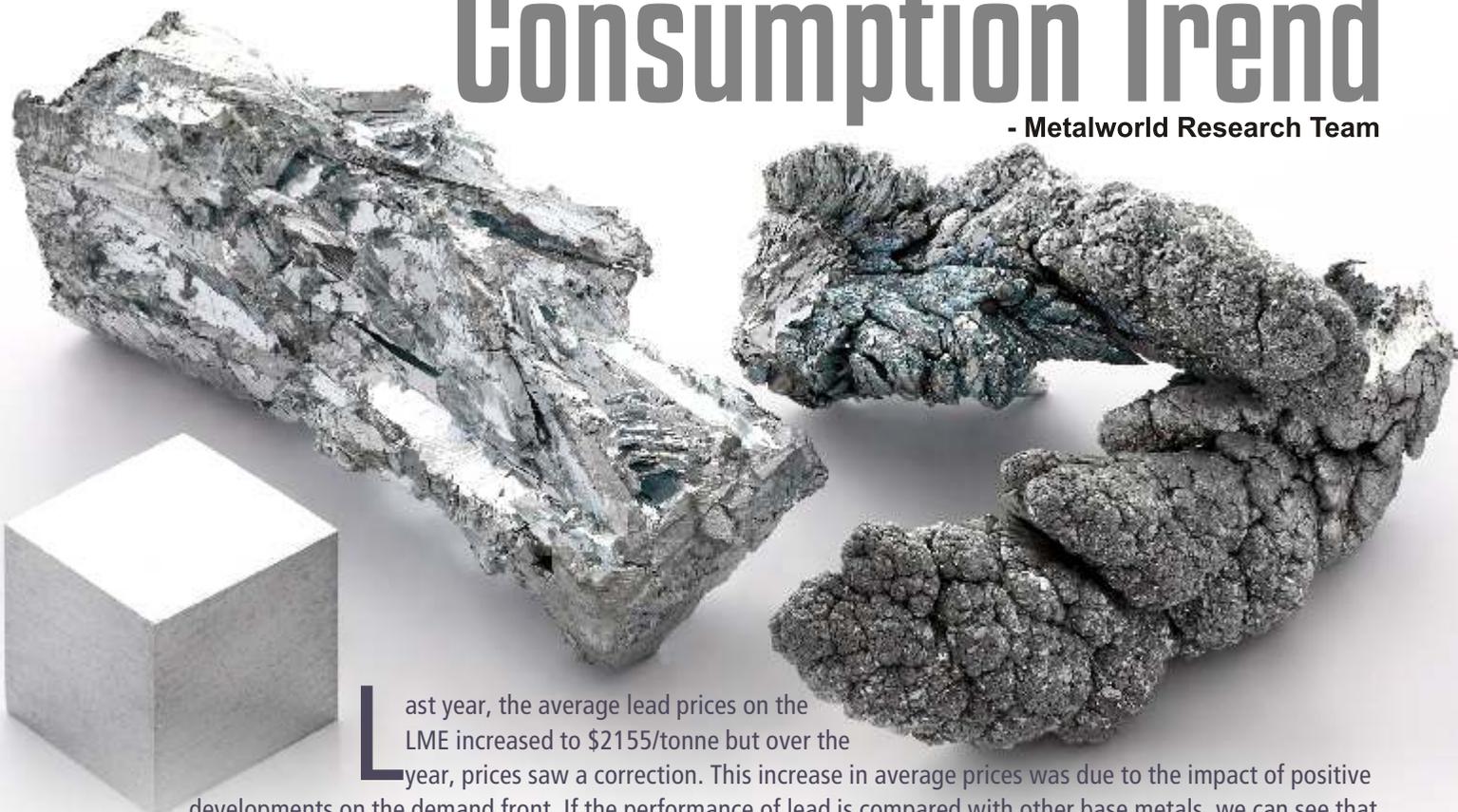


# Lead and Zinc Consumption Trend

- Metalworld Research Team



Last year, the average lead prices on the LME increased to \$2155/tonne but over the year, prices saw a correction. This increase in average prices was due to the impact of positive developments on the demand front. If the performance of lead is compared with other base metals, we can see that within the base metals pack, lead was the only metal that has seen an increase in annual average prices in 2013. Also, Zinc gained the most in December 2013, clocking gains to the tune of more than 10 percent on the LME and 9.6 percent on the MCX. Sharp drawdown in inventories on the LME seen during the months of November 2013 and December 2013 by 6.5 percent and 3 percent added to the positive sentiment as hopes of demand for the metal increased. For the first ten months in 2013, demand for zinc was seen outstripping supply on account of surge in demand in China. Simultaneously, inventories on the LME fell and this additionally supported prices on the upside. Chinese apparent demand for zinc has increased almost 15 percent during the Jan-Nov'13 period and has thus pushed prices higher.

