



Zinc outlook

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Presenter: Dr Mo Ahmadzadeh, Mitsui Bussan Commodities

The Desjardins Takeaway

Dr Ahmadzadeh believes the potential increase in mine production from new projects in China has been exaggerated. Overall, he expects mine supply to remain reasonably tight with scheduled production declines and shutdowns at major existing mines. Dr Ahmadzadeh expects the BRIC countries, with their continued growth in galvanized steel consumption, to remain instrumental in driving global demand.

Presentation highlights

- **Are we still waiting for the forecast 'tsunami' of new Chinese zinc mine production?** This was the question proposed by Dr Ahmadzadeh at the beginning of his presentation. China's contribution to global zinc mine production has grown significantly from 18% (1.6 MMT) in 2002 to 27% (3 MMT) in 2007 (see Exhibit 1a). There has been much talk in the market of an imminent surge of new zinc mine production to come from the country, representing a key element of incremental global supply. Dr Ahmadzadeh believes, however, that a significant portion of potential incremental production is represented by small-scale artisanal mines, which are becoming less and less economic considering the tightening of health, safety and environmental regulations by the Chinese government as well as the creeping zinc treatment charges set by the state-owned smelters combined with the relatively lower zinc prices compared with average prices in 2007. **Ultimately, Dr Ahmadzadeh expects the uptrend in mine production from China to plateau in the near future and not flood the Western World with a significant increase in zinc metal exports.**
- **New projects and mine expansions will not compensate for closures after 2012.** Dr Ahmadzadeh forecasts incremental mine production from new mines, and expansions could reach 803 KMT in 2008 and 418 KMT in 2009. However, scheduled shutdowns of major operations such as the Brunswick mine in Canada (2010) and ore-grade-related production declines at the Century and Kidd Creek mines (2010 onward) are expected to significantly offset additional capacities brought onstream. Dr Ahmadzadeh noted there was a growing consensus that the zinc market will experience additional lost production from mine shutdowns by 2012. In addition, he highlighted expectations of delays in financing and permitting, as well as operational 'hiccups' commonly experienced by non-established producers.
- **Spot concentrate treatment charges on the rise—are we facing a smelter bottleneck?** The increase in zinc concentrate spot treatment charges over the past two years indicates the growing availability of zinc concentrate in the market, and has raised alarm bells that a potential smelter bottleneck scenario may be looming in the near horizon. Producer concentrate inventories were 'drained dry' by the end of 1Q06, coincident with the sharp decline in spot treatment charges, but have recovered throughout 2007. In particular, Chinese imports of zinc concentrate more than doubled in 2007 from historical levels, triggering concerns that the country may become a net exporter of zinc metal in the future. Dr Ahmadzadeh notes, however, that the amount of zinc contained in concentrate is likely to have been over-estimated since a major proportion of zinc concentrate comes from North Korea and is estimated to contain less than 10% of the metal by weight. He indicated that based on smelting capacity in 2007, the potential for a global smelter bottleneck is not likely before 2010. He expects 2008 treatment charges to be settled at US\$170/tonne, with a base price of US\$1,000/tonne (see Exhibit 1b).
- **Galvanized steel production—the primary driver of refined zinc consumption.** As illustrated in Exhibit 2a, the galvanized steel producers represent 54% of total refined zinc consumption. Primary end uses for galvanized steel are construction and automobiles, which combined represent 70% of total galvanized steel consumption. The BRIC countries (Brazil, Russia, India and China) have played an important role in driving demand growth in these two sectors, more than compensating for the decline in automobile production in North America during 2007. Dr Ahmadzadeh expects global galvanized steel capacity to increase by 5.5m tonnes in 2008 and 6.3m tonnes in 2009, which should be sufficient to consume anticipated growth in zinc production. China and Italy are expected to provide a significant portion of the anticipated incremental stainless steel capacity. Dr Ahmadzadeh forecasts refined zinc consumption will total 12.4m tonnes in 2008 vs supply of 12.8m tonnes and consumption of 12.8m tonnes in 2009 vs supply of 13.1m tonnes, resulting in a small market surplus for both years. This

compares with consumption of 11.7m tonnes in 2007 vs supply of 11.8m tonnes. He commented that these surpluses are affordable following three consecutive years of deficit in 2004–06.

- Current LME zinc inventories at four days of consumption—supportive of prices above US\$1.00/lb.** Current LME zinc inventories represent roughly four days of consumption, which historically has provided support for prices of US\$1.00/lb and above. Dr Ahmadzadeh pointed out that in relative terms, zinc has shown the smallest price increase since 2003 with the exception of aluminium (see Exhibit 2b). He noted this provides investors with an incentive to take up preferential positions in zinc further out along the forward price curve. He highlighted the recent reallocation of US\$720m in alternative asset portfolios into industrial metals by Europe's second largest pension fund, PGGM, and expects positions taken up by funds to increase going forward.

