

Structural Characteristics

The sector comprises two broad groups - metal mining and primary metals (i.e. smelting and refining) and industrial minerals; in 1984 the latter accounted for almost 40 per cent of the value of shipments.

Metal Mining and Primary Metals: Metal mining ranges from small placer gold operations to deep underground mines that extract ore at the rate of 10,000 tonnes daily to vast open pit iron ore mines that handle 100,000 tonnes of ore and waste daily. Although there are over 1,000 mining firms listed on the Canadian stock exchanges, the industry is dominated by a few large companies or integrated groups as follows (1984 output data): for copper, 8 firms accounted for 80 per cent of Canada's total output; iron ore, 2 accounted for 60 per cent; nickel mining, 2 accounted for 100 per cent; lead, 2 accounted for 94 per cent; zinc, 3 accounted for 84 per cent; molybdenum, one accounted for 54 per cent; tungsten, 2 accounted for 100 per cent; uranium, 3 accounted for 82 per cent.

- The next stage, primary smelting and refining, is even more concentrated: 18 of the 30 primary nonferrous metal smelters and refineries in Canada are owned or controlled by seven corporations: Cominco Ltd., Falconbridge Nickel Mines Ltd., Hudson Bay Mining & Smelting Co. Ltd., Inco Ltd., and Noranda Mines Ltd., Kidd Creek Mines Ltd. and Aluminum Company of Canada Limited. Eldorado Resources Limited operates Canada's only uranium refinery, which incidentally is one of only five in the western world. There is a relatively high degree of concentration in Canada and throughout the world, but there is a lower degree of concentration today than 20 years ago.

Canada's mining industry is now largely domestically owned - 60 per cent in 1978 compared with 38 per cent in 1970. Canadian iron ore mines are owned mainly by Canadian and U.S. steel companies. Canada's 6 integrated iron and steel mills (i.e. the domestic users of iron ore) are Canadian owned.

Canadian mining firms have been in the forefront of technological advancement in exploration, mining and processing. There has, however, been a relative decline during the past decade or so, in Canada and worldwide, on product research and market development/promotion. The difficult marketing situation for the past three years has prompted world producers to begin devoting more funds toward market development and promotion.

Productivity in Canada's metal mining industry stagnated in the period 1968-73, fell markedly from 1974-82, and then rose sharply in 1983-84. While there is some scope for further advances, future changes are expected to be gradual.

The export orientation of many Canadian metal producing industries dictates that it be cost competitive. Factors influencing international comparative advantages fall into three categories: those related to the ore deposit and the firm (e.g., grade, metal mix, size, location, productivity); those that are largely external to the firm but