## Lead

In the year gone by, lead witnessed sharp downside correction to the tune of 7 percent. Despite a strong demand-side scenario, the metal slipped on the back of economic concerns and major correction in prices was seen during the first-two quarters of 2013. Risk aversion due to worries associated with the QE tapering also had a negative impact on prices.

In the last month, lead prices on the LME and the MCX jumped around 7 percent and took positive cues from a sharp decline in inventories on the LME and jump in consumption. For the first ten months of 2013,

the global lead market saw a deficit to the tune of 54,000 tonnes. During the same period, total reported stocks of lead fell by 34,000 tonnes. Global demand for lead was seen rising during the same period by 5.4 percent, which was backed by increase in demand in Europe by 4.2 percent, US by 18.5 percent, China by 5.1 percent and Republic of Korea by 12.2 percent. These factors supported rise in lead prices despite lingering concerns over QE taper that affected market sentiments to a great extent.

Backed by support in the form of deficit of 58,000 tonnes seen in the first eight months of 2013, lead prices received strong fundamental

support. For the whole of 2012, lead market saw a surplus of 64,000 tonnes. However, for the whole of 2013, the ILZSG (International Lead and Zinc Study Group) expected the refined lead market to record a small surplus of 36,000 tonnes, which when accounted for in percentage terms for the whole of 2013's expected supply would just be around 0.4 percent. Thus, the impact of this expected annual surplus in 2013 will not be negative, Naveen Mathur, Associate Director of Angel Broking said.

## Supply – Demand Scenario

In 2013 world refined lead consumption is

seen rising at 4.7 percent to 10.94 million tonnes as compared with 10.46 million tonnes seen in 2012. On the supply front, world refined lead production is expected to witness an increase of 4.4 percent to 10.98 million tonnes after seeing a decline of 0.3 percent in 2012 at 10.52 million tonnes. In 2013, lead inventories on the LME slipped around 32 percent. During the first-half of 2013, inventories fell by about 38 percent to 198,000 tonnes in June'13 from 317,700 tonnes at the end of Dec'12. But during the month of Sep'13, a jump of 30 percent was seen on the back of a big, more than 50,000 tonne delivery in mid-Sep; 13 to settle a large short position. The overall fall in inventories was a major factor that kept average lead prices ahead in 2013 when compared to last year.

Lead prices closed in green on MCX supported by weaker rupee, while prices on global exchanges suffered losses as strength in dollar index kept gains in check. Year 2013 saw the rotation of investment capital out of commodities and into higher yielding asset classes such as equities and bonds which did bring some pressure in base metals complex including lead. This happened after US Federal Reserve started to talk about tapering its quantitative easing (QE) programme. The lead market fundamentals remained positive for prices during the second half of the year as the global lead market was in deficit by 41,000 tons in the first seven months of the year as reported by International Lead and Zinc Study Group (ILZSG). Lead could come down on concerns of further tapering by Fed, during the first quarter of 2014, which may lead to strength in dollar index causing short term corrections in dollar denominated commodities such as Lead. Going ahead for 2014, various market research agencies had forecasted global supply deficits for Lead in next year making it best positioned among the base metals complex.

The lead market fundamentals remained positive for prices during the second half of the year as the global lead market was in deficit by 41,000 tonnes in the first seven months of the year as reported by International Lead and Zinc Study Group (ILZSG). Global economy showed signs of recovery which created demand for lead last year especially in major consumers U.S and China. Macroeconomic

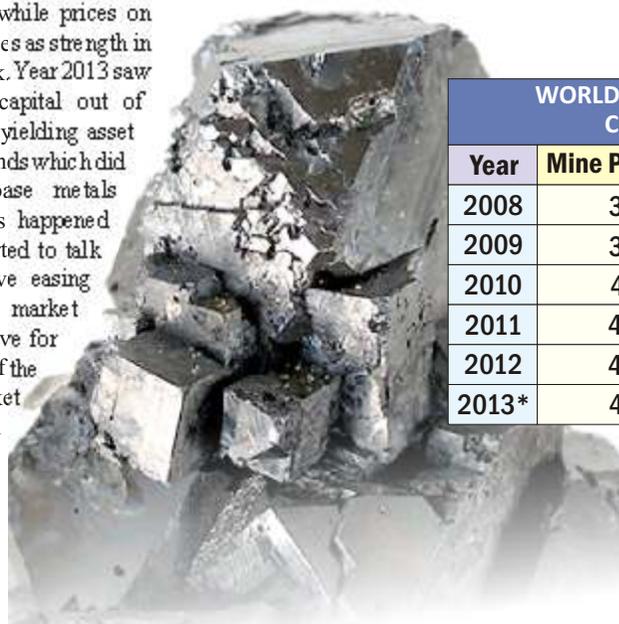
data in U.S over the last 3 to 6 months of 2013 showed positive signs for the economy which indicated revival in growth, during the start of 2013 was abated and growth showed some signs of turnaround this year. Overall positive factors that supported base metals trend over the last 6 to 9 months in 2013 were falling London Metal Exchange (LME) stocks especially in Lead, strong Chinese imports of copper which was a leading indicator in base metals complex, global manufacturing expansion, supply disruptions and scrap shortages.

