OCCASION

This publication has been made available to the public on the occasion of the 50th anniversary of the United Nations Industrial Development Organisation.

DISCLAIMER

FAIR USE POLICY

CONTACT

Please contact publications@unido.org for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at www.unido.org

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION
Vienna International Centre, P.O. Box 300, 1400 Vienna, Austria
Tel: (+43-1) 26026-0 · www.unido.org · unido@unido.org

18414

EFFECTS OF PUBLIC POLICY ON COMPETITIVE POSITION IN NONFERROUS METALS

NICKEL CHAPTER

Margot J. Wojciechowski — Consultant

Centre for Resource Studies

Kingston, Ontario

Draft for Vienna Workshop, June 27-8/90

Workshop Eff. & Balance, PED/IPP/ST.7

CONTENTS

Nickel Chapter

TABLES

FIGURES

NICKEL

INTRODUCTION

The most striking feature of the world nickel industry has been the dominant roles, from the late 19th century until the cold war years following World War II, of one company, Inco; one mining region, Sudbury; and one consuming nation, the United States. For more than half a century, while nickel consumption grew from about 15,000 tpy to about 150,000 tpy, Inco produced most of the world's nickel from its Sudbury mines and smelters, and from its refineries in Canada, the United States and Wales. Nickel production and consumption growth was strong over much of this period, in large part due to the research, development and marketing efforts of Inco. These efforts were motivated by the company's wish to expand and stabilize nickel markets by increasing the non-military applications for nickel.

From the 1950s to the 1970s, world demand for nickel surged upward, driven by the dramatic post-war economic recovery in Europe, and in West Germany in particular, and later by Japanese economic expansion. European demand was less than half of U.S. demand in the early 1950s; by 1970 it was 25 percent higher. Japanese demand grew from virtually nothing in the 1950s to 75 percent of U.S. demand in the 1970s, and exceeded U.S. demand for a period in the 1980s. U.S. nickel consumption grew slowly over this period, but fell in relative terms from over half of world consumption in 1950, to just over 15 percent in 1988.

Rapid growth in demand, and the associated increased prices for nickel following 1950 helped to break down the entry barrier to new producers that had resulted from Inco's low prices, which had been made possible by its ownership of the rich and low-cost Sudbury sulphide nickel deposits. At the same time, technological developments had made it economically feasible to develop the world's more extensive and widespread laterite nickel deposits. Other long-time nickel producers expanded much more rapidly than Inco over this period, and a host of new producers began operations, largely in third world countries with laterite deposits.

As a result of these economic and technological developments, Inco's market share dropped from about 80 percent of market economy country (MEC) production in 1950 to about 30 percent in recent years. The nickel industry ceased to be dominated by a single producing firm and by the United States as the principal customer. The producer prices set by Inco gave way to highly volatile prices determined by market forces. The industry had changed in a few decades from one of near-monopoly to one of wide-spread competition.

For a variety of reasons, government policies have been directed at the nickel industry, from its earliest days in the late 19th century to the present. Most of these policies have attempted to influence the economic forces shaping the industry, and a few have had a significant impact. Notable among these have been the following:

- the attempts by the United State government in the 1950s to ensure a secure and expanding supply of nickel supply for its defence needs;
- the attempts by the Japanese industry/government organizations to develop secure nickel sources for their new and rapidly growing industrial needs during the 1960s and 1970s;
- and the involvement of the French government in the nickel industry on New Caledonia, and particularly in the affairs of Société le Nickel (SLN), from the late 19th century to the present.

This chapter will focus on U.S. efforts, in the face of strong competition from new consuming markets, to increase its security of supply for nickel.

Two approaches were pursued by the U.S. government in support of this policy goal: increasing the total production of nickel destined for U.S. markets; and reducing U.S. dependence on a single supplier, Inco. Although it was the market and technological forces referred to above that were in fact mainly responsible for achieving these two ends, U.S. government policy did contribute to this process of structural change.

The principal U.S. policy instrument used to encourage both increased nickel production overall and the entry of new producers into nickel production was contract purchases for the U.S. strategic stockpile. Frequently, these purchases included a price premium above the producer price set by Inco. They were successful in bringing on expansions by existing producers, including Inco. They also succeeded in encouraging the growth of competition by giving Inco a smaller share of the stockpile contracts, relative to the contract support given to existing and new competitors. The result was a major expansion for Falconbridge, and the development of new nickel companies and production capacity in Canada and the United States.

A second policy thrust, aimed at least in part at increasing the degree of competition in the nickel industry, has been the occasional use of U.S. antitrust actions against Inco, as well as the constant existence of the threat of potential antitrust prosecution. Ironically, the antitrust approach may in fact have restricted rather than encouraged competition in nickel production, since concern over possible charges of excess profiteering under the antitrust legislation probably contributed to Inco's conservative pricing policy while it was the price

leader. The low price set by Inco constituted an effective barrier to the entry of new nickel producers for many years.

STRUCTURAL CHANGES IN THE NICKEL INDUSTRY

Background

The structure of the nickel industry is defined by such factors as:

- geographic and geopolitical distribution of the industry;
- the number of firms operating in the marketplace;
- the degree of vertical integration of the firms;
- the nature of ownership of the production units;
- the pricing mechanisms and other distinctive features of the markets.

For nickel, there was little change in these structural features over the first half of this century. During this extended period, the nickel industry was characterized chiefly by the near-monopoly enjoyed by Inco. Although the rapid increase in demand just before and during World War II drove nickel production to new highs, most of this new production came from Inco. Since 1950, however, all of these structural characteristics, and more, have changed dramatically and irreversibly.

Geographic Distribution

The geographic distribution of nickel mining has been greatly broadened in the postwar era. In 1950, Canada accounted for 75 percent of world production and 94 percent of market economy country (MEC) production. Just three countries, Canada, the USSR and France accounted for 99 percent of world production. By 1982 the number of producing countries had grown to twenty, and it doubled again during the subsequent eight years.[1]

---

[1] *International Strategic Minerals Inventory: Summary Report - Nickel, U.S. Geological Survey Circular 930-B*, Department of the Interior, 1986, p. 3.

Table 3.1 shows that the number of countries producing more than 1000 tpy increased rapidly, reaching eighteen by the later 1980s. These changes are further reflected in the growing number of countries exporting nickel to the U.S. market (see table 3.2).

Table 3.1

Indications of Structural Change in Nickel Mining

	1950	1977	1988
World production ('000 tonnes)	148.0	785.0	850.0
MEC production (% of world)	80.0	75.4	66.2
LDC production (% of world)	2.9	28.4	27.2
CPE production (% of world)	20.0	24.6	33.8
US consumption (% of world)	48	22	16
Capacity > 90% state owned[a] (% of world)	11.0	n.a.	17.0
Industry concentration:			
> 90% (countries)	2	10	11
> 99% (countries)	3	17	17
> 80% (companies)[b]	1	n.a.	10
Number of countries[c]	3	19	18

Source: Metal Statistics, Metallgesellschaft, various years.

[a] 1955

[b] author's estimate

[c] Number of countries producing more than 1000 tpy.

Table 3.2

Number of Countries Exporting Nickel to the United States, 1950-85

Year	Less than 1000 tpy			More than 1000 tpy		
	Total Countries	LDC Countries	USSR[a]	Total Countries	LDC Countries	USSR[a]
1950	6	1	-	2		
1955	5	1		2		
1960	3			3		
1962	3			3		
1964	6	2		4		
1966	6	1	X	2		
1968	8		X	2		
1970	11	1		2		X
1971	11	1		2		
1972	12	3	X	3		
1973	5	1	X	8	1	X
1974	8	1		7	1	X
1975	7	1		7	2	X
1976	7	1		7	2	X
1977	4	1		8	2	X
1978	6	1		8	1	X
1979	8	1		8	2	X
1980	6	1		9	2	X
1981	5	1		9	1	X
1982	4	2		8	2	
1983	6	2		10	2	X
1984	8	2	X	9	2	
1985	7	2		8	2	

Source: *Minerals Yearbooks, Volume One: Metals and Minerals*, US Bureau of Mines, various years.

[a] X = a year in which the USSR exported nickel to the US in the given volume category.

In nickel refining, there has been a geographic shift as well, away from North America and western Europe, which had accounted for virtually all of refined nickel production the MECs in 1950, and towards Asia, particularly Japan, as well as Africa and Oceania. By 1987, North American and western Europe's combined share had dropped to 46 percent of refined nickel production. Japan rose from 3 percent in 1955 to 23 percent in 1980, but dropped back to less than 18.9 percent by 1987.[2]

Geopolitical Distribution

The changing geographic distribution of nickel production resulted in changes in the production share of two geopolitical groupings; the market economy countries (MECs) and the centrally planned economics, and subsets of these two, the less developed countries (LDCs) and the industrialized countries. The geographic spread of nickel production reflects in part the inability of Canadian producers to meet the rapidly growing demand for nickel from the sulfide deposits in North America. Most of the world's known nickel reserves are found in laterite deposits, mainly in tropic regions. Technological advances in processing of laterites developed by leading nickel firms including Sherritt Gordon, Freeport, Hanna, Falconbridge and Inco, as well as the development of new technologies in steel production, have made these deposits more attractive economically,[3] in spite of the fact that laterite ores require more energy-intensive processing methods than sulfide ores. Since many of these laterite deposits are located in less-developed countries (LDCs), these states now play a larger role in the industry.

---

[2] Metallgesellschaft, *Metal Statistics*, various years.

[3] The laterite deposits have become more attractive economically only in the last decade or so, for prior to this period their development was extremely unprofitable. During the nickel slump between 1976 and 1978, when demand fell, no laterite mine generated a profit; at the same time sulfide mines in Canada and Western Australia were profitable. See John Cameron, "Nickel" in Carl E. Beigie and Alfred O. Hero, Jr., eds., *Natural Resources in US-Canadian Relations, Volume II: Patterns* and Trends in Resource Supplies and Policies, Westview, Boulder, Co., 1980, p. 45.

In 1950, LDCs accounted for only 3% of world production; by 1987 their share had risen to almost 30%.[4] Much of their production is exported as ore, ferronickel, or, in some cases, matte or oxide, for processing elsewhere. At the same time, the share of nickel production from laterite deposits has increased significantly relative to sulfides: in the 1950s the ratio was 1:19, and by 1988 it had risen to about 1:1.5.[5] This trend towards an increasing proportion of laterites will likely continue, since it is estimated that 80% of the demonstrated MEC nickel resources are found in laterites.[6]

In refining, the shift to LDCs has been less pronounced, since many of the newer mining enterprises are not vertically integrated into refining. Nevertheless, the LDC's share of MEC production of refined nickel and ferronickel rose from 6 percent to 22 percent between 1965 and 1987.[7] The total number of MEC countries smelting and/or refining nickel (more than 1,000 tpy) increased from 8 to 18.[8]

Ownership of Production Capacity

The expansion of production was accompanied by an increase in the proportion of production originating from state-owned rather than privately owned firms. In the MECs, production capacity was 100 percent privately owned in 1950, compared to 77 percent in 1987. In terms of total world mine production of nickel, about 11 percent was state-owned in 1950,

---

4 During the political debate surrounding INCO's massive layoffs in Sudbury and Port Colborne, mention was made of the growth of the LDC share in the market. The Canadian minister for International Trade and Commerce, the Hon. Jack Horner, noted during a debate in the House of Commons that: "The problem with INCO is, as the honourable member has already stated, that most of its production is exported and it is meeting severe competition from new minerals and mines in what I might call the third world countries." See Canada, *Debates of the House of Commons*, 3rd session, 30th Parliament, 21 October 1977, p. 188.

