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Royal Commission on Corporate Concentration

Study No. 9

Noranda Mines Limited

A Corporate Background Report

by

Patrick J. Mars

Alfred Bunting & Co. Limited

January 1976

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F O R E W O R D

In April 1975 the Royal Commission on Corporate Concentration was appointed to "inquire into, report upon, and make recommendations concerning:

- (a) the nature and role of major concentrations of corporate power in Canada;
- (b) the economic and social implications for the public interest of such concentrations; and
- (c) whether safeguards exist or may be required to protect the public interest in the presence of such concentrations."

To gather informed opinion, the Commission invited briefs from interested persons and organizations and held hearings across Canada beginning in November 1975. In addition, the Commission organized a number of research projects relevant to its inquiry. One such project resulted in a series of studies, of which this is one, dealing with the growth of large and diversified corporations in Canada. The series was coordinated by Charles B. Loewen of Loewen, Ondaatje, McCutcheon & Co. Ltd., an investment firm in Toronto.

This study on NORANDA MINES LIMITED was prepared by Patrick J. Mars of Alfred Bunting & Co. Limited. Mr. Mars, who is a chartered financial analyst, has followed the Canadian mining industry for the past 10 years and is recognized for his work on Noranda.

The Commission is publishing this and other background studies in the public interest. However, the analyses presented and conclusions reached in each study are those of the author, and do not necessarily reflect the views of the Commission or its staff.

SOURCES OF INFORMATION

Statistical and historical information used in this report
has been obtained from the following sources:

Annual Reports - Noranda Mines Limited and subsidiary
and associated companies

Noranda - Leslie Roberts, Toronto: Clarke Irwin
and Company Limited, 1956

Canadian Pulp and Paper Association

The Financial Post and Services

International Lead and Zinc Study Group

Metallgesellschaft

Statistics Canada

World Bureau of Metal Statistics

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I N T R O D U C T I O N

Noranda Mines Limited is a diversified Canadian natural resource company. Its interests extend across three broad industry groups: mining, manufacturing and forest products. Its operations are international in scope.

In this report information about the company, its growth and current activities is presented. Its purpose is to assist the Royal Commission on Corporate Concentration in assessing the contribution which Noranda has made to economic growth in Canada.

The report is divided into five main sections. In Section I, the growth of the company is traced, with attention being focused on the areas which are significant today. In Section II, the corporate structure is outlined, both from the organizational and operational standpoints. In Section III, information pertaining to Noranda's major acquisitions and takeovers is presented. The final two sections consist mainly of statistical data. Section IV covers the growth in output of the company's major products and its position in Canadian and World Markets. Section V provides financial data about the company, both historical and current.

To complete the report a summary and conclusion is presented.

In this report, unless otherwise specified, mine production refers to metal content of ores or concentrates.

Tons = short tons of 2000 lbs.

SECTION I: BACKGROUND AND HISTORICAL PERSPECTIVE

THE ORIGINAL MOVES

Noranda Mines, Limited was incorporated in 1922 to explore and develop copper-gold deposits in the Rouyn area of Northwestern Quebec. The original funds for exploration were mostly obtained in the U.S.A. However, when funds for development of the Horne Mine and construction of the smelter were needed, these could not be raised in the U.S.A. due to the inadequacy of ore reserves at that time. As a result, the necessary funds were raised in Canada through the sale of shares and a loan of \$3 million from Hollinger Mines. In return for this loan, Hollinger also received a bonus of 30,000 shares (equal to 240,000 today), the basis of its investment in Noranda which, including that of its subsidiary, Labrador Mining and Exploration, now amounts to 10.7%. By the time production started late in 1927, many of the original U.S. investors had sold out and Noranda had become Canadian controlled.

Even before production at the Horne Mine had begun, Noranda had embarked on a policy of acquisition. Majority interests were acquired in two companies with nearby properties which were subsequently merged to form Waite-Amulet Mines. This company was to play an important part in the future growth of Noranda both as a significant source of income and for its own investments. It was eventually wound up in 1961 shortly before its ore reserves were exhausted and its assets were acquired by Noranda in exchange for shares.

Shortly after production began, Noranda started to broaden its activities. The first step was the commissioning of a copper refinery at Montreal. Canadian Copper Refiners Limited (CCR) was formed in association with British Metal Corporation and a predecessor company of Phelps Dodge Corporation, each of which had a 15% interest. In taking partners, in this case to sell the product and manage the operation respectively,

Noranda started what was to prove a not-infrequent course of action in the future - that of taking partners when it embarked on new ventures in which it lacked the necessary skills and know-how. Eventually, the minority interests were acquired, that of British Metal in 1940 and that of Phelps Dodge in 1965 when it was threatened with anti-trust action in the United States.

Diversification into manufacturing began in 1930 when a 'substantial' interest in Canada Wire and Cable Company, Limited was acquired. This occurred when Canada Wire decided to build its second plant, a copper rod mill, adjacent to Noranda's new copper refinery in Montreal. This operation was to be an important outlet for Noranda's copper while Canada Wire was to become the base for many of the company's subsequent moves in manufacturing. Canada Wire and Cable became a subsidiary in 1943 when Noranda acquired the holding of General Cable Corporation of the U.S. to raise its interest to 59%.

During the 1930's, although the company's growth was undoubtedly hampered by the difficult business conditions, it nevertheless took steps to broaden its activities. Outside exploration began. Initially, this took the company into the Porcupine area of Ontario out of which three gold producers emerged: Pamour Porcupine Mines, Limited, Hallnor Mines, Limited and Aunor Gold Mines Limited. Pamour is the sole survivor having acquired the assets of Hallnor in 1971 and Aunor in 1972.

During the late 1930's exploration in the Gaspé Peninsula had begun. Eventually, this was to lead to the development of the next major mining complex of the Noranda group, Gaspé Copper Mines Limited.

In 1938, the first holding in Kerr Addison Mines Limited was acquired, with managerial responsibilities being assumed by Noranda officials in 1941. A gold producer, Kerr has since grown to become one of the most important members of the Noranda group of companies.

Finally, during the 1930's, Noranda made its first foreign investment when it acquired a 63.75% holding in a company developing a gold mine in Nicaragua, Empresa Minera de el Setentrion.

During this period, Noranda had become established as an independent, growth-oriented company. A majority of the shares were held in Canada but no single group held effective control. As a result, control rested with management, a situation which has continued to the present.

GROWTH SINCE 1945

As described earlier, it was clear almost from the beginning of its history that Noranda's management never intended that it be a 'one-mine' company. At the same time, there is no public record of any clearly defined policy towards growth. However, in the 1948 Annual Report, it was stated that "The object and goal of your Board of Directors over the years, has been to secure the continuity of life and earning power of your company". Pursuit of this goal has been undertaken in two ways:

1. Direct investment in other companies already established with operations and interests of their own.
2. Financing and development of new projects, either within the company itself or through other companies in which Noranda directly or indirectly acquired an interest.

Noranda's operations are now separated into three major divisions: Mining and metallurgical, manufacturing, and forest products. The growth of the company since 1945 will be traced for each of these divisions. In the case of mining, growth will be further sub-divided into 'investments' and 'new projects'.

a) MINING AND METALLURGICAL

1) Investments

At the beginning of this period, Noranda's principal mining investments were Waite-Amulet, Kerr Addison and the three small gold producers. Except for Kerr Addison, the other holdings remained fairly constant until the companies were wound up or merged with others. In the case of Kerr Addison, however, the interest has been increased in several stages, either by direct purchase of shares or through acquisition of other companies which themselves had an interest in Kerr Addison. Although Kerr Addison's gold mining operation has been on the decline since 1960, the scope of its activities has grown considerably through two series of mergers. The first, in 1963, saw the company merge with three other smaller companies in the Noranda group with some overlapping interests (Anglo-Huronian Limited, Prospectors Airways Company Limited, and Bouzan Mines Limited). The second, in 1968, saw it acquire the assets of Quemont Mines Limited and Normetal Mines Limited, whose mines were on the decline.

As a result of these mergers, Kerr Addison's exploration activities have been broadened and its financial position enhanced to the point where, today, it is able to consider undertaking potentially important new mining projects. In addition, between 1956 and 1969, as a result of its own purchases and through mergers, Kerr Addison has acquired a major holding (1.6 million shares, 6.5%) in Noranda.

In 1948, Noranda and Waite-Amulet made a substantial investment in Mining Corporation of Canada, Limited, an investment holding and management company. Several important interests were acquired through this purchase including effective control of Quemont and Normetal. Mining Corporation became an important part of the group until it was finally wound up in 1963.

In 1961, Noranda made its first direct investment in shares of Placer

Development Limited when it acquired, through competitive bidding, a 23.3% interest in that company for \$15 million. Over the years, this has been gradually increased with Noranda now holding 31.5% of the shares of Placer. However, except for an exchange of directorships, Noranda receiving two seats on the Placer board, and Placer receiving one seat on the Noranda board, there is no indication that Noranda has ever taken an active part in the management of Placer. The company has since grown considerably to become an important international mining company producing copper, molybdenum, gold and mercury at mines in Canada, the U.S. and the Philippines as well as having manufacturing interests in Australia.

During the early 1960's Noranda accumulated approximately 400,000 shares of Denison Mines Limited, equivalent to slightly less than 10%. No active part in the affairs of Denison was ever taken by Noranda and this holding was subsequently sold in 1967 realizing a \$26 million capital gain for the company.

Following the discovery of a rich new mine near Timmins by Texasgulf Inc., Noranda acquired as an investment approximately 2% of the shares of this company. Noranda has never taken any active part in the affairs of Texasgulf although it has been responsible for smelting and refining, on a commercial basis, the copper output from Texasgulf's Kidd Creek Mine.

In 1973, Noranda was approached by the Canada Development Corporation regarding the possibility of a joint offer to acquire control of Texasgulf. Although such a move was probably beyond Noranda's financial resources at the time, it did not initially reject the idea completely. Meanwhile, Noranda made arrangements for shares to be purchased in the open market for the account of the CDC. At the point where these purchases amounted to almost 2.5% of the shares of Texasgulf, Noranda decided not to be associated with the CDC in any move to acquire control. Subsequently, as a result of a public offer, the CDC increased its interest in Texasgulf to 30%. During the course

of the offer, Texasgulf tried to block the purchase of its shares by the CDC through court action. Noranda was named in the lawsuit but did not appear. The action by Texasgulf was unsuccessful.