Going ahead for 2014, various market research agencies have forecasted global supply deficits for lead in next year making it best positioned among the base metals complex. The increased demand in Europe during next year as it recovers from recession

strength and volatility in dollar index which was seen in 2013 had only capped further gains in global base metals' prices with strength expected to continue for next year.

### Expected Deficit in 2014 and 2015 To Be Supportive

While world lead demand is forecasted to increase by more than 4 percent in 2014 and 2015, on the supply front, output is of refined lead in the same period is expected to rise by 3.8 percent and around 4 percent. The deficit in 2014 and 2015 is likely to be around 18,000 tonnes and 28,000 tonnes respectively. While the market will be in a deficit, the amount of expected supply shortfall is small and thus may not impact the flow of the metal in the world markets. Hence, one can say that the world lead market is more or less in a balanced state. But sentimentally, the expectations of a deficit will be supportive for prices and the forecasts for consistent increase in demand will also add to



WORLD LEAD CAPACITY, PRODUCTION AND CONSUMPTION ('000 TONNES)			
Year	Mine Production	Metal Production	Consumption
2008	3812	9230	9222
2009	3810	9236	9245
2010	4161	9843	9815
2011	4636	10592	10444
2012	4994	10441	10382
2013*	4812	9751	9792

Source : International Lead & Zinc Study Group, \* Jan - Nov

may also lead to a wider market deficit as euro zone had emerged from a 1-1/2-year recession in the second quarter, with growth of 0.3 percent, and German investors' sentiment had jumped more than expected in September. It is estimated that a rise in European demand by 1 percent for the lead mostly used in batteries would mean 15,000 tonnes more than consumption and may send the market into deficit, supporting prices. The only major factor looking ahead for short to medium term which may create some downside movements in base metals such as lead, is concerns of Fed tapering its bond buying program further during the first quarter of 2014, which may lead to strength in dollar index causing short term corrections in dollar denominated commodities in the next few months. The

the upside. The years 2014 and 2015 look positive from the demand perspective and in addition to that the supply deficit will act as a further catalyst to price gains.

### Zinc

While the world zinc market has been in a surplus since the year 2011, the largest consuming country, i.e. China has seen a deficit since 2008. Sharp growth in demand in the past decade has been responsible for the deficit scenario in China. And it is due to this growth in Chinese demand that despite an expected global surplus for zinc in 2013, 2014 and 2015, average prices in the current year have declined only to around \$1935/tonne as compared with 2012's average of \$1965/tonne.

In 2013, zinc prices on the LME fell more than 4 percent but a divergent performance was seen on the MCX with prices witnessing an increase of more than 9 percent as Rupee depreciation supported gains in domestic prices despite a correction in dollar terms. Average annual prices in the Indian futures

space actually saw an increase to Rs111.9/kg from an average of Rs104/kg in 2012. This shows the impact that the currency factor has on commodity prices. While movement in the Dollar Index impacts prices in the international markets, performance of the domestic currency in each country also affects prices.

### Demand-Supply Scenario

After witnessing a sharp deceleration in consumption during 2012, demand is expected to revive in 2013 and rise by around 4.4 percent to 12.88 million tonnes in 2013. The increase in world demand growth in 2013 will be backed by sharp increase Chinese consumption, which is expected to rise by 7.5 percent to 5.68 million tonnes from 5.29 million tonnes in 2012. In case of world zinc supply, the EIU expects global output to rise by 4.5 percent in 2013, and this too is seen to be backed by sharp increase in Chinese production.