5 Donald I. Bleiwas, *Primary Nickel Availability: A Minerals Availability Appraisal*, U.S. Bureau of Mines, Denver, Colorado, p. 69.

6 Ibid.

7 Metallgesellschaft, *Metal Statistics*, various years.

8 Ibid., 1977-87, no. 75, p. 54, and no. 55, 1958-67, p. 38.

and this rose to almost 43 percent by 1987, mostly due to increased production in the USSR. Among the MECs, the major change was the 1982 takeover of SLN by the French government.

Much of this shift towards state ownership of nickel production facilities has come from the expansion of production in the centrally-planned economies (CEPs), which rose from 15 percent to 40 percent of the world total from 1950 to 1985. This trend has been identified as a source of market instability.[9] Competition from the USSR in particular has been cited as a major source of downward pressure on nickel prices, as the USSR has expanded production and sold on Western markets.[10] Soviet exports of nickel into Western markets in recent years have have been significant, accounting for as much as 10 percent of MEC consumption, or 45,000 tpy.[11] Soviet sales have also been unpredictable and erratic, further contributing to market instability.

Cuba joined the CPE category in 1959 when it nationalized the privately-owned Cuban nickel mines (which had been developed with U.S. government assistance), and became a significant producer by the end of the following decade. It is expected that Cuba will soon be able to produce upwards of 70,000 tpy,[12] although it is uncertain if Cuba will be able to maintain its market share if it should lose the price support it has enjoyed from Comecon buyers.

The structural signifance of the growing importance of state ownership of nickel production facilities, in the MECs as well as the CPEs, is due to the politicised nature of their operating decisions. When owned and operated by the state, firms are less likely to be driven by the profit and loss considerations that govern private-sector investment and operating decisions. Such decisions may be tied instead to a larger political program, embracing the entire state economy and its political and social goals. Capacity production may be an end in itself, rather than a means for economies of scale. An operation may be viewed primarily as an industrial showpiece, or a source of inputs for a downstream industry whatever the cost, or as a source of employment or foreign currency. As one author has written in this regard:

---

9 See for example Inco, *Annual Report for 1982*, p. 5.

10 See R.G. Telewiak, "Nickel" in *Canadian Mining Journal*, February 1987, p. 37.

11 *International Strategic Minerals Inventory - Summary Report - Nickel*, p. 3.

12 Ibid.

> Privately-owned producers attempted to maximize profits, which meant cutting back production in times of weak demand. At the same time, government-controlled producers in the Soviet bloc and in developing countries sought to maximize revenue and employment by maintaining high levels of production, with less regard for matching production levels to market demand.[13]

For example, the USSR temporarily became the largest producing country in 1983, when it continued to expand production while MEC companies scaled back or shut down production capacity, in response to a severe drop in nickel demand and prices.[14] As a direct result of the Soviet expansion, the problems of the other producers were prolonged and aggravated. In any country, there are real grounds for concern that state ownership can contribute to market instability through behaviour which does not correspond to expected economic logic.

Industry Concentration

In 1950 Inco accounted for over 80 percent of MEC production volume and, until SLN and Falconbridge were able to restore capacity damaged by the war, Inco's production capacity stood at about 92 percent of the MEC total. [15] This situation changed over the following years, as existing producers expanded and new producers brought on new capacity. Additional capacity was initiated by Inco as well; its output grew from about 112 thousand tonnes in 1950 to 215 thousand tonnes by 1987,[16] with expansions and new mines at Sudbury and new operations in Manitoba, Guatemala (closed in 1980) and Indonesia. However, Inco's increased production accounted for only about 25 percent of the total MEC

---

[13] Michael Webb with Mark W. Zacher, *Canada and International Mineral Markets: Dependence, Instability and Foreign Policy*, Centre for Resource Studies, Queen's University, Kingston, Ontario, 1988, p. 71.

[14] See Peter G. Chamberlain, "Nickel" in *Minerals Yearbook, Volume One: Metals and Minerals, 1984*, U.S. Bureau of Mines, p. 674.

[15] John I. Cameron and W. Vogely, *Investment in the Nickel Industry*, Pennyslvania State University 1976, p. 39.

[16] Inco, *Annual Reports*, 1950 and 1987.

increase over the period. In the face of the new competition, Inco's market share fell to about 33 percent by the 1970s, hit a temporary low of about 25 percent in 1977, and recovered to about 34 percent by 1988. The second-largest MEC producer, Falconbridge,[17] accounted for about 11 percent of production in 1988, with SLN in third place at 9 percent. At its peak mine production of 71 thousand tonnes in 1975, SLN briefly achieved second place with about 12 percent of MEC production, but has since dropped back to third place behind Falconbridge, due to a combination of financial and political problems.[18]

Of the many new MEC nickel mining operations established after 1950, only one, Western Mining's nickel operations in Western Australia, is presently of a size to challenge the three leading MEC firms. By 1988 these top four firms accounted for about 70 percent of MEC production.[19] By 1988 there were also 29 firms engaged in nickel mining and over 50 companies engaged in mining, smelting or refining of nickel.[20] By the early 1980s therefore, the monopolistic structure had been replaced by a considerable degree of competition, especially among the largest nickel producers. One recent publication has characterized the new version as "a non-cooperative oligopolistic industry structure".[21]

Inco's share of production of refined metal has fallen to about the same degree as its share of mine production, from about 80 percent of MEC production in 1950 to about 30 percent. Because many of the newer firms are not vertically integrated (i.e. are not engaged in both mining and refining), the ranking of nickel metal producers is different from that for mining. Inco is by far the largest MEC producer of nickel metal, followed by Falconbridge with just under 30 percent of Inco's production or about 10 percent of the MEC total, and

---

17 Falconbridge was established as a privately-owned Canadian firm in 1929, and has nickel mines in Canada and the Dominican Republic, and a refinery in Norway. According to the *Financial Post*, 23 February 1990, they have also indicated an interest in accepting the invitation extended to them by the Soviet Union to invest in that country also.

18 *Mineral Resources of New Caledonia*, International Mineral Research, January 1986, (Sydney, N.S.W., Australia), p. 107.

19 Bleiwas, p. 25.

20 Environment Canada, *Environmental Aspects of Nickel Mining*, Report EPS 2/MM/2, November 1987, pp. 81-85.

21 Webb with Zacher, p. 70.

SLN and Western Mining close behind. The Japanese producers as a group account for almost 10 percent.

Vertical Integration

Inco, Falconbridge and SLN, which were the three leading MEC firms in 1950, are vertically integrated from exploration through mining, smelting, refining and production of finished nickel and nickel alloy products. Inco's activities extend to the operation of rolling mills as well. In other words, the nickel industry in 1950 was vertically integrated. However, as new firms began production following the 1950s, this began to change. Many of the new firms limited their activities to mining and primary processing, and were integrated only as far as the production of concentrate, ferronickel, or matte. In addition, Inco and SLN, along with a host of new Pacific Rim producers, began to sell some of their nickel to Japanese firms for further processing. Other firms were involved only at the downstream end of the industry, purchasing feed for nickel refining or for steel production, as for example in the case of Japanese companies and Amax.

Pricing Mechanisms

An additional sign of the structural changes of recent decades has been the change in the way nickel prices are determined. From the 1890s to the late 1970s, world nickel prices were determined either by the producer prices set by Inco, or by bilateral contracts. Inco was able to retain price leadership for over half a century by virtue of its high-grade low-cost Sudbury sulphide deposits, its technological leadership, and its dominant position in world production. Throughout this period, nickel prices remained relatively low and stable (see figure 3.1).

This price stability was due to Inco's "cost-plus" basis for determining price: the published price was designed to maintain a margin between price and costs just sufficient to yield a satisfactory return.[22] In defiance of traditional economic theory, the firm did not try to take advantage of its near-monopoly to maximize profits, but rather sought an "acceptable" rate of return. Fear of U.S. antitrust investigations, or a desire to maintain a low price as a

---

[22] Cameron, "Nickel" in Beigie & Hero, p. 60.

barrier to new firms seeking to enter the industry, may have been among the rationales for such a policy.[23] At any rate, one result was relative price stability, compared with more recent price behaviour, even when confronted by extreme demand pressures[24] (see figure 3.1 and table 3.3). Inco's efficiency in production, and large share of the nickel market, afforded it the opportunity to play the satisfying role of "seller of last resort":

> Inco set its price, other companies sold the amounts they wished, and Inco supplied the remainder of the market which was the major part.[25]

1977 appears to have been something of a watershed year with respect to nickel prices. In this year, the pattern of the three previous decades, with cycles of 4 or 5 years duration, was broken. Instead of the anticipated return of strong demand in 1977, production continued to exceed consumption and inventories reached record high levels. At the same time, capacity was still expanding in response to earlier shortfalls, as new producers came on stream and expansion programs of existing producers continued. The posted producer prices became meaningless, as various forms of price competition and discounting below Inco's price became prevalent. Inco saw its market share drop to only 25 percent of MEC markets, as competitors used the Inco price as a target from which to discount.

---

[23] Webb with Zacher, see for footnote 35.

[24] Inco's corporate pricing power was such that it was able to introduce modest increases in nickel prices during the Korean War, although U.S.government controls were in place and being enforced. Cameron argues that Inco was able to force the two price hikes (50½¢ to 56½¢/lb. in June 1951, and then to 60¢/lb. in January 1953) due to the dependency of the United States on its nickel, and the everpresent, if implicit, threat of withdrawal from the American market. See Cameron, *Investment in the Nickel Industry*, p. 43.

[25] Webb with Zacher, p. 68.