Noranda is continuing to smelt and refine Texasgulf's copper output. However, Texasgulf has announced that it is planning to construct its own copper smelter and refinery. Upon completion of these facilities, it must be presumed that commercial arrangements between Texasgulf and Noranda will be terminated. Noranda retains its investment in Texasgulf.

Apart from the investments already noted, Noranda's investment in Brunswick Mining and Smelting Corporation Limited is one of the few times when it has acquired control of a mining operation already in production. This occurred in 1967 when Brunswick encountered serious financial difficulties following operational problems and severe cost overruns at its newly constructed zinc-lead smelting facility. Due to the many uncertainties in this situation, Noranda's initial investment was by way of first mortgage bonds and voting preferred shares which together were convertible for ten years into 51% of the common shares of Brunswick. Noranda then assumed responsibility for management and began what was to prove to be a long drawn-out process of making Brunswick a profitable company. Before this was achieved, a further stage of re-financing became necessary. This occurred late in 1971 when, to reduce the burden of interest expenses and inject additional funds into the company, Noranda converted its securities into common shares (a greater number than previously agreed upon) and underwrote a rights issue to all common shareholders. This increased Noranda's interest to 64.1%. Subsequently, Brunswick has become profitable and began to pay dividends in 1974.

Noranda's most recent significant mining investment has been in shares of Tara Exploration and Development Limited which has a major zinc-lead orebody in Ireland. Early in 1974, because of delays in obtaining its state mining lease, Tara was unable to secure financing to continue

mine development. Noranda provided assistance through guaranteeing bank loans and received a five-year option to purchase 100,000 shares (equal to about 1.5%) at \$16. Shortly afterwards, two other mining companies, Cominco Ltd. and Charter Consolidated of the U.K., made an offer for control of Tara. This offer was not successful and, meanwhile, as a result of purchases made both before and during the course of the offer, Noranda acquired 19.9% of the shares in the open market at a cost of \$30.6 million.

2) Project Financing and Development

Over the last thirty years, Noranda has been involved with many mining projects. Here, coverage will be limited to the important ones which are still in operation today.

Gaspé Copper Mines Limited

Exploration of this project resumed in 1948 and a decision to develop a mine was taken in 1950. Being the first major development in that area, the project involved not only construction of a mine, mill and smelter, but also development of the necessary infrastructure including the new town of Murdochville. To pay for this, \$47 million was lent to Gaspé by Noranda and Waite-Amulet. Production at the Needle Mountain Mine started in 1955. Debt repayment was completed in 1963 with dividends starting later in the year. In 1968 production started from its Copper Mountain orebody, the area where copper mineralization was first found in the 1920's. In 1973, a major expansion of the Gaspé operation designed to double copper production was completed at a cost of \$123 million. Noranda's interest has gradually been increased from its original level of 95.5% to over 99% today.

Geco Mines Limited

The next important mining project to be developed within the Noranda group was Geco. Involvement dates from 1954 when Mining Corporation together with other companies in the group including Noranda took over management and agreed to provide financing. This was done through purchasing treasury shares and advancing money to Geco, as well as arranging for bank loans. Production at this zinc-copper-silver-lead mine began in 1957. Subsequently, Noranda acquired full ownership when it amalgamated with Geco in 1964. In 1970, a 25% increase in mill capacity was completed.

Craigmont Mines Limited

Noranda's first known association with Placer Development occurred through financing and development of Craigmont's copper orebody in

British Columbia. This happened in 1958 after the two companies had competed to gain the right to manage the project. Placer was successful but allowed Noranda to participate along with an American company associated with Vernon Taylor Jr. of Denver, who has been a director and important shareholder of Placer since 1959. The three companies arranged the financing for the mine which began production in 1961.

Mattagami Lake Mines Limited

Noranda was also associated with Placer in the development of the important zinc-copper-silver discovery at Matagami Lake in Quebec. In 1958, these two companies, together with McIntyre Porcupine Mines, were invited by the syndicate which made the discovery to assume managerial and financial responsibility for developing the mine. Initially the three companies shared this equally but later, after McIntyre had tried to gain control, Noranda and Placer together increased their interest to in excess of 50% and assumed full control. McIntyre later sold its interest. Production started late in 1963.

Mattagami's interests have since grown considerably. In addition to having the largest stake in Canadian Electrolytic Zinc, the Noranda group zinc refinery, Mattagami, as a result of its own outside exploration activity, has been responsible for finding a new mining camp in the Sturgeon Lake area of Northwestern Ontario. There, on ground belonging to Abitibi Paper Company Ltd., a zinc-copper-silver discovery was made in 1969. A new company, Mattabi Mines Limited (60% owned by Mattagami, 40% by Abitibi) was formed and production began in 1972. A second mine owned by a subsidiary of Falconbridge Copper Limited, partly based on ore reserves acquired from Mattagami, has begun production and a third, the Lyon Lake operation belonging to Mattagami itself is due to start up in 1977.

Orchan Mines Limited

On a property adjoining that of Mattagami Lake, another smaller ore-

body had been found by Orchan. Noranda, together with Waite-Amulet and Anglo-Huronian, already had a 37% interest in Orchan. This was increased through additional share purchases and Noranda took over management in 1959. Financing was arranged and production started late in 1963.

Canadian Electrolytic Zinc (CEZ)

Although Noranda had previously given consideration to building a zinc reduction plant, it was only when the Mattagami and Orchan discoveries were made that reserves in total became sufficient to justify building such a plant. Following negotiations between the companies involved, a joint venture was established whereby five companies, Mattagami Lake (62.5% interest), Orchan (18.75%), and the three Mining Corporation zinc producers, Geco (9%), Quemont (5.75%), and Normetal (4%), built a zinc plant at Valleyfield, Quebec. Noranda had no direct involvement but was responsible for management. Since it had no previous experience in zinc refining, Noranda acquired technical assistance from American Smelting and Refining Company (Asarco). This provided Noranda with detailed technical information based on Asarco's plant at Corpus Christi, Texas, as well as the right to hire a senior manager to run the plant. After the expenditure of \$16.5 million, a plant with an initial capacity of 200 tons per day began production late in 1963. The plant has subsequently been expanded twice with the last increasing capacity to 620 tons per day by the end of 1975.

As the plant was expanded, so was the output of by-product sulphuric acid. In order to dispose of this, a phosphate fertilizer plant was built next to the zinc plant. Initially the CEZ group had a 25% interest in St. Lawrence Fertilizers Limited but, due to extremely depressed conditions in fertilizer and sulphuric acid markets, St. Lawrence became insolvent and it became necessary in 1968 for the group to increase their ownership in the company to 100% in order to assure a continuing outlet for their sulphuric acid. This group also became involved in the secondary

metals business in 1964 and now holds a 40% stake in Federated-Genco Limited which operates three plants.

Central Canada Potash Co. Limited

In 1964, in return for the equivalent today of 300,000 treasury shares, Noranda acquired substantial potash reserves in Saskatchewan. Development began in 1965 but, because of the prospect for over-supply and the company's unfamiliarity with this product, Noranda made arrangements for marketing most of the output through CF Industries, Inc. a large U.S. farm co-operative. CF Industries also received an option to acquire a 49% interest. A new company, Central Canada Potash Co. Limited was formed with production starting in 1969. In 1970, CF Industries exercised its option and acquired 49% for \$11.8 million. Despite contractual arrangements for the sale of the output, Central Canada Potash was restricted from operating at capacity under provincial government pro-rationing regulations until 1974, and has not yet attained capacity output of 1.5 million tons per year. The Saskatchewan Government has announced that it may nationalize some of the Province's potash mines.

Brenda Mines Ltd.

In 1967, Noranda undertook management and financial sponsorship of Brenda Mines which had a large low-grade copper-molybdenum mine in British Columbia. In return for providing nearly half the necessary funds and guaranteeing any cost overruns, Noranda received as a bonus common shares which, together with additional shares acquired in the market, gave it 50% of the total outstanding. Production began in 1970 after the expenditure of \$62.3 million but, due to adverse market conditions for molybdenum and copper in its early years, debt repayment was delayed and shareholders have still to receive a dividend from Brenda.

Bell Copper

Development of this project was originally scheduled to take place at the same time as that of Brenda. However, release of the report by the Royal Commission on Taxation (The Carter Report) led to suspension of both projects. Later, when the government announced that no changes in existing tax legislation would occur before 1974, Noranda proceeded with Brenda but deferred the Bell project until later. In making this decision, it was also recognized by Noranda that it was impractical to develop two mines in British Columbia simultaneously. Development of the Bell project was resumed in 1970 and production began in 1972 at the rate of 12,000 tons per day after the expenditure of \$44.5 million.

Other

Throughout this period, Noranda has also been involved with numerous smaller mines some of which are still in production while others have been opened and subsequently closed down.

Included among these is a small copper mine in Chile. This was brought into production early in 1964 after an outlay of \$4.5 million. The Noranda group's total interest in Chile Canadian Mines was 95%, with El Setentrion holding 60% and managing the property, and Noranda holding 35%. Operations continued until 1971 when the property was taken over by the Chilean Government. To that time Noranda and El Setentrion had recovered \$4.1 million of their original investment.

Late in 1973, following the change in government in Chile, Noranda again became involved in this operation. After re-examining the property, Noranda invested \$0.6 million and acquired a 49% interest, the remaining 51% being held by Chilean citizens. El Setentrion elected not to become re-involved.

Late in 1975 it was announced that, subject to the conclusion of a definitive agreement within four months, Noranda had been

selected from a small group of competing companies, including Placer, to conduct exploration, prepare a feasibility study and, if warranted, manage the development of the 'Andacollo' copper mine. Noranda would hold a 49% interest in the project while the Government of Chile would own 51%. Tentative plans call for the development of a 40,000 metric tons per day mine at a cost of \$200 million to produce about 75,000 metric tons of copper annually. A smelter may also be built at an additional cost of \$100 million.

Copper Smelting and Refining Facilities

In addition to treating its own production, Noranda has long been noted for providing custom smelting and refining facilities for other copper mines in Canada. These have been continually expanded as new mines, both within the group and outside it, have been developed. Although these facilities have mainly been of benefit for mines in Central and Eastern Canada, on occasion their existence has also proven important to mines in Western Canada and sometimes those outside the country. For example, in 1972 and again in 1975 when Japanese smelters were unable or unwilling to take delivery of copper concentrates contractually committed to them, Noranda has been able to offer facilities for treatment of the production of a number of British Columbia based mines. Currently Noranda is treating the copper concentrates for about 25 other mines.

b) MANUFACTURING

As noted earlier, Noranda's entry into manufacturing occurred soon after mining operations had started when it purchased a substantial interest in Canada Wire and Cable Company, Limited in 1930. This happened when Canada Wire decided to build a copper rod mill in Montreal adjacent to Noranda's new copper refinery. This mill has been an important outlet for Noranda's copper production.

