

recent years have taken their toll on consumption, as users substituted copper with other materials, such as aluminum and plastics, and lowered the copper content in applications. Copper prices have remained well above the costs of production because of continued problems at the mine supply level, including

slower than expected ramp-up at new mines, technical problems at existing operations, declining ore grades, strikes, accidents and adverse weather. Many of these incidents have occurred in Chile, which supplies 35 percent of the world's mined copper. However, growth in new capacity globally is underway with

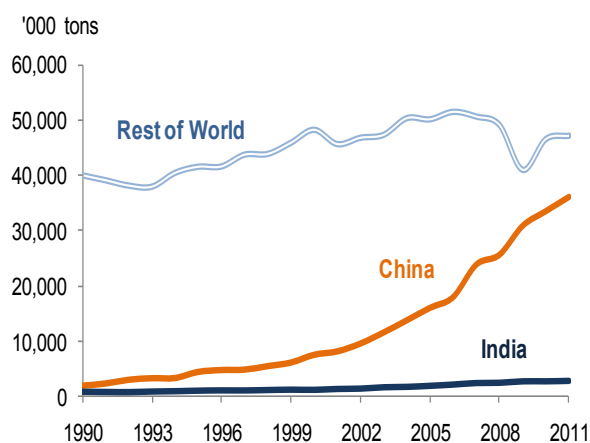
Box Comm.2 Metals consumption in China and India

India, with its large population, is often cited as the “next China” in terms of consumption of commodities. Since 1990, China's refined metal consumption (aluminum, copper, lead, nickel, tin and zinc) jumped 17-fold, and its share of world refined metal consumption grew from 5 percent to 41 percent (box figure Comm.2.1). Its average rate of growth since 2000 was 15 percent p.a., while demand in the rest of the world was essentially unchanged. Unquestionably, China has been the major driver of metals demand and higher prices, as the country consumed large quantities of metals (and other primary resources) for construction, infrastructure, and manufacturing to significantly raise its level of income. Consider, for example, that China's metal intensity (metal use per \$1,000 of real GDP) was almost three times higher than the rest of the world back in 1990 and it reached almost 9 times in 2008 (box figure Comm 2.2).

It is expected that metals demand will slow over the next decade as economic growth slows and the country transitions from an export-led and investment-driven economy to a domestic consumption and services economy, and seeks to improve the environment and air quality. Still metals demand will remain robust due to urbanization (more high-rise construction), infrastructure needs, and moving up the value chain in manufacturing—all are resource intensive.

India's share of world metals consumption has risen from 2 percent in 1990 to only 3 percent currently due to the very different structure of the economy, levels and direction of investment, sector growth trends, trade and policies. Moreover, its pace of metal demand growth has been only half that of China, and much closer to the pace of economic growth. Should India's refined metal consumption grow at 15 percent p.a., it would take nearly two decades to overtake China's current level consumption. Should that occur, it would present substantial challenges to the metals industry to supply these resources, similar or greater to the challenges the industry has faced the past decade. One possible impact is for even higher prices and pressures on the downstream sectors to innovate and substitute away from high-priced materials. India has ambitious plans for growth and has unveiled a significant power generation program. Thus, a key question is what other policy and structural changes would need to take place to have India's metal consumption growth double for the next twenty years.

Box figure Comm 2.1 Refined metal consumption



Source: World Bank.

Box figure Comm 2.2 Metal consumption intensity