Fig 3.1 NICKEL PRICES, 1929–1988

(ELECTROLYTIC NICKEL, CATHODE)

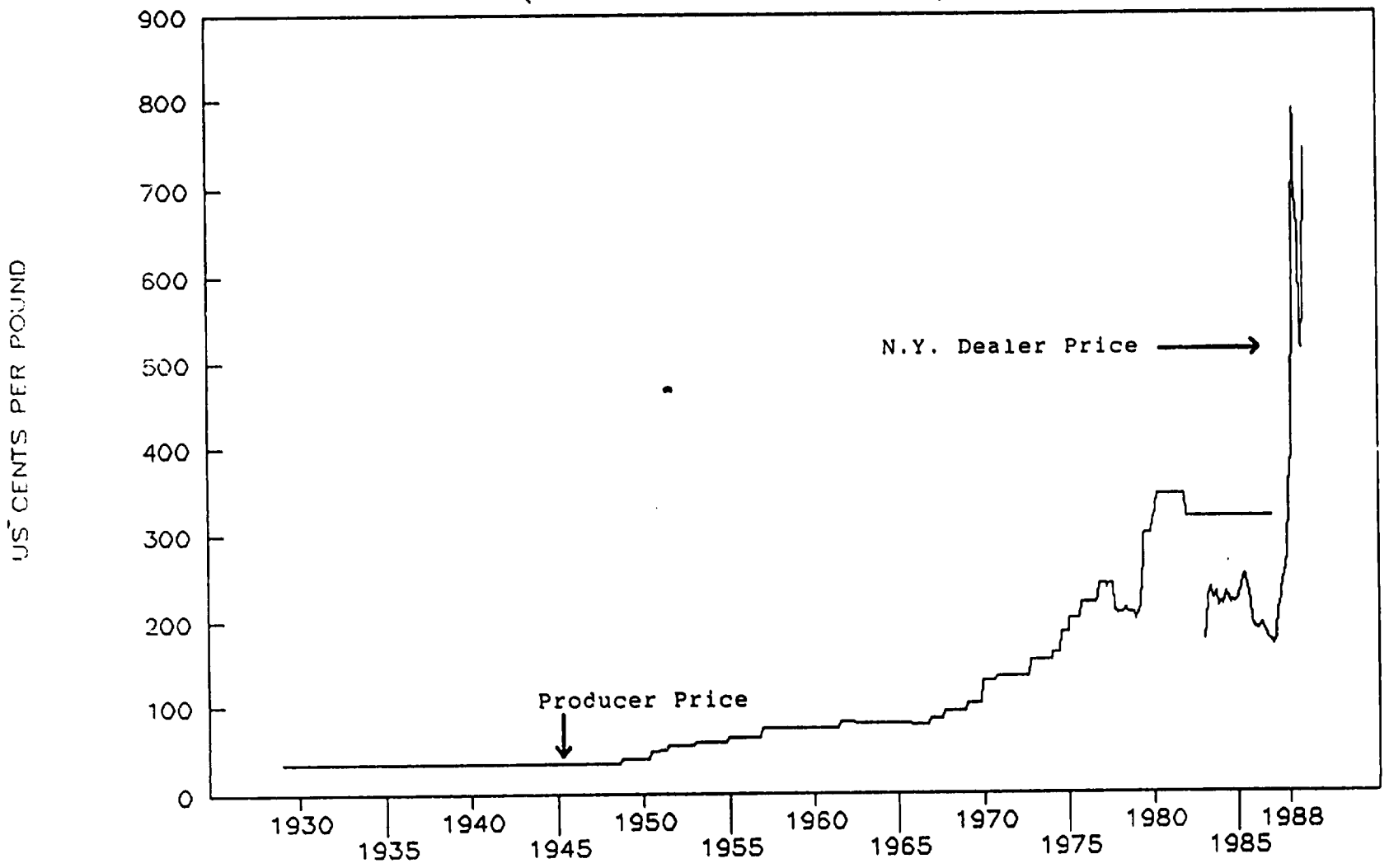

Table 3.3 Nickel Prices* 1951-1986

Year	Current $ US	1980 Constant $ US
1951	1,191	4,563
1952	1,246	4,564
1953	1,321	4,966
1954	1,334	5,131
1955	1,422	5,366
1956	1,437	5,245
1957	1,631	5,825
1958	1,631	5,723
1959	1,631	5,806
1960	1,631	5,684
1961	1,711	5,859
1962	1,762R	5,931
1963	1,742	5,964
1964	1,742	5,844
1965	1,735	5,783
1966	1,739	5,593
1967	1,936	6,165
1968	2,075	6,649
1969	2,363	7,206
1970	2,846	8,178
1971	2,932	7,989
1972	3,080	7,700
1973	3,373	7,270
1974	3,865	6,770
1975	4,570	7,277
1976	4,974	7,808
1977	5,203	7,433
1978	4,610	5,729
1979	5,986	6,563
1980	6,519	6,519
1981	5,953	5,924
1982	4,838	4,881
1983	4,673	4,837
1984	4,752	5,008
1985	4,899	5,108
1986	3,881	3,422

Source: *Commodity Trade and Price Trends, 1987-88 Edition*, World Bank.

* Electrolytic cathodes, contract price, fob shipping point, US duty included; from 1980 electrolytic cathodes, London Metal Exchange.

Under seige from its competitors, Inco temporarily discontinued publishing nickel prices in 1977.[26] In April of 1979, a nickel contract was introduced on the London Metal Exchange (LME). Initially, it was largely ignored and even opposed by major producers and their clients alike. By mid-1982, however it had become widely accepted:

> the major nickel producers gave up attempts to realize posted prices and changed their pricing strategies, adopting more competitive and flexible pricing policies.[27]

Even Inco has since completed a *volte face* and has become one of the LME's staunchest supporters.[28] The transition from near monopoly and producer pricing to a more competitive pricing system has not been without its costs, both to producers and to consumers. Rising demand for nickel, and the accompanying reliance on the LME for pricing, has led to much more volatile prices (see figure 3.1 and table 3.3), more speculation, smaller inventories and, in general, greater market uncertainty.[29]

---

[26] *Mining Annual Review*, 1978, p. 77. For a good discussion of the events leading up to this decision see Cameron, in Beigie & Hero., pp. 61-62.

[27] Quoted in Webb with Zacher, p. 76.

[28] Peter Salathiel, "The LME Nickel Contract" in *Stainless Steel Europe*, December 1989. See also Christopher Green, "The London Metal Exchange in L. Moira Jackson & Peter R. Richards, es., *Marketing of Non-ferrous Metals*, Centre for Resource Studies, Kingston, Ontario, August 1989, pp. 46-54.

[29] According to *Metal Bulletin Monthly* (October 1988), Inco was called upon by the LME in February of 1988 to help stabilize prices by "lending" additional supplies of nickel, from the company's inventory, to a depleted Exchange. Low investment in the industry during the 1970s and the jump in stainless steel production (which accounts for about 60% of consumption) meant there was little surplus metal to buy on the spot market. After prices had skyrocketed, and the exchange had to be suspended for twenty four hours, the LME was to appeal to Inco for assistance - an appeal that was granted.

U.S. STOCKPILE POLICIES

Background

Traditional pre-war American attitudes reflected a complacency about mineral stocks and supplies, as a result of many generations of easy accessibility.[30] The post-war period has witnessed an altogether different outlook. The experience of wartime shortages of essential minerals, the spectre of dwindling or depleted national resources, the concomitant fear of dependency on foreign sources, and the heightened awareness of the importance of minerals to a country's standard of living as well as its relative international position, have all converted complacency into concern. D.A. Viljoen has written in this regard:

> Never in the history of mankind have mineral resources of the earth been so essential to human existence as they are today: nor has proof of their influence upon man's progress been so obvious.[31]

In his study on the geopolitics of minerals, David Hagland reminds us that "no country has a sufficiently ample resource base to allow it to produce all the minerals it needs."[32] It is this awareness, and the concern that follows from it, which has given rise to the classification of certain minerals as "strategic" and the introduction of strategic stockpiles. Contract purchases for the nickel strategic stockpile were the principal policy instrument employed by the U.S. government to encourage increased production of nickel and to promote the entry of new firms into the nickel mining industry.

Haglund has noted that strategic minerals "have been deemed indispensable building blocks for industrial, military and political power"; and that questions of access to these

---

[30] *US Minerals Vulnerability: National Policy Implications* - Report Prepared for the Sub-Committee on Mines and Mining, House of Representatives, US Congress (1980), p. 5.

[31] Quoted in ibid., p. 1.

[32] David G. Haglund, "The New Geopolitics of Minerals" in *The New Geopolitics of Minerals: Canada and International Resources Trade*, Haglund (ed)., Vancouver, University of British Columbia, 1989, p. 4.

commodities have influenced policy planning.[33] Resource dependency, and a reasonable desire to mitigate the disadvantages of this dependency, underlie the concept of strategic minerals, as shown in this quotation from a U.S. strategic minerals report:

> The term 'strategic minerals' is imprecise. It generally refers to mineral ore and derivative products that come largely or entirely from foreign sources, and that are difficult to replace, and that are important to a nation's economy, in particular to its defense industry. Usually the term implies a nation's perception of vulnerability to supply disruptions and of a need to safeguard its industries from the repercussions of a loss of supplies[34].

Nickel has been seen as a strategic mineral since before World War I, when it gained a prominence in defence-related applications that it has retained to the present.[35] Both Cameron and Haglund discuss nickel's initial development for military purposes in the late 19th century.[36] More recently, during the initial phase of the Cold War, the military uses for nickel grew, although the emphasis shifted somewhat from naval to aviation applications. Demand was strong in the major weapons-producing states, particularly the United States, and pressures for an adequate and secure supply grew as well. At the same time, post-war

---

[33] *Ibid.*,p3.

[34] U.S. Geological Survey Circular 930-D, *International Strategic Minerals Inventory: Summary Report - Nickel*, Department of the Interior, 1986, p. 1.

[35] William Schneider Jr, an economist with the Hudson Institute, testified that nickel's role has, if anything, increased in modern defence technologies. He has pointed out that the American (and NATO) military is dependent on high performance, technology-intensive military hardware, rather than manpower as is the case with the USSR. This is especially true when one focuses on aviation technology which requires extremely advanced metallurgical skills and techniques. (For this discussion, see *Hearings before the Sub-Committee on Mines and Mining, 13 October 1979*, House of Representatives, US Congress, 1980.)

[36] David G. Haglund, "Canadian Strategic Minerals and US Military Potential" in Haglund (ed.), pp. 163-64. See also John I. Cameron, "Nickel" in Beigie and Hero, p. 69.

recovery in Europe and Japan was placing rapidly growing demands on nickel supplies for consumer goods.

In the U.S. view, nickel was a special case among strategic materials, because Canada was close to being the sole source, and seen as being a reliable supplier. In fact, as Haglund has noted, Americans tended to view Canadian nickel as 'almost a domestic source'.[37] Brooks Emeny, for example, argued as early as 1937 that Canadian nickel was almost the same as American nickel:

> Such being the case, it is apparent that the procurement of nickel in time of war presents no real problem; and except for the fact that the principal source of supply comes from a foreign, though immediate neighbour, it would not even rank as a strategic mineral.[38]

Proximity to their source of nickel and confidence in continuing friendly relations between the two states eliminated any real sense of vulnerability. This confidence in American access to Canadian nickel has persisted to the present. Nevertheless, in the early 1950s, concerns were raised about the adequacy of the Canadian supply of nickel and Inco's ability to expand production fast enough to satisfy the rapid demand growth in all markets. It was clear that there was a danger in dependence on a single nickel firm, if only from the possibility of a strike.