Last year, inventories of zinc on the LME slipped around 26 percent. A huge stock of zinc

WORLD ZINC CAPACITY, PRODUCTION AND CONSUMPTION ('000 TONNES)			
Year	Mine Production	Metal Production	Consumption
2008	11881	11774	11574
2009	11623	11281	10915
2010	12390	12896	12649
2011	12666	13080	12706
2012	13149	12552	12300
2013*	12142	12080	12098

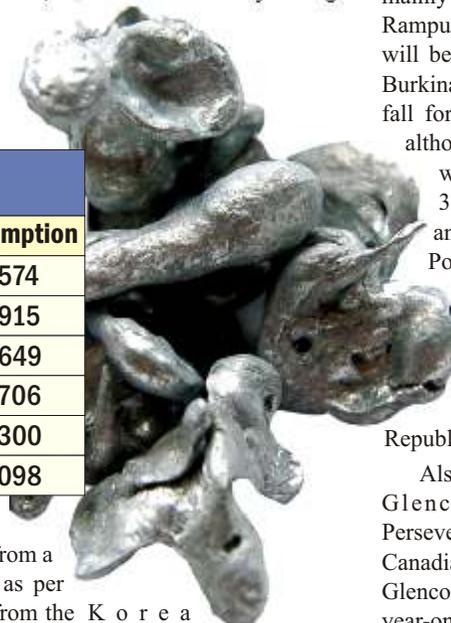
Source : International Lead & Zinc Study Group, \* Jan - Nov

was seen tied up in warehouse financing deals and additionally, a lot of metal was stuck in long warehouse exit queues. On the LME, about 50 percent of zinc inventory was on cancelled warrant status and that had led to a situation of bottleneck at various warehouses. Hence, while the decline in inventories on the LME suggested a balanced market and a situation of tightness, the actual demand-supply figures indicated a surplus.

In 2014, global refined zinc market may begin tightening before moving into a sizeable deficit by 2015 on the back of weakening mine supply. The latest forecasts supplied by the ILZSG indicate that global supply of refined zinc metal will exceed demand by 115,000 tonnes in 2014. These are lower than the surpluses in the past four years. China's refined zinc consumption is set to rise for the rest of 2013, buoyed by Beijing's plan to boost rail investment as well as seasonal demand, aiding embattled domestic producers and holding zinc imports at strong levels. Zinc imports by

the world's top consumer and producer rose 20 percent year-on-year in the first seven months of 2013 to 302,297 tonnes.

Zinc prices ended the year on a positive note on back of solid demand from top metals consumer China. In fact, Zinc was the best-performing industrial metal this year as investors bet mine closures would transform an oversupplied market into one facing a deficit. Global zinc market was in deficit by 2,000 tonnes in the first 10 months of the year, which kept the demand high for the base metal and supported the prices. Zinc has been burdened by overproduction and high inventories, but the closure of major mines, including Century in Australia, is expected to tighten the equation. Korea's exports of metal dropped 4.5 percent to 280,953 tons from January through



October from a year ago as per the data from the Korea International Trade Association showed

China's imports of refined zinc rose 20 percent in the period. China and Korea are the world's biggest producers. At the same time, inventories in LME-monitored warehouses shrank about 20 percent to 971,350 tons this year through Nov. 26. Japan's total zinc exports fell 11 percent to 92,468 tons in the first nine months of this year from a year earlier, the finance ministry's trade data showed. Major overseas markets include

An analyst said that going forward lower exports from Asia's fourth-biggest producer may help tighten supply and boost premiums in the region to the highest in at least five years. China's zinc consumption is expected to rise in 2014 amid urbanization plans, infrastructure projects and strong car production, and the country will likely remain a large importer of

refined zinc. Demand from the infra-structure and auto sectors would push up production of zinc galvanized steel, which accounted for 53 percent of China's total zinc consumption in the previous year. World zinc mine production will rise by 1.7% to 13.73 million tonnes this year and a further 2% to 14.01 million tonnes in 2014, while refined zinc consumption may reach up to 2.9 million tonnes in the second half of the year, from 2.6-2.7 million tonnes in the first half.

Global refined zinc metal output is forecast to grow by 3.4% to 13.01 million tonnes in 2013 and by 4.9% to 13.65 million tonnes in 2014. This will be mainly influenced by higher output in China, as well as increases in India, Italy, Peru and Korea. In India, output will be mainly driven by a rise in production at the Rampura Agucha mine. In Africa, production will be boosted by the new Perkoa mine in Burkina Faso. European demand is forecast to fall for the second successive year in 2013 although, at 0.8%, the extent of the reduction would be small. In 2014, an expected 3.8% rise would be primarily due to anticipated growth in Belgium, Italy and Poland. In the United States, it is expected that demand would increase by 7.1% this year and by 1.2% in 2014. Elsewhere, demand is forecast to rise in Brazil, India and Turkey and to remain stable in Japan and the Republic of Korea, as per ILZG.

