COMPETITIVENESS PROFILE

Sector: Lead and Zinc Smelting and Refining*

1. Structure and Performance

Structure

The primary lead and zinc smelting and refining sector consists of five companies across Canada. These companies produce lead bullion, and refined lead and zinc shapes such as blocks, pigs, sheets and slabs. Zinc is also marketed as dust, powder and flake. Major byproduct metals are silver and copper. Only Cominco produces large quantities of both lead and zinc metals. The other major in lead is Brunswick Mining and Smelting (BMS). The three other majors in zinc are Canadian Electrolytic Zinc (CEZ), Hudson Bay Mining and Smelting (HBMS), and Kidd Creek.

Generally, the companies - some in conjunction with sister companies owned or controlled by the same parent - are integrated backward into mining. Cominco exports concentrates to Europe and Japan; BMS, to Europe, with some going to Japan; and Kidd Creek, to Europe. HBMS is not self-sufficient in concentrates; and CEZ does not mine but receives concentrates from BMS and other sources. There is little forward integration into semi-fabricated metal products, the exceptions being Cominco which co-owns Canada's largest secondary lead company, and HBMS which owns a zinc die-casting plant. There is considerable forward integration with regard to production of large quantities of sulphuric acid from the sulfur dioxide emissions, and then production of fertilizers from the sulphuric acid.

Regarding ownership, the primary lead sector is virtually 100% controlled by Cominco and BMS; thus there is no foreign ownership in lead. The zinc sector is only 11% foreign-controlled (HBMS); of Canadian-controlled capacity, 80% is privately owned and 20% is government-owned (Kidd Creek). The Canadian government has announced its intention of selling its 49% equity position in C.D.C., which is 100% owner of Kidd Creek, during 1985.

Geographically, with Cominco in British Columbia and HBMS in Manitoba, western Canada represents half of employment and production. The other half is split between New Brunswick (HBMS), Quebec (CEZ) and Ontario (Kidd Creek).

Canada has a significant role in the world, ranking consistently among the leaders in production of concentrates, and lead and zinc metal.

Performance

Despite estimated capital investment of over two billion dollars since 1979, the industry has experienced very slow growth. Volume averaged 242,000 tonnes of lead within a narrow range. Volume averaged 601,000 tonnes of zinc, also within a narrow range except for the recession year of 1982 when only 512,000 tonnes were produced.

Compared with the previous 5-year period (1974-78), Canada's share of the world market since 1979 has increased from 4.7% to 6.0% of lead, and from 11% to over 13% of zinc.

In concentrate form (Note: all weights indicate contained metal), Canada's lead concentrate production has remained fairly constant, except for a dip in 1983 (attributed to shutdown of the Cyprus Anvil mine), at an average of 313,000 tonnes or almost 13% of world production. Zinc concentrate production has been somewhat more variable and has averaged 1,125,000 tonnes or over 24% of world production.

Thus, Canada is the world's largest producer of zinc in ores, concentrates and metals, and the third largest producer of lead in the western world. Canada consumes 40% to 50% of its lead metal production. The tonnage trend has been down because of the recession and because of environmental regulations. Canada consumes 10% to 20% of its zinc metal production; again the tonnage trend is down because of the recession. There is no import penetration of lead or zinc, and none is expected in the future.

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* The lead and zinc profiles are described together because, for the most part in Canada, the two metals are closely associated in the ore bodies.