

Focus on the Minerals and Metals Sector

The focus on the Minerals and Metals sector is the third in a series of sectoral focuses. Previous editions looked at the financial services and the biotechnology sectors.

Growing Industry with a Rock-Solid Foundation

Domestically, the Canadian minerals and metals sector is an integral segment of the national economy contributing more than \$37.4 billion or 3.7% of Canada's gross domestic product in 2001¹. It includes mineral extraction and concentrating (stage 1), smelting and refining (stage 2), semi-fabricated mineral production (stage 3) and metals fabricating industries (stage 4)². The industry employs 376,000 Canadians, and domestic exports amount to \$47.4 billion.

In the last 20 years, a combination of diversification and globalization has resulted in a shift of priorities within the Canadian economy. At the same time, the Canadian mining sector's GDP contribution has remained fairly steady at between 3.5% and 4.5%. Not only does this illustrate the continuing importance of the industry in national terms, but it also indicates the flexibility of the industry in adapting to a modern, technology-based world economy. In 2002, there were some 204 metal, non-metal and coal mines, 3,000 stone quarries and sand and gravel pits, and over 50 non-ferrous smelters, refineries and steel mills operating in Canada. In addition, mineral commodities account for 60% of the rail tonnage and for more than half of the marine tonnage handled in Canada.

¹ GDP was converted from 1997 dollars to current dollars using a common factor based on the Chain Price Index.

² All data, unless otherwise stated, are for stages 1 to 4 and include coal.

Canada is a world leader in the production and export of many important minerals and mineral products. Based on 1998 data on the value of minerals produced, Canada is the seventh-largest mineral producer (extraction and concentrating) in the world. Canada is one of the top five producers of 16 minerals, including aluminum, asbestos, cadmium, cobalt, copper, gold, gypsum, lead, molybdenum, nickel, platinum group metals, salt, titanium concentrate and zinc. By 2006, Canada could supply some 15% of the world's gem-quality diamonds, ranking us behind only Botswana and Russia in diamond production. Canada produces more than 60 mineral commodities.

The mining industry also plays a crucial role in Canada's export economy. Roughly 80% of the sector's production is exported, amounting to 12.7% of total domestic exports. Between 1991 and 2001, the value of Canada's mineral and metal exports increased over 45%, even though metal prices have fallen in both real and nominal terms. The United States represents Canada's largest market for minerals and mineral products. Other important export markets include the European Union and Japan.

According to an annual survey undertaken by the Metals Economics Group (MEG), in 2002 Canada was ranked as the most preferred target in the world for mineral exploration, beating out Australia for the first time since 1991. MEG attributes Canada's success in improving its ranking to a renewal of investor interest in exploration that is supported by the federal government's new Investment Tax Credit for Exploration in Canada. Preliminary estimates for 2001 indicate that over \$510 million was spent on exploration and deposit appraisal in Canada. Foreign-controlled firms are responsible for approximately 30% of the total exploration expenditures undertaken in Canada.

Excellent Geology

Canada's intrinsic mineral potential is as great as that of virtually any country on Earth. In terms of land area, Canada ranks second only to Russia. Moreover, the Canadian landmass is underlain by diverse and highly prospective geology. The Canadian Shield, which accounts for 70% of Canada's metallic mineral production, is by far the largest Precambrian shield in the world. The greenstone belts that lie within the