Nickel's status as a strategic mineral therefore arose not because of dependence on imports *per se* but rather because of the dominance of, and dependence upon, a single firm. U.S. vulnerability lay in the potential for a shortfall in nickel supply in world markets, and the possibility that Inco would be unable to provide enough nickel to meet U.S. defence production needs. Concern over dependency on Inco alone was heightened by the crucial role of nickel in the defence technology of the period, a factor made more urgent by the growing superpower rivalry, as noted in later testimony before the U.S. Joint Committee on Defence Production:

---

[37] David G. Haglund, "The New Geopolitics of Minerals" in Haglund (ed), p. 12.

[38] Brooks Emeny, *The Strategy of Raw Materials: A Study of America in War and Peace*, (N.Y., Macmillan, 1937), p. 74, quoted in David G. Haglund, "Canadian Strategic Minerals and US Military Potential" in Haglund (ed.), p. 164.

> Nickel was, as everybody recognized, probably the top critical item [in 1951] so far as strategic materials were concerned. The jet engine program was just coming into accelerated production, and the defense requirements for high-test resistant alloys containing high percentages of nickel had increased by leaps and bounds within the requirements of the Defense Department.[39]

The Legislative Instruments

In 1939, upon the outbreak of the war in Europe, the U.S. Congress passed the Strategic Materials Act, which authorized the government to determine the quality and quantity of materials to be stockpiled for wartime purposes. After World War Two, this legislation was superseded by the Strategic and Critical Materials Stockpiling Act of 1946, which provided the necessary authority to establish material stockpiles in peacetime. Nickel was the principal commodity focus of this program, and purchases began later that year.[40] The precise timing of this legislation resulted from a well-founded fear of a drop in nickel production, as a result of producers' fear that nickel prices would fall as defence-production demand dropped and wartime inventories were sold off.[41] This had occurred after World War I, closing down many nickel operations and leaving the surviving producers very cautious. The reluctance of Inco and the smaller nickel producers to expand capacity in the years immediately following the war made sense at the time, but suddenly appeared a threat to security when the outbreak of the Korean War brought serious shortages. U.S.defence

---

[39] Statement by J.Larson, Defense Material Procurement Agency, quoted in Cameron, "Nickel", in Beigie and Hero, p.68.

[40] *Chronology of Nickel*, p. 37.

[41] See Office of Technology Assessment, *An Assessment of Alternative Economic Stockpiling Policies*, US Congress, August 1976, pp. 33-34. The 1946 *Strategic and Critical Materials Stockpiling Act* has itself been superseded by the 1979 *Strategic and Critical Materials Stockpiling Revision Act*. Administration of the stockpile comes under the authority of the Federal Emergency Management Administration (FEMA) which was formerly known as the Federal Preparedness Agency (FPA). The General Services Administration (GSA) is mandated by the US Congress to make specific purchases for FEMA with as little impact on the price of a particular commodity as possible.

requirements quickly outstripped supply, and Inco began rationing deliveries of nickel to its many purchasers. The US government imposed controls on the allocation of nickel on 1 December 1950, and took over complete authority for distribution of nickel in August 1951.

In September 1950 the Congress passed the Defense Production Act of 1950 (DPA). The purpose of this act was to lessen dependence on a single supplier of a strategic mineral, such as nickel, by allowing the government to subsidize expansion of production by other firms.[42] Under the DPA, the Director of Emergency Preparedness accepted deliveries of designated strategic minerals, and either assigned them to the stockpile or diverted them into private industrial use. In the event of a diversion to private industry, strategic materials remained subject to military-related end-use priorization, under the Defense Materials System established during the first Truman Administration.[43]

The DPA of 1950 was not originally envisaged as a stockpiling action, since its purpose was to encourage an increase in the mineral productive capacity of the U.S and other countries seen as secure sources. Nevertheless, the large volumes of material delivered to the Federal Preparedness Agency (FPA), and the vast sums spent on inducing productive capacity (over $600 million on nickel alone), allowed the DPA to function as an 'economic balance'.[44] This is in contrast to the strategic stockpile, which was mandated to avoid economic intervention in the market;[45] understandably, the mining industry preferred the

---

[42] Congressional Budget Office, *Strategic and Critical Nonfuel Minerals: Problems and Policy Alternatives*, US Congress, August 1983, p. 8.

[43] *An Assessment of Alternative Economic Stockpiling Policies*, pp. 33-34.

[44] Ibid., p. 34.

[45] This distinction between the DPA of 1950 and the purpose for the strategic stockpile was implied in the attention devoted to the subject of a parallel economic stockpile during the 1970s. In one report, the Office of Technology Assessment noted that,

> ...since the US strategic stockpile cannot, by law, be used to alleviate economic disruptions caused by cartels and unilateral political actions, analysis of the desirability of stockpiling for economic purposes involves considering a type of institution or capability quite different from the present strategic and supplemental stockpiles.

(see ibid., p. 12.)

more limited mandate of the 1946 stockpile legislation.[46] However, industry misgivings about the actual practices of the stockpile administrators began soon after its establishment.

The legal reasoning underlying the 1946 act contained a serious flaw which was soon exploited by the Administration. The stockpile carried the potential, even if unintentionally, to be used as an economic stockpile with direct influence on the market, not only because of the timing of its creation during severe market pressures, but also in its legislated powers of purchase and disposal. This potential was explicitly recognized by the framers of the legislation, and an unsuccessful attempt was made to prevent the use of stockpiles to achieve political or economic objectives. The act stated that purchases were to be made from excess of industry needs, and sales were not to damage or disrupt usual markets. The potential for economic manipulation through the strategic stockpile was enhanced by Section 5A of the 1946 Act, which gave the President personal authority to order releases of inventoried material when such dispersions were 'required for purposes of the common defense'. The problem, of course, was that the phrase 'common defense' was repeatedly given the broadest interpretation possible.[47]

As a result, and despite the strategic rationale underlying the stockpile, it has long been subject to the influence of partisan and short-term political influences, usually of a domestic origin. Part of this problem may also have been due to inadequate methods of strategic forecasting which, until the late 1970s, utilized a simple "national requirements vs. domestic availability" approach to analysis.[48] The combined influence of political interference and

---

[46] Simon Strauss has testified to the mining industry's support for the strategic stockpile, provided it adhered to its original mandate, but he also expressed serious misgivings about the stockpile being used for economic purposes. (See statement in *Hearings before the Sub-Committee on Materials Availability of the Joint Committee on Defense Production*, 8 June 1977, pp. 26-27). Strauss' testimony at this time was more moderate than in 1976, when he demanded that the issue be made public: 'If the Government desires to use the stockpile for purposes other than national security, the matter should be brought out in the open and debated as such.' (see *H.R. 15081; To Authorise the Disposal of Various Metals from the National Stockpile and the Supplemental Stockpile, and for other Purposes, Sub-Committee on Seapower and Strategic and Critical Materials*, US Congress, 1976, p. 6.).

[47] *An Assessment of Alternative Economic Stockpiling Policies*, pp. 33-35.

[48] Stephen P. Dresch, *US Strategic Stockpile Policy: A Critical Assessment of Anticipatory Governmental Action*, International Institute for Applied Systems Analysis, Laxenburg, Austria, July 1984, pp. 4-5, 8.

uncertain forecasting resulted in wild fluctuations in the stockpile objectives for nickel, as shown in table 3.4.

Table 3.4 U.S Strategic Stockpile Objectives for Nickel, 1944-76

Date of Objective	Amount (in short tons)
20 November 1944	118,000
27 July 1950	274,000
9 November 1950	290,000
9 October 1952	450,000
28 September 1954	450,000
8 February 1955	337,000
30 June 1958	161,000
18 July 1963	50,000
13 January 1967	20,000
13 March 1969	55,000
9 February 1971	0
12 April 1973	0
1 October 1976	204,335

Source: Testimony of Simon Strauss, *HR 15081 ... Sub-Committee on Seapower and Strategic and Critical Materials, 26 August 1976*, p. 3.

The fluctuations in the stockpile objectives have long had a disquieting effect on the nickel industry. In 1957, for example, a decision was taken (but not acted upon) to dispose of the entire nickel stockpile,[49] threatening a great market surplus from the sale of government stocks. The 1962 announcement that over one-third of the stockpile was being recategorized as surplus was alarming as well.[50] There is a perception that successive administrations have adjusted stockpile objectives to regulate commodity prices, as well as

[49] *Chronology of Nickel*, p. 48.

[50] John I. Cameron, *Investment in the Nickel Industry*, p. 66.

for budgetary purposes. Simon Strauss of the American Mining Congress made this point in testimony before Congress

> The drastic nature of the changes in stockpile objectives can perhaps best be illustrated by citing the example of copper, a basic industrial raw material, for which the objective has varied from 0 to 3,500,000 tons - the latter representing almost 2 years' consumption of refined copper.[51]

It is now accepted that, in 1965 and 1966, stockpile sales of copper were used by the Johnson Administration to control prices in the market; the sales were made under the authority of Section 5A's "common defense" clause.

Strauss' criticism of the handling of the copper stockpile can be applied to nickel as well, as demonstrated in table 3.4. President Nixon's decision of 26 July 1972 to approve legislation disposing of the nickel inventory suggests misuse of the stockpile's legislated mandate.[52] In early 1973, Nixon asserted that the sale of minerals from the stockpile would assist in controlling inflation;[53] presumably the flow of sales revenue into the Treasury would reduce the federal deficit. In order to accomplish this, the Nixon Administration ordered the stockpile objectives slashed to about 10-15% of their previous levels.[54] In 1975, the Ford Administration's National Security Council reviewed the existing policy which it had inherited from Nixon and was severely critical of their predecessor's sales of $2 billion worth of stockpiled minerals, a good portion of which was nickel which had been disposed of through the nickel ~~boom~~ loan of 1970-71. According to the Council's review, the

---

[51] Testimony of Simon Strauss (American Mining Congress), *HR 15081 ... Sub-Committee on Seapower and Strategic and Critical Materials, 26 August 1976*, p. 5.

[52] *Chronology of Nickel*, p. 59.

[53] Testimony of Simon Strauss (American Mining Congress), *HR 15081 ... Sub-Committee on Seapower and Strategic and Critical Materials, 26 August 1976*, p. 12.

[54] Ibid.

sales had been made by Nixon allegedly to balance the budget.[55] While not without precedent, this was in contravention of the law.