Canada Wire has since grown into the company's most important manufacturing enterprise, out of which several other interests have been developed. Since 1950, Canada Wire's growth has occurred through a combination of new plant construction and acquisitions so that today Canada Wire operates 11 plants and 7 warehouses across Canada.

It was one of these acquisitions which led to Noranda's initial involvement in the plastics business. In 1960, Canada Wire acquired Western Wire and Cable Co. Ltd. which operated two plants, one in Saskatchewan and one in New Brunswick. In addition to its wire and cable business, Western also manufactured plastic pipe. Since this activity did not fit in with other operations of the company, a new company, Weyburn Plastics Limited was formed with Canada Wire retaining a 30% interest and Noranda Copper and Brass (now Noranda Metal Industries Limited) taking a 70% interest. Subsequently, Weyburn was merged with Grandview Industries Limited of Vancouver which had previously been acquired by Noranda Copper and Brass from British Ropes Limited, now Bridon Ltd.

One of the interests which stemmed from Canada Wire was Wire Rope Industries Ltd. (WRI). In 1953 a wire rope division had been formed. In 1963, in order to broaden its base and acquire expertise, this interest was amalgamated with those of Bridon Ltd. to form WRI. Bridon took a 60% interest, Canada Wire 40%. Early in 1975, to provide the funds for the purchase of another plant in the United States, Noranda

made an additional investment in WRI and its sister company Bridon-American Corporation to raise its holdings to 51.4% in both companies.

In addition to its substantial growth in Canada, starting in 1961 Canada Wire began to make several important foreign investments. These usually involved the company providing financial and technical assistance in return for a minority interest, the majority being held by local residents. Starting with investments in Central and South America, Canada Wire now holds interests in ten different countries.

Although seemingly unrelated, many of Noranda's moves into manufacturing have been related to an existing activity of the company. Thus, during the late 1930's when a scarcity of grinding media for mining operations developed, Noranda formed a new company, Quebec Iron Foundries, to produce these products from scrap metal. Originally a partner, Wabi Iron Works, was involved to design and operate the plant but later Noranda acquired its interest. As Noranda's mining activities expanded, so did the operations of Quebec Iron Foundries. From the original plant at Noranda, new plants have subsequently been built at Mont Joli, Quebec, Bathurst, New Brunswick and in Surrey, British Columbia.

In 1946, Noranda acquired a munitions plant located next to its copper refinery from the Canadian Government for \$1.4 million. The plant was converted for peacetime use and Noranda Copper and Brass was formed to operate in this area of business. Expertise was obtained by taking Bridgeport Brass, the only independent brass company in the United States, as manager with a 40% interest. This interest was bought out by Noranda for \$4.7 million in 1961 when Bridgeport was taken over by National Distilleries.

The brass and copper-alloy business, because it is largely dependent on the construction and automobile industries, has proven one of the most volatile sectors of Noranda's business. Nevertheless this area has grown considerably from the one original plant, both through new plant construction and through acquisition. In 1964 the company's activities were extended to the West Coast of Canada when it acquired, for \$4.6 million, an insolvent company called Western Copper Mills. In 1968 a new strip mill was built at Fergus, Ontario. Other plants have also been built or acquired in the U.S. and a minority interest is held in one in Colombia. The latest move, one designed to reduce volatility in its earnings, is the construction of a plant to produce zirconium tubes for nuclear reactors. This plant, estimated to cost \$23.5 million, is due to be completed in 1976.

Growth in the requirements of its two copper consuming subsidiaries meant that, by 1959, Noranda could report that their annual requirements equalled the copper output of its own mines. This situation, while on balance a favourable one for the company, has on occasion proven to be a drawback. This has usually happened when there has been a shortage of copper accompanied by overseas prices much higher than the Canadian producer price. At such times, scrap is exported to higher-priced markets while many of the mines whose material is treated and sold by Noranda also demand that their output be sold abroad. These factors tend to reduce the availability of copper for sale in Canada. At the same time Canadian fabricators, anxious to compete in foreign markets with their low-priced copper, demand increasing supplies. On several occasions Noranda has reported that these conflicting demands have been costly for the company. The last such occasion was in 1970 when, as a consequence of Canadian Government controls, the company reported that its earnings were reduced by \$4.4 million, \$0.18 per share. The subject of copper prices is covered in more detail in Section IV, page 122.

Growth in Noranda's manufacturing operations also led to its using increasing quantities of other materials, including aluminum. As a result, the company began studying ways of entering the business, and publicly announced its intention to do so in 1966. Its first approach was to try and buy an interest in Canadian British Aluminum which operates a plant at Baie Comeau, Quebec. However, the controlling shareholders (Tube Investments of the U.K., Reynolds Aluminum of the U.S. and Quebec North Shore Paper) were not interested in selling. Therefore, the company decided to build its own plant. Although its own requirements were in Canada, these were insufficient to support a commercially-feasible plant. Furthermore, Canada was already a substantial exporter of aluminum. Accordingly, Noranda decided to build its plant in the U.S. Initially, it considered doing this with a partner and it was in the search for such a partner that Noranda negotiated with Essex Wire, a major consumer of copper and aluminum, with a view to acquiring a 51% interest. Complications arose and these negotiations were terminated. Subsequently, Noranda decided to construct a plant on its own, and a 70,000 tons per year plant was built at New Madrid, Missouri at a cost of \$105 million. The plant was designed and built by Kaiser Aluminum which also supplies alumina for the operation. Production began in 1971.

Having made the decision to build its facilities in the U.S.A., the company took steps to obtain outlets for a substantial part of the production. In 1967, it acquired for \$26 million, 96% of the Pacific Coast Company (now 100% owned and called Norandex), a manufacturer of aluminum building products. The final step in aluminum, backward integration into bauxite mining and alumina production, was achieved in 1974 when the company bought from Olin Corp. of the U.S. a 38.5% (the largest) interest in Frialco, a consortium which owns 51% of Friguia, a company mining bauxite and producing alumina in the Republic of Guinea.

Not all Noranda's ventures in manufacturing have been successful. In 1965, in an effort to develop outlets for its growing zinc metal output and to capitalize on opportunities provided by the recently signed "Agreement concerning Automotive Products between the Government of Canada and the Government of the United States", Noranda entered the zinc die-casting business. Two groups of companies were acquired. The Coulter Group, based in Oshawa and Uxbridge, was bought at a cost of \$1.1 million in 1965, and in 1966, the Wolverine Die Cast Group of Detroit and Windsor was bought for shares valued at \$4.3 million. Despite the subsequent investment of \$11.6 million in these two groups, the market for zinc die-casting in the automobile industry was declining, so that volumes and prices were too low. The company persevered until 1972 but after incurring total operating losses amounting to \$17.8 million, it was forced to abandon these efforts.

c) FOREST PRODUCTS

Noranda first became involved in this industry in 1961 when Waite-Amulet acquired an 85% interest (later increased to 100%) in a group of financially-troubled lumber mills in British Columbia for \$2.9 million. These were renamed Northwood Mills Ltd. which became a wholly-owned subsidiary of Noranda late in 1961 after it took over Waite-Amulet. Of the three mills bought, two were near Prince George in an area where it was recognized that full and efficient exploitation of the timber resources would require the eventual building of a pulp mill.

Studies towards this end were initiated soon after the purchase and in 1964 Northwood Mills acquired a pulpwood harvesting license covering 2.1 million acres in the Prince George region. Meanwhile Noranda had been holding discussions with numerous companies in the search for a partner. Eventually agreement was reached with The Mead Corporation, a large U.S. forest products concern already involved in Canada through a minority interest in British Columbia Forest Products Limited. A new company, now called Northwood Pulp and Timber Limited, was established, with Northwood Mills and Mead each owning 50%. Northwood's interest was obtained in exchange for the pulpwood harvesting license and two sawmills. Construction of the 625 tons per day bleached sulphate pulp mill was undertaken and, after an outlay of \$54.5 million, production first began in 1966. Start-up problems and depressed markets resulted in serious losses being incurred until 1969. In 1970, the plant was expanded to 800 tons per day.

The next major move in this industry occurred early in 1969 when Noranda and Mead made a joint offer to acquire control of British Columbia Forest Products (BCFP). As noted above, Mead already held an interest in this company and together the two companies had previously begun accumulating shares in the market. The public offer was made by Noranda and was a combination of cash and Noranda shares. This was successful and the end result was total holdings of

58% split equally between the two companies, with Noranda's 29% stake costing it \$30.1 million. A voting trust agreement in favour of Northwood Pulp was established by Noranda and Mead. Argus Corporation retained its 13% interest but ceased to have any representation on the Board of Directors. At the time of this purchase, BCFP, a fully-integrated forest products concern, was contemplating a major expansion project of its own at Mackenzie. This was later approved and production of a new pulp mill began early in 1973.

In 1972, Northwood Pulp bought control of Bulkley Valley Forest Industries. At the time, Bulkley Valley, owned by Consolidated-Bathurst Limited and the Bowater Corporation Limited, was incurring serious losses due to operational problems at its sawmill. Subsequently, significant improvements have been achieved including a substantial increase in output, while integration with Northwood Pulp has been achieved in the area of wood chip production.

In April 1974, Noranda, having acquired a major block of shares, made a public offer to acquire 51% of the shares of Fraser Companies, Limited, a pulp, paper and lumber producer with operations in New Brunswick and Maine. This offer was successful and cost Noranda \$36.6 million.

Early in 1975, Northwood Mills bought Airscrew-Weyroc Canada Limited from Bryant & May Holdings Limited of the U.K. At the time Airscrew-Weyroc was bankrupt and its 425 tons per day particleboard plant in New Brunswick was closed. The plant has been re-opened and the company renamed Northwood Panelboard Limited.

A degree of backward integration has been achieved through the establishment in 1966 of B.C. Chemicals and the acquisition, in 1974, of Alberta Sulphate. B.C. Chemicals, 50% owned by Northwood Pulp, built plants to produce sodium chlorate for the pulp and paper industry and tall oil for soap manufacturers. Alberta Sulphate, 100% owned by Noranda, mines sodium sulphate which is

also used mainly by the pulp and paper industry.