Also going forward in 2014, closure of Glencore Xstrata's Brunswick and Perseverance mines will lead to steep fall in Canadian production. Recent data showed Glencore's zinc mine production declined 12% year-on-year basis as a result of closure of two big mines- Perseverance and Brunswick. The two mines are expected to reduce a total of 300Kt per year from the world zinc supply. After declining in 2012, global demand for refined zinc metal is expected to grow in 2014. Considering the promising fundamentals, Zinc is amongst the best recommendation for gains next year.

### Outlook

Lead prices gained on MCX for the second consecutive year. Although the percentage gain of prices was below previous year's gains, the volatility remained high as compared to previous year as weakness seen in local currency pair during the year supported domestic prices. Lead was seen rising from the low of Rs 104.25/kg to a high of Rs 155.40/kg, clocking a rise of approximately 50 per cent on MCX. However prices closed lower on yearly



basis at LME as gains were capped by strength seen in dollar index. Declining inventories on global exchanges however supported prices on the downside as stocks on LME went down by more than 30% during the year. Also year 2013 saw the rotation of investment capital out of commodities and into higher yielding asset classes such as equities. This happened in the second quarter as the US Federal Reserve started to talk about tapering its quantitative easing (QE) programme, the dollar strengthened and emerging market growth came off the boil.

From technical point of view, lead prices on MCX corrected sharply during first quarter of 2013 and witnessed a low of Rs 104.25 per kg while prices on LME went down below \$2000 per tonne and made a low of \$1938 per tonne. However prices showed a remarkable recovery subsequently and the ensuing rally took the prices to a high of Rs. 155.40 per kg on MCX in August 2013 that also helped the counter to close the year up by almost 7%. Monthly charts showed a positive turn during the second half of the year as firmness in prices persisted during the same period. Going ahead for 2014 although prices look poised to trade with an upward bias during the early half, one can expect resistance at Rs. 146 – 157 per Kg on MCX.

On the downside however supports for the market can be expected at Rs. 121.50-116 per Kg range, which could be seen as opportunities to accumulate from medium to long term point of view. Similarly on the LME, Lead is expected to witness strong supports at USD 2064-1993 per tonne while some resistance for

*Going forward lower exports from Asia's fourth-biggest producer may help tighten supply and boost premiums in the region to the highest in at least five years. China's zinc consumption is expected to rise in 2014 amid urbanization plans, infrastructure projects and strong car production, and the country will likely remain a large importer of refined zinc. Demand from the infra-structure and auto sectors would push up production of zinc galvanized steel, which accounted for 53 percent of China's total zinc consumption in the previous year. World zinc mine production will rise by 1.7% to 13.73 million tonnes this year and a further 2% to 14.01 million tonnes in 2014, while refined zinc consumption may reach up to 2.9 million tonnes in the second half of the year, from 2.6-2.7 million tonnes in the first half.*

the same may be witnessed at \$2335-2472 per tonne

Expectations of surplus in the world zinc market in 2014 and 2015 will continue to be a bearish factor for prices. By the end of 2015, the world zinc market would have seen a situation of surplus for back-to-back nine years. This extended surplus scenario has had a negative impact on prices. For 2013 and 2014, the surplus is expected to be around 250,000-300,000 tonnes each year. But by 2015, the surplus is expected to shrink to about 177,000 tonnes and we expect this factor to help support

zinc prices in the second-half of the next year. While the supply surplus is acting as a bearish factor, overall, the increasing demand in China is preventing prices from correcting sharply. In 2014, the price trend in zinc is expected to be mixed for the first-half and supportive during the second-half as global economic recovery picks up pace. By 2015, prices are expected to recover strongly in expectation of a lesser surplus and hopes of rise in demand.

Zinc prices have managed to break above the long term consolidation during this year and successfully closed the year well above the breakout. The prices made an intermediate high of Rs 136.90/Kg in August 2013 after rallying from the low of Rs105.90/Kg made in the month of April. Subsequent to the splendid rally, the base metal digested some of its gains and retraced in a textbook format before resuming the next leg of upside, in which it is currently trading. At LME also, prices seem to have formed a strong base at \$1750-1800/t and look poised for a rally in coming months. All in all, the base metal looks fairly poised to extend this year's gains in the next year. We therefore recommend traders to accumulate long positions in zinc in the range of Rs115-118/Kg, keeping an eye on the strong support pegged around Rs112/Kg too. From a medium term perspective targets of Rs142/kg can be eyed upon, beyond which the counter can further jump towards Rs165/kg as the next level to test.

LME Zinc prices are expected to find Support at \$1,290/1,610 and face resistance at \$2,200/2,500 a tonne.