COMPETITIVENESS PROFILE

Nickel Smelting and Refining Sector - #SIC 295

1. Structure and Performance

Structure:

The nickel smelting operation transforms the mineral concentrates into crude metal while the refining operation upgrades metal purity.

About 80 percent of Canadian nickel production comes from Ontario and the remainder from Manitoba; however, reserves would indicate that the ratio will approach 70/30 eventually.

The Canadian nickel industry is made up of three companies. Inco, the largest, is fully integrated, processing its ores from some 14 mines in Ontario and Manitoba through two smelter/refinery facilities at Sudbury, Ontario and Thompson, Manitoba. Falconbridge, the second largest nickel producer, smelts concentrates at Sudbury and transports its nickel-copper matte to its refinery at Kristiansand, Norway. Sherritt Gordon Mines has no nickel mining operations but processes nickel-bearing concentrates from Inco's Thompson mill into nickel powder and briquettes at its Fort Saskatchewan, Alberta refinery. Unlike Inco and Falconbridge, Sherritt Gordon Mines is not dependent upon the nickel market as its fertilizer and chemical division accounts for about 70 percent of the company revenues.

Performance:

		Nickel Exports (tonnes)					
	Production	In Matte	In Oxide	Refined Metal	Total	Refined Imports	Consumption
1973	244,461	91,259	59,835	125,424	286,518	15,731	10,785
1980	184,802	42,647	16,989	88,125	147,761	4,344	9,576
1981	160,247	53,891	14,390	79,935	148,166	2,335	9,440
1982	88,795	27,037	13,127	62,314	102,478	2,431	6,637
1983	121,836	40,087	11,167	66,949	118,203	2,357	4,800
1984	161,831	59,410	20,080	80,414	159,904	3,479	4,800

In the period 1946 to 1973, western world annual nickel consumption grew at an annual rate of over 6 percent. The growth rate changed abruptly after the oil shortage in 1973, due to the sharp decline in the overall performance of the world economy. Except for a brief period in the late 1970's, nickel consumption has yet to surpass the 1974 peak.

Canada has been the dominant producer of nickel in the world since the turn of the century. In the 1950's Canada accounted for more than 76 percent of the world nickel production. In 1977 Canada's production accounted for 37 percent of nickel output. During the past five years, Canada's share of the market has shrunk to about 30 percent of world nickel production.

In large measure, the change in role from dominant supplier to swing supplier by Canadian producers can be explained by the emergence of LDC's in the world nickel market and the increase in state ownership and control of producers in the 1970's. Over 40 percent of production capacity is either directly or indirectly state-controlled. These operations are not responsive to the usual price/cost relationships because their primary goals are raising foreign currency and maintaining employment. During the recent recession high-cost, state-owned companies maintained production, further depressing prices and forcing private producers to cut back disproportionately.