As with other sectors, not all Noranda's moves in this industry have been successful. In an effort to help a new company become established in New Brunswick, Northwood injected a total of \$5.7 million through loan guarantees to Fundy Forest Industries which was constructing a corrugating-medium mill. The project encountered serious cost overruns and after making a thorough study, Noranda concluded that it was ill-conceived and should be abandoned. A loss of \$5.7 million before taxes was suffered.

SECTION II: CORPORATE STRUCTURE

THE COMPANY

Noranda Mines Limited is the continuing company resulting from the statutory amalgamation in 1964 under the laws of Ontario of Noranda Mines, Limited which was incorporated in 1922 and Geco Mines Limited which was incorporated in 1953.

a) Objectives

In the previous section, the growth of the company has been outlined. With the exception of the statement quoted from the 1948 Annual Report, no clearly defined set of objectives had been publicly disclosed. Nevertheless, it was apparent that several underlying objectives were in existence. These can be summarized as follows:

1. New sources of earnings must be established to replace existing ones when ore reserves are exhausted.
2. New projects must be profitable.
3. To the maximum extent possible, Canadian mine products would be processed domestically.
4. Where feasible, outlets for domestic consumption of metal production would be established.
5. To reduce the risks in new ventures, partners would be taken or reliable sources of expertise acquired.
6. The company wished to remain Canadian controlled (The shares were removed from trading on the New York Stock Exchange in 1935).
7. Where logical, forward and backward integration would be undertaken.

Recently, for internal planning purposes, the company has set forth its corporate objectives. Basically, its aim is "to use its capital and the skills and abilities of its people to provide a satisfactory and growing return on its shareholder's investment". Its primary objective is the development of natural resources.

Pursuit of this objective is subject to certain constraints:

1. A project must earn its return after fulfilling social responsibilities in such areas as environmental controls and working conditions.
2. Limitations in managerial skills are recognized and therefore new ventures will normally only be undertaken if they relate to existing activities.
3. The company intends to remain Canadian controlled and managed, and international expansion will only be undertaken after satisfying this requirement.

b) Management and Ownership

From its founding, effective control of Noranda has been held by management, operating with the support of the board of directors. Among senior management, a high degree of continuity has existed. Through its entire history, the company has only had three chief executive officers. The first, Mr. J. Y. Murdoch, remained in office until 1956. He was succeeded by Mr. J. R. Bradfield who held the position until 1968, when the current President, Mr. A. Powis, assumed the office. However, as a growing company, the number of senior managerial positions has expanded continuously, thus enabling the company to attract and retain competent people.

The company operates on a decentralized basis, using the 'profit centre' approach to management. A high degree of autonomy is provided, with management of each profit centre having considerable authority and responsibility delegated to it, including that of achieving corporate profitability goals.

The company provides managerial, technical and administrative services to subsidiary and associated companies. Fees are charged on a basis which recovers the cost of the service rendered. In addition, where Noranda Sales Corporation acts directly for a subsidiary or associated company, a sales commission is charged on a basis which does not exceed the normal commercial fee charged for such services.

Where available, details of the fees paid by individual companies in 1974 will be shown in Section III.

Overall, the company is now organized on the basis of three major divisions, mining and metallurgical, manufacturing and forest products. Financial reports including earnings and assets employed are now provided to shareholders on divisional lines.

Share Structure

As at June 30, 1975 the capital stock of the company was as follows:

Authorized: 40,000,000 shares of no par value.

Issued:

Class A: 23,126,189

Class B: 1,316,252

24,442,441

Class A and Class B shares are voting, convertible into one another on a share for share basis and rank equally with respect to dividends and in all other respects. The only distinction is that dividends on Class B shares may be paid first out of tax-paid undistributed surplus on hand and then out of 1971 capital surplus on hand.

Class B dividends will be less than Class A by the amount of the tax paid on them by the company. For shareholders, dividends received on Class A shares are treated as regular dividend income. Dividends received on Class B shares are not considered to be part of the shareholder's taxable income. However, the cost basis (for capital gains tax purposes) of his shares is reduced by the amount of the dividend.

Board of Directors

A list of directors, their principal occupations and directorships of unrelated companies is shown on the next page. Collectively, the directors own about 60,000 shares with no single director owning more than 14,000 shares.

BOARD OF DIRECTORS

<u>Name</u>	<u>Principal Occupation</u>	<u>Outside Directorships</u>
<u>Executive Committee</u>		
William S. Row Toronto, Ontario	Chairman of the Board, Noranda Mines Limited.	Guaranty Trust Company, Panarctic Oils Limited.
<p>- Mr. Row has been a director since 1960. He became Chairman in 1974 succeeding Mr. J.R. Bradfield. Previously, he was Executive Vice-President. Mr. Row is also Chairman of Kerr Addison Mines Limited.</p>		
Alfred Powis Toronto, Ontario	President & Chief Executive Officer, Noranda Mines Limited.	Gulf Oil Canada Limited, Placer Development Limited, Simpsons Limited, Sun Life Assurance Co. of Canada, Canadian Imperial Bank of Commerce.
<p>- Mr. Powis has been a Director since 1964. He was appointed to his present position in 1963, also succeeding Mr. J.R. Bradfield. Previously, he was Executive Vice-President.</p>		
William James, Toronto, Ontario	Executive Vice-President, Noranda Mines Limited.	Canadian Gypsum Company Limited, Consolidated Morrison Mines Limited, The Mutual Life Assurance Company of Canada.
<p>- Mr. James has been a Director since 1968. At that time he was a partner in the firm of James & Buffam, consulting geologists. He was appointed President of Kerr Addison in October 1973 and Executive Vice-President of Noranda in April 1974. He has responsibility for the mining activities of the company.</p>		
Adam H. Zimmerman, Toronto, Ontario	Executive Vice-President, Noranda Mines Limited.	Norcen Energy Resources Limited, Southam Press Limited, Dominion Insurance Corporation, Southam Business Publications Ltd., Export Development Corporation, BMW Distribut- ors Eastern Canada Ltd., Scancar Ltd.
<p>- Mr. Zimmerman has been a director since 1974. He was also appointed Executive Vice-President in 1974, having responsibility for the manufacturing and forest products activities of the company. Previously he was Vice-President, Comptroller.</p>		
William P. Wilder, Toronto, Ontario	Chairman, Canadian Arctic Gas Pipeline Limited.	Allstate Insurance Company of Canada, John Labatt Limited, Lever Brothers Limited, Simpsons Limited, Simpsons-Sears Limited, Canadian Arctic Gas Pipe- line Limited.
<p>- Mr. Wilder has been a director since 1966. At that time he was with Wood Gundy Limited, which acts as underwriter for the company.</p>		

BOARD OF DIRECTORS (cont'd)

<u>Name</u>	<u>Principal Occupation</u>	<u>Outside Directorships</u>
<u>Executive Committee (cont'd)</u>		
A.J. Little, Toronto, Ontario	Company Director	Brascan Limited, Maclean-Hunter Limited, National Trust Company Limited, The Canada Life Assurance Co.
- Mr. Little has been a director since 1974. Prior to Feb. 1974, he was a partner of Clarkson, Gordon & Co., auditors to the company.		
<u>Other Directors</u>		
James C. Dudley, New York, New York	President, Dudley & Wilkinson Inc.	Seaboard World Airlines, Freeport Minerals Company, AEA Investors Inc., Placer Development.
- Mr. Dudley has been a director since 1970. He is a geologist and financial consultant. He has been a director of Placer Development since 1964.		
Louis Hébert, Montreal, Quebec	Chairman & Chief Executive Officer, Banque Canadienne Nationale.	RoyNat Limited, Sun Life Assurance Company of Canada, Wabasso Ltd., Les Ciments du St-Laurent.
- Mr. Hébert has been a director since 1968.		
Leonard G. Lumbers, Toronto, Ontario	Chairman of the Board, Noranda Manufacturing Ltd.	Abitibi Paper Company Limited, Budd Automotive Company of Canada Limited, Bundy Corporation, Canada Malting Co. Limited, Cornat Industries Limited, Coronation Credit Corporation Limited, Royal Bank of Canada.
- Mr. Lumbers has been a director since 1962. He has retired from taking an active part in management.		
David E. Mitchell, Calgary, Alberta	President & Chief Executive Officer, Alberta Energy Company Ltd.	The Alberta Gas Trunk Line Co. Ltd., The Bank of Nova Scotia, Revelstoke Companies Ltd.
- Mr. Mitchell has been a director since 1973. At that time he was President of Great Plains Development Company of Canada Ltd. For some years Noranda and Great Plains were associated in an oil exploration programme which was terminated in 1973.		

BOARD OF DIRECTORS (cont'd)

<u>Name</u>	<u>Principal Occupation</u>	<u>Outside Directorships</u>
André Monast, Q.C., Quebec, Quebec	Partner in the legal firm of St. Laurent, Monast, Walters & Vallieres.	Air Canada, Canadian Imperial Bank of Commerce, Canadian National Railways, Confederation Life Insurance Company, Dominion Stores Limited, I.B.M. Canada Limited, Canada Cement Lafarge Ltd.
<p>- Mr. Monast has been a director since 1966.</p>		
Thomas H. McClelland, Vancouver, British Columbia	Chairman, Placer Development Limited.	Canadian Imperial Bank of Commerce.
<p>- Mr. McClelland was elected to the Board in 1975, succeeding Mr. J.D. Simpson who retired as Chairman of Placer Development.</p>		

Major Shareholders

The largest reported shareholders are:

Hollinger Mines Limited	1,801,520 shares	(7.4%)
Labrador Mining and Exploration Limited (60.7% owned by Hollinger)	<u>815,310</u> <u>2,616,830</u>	<u>(3.3%)</u> <u>(10.7%)</u>
Kerr Addison Mines Limited (43.8% owned by Noranda)	1,600,000	(6.5%)
Pamour Porcupine Mines Limited (48.8% owned by Noranda)	215,000	(0.9%)

As noted in Section I, Hollinger received 240,000 shares as a bonus for helping finance the original development of Noranda. The additional shares were purchased in the open market during the early 1960's. Public disclosure of the size of the holdings was not made until 1968. There is no representative of the Hollinger organization on the Noranda Board of Directors. Mr. L. H. Timmins, formerly a director and now an honorary director of Noranda, was previously a director of Hollinger. Besides Mr. L. H. Timmins, only four other individuals ever sat on both Boards. These were:

Mr. J. R. Timmins	(former President of Hollinger)
Mr. N. A. Timmins	(" " " ")
Mr. J. Y. Murdoch	(" " " Noranda)
Mr. J. I. Rankin	

Although it was known that Kerr Addison had a substantial holding in Noranda, the specific number was only reported for the first time in the 1973 Annual Report of Kerr Addison. The company has now revealed that these were acquired between the years of 1956 and 1969, through the following transactions.