There have been no purchases of nickel for the stockpile since 1969 [???correct???]. Although the February 1980 objective for nickel was set at 200,000 short tons, the inventory surveys show only 37,214 tons in the stockpile.[56] There is a belief in Washington that the worst abuses of the stockpile have been corrected, and the Carter, Ford and Reagan Administrations spent considerable time and effort on this issue. The Strategic and Critical Materials Stockpiling Revision Act of 1979 "specified that the stockpile was to be managed for defense purposes and not to control or influence commodity prices."[57] The explicit prohibition of the Administration, as custodian of the stockpiles, from using them for market manipulation, and the stipulation that they must contain at least three years' supply of material, appears to be a move by Congress to limit the authority of the Administration in this area. By doing so, it seems to have also reduced the grounds for broader interpretation of Section 5A of the 1946 Strategic and Critical Materials Stockpiling Act. [58]

The 1979 legislation was soon augmented by the National Materials and Minerals Policy, Research and Development Act of 1980. The act reinforced the policy role of Congress in this area; the purpose of the act was to develop a Congressionally-mandated national materials and minerals policy, especially concerning general materials information. It led to the presentation in April 1982 of President Reagan's National Materials and Minerals Program Plan, which increased the availability of public lands for mineral research and

---

[55] *Annual Report of the Joint Committee on Defense Production*, Congress of the United States, 1977, p. 15.

[56] The 1989 figure of 37,214 tons is slightly less than the entry for previous years, which had listed an inventory of 37,223 tons. This decrease was not due to sales or disposals; rather the previously recorded weight was incorrect, and was discovered only during a scheduled transfer of inventory. See *Minerals Yearbook, 1987, Volume 1, Metals and Minerals*, Bureau of Mines, p. 644.

[57] *Strategic and Critical Nonfuel Minerals: Problems and Policy Alternatives*, p. 9.

[58] Ibid., pp. 7-8.

development, emphasizing a partnership between government and private enterprise in these efforts.[59]

Stockpile Purchases and the Expansion of Nickel Supply

The original purpose function of the strategic stockpile was to guarantee an adequate supply of nickel for U.S. industry in general, and the defence sector in particular. We have seen that the stockpiles have been used from time to time by the Administration for both political and economic reasons. It also appears that the stockpile was employed as a means of reducing U.S. dependence on Inco for nickel, while at the same time increasing the supply of the metal overall.[60] This does not seem to contradict the logic underlying stockpile legislation: it makes good sense to pursue security of supply by encouraging development of a diversity of sources.[61] Inco's inability to increase production sufficiently rapidly to meet the surge in overall demand on the outbreak of war in 1950 reinforced the logic of this view. In addition, there is a profound distaste for monopolistic corporations in the American political tradition, and this may have contributed to the government's approach to the issue of supply.

In any event, the U.S. government did stimulate the entry of new firms into the nickel industry through its stockpile policy.[62] Stockpile purchases under the terms of the DPA were used to support the expansion of production by Falconbridge and Sherritt Gordon as

---

[59] Ibid., pp. 9-10.

[60] David G. Haglund, "Canadian Strategic Minerals and US Military Potential" in Haglund (ed)., p. 165.

[61] This argument was made yet again in 1978 by Joan Davenport, Assistant Secretary for Minerals and Energy, Department of the Interior in reference to a need for sea-bed mining. See her statement in *Hearings Before the Sub-Committee on Public Lands and Resources* (date needed), House of Representatives, US Congress, 1977, p. 86. See also D.A.Anderson, *Japanese Coal Procurement Policy*, (Kingston: Centre for Resource Studies, 1988).

[62] John I. Cameron, "Nickel" in Beigie and Hero, p. 45.

well as Inco in Canada and by National Lead in the United States, and the development of a new mine at Riddle, Oregon, by Hanna.[63] In addition, the US government, through its Defense Material Production Agency (DMPA) issued contracts for nickel to several small nickel mining firms without refinery capacity, thereby contributing to a lessening, if only temporarily, of vertical integration in the industry.[64]

The new purchases from Falconbridge were particularly significant, in view of their size and the premium paid over the posted price in the third contract. These contracts permitted expansion of Falconbridge to a size which made it a serious competitor to Inco, an expansion which would not have otherwise been possible at that time.[65] The first of the three Falconbridge contracts was issued by the DMPA in 1948, and called for delivery of 48 million pounds over 5 years at market prices. Under the second contract, signed in 1952, the U.S. government agreed to purchase 50 million pounds of nickel from Falconbridge over the nine-year period to 1961. In this contract, market prices applied, but a soft loan of $6 million (Cdn) was included, to assist in expanding capacity to meet the contract requirements. At the time, Falconbridge's annual capacity was about 35 million pounds.[66] The loan was forgiven in 1956 when Falconbridge met the target of an additional 15 million pounds per year.

In 1953, following the discovery by Falconbridge of a new orebody (Fecunis Lake), a third contract was signed for delivery of an additional 100 million pounds by 1962. A seller's option for two additional deliveries of 50 million pounds at market prices was included, but does not appear to have been exercised. This contract included a large premium over market price: 41.25¢/lb. Over the period 1952 to 1962 that the contract was in effect, nickel prices climbed from 57¢ to 80¢, and averaged 63¢. The contract therefore represented an average premium of 65 percent over the market price.

---

[63] *Chronology of Nickel*, p. 41.

[64] In 1952, the DMPA contracted with East Rim Nickel Mines for 65,000 tons of ore, and with Milnet Mines for 4.1 million tons, all of which was to be processed by Falconbridge, *Chronology of Nickel*, p. 42.

[65] Martin Webster, Falconbridge, interview 9 January, 1990.

[66] John I. Cameron, *Investment in the Nickel Industry*, p. 90.

The expansion requirements under this contract were again quite specific. Falconbridge was required to increase its annual capacity by 20 million pounds by 1960. It was estimated in 1953 that this would require about $42 million, or approximately $2.00 per pound of annual capacity. The premium (.4125¢ x 100 million pounds) was intended to cover the entire cost of the expansion. The expansion was completed by 1958, and by 1961 Falconbridge was producing about 70 million pounds of nickel per year. Falconbridge's total capital expenditures over the period 1953 to 1957 were $47.9 million.[67] Since not all of these funds were for the expansion in question, it seems that the original estimate of $4.2 million was not greatly exceeded.[68] the premium did in fact cover most if not all of the costs of the expansion.

Falconbridge did very well by the stockpile contracts. They were directly responsible for major investments in new capacity, at a time when such expenditures could not have been justified on the basis of market prices. The company's rate of return on its U.S. stockpile sales from 1953 to 1962 was 41 percent, while its return on private sales was 17 percent.[69] Its nickel capacity doubled, from 35 to 70 million pounds per year, and its market share increased to a respectable 10 percent of the MEC total.

In 1951, the Canadian firm Sherritt Gordon received a contract for delivery of up to 80 million pounds of nickel over the period 1954-58, at market prices. In 1954 the U.S. government helped Sherritt get an early start on deliveries by contracting with Inco to smelt and refine 5 million pounds of nickel from concentrate from Sherritt Gordon's new but still unfinished operations at Lynn Lake. Another firm, US-based National Lead, received a

---

[67] Interview with Martin Webster, 9 January 1990.

[68] One of the strengths of this contract arose from the insistence of Falconbridge President Lindsley that its terms were not to be subject to re-negotiation. As a result, when the United States declared the nickel stockpile to be in surplus, Falconbridge's contracted deliveries went straight to Inco for sale at market price and Falconbridge received $19 million from the US government for nickel that never reached the stockpile. See John I. Cameron, *Investment in the Nickel Industry*, p. 97.

[69] Ibid., p. 98.

contract in October 1951 for its Fredricktown, Mo., operations for about 2 million pounds of nickel per year at 54¢/lb. plus escalation, with an advance of $7.5 million.[70]

Stockpile Purchases, Increased Competition, and Antitrust

Inco received stockpile contracts as early as 1946, although most were at its own producer price. In terms of overall quantities and rate of delivery, the contracts with Inco were by far the largest. Inco began expansion of two of its less profitable Sudbury mines as the result of a 1953 purchase contract from the DMPA, which include an incentive aimed at at a rapid but short-lived increase in production.[71] The contract called for delivery of 54,000 tons of nickel over 5 years at 27.7¢ above market price, specifically to allow Inco to develop low-grade cost ores. Nevertheless, the purchases from Inco were still "disproportionately low, considering its position in the industry".[72] This was part of the deliberate attempt by the stockpile's administrators to create alternative sources of supply for U.S. customers.

In spite of the US government's announced capacity targets, which appeared to guarantee strong demand growth, and in spite of Inco's relatively low production costs in Sudbury, purchases at market prices were not sufficient incentive to induce Inco to invest in large-scale expansion of production in Sudbury. Although, as noted, some of the Inco contracts were also explicitly expansion-support programs, and at least one included a price premium, they were designed for quick inceases in production from high-cost areas with no long-term potential. Further support for the thesis that the U.S. government wished to encourage expansion primarily by firms other than Inco can be found in the fact that, while still writing contracts and taking contract deliveries from other firms, at least three major contract

---

[70] Chronology of Nickel (need page number).

[71] Ibid.

[72] John I. Cameron, *Investment in the Nickel Industry*, p. 44.

proposals for development of its newly-discovered Thompson deposit in Manitoba were put forward by Inco and were rejected by the stockpile administrators.[73]

From a public policy perspective, the use of stockpile purchase contracts to encourage the expansion of competitors to Inco and the entry of new firms, and to reduce American dependence on a single firm, was a success. By 1957 Inco's share of MEC production had fallen to 67%, from about 85% prior to 1950, while MEC production more than doubled overall. Market forces were principally responsible for the growth of competition to Inco over this period. Nevertheless, the stockpile purchases did contribute to and hurry along the process.

In this light, the strategic stockpile might also been seen as a sort of antitrust instrument, used to help break Inco's near monopoly in the nickel industry and bring about a greater degree of competition in nickel mining, refining, and pricing. John Cameron, for example, has argued that the purpose behind promotion of competition to Inco by the stockpile purchases might also indeed have included ending Inco's monopoly. Dependence on foreign supplies, specifically Canadian nickel, was in no way lessened by the incentives offered by the stockpile contracts. Given the American attitude to Canadian nickel as "almost a domestic source", it seems unlikely that foreign depcndence was ever really an issue.[74] This view of the stockpile as an antitrust instrument is supported by the testimony of at least one U.S.government official: "Review of the distribution pattern of expansion incentives demonstrates that efforts were made to foster new producers and expand minor producers rather than the more facile expansion ofcapacity of the principal firm in the field. Thus, of the total of $661.9 million in gross nickel transactions under the Defense Production Act, over $571 million involved companies other than Inco. In view of the overwhelming necessity of increasing the nickel supply for defense purposes, the relatively small share which Inco received demonstrates the attempt to shape the industry more nearly to the normal competitive pattern."[75]

The use of wartime shortages in production and supply as a means to dismantle a monopoly industry has a precedent in the U.S. government's breaking of Alcoa's monopoly. In this case, a pre-arranged disposal of surplus government-owned defence plants led to their

---

[73] Ibid.

