



## Mining to China.

### Trends and opportunities

#### The market

China is the world's largest producer of coal, steel, zinc, tin, lead and manganese by production volume. The mining industry as a whole employs in excess of 20 million workers in over 10,000 state-owned and 100,000 other mines.

China has **155 recognised minerals with proven reserves**, among which, there are eight identified energy minerals, 54 metal minerals, 90 non-metal minerals, and three kinds of water and gas minerals. Reserves of major minerals such as iron, manganese, aluminium, copper, lead, zinc, sulphur and phosphorus are limited, mainly low-grade and less competitive in the international market place. However, rare earth minerals that are competitive and of high quality include tungsten, tin, molybdenum, niobium, magnesite, fluorite, barite, bentonite, graphite, talcum, Glauber's salt, and gypsum.

China's proven mineral resources make up about 12 per cent of the world's total in volume, and is ranked number three in the world, just behind the USA and Russia. The main characteristics of China's mineral resources:

- ✍ Rich in total volume, but deficient in per capita average
- ✍ Pivotal minerals (eg. oil, natural gas, high-grade iron ores) are lacking in reserves, low-grade, hard-smelt and hard exploited
- ✍ Some narrow-use, rare earth minerals are of high grade
- ✍ Mostly medium-small sized mineral deposits
- ✍ Resources distribution not matching the distribution of productive forces

#### Mineral asset distribution:

- ✍ Oil – north-eastern, northern and north-western regions
- ✍ Coal – north-western and northern regions
- ✍ Iron – north-eastern, northern and south-western regions
- ✍ Copper – medium-lower reaches of the Yangtse River
- ✍ Phosphorus – south-western and south-middle areas
- ✍ Manganese, tin and antimony – Hunan, Jiangxi, Yunnan and Guizhou provinces (municipalities)
- ✍ Some unexploited large or super-large mineral deposits are located in China's western remote regions

The government also has already taken steps to reduce or halt production in certain sub-sectors by implementing forced mine closures. These are usually mines that are small-scale, inefficient and that do not meet minimum environmental standards, or else producers of minerals that are already in massive oversupply.

The construction of new mines in the areas of magnesium, coal, tungsten, tin, antimony, rare earth, molybdenum and barite has also been banned. New mines that have a capacity of more than 100,000 MT that comply with certain other standards (eg. environmental) may still be allowed subject to official approval.

**The Chinese Government is reforming its management structure of the mining industry and almost all of the state-owned mining enterprises have now been passed onto the relevant provincial government.** The State Administration of Work Safety (SAWS) has been established to supervise the safe production in the fields of coal mining, metallurgical mining, gold mining, nonferrous metals minerals mining, chemical and building materials mining industry. Ongoing improvements in minerals related infrastructure such as upgrades of ports and the building of new railways and roads should also have a positive effect on the mining sector.

The Central Government decision to develop western China, which is rich in mineral resources, means lots of opportunities to find new mining projects and a huge potential market for mining equipment. In the long-term, the Government plans to invest US\$1.2 billion on upgrading technology in 70 coal mines and convert state-owned mining enterprises into shareholding companies. There are **heavy demands for advanced mining technology** and high quality equipment.

#### Opportunities

Given the on-going efforts of the Chinese industry to increase productivity and reduce environmental impact, there appears to be **future opportunities for the supply of more efficient and modern mining equipment and processing technology** as well as related environmental technology and expertise. The increased decision-making power of trading enterprises over commercial matters should also lead to growing demand for imported minerals.

Prospects for Australian suppliers are emerging as a result of:

- ≠ New exploration projects, particularly in the western development region
- ≠ Restructuring of the industry giving new powers to trading companies and making importing less restrictive
- ≠ China's accession to the World Trade Organization (WTO)
- ≠ Safety concern, especially for coal mining industry
- ≠ Pressure on environment protection, such as clean coal technology and tailings treatment etc.

### Gold

The gold market in China has been gradually opened after China's accession to WTO. Industry experts predict the Chinese gold industry will play an important role in the world's trade by 2010. Gold imports will be increased from the present 350 tonnes per annum to around 500 tonnes or more per annum, with the majority of the gold imported destined for the jewellery industry.

### Iron and steel

Since 1996, China has become the largest steel producer in the world with an annual output of over 100 million tonnes. In order to be competitive in the world's steel market, China plans technical renovations that will require millions of dollars investment:

- ≠ Blast furnaces under 100 cubic metres will be closed down
- ≠ 100–300 cubic metre furnaces will be renovated
- ≠ Steel making rotary furnaces under 15 tonnes capacity will be closed
- ≠ Electric furnaces under 10 tonnes capacity will be closed
- ≠ 15-15 tonnes capacity of rotary furnaces and 10-30 tonnes capacity of electric furnaces will be renovated over the next five years or so
- ≠ Many rolling mills will be upgraded and renovated to a high standard

### Coal

Coal supply became shorter than demand and the coal price has risen rapidly in the domestic market. It is expected that some trading companies in the southern coastal provinces will keep trying to import cheaper coal for the power stations. According to the officials of the former State Administration of Coal Industry, from 2000 to 2010 China plans to develop new state, provincial and local government owned coal mining operations.

### Nonferrous metals

The State Administration of Nonferrous Metals Industry (former CNNC) and its key industry group companies have recently been completely abolished. The import of nonferrous raw metals such as copper concentrates, nickel concentrates, zinc concentrates, alumina will keep increased.

Except for the six largest aluminium plants, all the nonferrous metals mines, refineries, smelters, processing plants are being passed to the provincial governments. The 50 former trading companies located in the provinces will also pass to the local governments.

Once this organisational restructure is completed, it will be easier for trading companies to import nonferrous raw metals. A number of copper enterprises are expanding capacity and undertaking technical renovations to increase product quality, which will also increase the demand for more raw materials in the next few years.

### More information

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