<u>Year</u>	<u>Method</u>	<u>Noranda Shares (1975 Equivalent)</u>
1956 - 61	Open Market Purchases	100,000
1962 - 63	Open Market Purchases	147,400
1963	Through amalgamation with Anglo-Huronian	344,800
1963	Through amalgamation with Bouzan	75,000
1964	From Noranda - Geco amalgamation	255,548
1968	Through acquisition of Normetal	273,150
1968	Through acquisition of Quemont	261,864
1969	Open Market Purchases	142,238
		<u>1,600,000</u>

Anglo-Huronian acquired 258,700 shares of Noranda in the open market during the period 1959-1963. The remainder of its holding was obtained when Mining Corporation, in which it had a holding, was taken over by Noranda.

Normetal and Quemont each owned 218,750 shares of Noranda which were obtained when Geco, in which they each had a 4.2% interest, was amalgamated with Noranda. The remainder of the Normetal holding was acquired from its holding in Mining Corporation when it was taken over by Noranda. The remainder of the Quemont holding was acquired in the market in 1965 and 1966.

Although not disclosed at the time, undoubtedly some of the shares of Noranda bought in the open market by these companies were acquired with the objective of countering the purchase of Hollinger and Labrador.

Approximately 93% of the shares are owned in Canada.

c) Employment

Details of employment with the Noranda group are shown in Table I opposite.

About 57% of Noranda's Canadian employees belong to unions. The approximate membership in each of the major ones represented is shown below.

<u>Union</u>	<u>Union Membership</u>	
	<u>Noranda</u>	<u>Total Canada</u>
United Steelworkers	11,300	173,600
Electricians	1,100	92,200
Pulp and Paper Workers of Canada	2,000	51,300
International Woodworkers of America	4,000	54,900

EMPLOYMENT IN THE NORANDA GROUP

TABLE I

<u>Mining & Metallurgy</u>	<u>Foreign</u>	<u>Domestic</u>	<u>Total</u>
Copper mining, smelting, refining	-	6,220	6,220
Brunswick Mining and Smelting	-	2,060	2,060
Brenda	-	440	440
Central Canada Potash	-	440	440
Mattagami Lake, Mattabi	-	740	740
Canadian Electrolytic Zinc	-	915	915
Orchan	-	270	270
Kerr Addison	124	780	904
Pamour	-	720	720
Alberta Sulphate, Boss Mtn., Langmuir	-	369	369
Placer	1,770	2,810	4,580
El Setentrion	848	-	848
Las Cuevos	823	-	823
Friguia	1,900	-	1,900
Total	5,465	15,764	21,229
<u>Manufacturing</u>			
Canada Wire & Cable	3,340	2,270	5,610
Noranda Metal Industries	100	1,000	1,100
Quebec Iron Foundries	-	340	340
Wire Rope Industries - Bridon-American	400	810	1,210
Grandview, Canplas	-	365	365
Noranda Aluminum, Norandex	1,590	-	1,590
Total	5,430	4,785	10,215
<u>Forest Products</u>			
Northwood Mills & Pulp	-	2,650	2,650
B.C. Forest Products	-	5,130	5,130
Fraser Companies	1,055	2,210	3,265
Total	1,055	9,990	11,045
<u>Other</u>			
Administration	-	191	191
Noranda Sales, R. Wolff	172	74	246
Exploration	118	141	259
Research	-	158	158
Total	290	564	854
Grand Total	<u>12,240</u>	<u>31,103</u>	<u>43,343</u>



MINING AND METALLURGICAL

The major holdings and ownership interests of Noranda in this sector, are shown in chart I. For financial reporting purposes, this division is further divided into two sectors, copper mining, smelting and refining operations, and other mining and metallurgical operations. Key financial results are shown below in Table II.

Table II

CONSOLIDATED MINING AND METALLURGICAL RESULTS

	(\$ Millions)								First Half	
	1967	1968	1969	1970	1971	1972	1973	1974	1974	1975
<u>Gross Revenues</u>										
Copper Mining, Smelting and Refining Operations	...	...	...	259.3	237.2	214.2	327.9	394.6	202.2	158.4
Other Mining and Metallurgical Operations (a)	...	...	...	<u>41.4</u>	<u>56.2</u>	<u>141.2</u>	<u>229.6</u>	<u>339.1</u>	<u>168.4</u>	<u>192.8</u>
Total Mining and Metallurgical Operations	...	...	...	300.7	293.4	355.4	557.5	733.7	370.6	351.2
<u>Earnings After Taxes</u>										
Copper Mining, Smelting and Refining Operations	...	...	...	39.2	46.6	44.7	46.3	80.0	41.1	13.4
Other Mining and Metallurgical Operations (a)	...	...	...	<u>11.3</u>	<u>4.0</u>	<u>27.0</u>	<u>67.4</u>	<u>66.7</u>	<u>38.6</u>	<u>28.3</u>
Earnings From Mining Investments	...	...	...	<u>16.2</u>	<u>14.1</u>	<u>0.9</u>	<u>1.1</u>	<u>1.8</u>	<u>0.5</u>	<u>0.8</u>
Gross Mining and Metallurgical Earnings	...	...	...	66.7	64.6	72.7	114.8	148.6	80.2	42.5
Less: Exploration Written Off Net Of Applicable Tax Reductions	...	...	...	<u>5.5</u>	<u>2.2</u>	<u>6.4</u>	<u>7.7</u>	<u>14.4</u>	<u>7.8</u>	<u>6.7</u>
Net Mining and Metallurgical Earnings, Before Common Costs (b)	<u>52.8</u>	<u>56.1</u>	<u>59.9</u>	<u>61.2</u>	<u>62.4</u>	<u>66.2</u>	<u>107.1</u>	<u>134.2</u>	<u>72.4</u>	<u>35.8</u>
Gross Capital Employed	369.0	396.0	373.0	546.0	667.0	736.0	904.0	1,160.0	...	...
Net Return on Gross Capital (%)	14.3	14.2	16.1	11.2	9.4	9.0	11.8	11.6	...	...

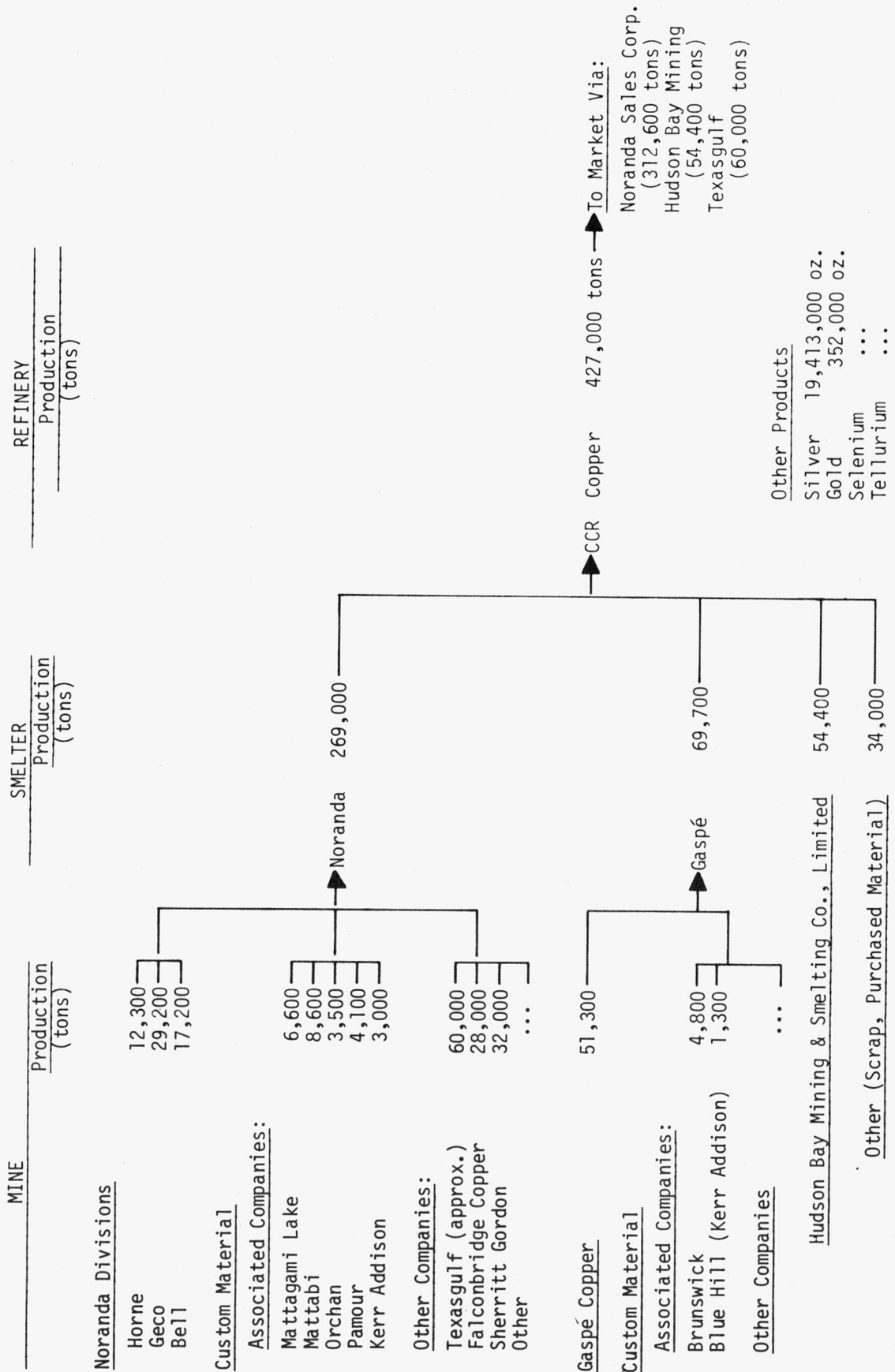
(a) From 1972, with the adoption of equity accounting, Noranda's share of the revenues and earnings of associated companies is included. Prior to 1972, only the results of Brenda Mines Ltd., then 50% owned, were included on this basis.

(b) Details of common costs are set forth in Table XIX which shows the combined results for the three divisions of the company.