[74] John I. Cameron, "Nickel" in Beigie and Hero, p. 69.

[75] Quoted in ibid.

cut-rate acquisition by two of Alcoa's smaller rivals, Kaiser Aluminum and Reynolds. Just as Inco saw its market share plummet before the end of the 1950s, so too did Alcoa.[76]

It is unclear whether the stockpile's use as an antitrust instrument was simply an unintended consequence of government intervention in the market, or an deliberate attempt to adapt an existing policy to a completely different end. Documentary evidence to support the thesis that the attack on monoply was deliberate is scarce. Nevertheless the outcome, intended or not, was clearly an increase in competition in the nickel sector.

---

[76] Upon the outbreak of World War 2, Alcoa held over 90% of the Aluminum market. By 1950, and largely as a result of the surplus plant "give-aways" competition existed in every sector of the aluminum industry. Alcoa only retained 50.86% of the market; whereas Reynolds and Kaiser held 30.94% and 18.2% respectively. See George David Smith, *From Monopoly to Competition; the Transformation of Alcoa 1888-1986*, Cambridge, Cambridge University Press, 1988, pp. 238-242.

U.S. ANTITRUST LAWS

The Legislative Instruments and Interpretation

A major policy instrument of successive American governments in their pursuit and maintenance of an open and efficient market in which all may trade has been the series of U.S. antitrust laws.[77] Antitrust inquiry and litigation became a continuing government responsibility in 1890 with the passage of the Sherman Act, which has been termed the cornerstone of antitrust philosophy.[78] Rooted in liberalism's veneration of the natural market, there is a desire to maximize the degree of competition through the restriction of the market power of industrial combines. Despite its long-standing domination of the nickel industry in the United States, Inco has been the target of only three U.S. antitrust investigations. Two (1946 and 1976) ended in consent decrees, while the third (1982) never made it to the courts and was terminated by the Federal Trade Commission (FTC) itself. However, this paucity of cases should not suggest that American antitrust legislation is ineffective in influencing corporate decisions generally, nor that Inco has regarded these laws lightly. And, as the introduction pointed out, it may be that fear of successful antitrust prosecution has ironically, if logically, served to undermine the fundamental purpose for which Senator Sherman fought last century.

The Sherman Act of 2 July 1890 is more than simply the initial piece of antitrust legislation; it is the measuring stick by which all subsequent legislation has been evaluated. Consequently, while one must be aware of the complexities of more modern antitrust laws, it is the Sherman Act which is best known and has been most influential.[79] The two most relevant passages in this law are sections One and Two. Section One addresses and prohibits any action by two or more parties ('...every contract, combination...or conspiracy...') that functions to restrain trade.[80] Section Two declares

---

77

78 Richard Calkins, *Anti-trust Guidelines for the Business Executive*, Homewood, Illinois, Dow Jones-Irwin, 1981, p. 63.

79 Ibid.

80 Section One: 'Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several states or with foreign nations, is hereby declared to be illegal.'

the intent[81] to create or operate a monopoly to be a felony.[82] It is these two sections which comprise the so-called *per se* violations.[83] The very general and encompassing nature of the wording of the Sherman Act, as well as any follow-on legislation read in light of its 1890 predecessor, has led some to view the US antitrust legislation as the stiffest in the world.'[84]

While the mandate of the federal government in executing antitrust legislation is to 'restore' competition and prevent or penalize the restraint of trade, there is a deeper meaning in these laws as well. The dry legal language masks a very effective marriage between law and the liberal idealogy's faith in the natural market. In 1958, Supreme Court Justice Black stated;

---

81 Judge Learned Hand of the 2nd Circuit, Circuit Court of Appeals, stated in the decision on *US vs. Aluminum Company of America (Alcoa)*, that proof of intent was unnecessary: 'no monopolist monopolises unconscious of what he is doing.' Quoted in; Paul W. Cook, Jr., *Cases in Antitrust Policy*, New York, Holt-Rinehart & Winston, 1964, p. 129.

82 Section Two: 'Every person who shall monopolise, or attempt to monopolise or combine or conspire with any other person or persons, to monopolise any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony.'

83 The presiding judge in the case of *US vs. George K. Landon, Jr. et al (1976)*, told the jury that *per se* were to be understood in the following manner: 'It is the law and I so instruct you, that an agreement among competitors to raise, to fix, maintain or stabilize prices or terms of conditions of sale is without more an unreasonable restraint of trade which violates the Sherman Act. This means that there was a conspiracy [and] it does not matter whether the prices agreed upon were reasonable or unreasonable, too high or two low. The Sherman Act ... makes illegal every conspiracy formed for the purpose of raising, lowering, setting or fixing or stabilizing the price of a commodity or service.' Quoted in *Jury Instructions in Criminal Antitrust Cases, 1976-1980*, American Bar Association, Section of Antitrust Law, 1982, p. 258.

84 Charles Eddy, Deputy Assistant Secretary, Energy and Minerals, Department of the Interior in *Hearings before the Sub-Committee on Mines and Mining, 12 June 1979*, House of Representatives, US Congress, 1979, p. 156.

> The Sherman Act was designed to be a comprehensive charter of economic liberty aimed at preserving free and unfettered competition as a rule of trade. It rests on the premise that the unrestrained interaction of competitive forces will yield the best allocation of our economic resources, the lowest prices, the highest quality and the greatest material progress, while at the same time providing an environment conducive to the preservation of our democratic political and social institutions. But even were that premise open to question, the policy unequivocally laid down by the act is competition.[85]

Political freedoms were equated with market competition in Senator Sherman's mind in 1890, when he argued that, "a state that would not submit to an emperor ...should not submit to an autocrat of trade."[86] It is the "seeming helplessness of the individual" before the "great industrial consolidations"[87] which, in the American political context, results in the perspective that trusts, monopolies, combines, or even a too-dominant firm are "inherent social evils".[88]

---

[85] Quoted in: John J. Flynn, "The Reagan administration's antitrust policy, 'original intent' and the legislative history of the sherman Act" in *Antitrust Bulletin*, vol. 33., no. 2., Summer 1988, p. 260.

[86] Quoted in Richard Calkins, *Antitrust Guidelines for the Business Executive*, p. 20. See also *US vs. International Paper Company et al (1978)*: "Generally speaking, the purpose of the Sherman Antitrust Act is to preserve and advance our system of free, competitive enterprise; to encourage to the fullest extent practicable free and open competition in the market place." Quoted in *Jury Instructions in Criminal Antitrust Cases, 1976-1980*, p. 308.

[87] These quotations are taken from the important decision of Judge Learned Hand in 194? in the *US vs Alcoa* case. The full passage reads: "We have only been speaking of the economic reasons which forbid monopoly; but, as we have already implied, there are others, based upon the belief that great industrial consolidations are inherently undesirable, regardless of the economic results. In the debates in Congress, Senator Sherman himself ...showed that among the purposes of Congress in 1890 was a desire to put an end to great aggregations of capital because of the helplessness of the individual before them...". Quoted in Paul W. Cook, Jr., *Cases in Antitrust Policy*, p. 126.

[88] George David Smith, *From Monopoly to Competition; The Transformations of Alcoa, 1888-1986*, p. 207.

It is a popular misconception that antitrust is primarily designed to protect the small businessman at the expense of the great industrialist. The size of a firm is not supposed to be the trigger which activates the antitrust laws; it is the manner by which that size was achieved, as the often-cited decision of Judge Learned Hand indicates:

> ...size does not determine guilt; that there must be some exclusion of competitors; that the growth must be something else than natural or normal; that there must be a wrongful intent, or some other specific intent; or that some unduly coercive means must be used.[89]

Hand's decision in the U.S. vs Alcoa was based on the belief that Alcoa was not a "passive beneficiary" of its position, as the possessor of a near-monopoly in the aluminum industry. Alcoa, it was determined, had engaged in a "positive drive" to expand its business and control of the market;[90] competitors were not eliminated by "automatically operative economic forces".[91] Alcoa, a monopoly, had engaged in an *illegitimate and illegal* restraint of trade.[92]

A serious criticism of American antitrust legislation, in addition to the uncertainties arising from competing interpretations of the laws,[93] has been that

---

89 Paul W. Cook, Jr., *Cases in Antitrust Policy*, p. 127. See also Richard Calkins, *Antitrust Guidelines for the Business Executive*, p. 143, which quotes the original, unappealed decision in the Alcoa case in 1945.

90 Quoted in George David Smith, *From Monopoly to Competition; The Transformations of Alcoa, 1888-1986*, p. 108.

91 Paul W. Cook, Jr., *Cases in Antitrust Policy*, p. 128.

92 For an explanation of "restraint of trade" see *US vs Rheem Manufacturing Company, et al. 1979* in *Jury Instructions in Criminal Antitrust Cases, 1976-1980*, p. 285.

93 One author has written that; "...antitrust law and administration are by no means clear, definite and unswerving in their course. Parts of the law tend to blunt the anti-monopoly provisions of other parts of the law. Court interpretations have had a major impact in determining the legality of particular business practices and forms of business organization, and have caused the law to have quite a different practical meaning at one time from what it had at another. Administration has been vigorous at times and lax at others, but almost always highly selective in its targets." Julius W. Allen, *Achieving the Goals of the Employment Act of 1946: Volume 3, Inflation and*

"restraint of trade" provisions under Sections One and Two of the Sherman Act foreclose the very possibility of a legitimate monopoly, a condition conceivably achieved through good management, technological prowess and luck:

> Antitrust does not allow any one company to compete too well, precisely because monopoly might be the result. It is the function (if not the logical purpose) of antitrust to prevent competitive success from running its full course, that is, to the point where an industry becomes dominated by a single low-cost producer. After Learned Hand, courts looked more to the consequences as distinct from the intents, of dominant firm behaviour, and gave effective sanction to long-term industry structures in which few firms could achieve a stable pattern of competition on a controlled basis.[94]

In her testimony in May 1977 before the Senate Sub-Committee on Antitrust and Monopoly, Dr. Betty Bock, Director of Antitrust Research of the Conference Board also voiced this criticism, of antitrust noting that:

> High concentration or oligopoly may be, and frequently is, associated with high levels of efficiency and inventive competitive practices.[95]

Market Structure; Paper No. 2., Antitrust Law and Administration, A Survey of Current Issues, Joint Economic Committee, US Congress, 1976, p. 3. For a contemporary critique of the Reagan Administration's antitrust policy see; John J. Flynn, "The Reagan Administration's antitrust policy" in *Antitrust Bulletin*, Vol. 33, no. 2, summary 1988, pp. 259-208. See also Eddie Correia and Priscilla Pudeiri, "Antitrust legislation in the Reagan era" in *Antitrust Bulletin*, Vol. 33., no. 2., summer 1988, pp. 361-393. The piece by Correia and Budeiri is especially useful in highlighting the Reagan Administration's interpretation whereby the goal of antitrust become "economic efficiency as defined by price."

