

## Business unit overview continued

### Base Metals

#### Operating profit

2006  
**\$3,897 m**

2007  
**\$4,338 m**

#### EBITDA

2006  
**\$4,255 m**

2007  
**\$4,683 m**

- Increased production volumes for copper in 2007
- Further upside potential in copper through Quellaveco and Michiquillay in Peru and Pebble in Alaska
- Barro Alto to boost attributable nickel output by an average of 36,000 tpa from 2011

### Business overview

Anglo Base Metals has interests in 14 operations in six countries, producing copper, nickel, zinc, niobium, phosphate fertilisers, titanium dioxide and zircon, together with associated by-products including lead, molybdenum and silver.

In Chile, its six copper operations comprise the wholly owned Los Bronces, El Soldado, Mantos Blancos and Mantoverde mines, the Chagres smelter and a 44% interest in the Collahuasi mine. The mines also produce associated by-products such as molybdenum and silver.

Other South American operations are the Loma de Níquel nickel mine in Venezuela, and the Codemin nickel and Catalão niobium mines in Brazil. Anglo Base Metals also has a controlling interest in Copebrás, a leading Brazilian producer of phosphate fertilisers and phosphoric acid. Phosphate fertilisers are used to supplement natural soil nutrients to achieve high agricultural yields.

In southern Africa, Black Mountain and Skorpion mines produce zinc and associated by-products such as lead, copper and silver. Anglo Base Metals' sole European operation is the Lisheen zinc and lead mine in Ireland.

In January 2007, black economic empowerment company Exxaro Resources agreed to acquire Anglo Base Metals' Namakwa mineral sands operation in South Africa, which produces titanium dioxide, zircon and rutile, together with associated by-products, along with 26% each of Black Mountain and Gamsberg, a large, moderate-grade zinc undeveloped deposit located in the Northern Cape province of South Africa. Black Mountain and Gamsberg will remain subsidiaries of, and continue to be managed and operated by, Anglo Base Metals.

### Industry overview

The majority of copper produced is used by the wire and cable markets and takes advantage of the metal's electrical conductivity, corrosion resistance and thermal conductivity. Applications that make use of copper's electrical conductivity, such as wires (including building wire), cables and electrical connectors, account for around 60% of total demand, while about 20% comes principally from the construction industry, which uses copper to produce plumbing pipe and roof sheeting, owing to the metal's corrosion resistant qualities. Copper's thermal conductivity also makes it suitable for use in heat transfer applications such as air conditioning and refrigeration, which make up some 10% of total demand. Other applications include structural and aesthetic uses.

Around 65% of all refined nickel goes into stainless steel. Other uses include high corrosion-resistant alloys for use in chemical plants, superalloys that can withstand extreme temperatures and are predominantly used in aviation, high-tech electronic uses and as a substitute for chromium plating.

Zinc is used predominantly in galvanising and alloys. Steel coated with zinc (galvanised steel) exhibits high levels of corrosion resistance. This application is responsible for around 50% of total demand. Zinc based alloys in die casting, ranging from automotive components to toys and models, account for around 10-12% of demand, with copper-based zinc alloys (brass) accounting for 15-17%. Zinc semis are used as roofing products and in dry cell batteries (8-10%). Chemical and other applications make up the remainder of refined demand (approximately 13-15%), where zinc is used in a diverse range of products and applications, including tyres, paints, pharmaceuticals and chemical processing.

With the exception of nickel, base metals industry ownership is presently relatively fragmented. The global market shares of the four largest copper, nickel and zinc metal producers are approximately 25%, 52% and 23% respectively (but subject to ongoing consolidation in the base metals industry). Producers are price takers and there are relatively few opportunities for product differentiation.

The industry is capital intensive and is likely to become more so as high grade surface deposits are exhausted and deeper and/or lower grade deposits, requiring greater economies of scale in order to be commercially viable, are developed. Real prices of copper, nickel and zinc have declined over the long term, although there have been material and sustained deviations from this trend, most notably over the past five years. The decline in real prices reflects the long term reduction in costs as a result of improvements in technology and lower input costs. Average margins have, therefore, tended to be maintained.

For the past five years, the ongoing industrialisation and urbanisation of China has driven demand for a range of commodities. This, together with interest from speculative and investor funds, has resulted in a base metal price up-cycle which has been unprecedented both in its extent and its longevity. China now comprises an estimated 27%, 24% and 31% of global demand for copper, nickel and zinc respectively, the markets for which have all benefited materially.