The sharp increases in earnings in 1973 and 1974 were caused, to a significant extent, by the inclusion, under equity accounting, of the profits of associated companies. Several of these companies benefitted materially from the high metal prices which prevailed in those years. Conversely, in 1975, profits have been severely depressed by weakness in the metal markets.

COPPER PRODUCTION PROCESS

1974 Flow of Material Mine to Refinery



a) Copper Mining, Smelting and Refining Operations

Included in this section are the operations of the Horne, Geco and Bell divisions, Gaspé Copper Mines, Canadian Copper Refiners, custom smelting and refining activities and the returns from copper marketing. Also included is Geco's zinc production and its proportional interest in the results of Canadian Electrolytic Zinc.

In order to clarify Noranda's copper production process, Chart II shows the output and flow of material from source through treatment to refined metal. The growth of these activities can be seen in Tables III and IV.

Ore reserves of these and other company mines are shown in Appendix I.

The Horne Mine and Smelter

The Horne Mine, which began production in 1927, is expected to cease operations in 1976. By the time it closes, it will have produced about 1.3 million tons of copper and 9 million ounces of gold from the mining of 59 million tons of ore. After it is closed, the mill will be used to treat ore from the nearby Chadbourne gold mine and production from two other small orebodies currently under development. No lay-offs are expected to occur as a result of the closure of the Horne Mine.

In addition to treating concentrates from Noranda's own mines and those of affiliated companies, the Horne smelter treats the output of 17 other mines in Canada and, on occasion, material purchased from abroad. Its most recent expansion was obtained from the construction of a 'continuous smelting process' reactor developed by Noranda's own research efforts. This new process is important for several reasons. It is economically attractive, uses less energy than conventional smelters and permits the recovery of a higher proportion of the by-product sulphur, in the form of sulphur dioxide gas which can then be converted to sulphuric

TABLE III

COPPER MINE PRODUCTION

(Short Tons Copper Content)

	Company Divisions			Total Noranda & Gaspé	Other Subsidiary & Assoc. Cos.	Total Group
	Horne	Geco	Bell			
1960	25,800	21,800	-	47,600	-	82,200
1961	25,200	18,600	-	43,800	3,000	78,800
1962	25,100	22,000	-	47,100	36,700	116,700
1963	23,100	23,000	-	46,100	31,900	109,900
1964	25,700	25,600	-	51,300	38,400	121,500
1965	24,300	24,800	-	49,100	29,200	106,900
1966	23,100	26,800	-	49,900	24,800	103,500
1967	20,000	27,800	-	47,800	46,600	123,700
1968	18,800	30,900	-	49,700	42,500	126,800
1969	21,200	31,000	-	52,200	42,800	122,100
1970	16,700	23,800	-	40,500	55,900	131,400
1971	16,100	37,700	-	53,800	58,800	145,500
1972	15,700	36,000	4,200	55,900	107,200	196,300
1973	13,300	22,900	20,300a	56,500	131,000	221,600
1974	12,300	29,200	20,800a	62,300	112,700	226,300

(a) Includes 12,800 tons in 1973, 3,600 tons in 1974 smelted in Japan.

SMELTER AND REFINERY PRODUCTION OF COPPER
(Short Tons Copper Content)

Year	Noranda Smelter			Gaspé Smelter			CCR
	Company Material	Custom & Other Material	Total	Company Material	Custom & Other Material	Total	
1945	26,800	24,400	51,200	-	-	-	96,000
1950	25,700	47,000	72,700	-	-	-	123,200
1955	27,700	76,300	104,000	6,700	-	1,843	159,000
1960	47,600	116,100	163,700	34,600	14,500	49,100	267,400
1961	43,800	115,600	159,400	32,000	11,200	43,200	254,000
1962	47,100	113,300	160,400	32,900	14,900	47,800	255,000
1963	46,100	115,400	161,500	31,900	15,900	47,800	262,000
1964	51,300	123,500	174,800	31,800	11,500	43,300	270,000
1965	49,100	134,300	183,400	28,600	14,000	42,600	273,000
1966	49,900	134,700	184,600	28,800	18,200	47,000	285,000
1967	47,800	164,800	212,600	29,300	25,200	54,500	324,000
1968	49,700	171,900	221,600	34,600	26,500	61,100	351,000
1969	52,200	168,700	220,900	27,100	22,300	49,400	327,000
1970	40,500	170,400	210,900	35,000	34,900	69,900	349,000
1971	53,800	179,200	233,000	32,900	40,900	73,800	342,000
1972	55,900 ^a	180,100	236,000	33,200	30,600	63,800	376,000
1973	43,700 ^a	216,300	260,000	34,100	14,800	48,900	383,000
1974	58,700 ^a	210,300	269,000	51,300	18,400	69,700	427,000

(a) Includes Bell material smelted at Noranda only: 4,200 tons in 1972, 7,500 tons in 1973 and 17,200 tons in 1974.

TABLE IV

acid. This, therefore, reduces air pollution. An expansion of the reactor was suspended in 1975 due to economic conditions and uncertainties about the future sources of feed material for the plant. The process has been licensed to Kennecott Copper Corporation in the U.S.

Capacity at the Horne smelter is approximately 300,000 tons of copper per year. Since this level is somewhat greater than is needed to handle output from regular sources, it has the ability to handle some output from mines in areas like British Columbia which, due to depressed markets, have been unable to ship their output to their normal markets, usually Japan. This has enabled production at the affected mines to be more easily maintained at economic levels, reducing the need for mine closures and their accompanying social disruptions.

The Geco Mine

This mine, located in Northwestern Ontario, became wholly owned when its predecessor company amalgamated with Noranda in 1964. It is a copper-zinc-silver mine with a capacity to treat 5000 tons of ore per day. Copper concentrates which also contain some silver are shipped to the Noranda smelter. Zinc concentrates are shipped mainly to the zinc reduction plant of Canadian Electrolytic Zinc at Valleyfield, Quebec. The minor production of lead concentrates which also contain silver, are shipped to the lead smelter of Cominco Ltd. at Trail, British Columbia.

In addition to copper production shown in Table III, the following metals have been produced at the Geco mine in recent years:

		<u>Production</u>				
		<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Zinc	tons	41,900	79,200	61,300	54,500	71,000
Silver	000 ozs.	1,815	2,594	2,530	1,684	2,058

The Bell Mine

This mine, located at Babine Lake, British Columbia, was brought into production in 1972 and is capable of handling in excess of 12,000 tons of ore per day. Its copper concentrates which also contain gold are now shipped to the Noranda smelter. When conditions permitted, these concentrates were also shipped to Japan.

Gaspé Copper Mines Limited

Gaspé Copper operates two copper mines at Murdochville, Quebec, the Needle Mountain mine which was brought into production in 1955 and the Copper Mountain mine which began production in 1968. A major expansion of these facilities was recently completed at a cost of \$123 million. This included the construction of a new 22,000 tons per day concentrator raising total capacity to 34,000 tons per day, the construction of facilities to treat oxidized copper ore and expansion of smelting capacity to 100,000 tons per year through the addition of a roaster together with the construction of a 300,000 tons per year acid plant. As a result air pollution has been reduced. In addition to treating its own mine output, the smelter also treats custom material for other mines. Besides copper, Gaspé also produces small amounts of silver and molybdenum.

Canadian Copper Refiners Limited

As can be seen from Table IV, this refinery has frequently been expanded and is now one of the largest in the world with a capacity of 480,000 tons per year. The plant handles the output of the Noranda and Gaspé smelters and also that of Hudson Bay Mining and Smelting. In addition, it treats scrap copper and, on occasion, blister copper purchased from foreign sources. Besides copper, the company recovers silver, gold, selenium and tellurium. Of the output of this refinery, that portion belonging to Hudson Bay

Mining and Texasgulf is returned to those companies for their own sales. The balance is sold by Noranda Sales Corporation Limited, a wholly-owned subsidiary of Noranda. A portion of the output is sold to Noranda's manufacturing subsidiaries with the balance being sold in Canada or in export markets.

Custom Smelting, Refining and Marketing

In return for smelting, refining and marketing copper for associated and other companies, Noranda earns fees based on the volume handled. Under the terms of its contracts, Noranda sells the copper for the mine, with payment based on the market price prevailing during a subsequent, specified, period. Since pre-arranged sales commitments for the copper may result in sales at a different time and price, Noranda may, on occasion, earn profits or suffer losses from this activity.

During 1975, due to extremely depressed copper markets, Noranda has been unable to sell all the copper received from its custom shippers. Nevertheless, it has continued to take delivery of their production at considerable expense, in terms of interest charges, to itself.

b) Other Mining and Metallurgical Operations

Covered under this section are all other mining operations of the company including its share of the results of affiliated companies. Key operating facts about each of the important ones are covered below. Where relevant, financial results will be covered in Section III.

Brunswick Mining and Smelting Corporation Limited

This company's operations are centred in Bathurst, New Brunswick where it operates two zinc-lead-copper-silver mines. Concentrator capacity is 9,850 tons per day of which about 6,500 tons per day are currently being produced from the No. 12 underground mine, the balance being derived from the No. 6 open-pit mine. Reserves from the open pit will be exhausted in 1976 but there is some ore underlying the pit which may be extracted later. Production from the underground mine will be increased to approximately 7,500 tons per day in 1976 where it will remain until 1979 when it will be increased to 11,000 tons per day. This will be achieved through the sinking of a second shaft and an expansion of the concentrator at a total cost of \$49 million.

Production

		<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
<u>Mine Products</u>						
Zinc Concentrate	tons	157,900	242,000	320,800	330,800	256,000
Lead Concentrate	tons	76,900	125,000	172,900	153,500	114,500
Copper Concentrate	tons	10,100	9,600	17,600	19,900	20,300
Zinc-Lead Concentrate	tons	12,700	73,000	-	-	-
<u>Smelter Products</u>						
Lead	tons	20,100	22,400	36,000	34,400	44,200
Zinc	tons	36,600	44,800	900	-	-
Silver	000 ozs.	1,072	1,142	1,563	1,255	2,085
Sulphuric Acid	tons	77,100	119,000	92,400	100,200	117,050

Mine output in 1974 was reduced by a two-month strike.

Zinc concentrate is shipped to Société Générale des Minerais, (S.G.M.) of Belgium under a long-term contract. Lead concentrate is shipped to the company's own smelter at Belledune, about 40 miles away, and copper concentrate is treated at Gaspé Copper.

In 1972, the smelter which previously had produced both zinc and lead from the treatment of zinc-lead (bulk) concentrates was converted to a lead smelter and bulk concentrate production was suspended.