[94] George David Smith, *From Monopoly to Competition; The Transformations of Alcoa, 1888-1986*, p. 274.

[95] *Hearings before the Sub-Committee on Antitrust and Monopoly of the Senate Judiciary Committee, 3 May 1977*, Senate, US Congress, 1977, p. 155.

She further noted that these conditions tend to occur when the market is new and vigorous, or is approaching senility, or where technological and capital requirements, production or distribution require large-scale enterprise.[96] In other words, even Learned Hand's "passive beneficiary" is not safe from antitrust action. Wesley Liebeler has attacked the FTC for its continuing reliance on a crude market concentration model which, in his words:

> predicts a positive relationship between high industry concentration and high profit rates on the hypothesis that collusion is more likely to occur as concentration rises and that higher profit rates are generally associated with collusion.[97]

Despite empirical evidence that competitive superiority (and one presumes a larger market share) is generated by a stronger, more efficient firm with significant product differentiation and a large advertising budget, the FTC uses collusion or "restraint of trade" provisions of the antitrust laws to make the linkage between market concentration and deficient competition.[98] Opponents of antitrust laws have therefore suggested that justice "is foreordained by the demands of public policy."[99] This may be an unjustly harsh, or overly cynical appraisal of antitrust, but clearly, such laws convert the market into a mine-field for large firms susceptible to investigation by the FTC.

Inco and Antitrust stuff

It is extremely difficult to ascertain the full extent of the influence of antitrust on corporate decision-making. Laying of charges and findings of illegality are not the only

---

96 Ibid., p. 156.

97 Wesley Liebeler, "Bureau of Competition: Antitrust Enforcement Activities" in Thomas Clarkson and Timothy Muris (eds.), *The Federal Trade Commission Since 1970*, Cambridge, Cambridge University Press, 1981, p. 68.

98 Ibid., pp. 68-69.

99 George David Smith, *From Monopoly to Competition; The Transformation of Alcoa, 1888-1986*, p. 212.

aspects an examination of antitrust laws must focus on; there are less-visible parts as well.[100] As one author has suggested, "The ghost of Senator Sherman sits at the board of every large corporation.[101] Antitrust is hard to document, because it effects, consciously or unconsciously, the day to day decisions of corporate managers.[102] In fact, as one author has noted, this may be their most important function:

> "...the chief usefulness of antitrust laws may rest in their impact on decision of corporate executives to forego actions that would violate antitrust laws."[103]

This deterrent effect is strengthened by the fact that the courts, upholding the Learned Hand ruling, have seen fit to convict companies for unintended consequences of their actions, and not solely for their intentions:

> "it is not necessary that a purpose or intent to exercise such power also be found to exist in order to justify this Court in granting relief to the government."[104]

O.W. Main notes that Inco has long been concerned about becoming a target of antitrust actions. This is not surprising, given the company's historical control of the nickel industry. Main argues for example that the motive behind the 1928 exchange of shares between International Nickel (New Jersey) and its subsidiary the International Nickel Company of Canada was a company tactic to evade the application of antitrust legislation. The parent firm became the subsidiary, and the company became a foreign-based enterprise selling nickel in the United States.[105] Main writes:

---

100 Julius W. Allen, *Achieving the Goals of the Employment Act of 1946*, p. 21.

101 Ibid.

102 Interview, E.K. O'Br , 4 May 1990.

103 Julius W. Allen, *Achieving the Goals of the Employment Act of 1946*, pp. 20-22.

104 Paul W. Cook, Jr., *Cases in Antitrust Policy*, p. 28.

105 O.W. Main, *The Canadian Nickel Industry*, Toronto, University of Toronto Press, 1955, pp. 104-107.

> "The effectiveness of monopoly control was enhanced by the ability of the company to dominate the market by sheer size, defending itself against monopoly charges by allowing a few competitive weeds in its garden, and, most important, by keeping itself in a legal position in which it could not be touched by any government where it had its market, and would not be touched by the government where its productive facilities were located."[106]

Before World War II and related concerns about expansion of supply of strategic minerals, Inco's distancing itself from the US antitrust laws was a viable strategy, and its control of most of the American source of supply strengthened the company's position. After the war, the nickel market began to be transformed by government intervention through such means as stockpile purchases favouring Inco's competitors. Although still the dominant supplier of nickel to the United States, Inco saw its market share drop steadily. Each drop in its market share reduced US dependency and therefore reduced the danger that the US would harm itself if it were to undertake antitrust measures against Inco. The potential remains to this day, as the company's share hovers around 30-35% of the world market.

Main's thesis is supported by John Cameron in his examination of the nickel industry, although Cameron's focus is pricing policies. Price stability was a characteristic of the nickel market for decades and Inco was responsible for this stability. This feature of the nickel market was lost with increased competition; as Inco's market power declined, so too did its ability to set nickel prices.[107] During its period of price leadership from the 1920s to 1970s, Inco consistently maintained a "cost plus" basis for price, eschewing the large and immediate profits it might have gained had it fully exploited its monopoly position. Cameron argues that fear of antitrust action was a factor in creating Inco's conservative pricing policy. One of the best ways to draw the attention of the antitrust watchdogs would have been to raise prices frequently or exorbitantly. Inco, desiring a low corporate profile, and concerned about "appearing" as a

---

106 Ibid., p. 107.

107 John I. Cameron, "Nickel" in Beigie and Hero, p. 60. See also figure 3.1 above for a view of the change in price stability in the late 1970s.

monopolist, did not do so.[108]

For example, during the nickel slump of 1970 when supply exceeded demand and prices dropped, Inco refused to engage in pricing wars with its competitors - wars it likely could have won - out of concern that American officials would see that sort of activity as "restraint of trade".[109] Avoidance of such an accusation, Cameron adds, was also the reason behind Inco's willingness to distribute regularly to competitors the results of its own research and alloys development.[110] It might on the other hand reasonably be argued that distribution of new product information benefits the industry as a whole, thereby increasing the overall size of a market in which Inco is an efficient and effective competitor. Cameron preferred to view this accommodating attitude as an effort by Inco to forestall criticism of its size and market strategies through a valuable technology and "know-how" pay-offs.

In spite of its Canadian corporate identity, Inco was charged under antitrust legislation in 1946, when it was accused of having violated Sections One and Two of the Sherman Act. The case (U.S. vs International Nickel Company of Canada) ended in a consent decree filed 2 July 1948 between Inco and the US Department of Justice:

> "A consent judgement entered in an action charging a Canadian corporation and its American subsidiary with monopolization and restraint of trade in nickel ores, nickel and nickel products requires defendants to sell, for a period of twenty years, basic nickel raw materials, to producers of rolling mill products containing nickel, and to present to certain technological libraries copies of an existing manual describing methods and processes employed by the subsidiary in the production of rolling mill products."[111]

---

108 Ibid., p. 72.

109 John I. Cameron, *Investment in the Nickel Industry*, p. 75.

110 Ibid., p. 39. However, after Inco's market share had fallen to about 30 percent, the company decided it could no longer afford to provide new product development research for all its competitors, and closed its research establishment at Sterling Forest in New York in 1981.

111 US vs International Nickel Corporation of Canada and International Nickel Company Incorporated, 2 July 1948, *Trade Cases 1948-49*, #62, 280.

A further aspect of the consent decree was that Inco had to agree to allow inspection by the Department of Justice to secure and guarantee compliance. Inspection was to include access to all books, reports and ledgers as well as all records, accounts, correspondence, memoranda and was to permit the execution of interviews with employees.[112] Inco's refusal to concede these "unlimited inspection powers" of the FTC, operating on behalf of the Justice Department was the cause of the 1962 case brought against the company: it dealt with the enforcement of the 1948 consent decree and therefore is part of the earlier case. Ultimately, on 30 March 1962, Federal District Court Judge Charles M. Metzner ruled against the government, setting a precedent for future antitrust actions.[113]

Although the 1948 consent decree's provisions seemed harsh, Inco was not seriously damaged by the outcome. This 1946 suit had originally alleged that Inco had engaged in conspiracy to restrain trade through "agreements with leading foreign producers of nickel, including I.G. Farben of Germany." The purpose of these agreements was to create, in effect, a nickel cartel according to the Attorney General who noted that it: 'imposed limits on nickel production, fixed worldwide prices and restricted sales in world markets". Inco denied both these charges: no foreign agreements existed; no restraint of trade was intended. In fact, they pointed out that their prices were so low that subsidies had had to be given to their competitors by the US government. Inco spokesmen further stated, in an explanation that was to be relied upon frequently in the future, that their preponderant position in the market was due to: "engineering and metallurgical leadership ...of unceasing research over more than half a century to create new alloys and to expand uses for them." Despite these claims, the Attorney General called for drastic measures, including break-up of the American and Canadian companies and a distribution of their assets under a judicial formula.[114] Seen in this light, the consent decree seems remarkably light-handed. And when one recalls that, in 1947, Alcoa had actually been broken up into two separate companies after having been charged with exactly the same violations of the Sherman Act, Inco's

---

112 Ibid.

113 US vs. International Nickel Corporation of Canada and International Nickel Company Incorporated, 30 March 1962, 203 *Federal Supplement*, pp. 740-741.

114 *New York Times*, 17 May 1946.

experience pales by comparison.

The 1948 decree was also explicitly qualified in Inco's favour in three important points:

- in the event of shortages of nickel, for Inco as well as other rolling mill producers, Inco was authorized to make the allocative decisions after endeavouring "in good faith" to share the available supply "on the basis of bona fide needs for the production of rolling mill products in the United States";
- such decisions as those relating to allocation were to be made by Inco in advance for periods not exceeding one year, and;
- nothing in the consent decree was to effect Inco's right to determine the total quantity of rolling material which it offered for sale for the production of rolling mill products in the USA, and which was to be produced by Inco's Delaware plants.[115]

Cameron has argued that the leniency of the terms agreed to by both parties was due to two factors. First, he reiterates Main's thesis, that Inco as a Canadian company was beyond the reach of American court action. Unlike Alcoa, which was an American-based corporation, Inco's corporate base was in Canada. A decisive move against its American holdings invited the possibility that the company might pull out of the United States altogether. Second, the FTC was unable to prepare as strong a case as it might have done, due to the inaccessibility of Inco's Canadian financial records. Inco had the assistance of the Ontario government in this regard. In October of 1947, the Ontario Legislature passed the Business Records Protection Act which prohibited the forced removal of corporate records from the province.[116] It seems likely that the FTC was unable to prepare its case fully without access to Inco's Canadian records.[117]

The company's second skirmish with the FTC began in 1976 over an alleged violation of the 1914 Clayton Act, and ended in 1978 with another consent decree. This anti-trust suit stemmed from Inco's acquisition in August of 1974 of ESB Inc., an

---

115 *Trade Cases 1948-1949*, #62, 280.

