

OVERVIEW OF THE GLOBAL ZINC MARKET

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For some years up to the second half of 2018, the main narrative for commentators on zinc market developments was the acute shortage of zinc raw materials, arising from the closure of large zinc mines, such as Century in Australia and Lisheen in Ireland, and by voluntary cuts in its zinc mine output made by Glencore in late 2015. The subsequent fall of over 7% in global zinc mine production in 2016 resulted in a large deficit in the global zinc concentrate market, with no recovery in zinc concentrate inventories seen until 2018, in spite of rising zinc mine production in 2017.

As a consequence of the shortfall in zinc concentrate supplies, refined zinc producers saw their margins squeezed in spite of a strong increase in zinc prices. The LME cash zinc price averaged under \$2000/tonne in 2015 but rose through 2016 to an average of just under \$2900/tonne in 2017 and to \$2922/tonne on average in 2018. But through the period 2015 to 2018 refined zinc producers saw realised zinc treatment charges, the major part of their revenue, fall. Price participation was eliminated from benchmark treatment charges in both 2017 and 2018 contracts, meaning that smelters only recouped benefit from rising zinc prices through the increasing value of free zinc. (Free zinc is the amount of zinc which is produced and sold by a zinc smelter but which it has not paid for in its purchase of zinc raw materials). The realised treatment charge per tonne of zinc concentrate fell from over \$240/tonne concentrate in 2015 to just \$147/tonne concentrate in 2018.

Against this background of a squeeze on raw material supplies, zinc producers faced other challenges, most notably in China. For Chinese zinc miners, the enforcement of much stricter health, safety and environmental regulations from 2014, coming on the back of a period of relatively low zinc prices, meant that a number of operations were forced to shut, or were unable to re-open after a number of years of shutdown, because of a lack of funding for upgrades and an inability to meet the higher standards required. This has led to consolidation of mining leases in a number of regions in China, and has led to a transformation of Chinese zinc mining, with larger, longer-life, better financed operations now the norm for new projects and for the reactivation of previously shuttered mining areas. For Chinese zinc smelters, environmental regulations have led to stricter regulations on the treatment, transportation and storage of zinc smelting residues and, in one notable case, complete closure and relocation of operations away from an urban area which has expanded to surround the original smelting site. In 2018, Chinese refined zinc production fell by as much as 8%.

With refined zinc producers having faced a number of challenges, there has been some increase in global zinc smelting capacity but this has not been sufficient to meet total demand for zinc from consumers. This means that a zinc supply/demand deficit has been met, in part, by a reduction in global zinc inventories (both on exchanges and from large, un-reported stockpiles built up during and after the global

financial crisis). The global refined zinc market has been in deficit for the last seven years in respect of annual demand versus annual production.

LME zinc prices are increasingly reflecting the deficit in refined zinc supplies globally, with the cash to 3-month spread having been in backwardation virtually all the time since mid-September 2018. In addition to this, the tax-adjusted Shanghai zinc price has been at a premium to the LME zinc price at various times since early 2018, with the combination of net higher zinc prices available in China and the LME backwardation bringing refined zinc metal out of unreported and LME inventories to be shipped to China, particularly during Q4 2018. As the difference between adjusted Chinese zinc prices and LME zinc prices has narrowed and reversed during the first four months of 2019, the continuing LME backwardation has seen some zinc placed onto LME warrant during the course of April 2019, rather than being shipped to China.

After three years of decline, refined zinc production globally is expected to increase by close to 3% in 2019, with a larger increase expected in 2020, principally as a result of higher output in China. These increases should lead to annual zinc supply and demand returning to balance or even surplus by 2020.

However, 2019 is expected to see further reductions in zinc inventories, even though demand from zinc consumers is expected to fall marginally year on year. This fall in zinc demand is the result of a slowing of economic and industrial production growth as part of a normal business cycle downturn. The pattern of economic slowdown will vary from country to country, with the OECD expected to see flat to slightly negative change in industrial output in 2019 and the non-OECD world recording industrial production growth of just over 1%. Global industrial output is forecast to rise by just 0.5% in 2019, after growth of 1.3% in 2018. Industrial production growth is expected to recover in 2020, to over 3% and this will lead to renewed expansion in demand for refined zinc.

This presentation will examine latest developments in the global zinc market and the outlook for zinc prices. It will provide more detailed analysis of regional production and demand, with specific reference to the Chinese, East and South-East Asian markets.