Sulphuric acid produced at the smelter is sold under contract at \$4 per ton to the adjoining 220,000 tons per year diammonium phosphate fertilizer plant owned by Canada Wire and Cable Limited.

Brenda Mines Ltd.

Brenda has a 27,000 tons per day copper-molybdenum mine near Penticton, British Columbia which began production in April, 1970. Until May, 1975, most of Brenda's copper concentrates were shipped under contract to Japan. When it expired, the Japanese purchaser would not renew the contract and, therefore, copper concentrates are now being treated at other smelters including the Noranda smelter. Molybdenum production is sold by Noranda Sales Corporation.

		<u>Production</u>				
		<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Copper	tons	12,900	17,100	17,800	16,000	15,300
Molybdenum	000 lbs.	7,343	9,601	10,047	8,346	7,642

Central Canada Potash Co. Limited

Central Canada Potash (CCP) has the capacity to produce 1.5 million tons per year of muriate of potash (KCL) equivalent to approximately 900,000 tons of K_2O . Due to pro-rationing imposed by the Saskatchewan Government, the company was restricted until 1974 from operating at full capacity despite contracts with CF Industries for the sale of the majority of its output. Although the company is now free to operate at capacity, because of the earlier restriction in output, the company's work force and equipment have, to date, been inadequate to permit capacity operation, but this is anticipated for 1976. Early in 1975 an expansion programme was suspended.

The company has challenged the pro-rationing regulations recently. In a judgment by the Court of Queen's Bench of Saskatchewan, the regulations were declared unconstitutional and the company was awarded \$1.5 million in damages. The judgment is being appealed by the Province while the company claims that the amount of damages is insufficient.

Although the price of potash has risen significantly over the last two years, CCP is earning only a nominal profit. This is due to the high level of taxation, particularly the mineral reserve tax introduced by the Government of Saskatchewan in 1974. The company has reported that CCP has insufficient cash to pay this tax and now owes in excess of \$8.5 million. CCP has been providing financial information about its operation to the Government of Saskatchewan. Late in 1975 the Government announced that it may nationalize some of the potash mines.

	<u>Production</u>				
	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Muriate of Potash (KCL) 000 tons	627	880	1046	681	1040

Canadian Electrolytic Zinc

The zinc reduction plant at Valleyfield, Quebec is operated as a joint venture of Noranda, Mattagami Lake Mines Limited, Orchan Mines Limited and Kerr Addison Mines Limited, with Noranda being responsible for management. A \$59 million expansion will be completed by the end of 1975, at which time capacity will have been increased from 400 tons per day to 620 tons per day of zinc metal.

Raw materials in the form of zinc concentrates are supplied by the owners in proportion to their interest in the plant. These are obtained either from their own mines or through purchases from other mines.

Sulphuric acid production is sold to the adjoining phosphate fertilizer plant of St. Lawrence Fertilizers, wholly-owned by the C.E.Z. joint venture participants. The company has the capacity to produce 110,000 tons of diammonium phosphate and triple superphosphate per year.

These same companies also have a 40% interest in Federated-Genco Limited which operates secondary metal plants at Toronto, Burlington and Montreal. Metals recovered include copper, lead alloys, aluminum and zinc dust.

		<u>Production</u>				
		<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Zinc	tons	124,100	119,600	145,000	148,000	134,800
Cadmium	lbs.	514,000	383,000	854,000	598,000	772,000
Fertilizers	tons	n/a	n/a	n/a	105,000	42,000

Production in 1974 was reduced by strikes.

Mattagami Lake Mines Limited

This company operates a 3,800 tons per day zinc-copper-silver-gold mine at Matagami, Quebec. In 1974, 74% of the zinc concentrate produced was treated at C.E.Z. with the balance exported, while all copper concentrates are treated by Noranda.

Through its 60% ownership of Mattabi Mines, Mattagami operates a second, 3000 tons per day zinc-copper-silver-lead mine in Northwestern Ontario. Since production started in 1972, most of the zinc concentrate production has been exported. In 1976, with greater capacity becoming available at C.E.Z., some of Mattabi's zinc concentrates will be refined at Valleyfield. Copper concentrate is treated by Noranda while the small production of lead concentrate is exported for treatment.

		<u>Production</u>				
		<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
<u>Mattagami Lake</u>						
Zinc	tons	117,700	116,400	89,800	93,000	96,700
Copper	tons	6,300	6,400	5,500	5,900	6,600
Silver	000 ozs.	229	276	175	218	242
<u>Mattabi</u>						
Zinc	tons	-	-	44,320	112,200	89,700
Copper	tons	-	-	4,300	9,800	8,600
Silver	000 ozs.	-	-	2,200	4,182	3,409

Orchan Mines Limited

Orchan has a 1,900 tons per day mill in which it treats ore from its own and other mines in the area. Zinc concentrates are shipped to C.E.Z. for treatment while copper concentrates are treated at the Noranda smelter.

	<u>Production</u>			
	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Zinc tons	39,700	36,200	21,900	14,200
Copper tons	3,140	3,240	4,250	3,560
Silver ozs.	254,200	208,600	94,000	58,400

Kerr Addison Mines Limited

As noted in Section I, Kerr Addison has acquired, through amalgamation or purchase, a number of other companies within the Noranda group. As a result, the company has operated a number of small mines in recent years, but most of these have now closed. Nevertheless, these moves strengthened the company financially and enabled it to expand its exploration efforts. At present, its operating interests comprise its Larder Lake gold mine, once the largest in Canada but now operating at about 700 tons per day and producing on an annual basis about 100,000 ozs. of gold, the 60% interest in the Blue Hill joint venture, a small zinc-copper mine in Maine, and its 9.8% interest in Canadian Electrolytic Zinc. Zinc concentrates from Blue Hill are treated in the U.S. while copper concentrates are treated at Gaspé.

Kerr Addison has two prospective mining operations. It owns 91.7% of Agnew Lake Mines Limited where the company is conducting a large scale underground test programme to determine the feasibility of producing uranium. It also holds a 60% interest in the Grum joint venture in the Yukon. There, in association with AEX Minerals, a significant zinc-lead-silver discovery has been made. An underground exploration programme is currently in progress.

In addition to general exploration, Kerr has a 26% interest in, and manages, the Fernandez Joint Venture which is involved in the search for uranium in New Mexico. Noranda has a 25% stake and Gulf Oil 49%. Two orebodies have been found to date, both of which have been sold at a profit to Gulf.

		<u>Production</u>				
		<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Gold	ozs.	137,000	138,200	135,860	127,650	108,820
Copper	(a) tons	18,500	16,900	15,400	13,600	10,200
Zinc	(b) tons	29,400	26,300	25,500	48,700	26,400

(a) Quemont, Normetal, Joutel, Icon-Sullivan Joint Venture, Blue Hill Joint Venture.

(b) Quemont, Normetal, Joutel, Blue Hill

Pamour Porcupine Mines Limited

This company operates three gold mines in the Porcupine area of Ontario, its own original mine and those formerly owned by Aunor and Hallnor. In addition, Pamour produces gold and copper at its Schumacher Division which it acquired from McIntyre Mines in 1973. The copper concentrates are treated by Noranda.

		<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Gold	ozs.	79,800	85,100	96,000	134,400	131,100
Copper	tons	-	-	-	400	4,100

Other Mines

In addition to the mines described above, Noranda also operates several other smaller mines. In British Columbia, the Boss Mountain mine, after being closed for several years, was re-opened in 1974 and produced 1.8 million pounds of molybdenum. Alberta Sulphate, acquired

in September 1974, produced 73,000 tons of sodium sulphate in 1974. Most of the product is sold to pulp producers in B.C. but some is shipped to pulp mills and detergent manufacturers in Eastern Canada.

In Ontario, Noranda is operator for the Langmuir joint venture which produces small quantities of nickel.

Abroad, it retains its controlling interest in Empresa Minera de el Setentrion, whose gold mine in Nicaragua was Noranda's first foreign venture. In Mexico, a subsidiary has a 49% stake in Compañia Minera Las Cuevas, S.A., from whose fluorspar mine 375,000 tons of product was shipped to steel, chemical and aluminum producers in 1974. In Chile, a 49% interest is held in Chile Canadian Mines which owns a small copper mine.

Placer Development Limited

Placer is the largest independent mining company in the Noranda Group. Although Noranda owns 31.5% of its shares, Placer is managed independently and maintains its head office in Vancouver, B.C. The companies do have overlapping interests in their joint ownership of Mattagami Lake Mines, which is managed by Noranda, and Craigmont Mines Limited, which is managed by Placer. Also, some of Placer's molybdenum production is sold by Noranda Sales Corporation. A summary of Placer's main interests is outlined below.

Endako Mine

This mine, located in British Columbia, is Canada's largest molybdenum mine, having a daily operating capacity of 28,000 tons of ore.

	<u>Production</u>				
	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Molybdenum 000 lbs.	18,200	14,400	9,200	11,900	12,100

The majority of the production is now roasted and upgraded to molybdenum oxide. Output is sold in world markets, partly by Placer's own sales force, partly by Noranda Sales Corporation.

Craigmont Mines Limited

Production at this underground copper mine in southern British Columbia is at its rated capacity of 5,000 tons per day. This mine is nearing the end of its life with reported ore reserves being sufficient for only four more years of operation.

		<u>Production</u>				
		<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Copper	tons	16,700	19,700	23,500	22,100	21,000

Until recently, copper concentrate was treated in Japan. With the expiry of its contract, sales have been directed to other smelters.

Gibraltar Mines Ltd.

Production at this large, low-grade, open-pit mine in British Columbia began in 1972 after the expenditure of \$67 million. Daily operating capacity has proved substantially in excess of its nominal 30,000 tons per day, with output exceeding 40,000 tons per day throughout 1973.

		<u>Production</u>		
		<u>1972</u>	<u>1973</u>	<u>1974</u>
Copper	tons	40,000	60,900	45,100
Molybdenum	000 lbs.	-	490	750

Copper concentrate is sold under long-term contract in Japan. Due to over-supply, the company has agreed with its Japanese customer to reduce output by about 15% in 1975.

Marcopper Mining Corporation

Placer owns 40% of and manages this Philippine-based copper mine. A 50% increase in mill capacity to 27,000 tons per day is being

completed in 1975. Copper production will not increase commensurately as lower grade ore will be treated in future.

	<u>Production</u>				
	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Copper tons	37,800	44,400	44,900	45,800	51,650
Gold ozs.	39,100	51,200	41,500	45,200	82,100
Silver ozs.	169,200	212,700	203,800	205,000	271,000

Copper concentrate is shipped to Japan under long-term contract.