116 John I Cameron, *Investment in the Nickel Industry*, pp. 36-38.

117 The *Business Records Protection Act* was recognized in 1948 consent decree; it was specifically stated that Inco would not be held in contempt for future actions if they were abiding by the law of the particular land they were in. This clause weakened considerably the ability of the U.S. government to ensure compliance with the decree.

American-based automotive, consumer and industrial battery manufacturer as part of its attempt to diversify its industrial base. The Clayton Act is essentially a tightened version of the Sherman Act and, unlike the latter, "condemns practices the effect of which may be substantially to lessen competition, rather than only those restraints which, in fact unreasonably restrain trade."[118] In filing the suit, the FTC noted that the merger of ESB and Inco "eliminated actual competition between the companies in the research and development of industrial batteries and in electric road vehicle batteries.[119] It was a claim Inco strenuously denied, although it was true that the company had, prior to acquiring ESB, been conducting research in nickel uses in all types of batteries.

The acquisition of ESB effectively shattered Inco's long-maintained low public profile. A bidding war with United Technologies Corporation saw the Inco offers climb from $160 million to $230 million. It was the first major hostile takeover in American corporate history.[120] If this alone had not alerted the FTC to the size and power of Inco, the company's own statement that they hoped the purchase would help it exploit its "monopoly in nickel and extensive research in nickel technology,"[121] could not but be a challenge to the antitrust guardians.

The consent decree finally reached between Inco and the FTC was filed on 27 February 1978 and consisted of three main points:

- by an antimerger consent decree, to grant nonexclusive, unrestricted, invocable, and royalty-free licenses to existing U.S. and foreign patents. The firms were to license all know-how possessed, owned or controlled by them, in an unlimited manner;
- an injunction was issued against the acquisition of any other battery manufacturers by Inco or its subsidiaries, and;
- the FTC was empowered to conduct periodic inspections to ensure compliance.[122]

---

118 Richard Calkins, *Antitrust Guidelines for the Business Executive*, p. 27.

119 *New York Times*, 20 January 1976.

120 Charles Davies, "Batteries Not Included" in *Canadian Business*, May 1982, p. 60.

121 *New York Times*, 28 December 1981.

122 US vs. Inco Limited, Inco United States Incorporated and ESB Incorporated, 27 January 1978, *Trade Cases 1978-1*, #61, 869.

These terms were far harsher, relatively, than those contained in the 1948 consent decree. However it is difficult to gauge their impact on Inco. Evaluation of the impact is complicated by Inco's decision in 1981 to withdraw entirely from the battery market. Some analysts have suggested that this decision was not influenced by the antitrust battle and the ensuing consent decree. They argue that the company withdrew because it was uncompetitive in this area and had failed, through this venture, to achieve the sort of financial cushion against the vagaries of the commodities market that it had sought through diversification: "The company didn't understand the business. They were running it into the ground. It is appropriate that they get out."[123] It seems likely that Inco did not expect a long antitrust battle with the FTC when ESB was acquired, or even beforehand when acquisition was being contemplated. It also seems apparent that the long battle prevented Inco from developing the company in the way it wanted.[124] In any event, antitrust legislation had an impact, either direct or indirect, on Inco's ESB operations.[125]

The last antitrust episode occurred when in August of 1982 Inco and Falconbridge were notified by the FTC that their American subsidiaries were being investigated for possible anticompetitive business practices. Inco has stated that the FTC had requested documents as early as the previous February in connection with this investigation.[126] It appears that the FTC had been led to believe these two nickel giants had engaged in "restraint of trade" violations of Section One of the Sherman Act. The investigation may have been triggered by the quoting of an industry executive's off-hand comments in the American press.[127] In any event, the FTC terminated its inquiry on 13 May 1983 without having found any evidence of collusion.

---

[123] *New York Times*, 15 December 1981.

[124] See *Nw York Times*, 5 July 1979 and Charles Davies, "Batteries Not Included", p. 60.

[125] Inco's decision to sell Inco Electroenergy Corporation (Philadelphia) with its subsidiaries (ESB Ray-O-Vac, Exide Corporation, Exide Electronics) was taken when it was contributing 29% of the parent company's sales of $3.04 billion. See *New York Times*, 8 December 1981.

[126] *New York Times*, 27 August 1982.

[127] Interview, E.K. O'Brien, 4 May 1990.

Inco and Antitrust Influences

The thesis that Inco's corporate policies have been and continue to be influenced by the existence of US antitrust laws is supported by the company's reactions to two proposals put forward in the late 1970s and early 1980s: a nickel cartel proposed by Trudeau in 1977; and the establishment of an International Nickel Study Group proposed in the 1980s by the Canadian and Australian governments. In October of 1977, when the expected market recovery failed to materialize and its inventories had grown to unacceptable levels, Inco announced its decision to layoff thousands of workers in the Sudbury and Port Colborne operations. A public outcry, and a demand for government intervention followed. Blaming the sudden oversupply of metal on the dumping strategy of the American firm AMAX, Prime Minister Pierre Trudeau suggested that the Canadian government might try to form a nickel cartel to raise prices, and thereby guarantee jobs.[128] As Cameron has written: "Justification for the cartel would be along the lines that nickel companies have failed to maintain prices, production, and employment and it is therefore up to the governments to step in and have government-to-government agreement on such matters."[129] Although Trudeau was suggesting a cartel or agreement that included both suppliers and consumers, he chose the ill-fated producer-only uranium cartel of in the early 1970s as his precedent.

Inco's response to the cartel proposal was delivered in a press communique three days after Trudeau's remarks. The company was opposed in principle to the notion of a cartel, would not engage in discussion with anyone on the formation of a cartel, and believed it could only harm the world nickel market and its role therein: "Canadian nickel producers must be, and must be perceived to be, reliable and competitive suppliers in the world market."[130]

The speed and definite nature of Inco's response suggests more than simple dislike of the proposal. In the previous year, the US Congress had given considerable attention to the creation, purpose, and workings of the uranium cartel. The focus of these discussions had been that the cartel's very existence violated the US antitrust laws,

---

128 *Globe and Mail*, 22 October 1977.

129 John I. Cameron, "Nickel" in Beigie and Hero., p. 80.

130 *Globe and Mail*, 25 October 1977.

as documents released by the Congressional Sub-Committee revealed.[131] Inco was well aware of these proceedings, given their own experience in 1946, and knew as well that the terms of reference (price-fixing, production regulation, market control) of the proposed nickel cartel were explicit violations of both the Sherman and Clayton Acts.

A similar resistance was expressed by both Inco and Falconbridge to the Canadian and Australian government's efforts in the early 1980s to create an International Nickel Study Group. According to Webb and Zacher, it took Ottawa two years to convince these two companies that such an organization, for distributing industry information and providing an institution for ongoing private-public sector consultations, was necessary. It is interesting to note that, in their lobbying efforts, the governments stressed the facts that the purpose of the proposed organization was not to regulate the nickel market, and that the inclusion of consumer countries (like the USA) should alleviate any fears of antitrust. It was only after such assurances that Inco and Falconbridge gave their "unenthusiastic support" to the two governments' efforts.[132]

Over a prolonged period, before, during and after the actual antitrust charges brought against Inco, the company's fear of antitrust prosecution may in fact have undermined the purposes for which that legislation was enacted. By creating a deterrent to excess profiteering, it led Inco to moderation in pricing, and to the pursuit of production efficiency, with the consequence that prices were low enough to constitute an effective barrier to the entry of new firms into the industry. One sees evidence of this, both in Inco's long-term pricing policy and in its continuing emphasis on low-cost production, which suggests a continuing concern about the possibility of new and more efficient, and hence more profitable, competition. As recently as the 1989 Annual

---

131 Although the source is not indicated, a "confidential" document, "Report of the Discussions in Paris on the Uranium Industry, 1-4 February 1972" was made available to Congressmen. The discussions were held between French, Australian and Canadian officials. The document's final paragraph reads; "It was envisaged that the Club would agree upon a price for uranium from time to time, having in mind interalia the need to cover cost of production plus the cost of exploration and an additional factor to cover inflation (a price of 36.25 was canvassed for 1975 with 3% escalation per annum thereafter.)" See *International Uranium Supply and Demand Hearings Before the Sub-Committee on Oversight and Investigations*, House of Representatives, 4 November 1976, US Congress, 1977, pp. 344-349.

132 Michael Webb and Mark Zacher, *Canada and International Mineral Markets*, pp. 79-83.

Report, Inco stated that: "We will invest substantially in our mines and processing facilities to maintain our strong position in nickel as a low-cost producer, with market share of about one-third of free world demand."[133] Although technological changes and market pressures have greatly reduced the barriers to entry, Inco remains the lowest-cost large producer. Donald Phillips, Inco's CEO, has further indicated that "diversified marketing and continued law production costs" constitute the company's principal strategy for the next decade.[134]

As already discussed, John Cameron has noted that Inco long preferred and pursued a "cost-plus" basis to pricing. This policy warded off antitrust actions, kept nickel prices relatively stable and low, and, until technology and rising demand intervened, erected an effective barrier to the entry of new firms that was generally overcome only by purchase contracts with price premiums or other financial incentives. In recent years, in the face of price volatility brought on by the end of producer pricing, Inco has attempted to stabilize at least its own prices through the use of 3-year contracts; at present such contracts account for more than 60% of all Inco's sales.[135] Only a large producing firm, with an excellent business reputation, and an assured capacity to supply the terms of the contract, can offer such price stability to consumers directly and the market by implication and example.

Other examples of erection of entry barriers by moderate pricing have been noted in the mineral industry. For example, George David Smith, in his analysis of Alcoa, writes: It has always been an article of faith in the business that moderation in aluminum pricing stimulated sales, expanded markets, and not incidentally, helped maintain barriers to entry.[136] It has been further noted that an additional incentive for this approach stemmed from Alcoa's justifiable anxiety about American antitrust laws.[137] It seems

---

133 Inco, *Annual Report 1989*, See the annual reports for 1982, 1985 and 1986 for similar statements.

134 *American Metal Market*, 23 October 1989. See also Larry Till, Inco Overview in *Canadian Mining Journal*, June 1988, p. 14.

135 Ibid.

136 George David Smith, *From Monopoly to Competition; The Transformation of Alcoa, 1888-1986*, p. 280.

137 Ibid., p. 281.

quite likely that Inco, has consciousiy pursued as similar approach. Webb and Zacher have indeed argued that the "cost-plus" pricing policy of Inco was motivated both by a wish to avoid antitrust investigations and the belief that higher prices might stimulate the emergence of new producers.[138] Therefore, even without direct supporting documentation, our analysis suggests that the effect of the US antitrust laws have been the opposite of their intent.

---

[138] Michael Webb with Mark Zacher, *Canada and International Mineral Markets*, fn. 35. The source of their information is unidentified.