

The value of the 1976 exports was \$496.2 million compared with \$464.4 million in 1975, an increase of 6.9%, resulting from higher prices.

Two companies operate primary aluminum smelters in Canada, ALCAN and Canadian Reynolds Metals Co. Ltd. During 1976, ALCAN commissioned a second high-speed cold-rolling mill at its Kingston, Ont., works, increasing rolling capacity to 135 000 tonnes a year. The company also expanded its continuous casting and rolling capabilities at Jonquière, Que. Canadian Reynolds operates a smelter at Baie-Comeau, Que. Smelter production was 138 400 tonnes, an increase of 15% from 119 500 tonnes in 1975. Canadian Reynolds also began continuous strip casting for production of aluminum siding at its expanded Cap-de-la-Madeleine, Que., plant.

Canada's aluminum industry is totally dependent on the import of bauxite and alumina. No economic deposits of bauxite are found in Canada. Bauxite is imported for the production of alumina. This aluminum oxide is an intermediate product which is reduced in an electric furnace to aluminum metal. Approximately 4.5 tonnes of bauxite are refined to 2.0 tonnes of alumina, which in turn are smelted to obtain one tonne of aluminum. ALCAN's refinery at Arvida, Que., the only alumina refinery in Canada, supplies the company's four smelters with alumina. The process consumes from 7 to 8 kWh per 454 grams of aluminum produced. This high consumption of electric power explains the proximity of Canada's aluminum smelters to large hydroelectric power sources.

Canada's major import sources for bauxite ore are Suriname, Guinea, United States, Guyana, Australia and the People's Republic of China. Suppliers of alumina are Australia, United States, Federal Republic of Germany, Jamaica, France, and Netherlands Antilles. Export markets for Canadian primary aluminum are the United States, People's Republic of China, United Kingdom, Hong Kong, Turkey and Brazil.

The countries on which Canada relies for bauxite, with the exception of the US and the People's Republic of China, are part of a minerals producers group known as the International Bauxite Association (IBA). The IBA was formally instituted at a meeting in March 1974 by Australia, Guinea, Guyana, Jamaica, Sierra Leone, Suriname and Yugoslavia. In November 1974, the Dominican Republic, Ghana and Haiti became members and Indonesia joined in 1975. The IBA seeks an improved situation in trade stability or prices by virtue of co-ordinated group action. Canada, a pre-eminent producer of aluminum, is vitally interested in the activities and policies of the IBA.

12.6.2 Iron and steel

Crude steel production increased marginally to 13.1 million tonnes in 1976 from 13.0 million tonnes in 1975. Steel shipments from plants increased by 3.6% to about 9.8 million tonnes, principally due to export sales since disposition of rolled steel products to domestic markets declined by 2% to 8.5 million tonnes. Consumption fell fractionally to 9.8 million tonnes.

Although overall demand for steel products was poor the consumer goods sector was an exception, staying buoyant throughout the year, particularly due to strong sales of North American automobiles. So demand for flat-rolled products showed a strong gain over 1975. But capital goods and construction markets remained depressed. Demand for structurals, rods and bars was poor. This indicated a lack of investment and reflected the uncertainty of many manufacturers concerning prospects over the next few years for performance of the Canadian economy.

Variation in demand levels for different steel products resulted in variable performances by Canada's three big steel companies in 1976. Dominion Foundries and Steel Ltd. (DOFASCO), which produces mainly flat-rolled steel products, experienced a profitable year in response to demand by the automobile industry and, to a lesser extent, the appliances industry. By contrast, Algoma Steel Corp. Ltd., which produces significant tonnages of structural steel and related products, struggled under adverse market conditions pervasive in the capital goods sector. The Steel Company of Canada Ltd. (STELCO), which produces the largest range of steel products in Canada, had a reasonable year, with high demand for flat-rolled products more than compensating for slack demand for long products. Activity of many regional steel producers remained at depressed levels.