Other Operations

In the U.S., Placer has interests in two mines: 28.3% in the Cortez gold mining operation and 51% in the McDermitt mercury mine which recently began production. Both are managed by Placer. In Australia, where earlier this year it acquired the other 50% holding in Placer Exploration previously held by Kaiser Aluminum and Chemical Corporation, the company has diverse operations in manufacturing and cattle raising.

Placer conducts an extensive world-wide exploration programme and is noted for its abilities in this field.

Noranda Sales Corporation Limited

This organization is responsible for marketing the metals and minerals from Noranda's own operations, its associated companies and twenty-five other Canadian companies. The products sold include copper, zinc, molybdenum, lead, silver, gold, selenium, tellurium, fluorspar, cadmium, bismuth, sulphuric acid, phosphate fertilizers, potash and copper sulphate. These sales are conducted on a world-wide basis.

In 1974, the total value of its transactions amounted to about \$1.5 billion from 23 products in 45 countries. The company has a 50% interest in Rudolf Wolff and Co., a charter member and the largest metal broker on the London Metal Exchange.

Exploration

Minerals

In recent years, Noranda has increased its exploration outlays substantially. In 1974, the company spent \$17.9 million on mineral exploration compared to \$11.4 million the previous year. Of the 1974 expenditures, 45% were made in Canada, 26% in the U.S., 8% in Australia and the balance in other parts of the world. The proportion spent outside Canada has increased in recent years due to the deteriorating environment in Canada, specifically due to higher taxes. Exploration programmes are conducted by the company on its own and in partnership with other companies. During 1974, the company together with Kennecott Copper, Rio-Tinto Zinc, Consolidated Gold Fields and Mitsubishi formed a joint venture to undertake exploration and research into mining deep sea nodules from which copper, nickel, cobalt and manganese may be extracted. Noranda has a ten percent interest in this venture.

Noranda has not been particularly successful in exploration, although its activities have helped it gain early knowledge about other promising projects which it has then financed to production. It has made an important uranium discovery in Australia and has a 7-1/2% beneficial interest in Queensland Mines which also has a rich uranium deposit. It has also announced a small copper-zinc discovery in the U.S.

Oil and Gas

Noranda is a shareholder in Panarctic Oils Limited with a 4.4% interest. Noranda has contributed \$5 million to the end of 1974. In addition to its commitment to this project, Noranda has considerably expanded its activities in this sector with the formation, in 1973, of Canadian Hunter Exploration Limited. Through this subsidiary, a total of \$14 million was spent in 1974 in the search for oil and gas in western Canada. This programme has been success-

ful in discovering significant reserves of oil and natural gas in areas of Alberta previously abandoned by other companies as uneconomic.

Research

Since 1963, Noranda's principal research activities have been conducted at its Research Centre at Pointe Claire, Quebec, where it employs a staff of 133 including 53 scientists and engineers.

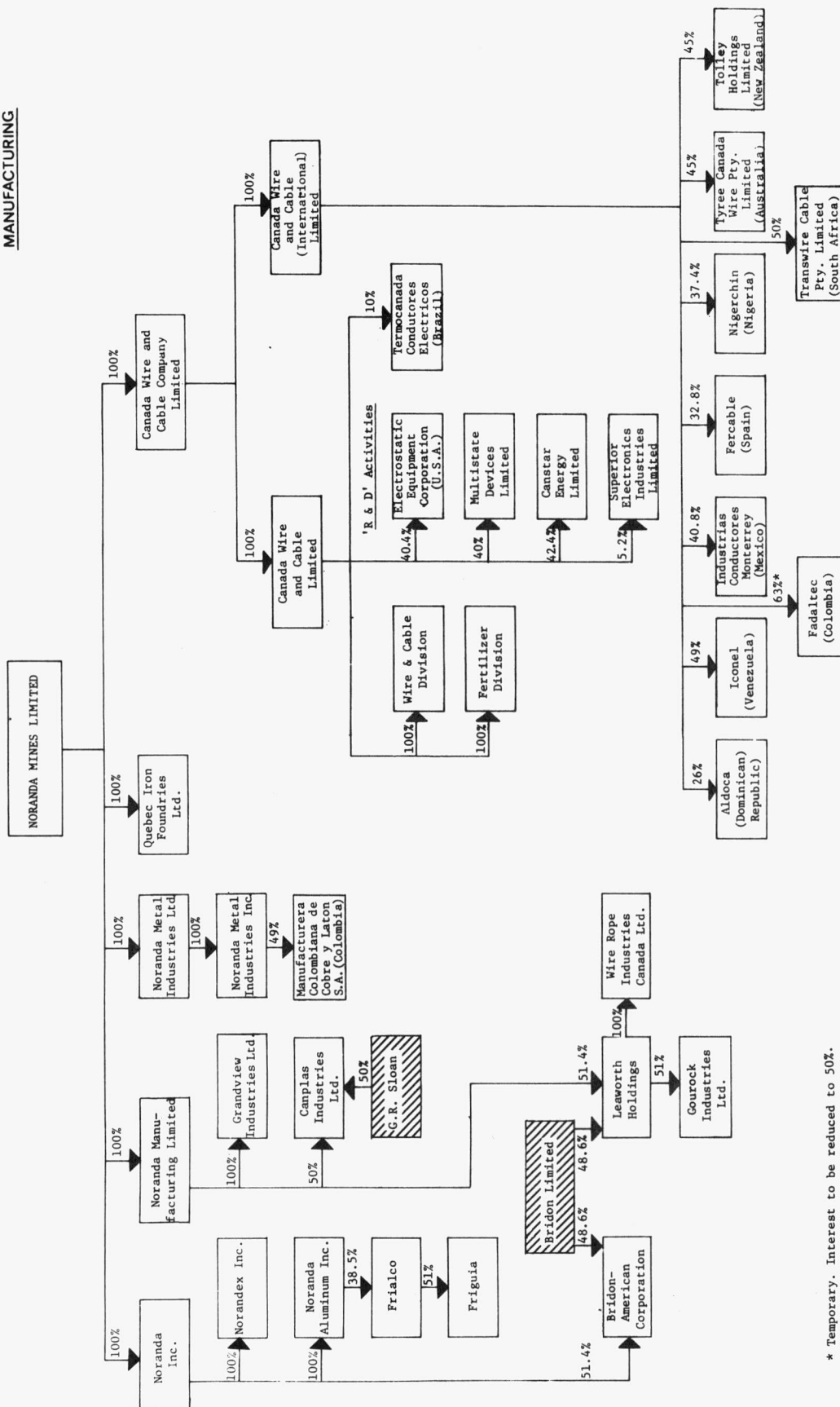
Its purpose is to develop new technology in the extraction and fabrication of metal and forest products. Projects being undertaken include the studying of ways to improve the working environment for underground miners; research into the use of various minerals in different products, for example, molybdenum as an alloying element in pipeline steel; metallurgical research to improve the recovery of metals in the extraction process; and the use of waste materials from sawmills.

Under the auspices of the Research Centre, a graduate fellowship programme is administered. Fellowships are provided to graduate students in the natural sciences and engineering in Canadian universities. At present, there are five of these in effect.

Total expenditures at the Research Centre in 1974 amounted to \$2.7 million.

In addition to the foregoing, the company conducts research into environmental factors at the sites of its various operations.

NORANDA MINES LIMITED



* Temporary. Interest to be reduced to 50%.

MANUFACTURING

The major holdings and ownership interests in this sector are shown in the accompanying organization chart. Key financial results are shown below.

TABLE V

CONSOLIDATED MANUFACTURING RESULTS

(\$ Million)

	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>First Half</u> <u>1974</u>	<u>1975</u>
Gross Revenue From Manufacturing Operations (a)	-	-	-	250.7	265.6	339.7	438.8	564.0	289.3	274.7
Net After-Tax Earnings From Manufacturing Operations and Investments Before Common Costs (a)	<u>7.2</u>	<u>9.2</u>	<u>3.1</u>	<u>5.8</u>	<u>5.4</u>	<u>11.4</u>	<u>23.2</u>	<u>39.3</u>	<u>20.4</u>	<u>14.6</u>
Gross Capital Employed	176.0	193.0	220.0	212.0	332.0	373.0	388.0	420.0	...	...
Net Return on Gross Capital (%)	4.1	4.8	1.4	2.7	1.6	3.0	6.0	9.4	...	...

(a) From 1972, with the adoption of equity accounting, Noranda's share of the revenues and earnings of associated companies is included.

Profits from this sector were adversely affected by losses incurred in the zinc die-casting operations in the 1967-1971 period and, since 1971, the inclusion of the U.S. aluminum operations, returns from which have, to date, been unsatisfactory. Conversely, since the adoption of equity accounting, profits have been increased since 1972 by the inclusion of the results of the foreign operations of Canada Wire and Cable.

Raw Materials

As noted in Section I, the original motive behind diversification into this area was to establish markets for the company's metal output, particularly copper. The company's own copper production, shown in detail in Table III, is shown on the next page compared to copper consumed by the company's manufacturing operations. Zinc production and consumption are also shown on the same basis.

INTERNAL METAL PRODUCTION VERSUS CONSUMPTION

TABLE VI

(Short Tons)

	Copper			Zinc		
	Production ^a	Consumption	Surplus (Deficit)	Production ^b	Consumption	Surplus
1963	78,000	47,500	30,500	59,500	4,500	55,000
1964	83,100	60,500	22,600	56,600	6,500	50,100
1965	77,700	73,000	4,700	42,900	7,500	35,400
1966	78,700	82,000	(3,300)	46,100	8,500	37,600
1967	77,100	69,500	7,600	40,500	8,000	32,500
1968	84,300	84,500	(200)	54,700	11,500	43,200
1969	79,300	107,000	(27,700)	51,400	12,000	39,400
1970	75,500	82,500	(7,000)	41,900	7,500	34,400
1971	86,700	87,500	(800)	79,200	11,000	68,200
1972	89,100	97,500	(8,400)	61,300	8,500	52,800
1973	77,800	110,000	(32,200)	54,500	9,000	45,500
1974	110,000	103,500	6,500	71,000	7,000	64,000

a Horne, Geco, Gaspé and Bell (portion smelted at Noranda only).

b Geco

Canada Wire and Cable Company Limited

Domestic Operations

This is one of the largest manufacturers of electrical wire and cable in Canada. The company operates eleven plants and seven warehouses located in eight different provinces across Canada.

The major markets for Canada Wire's products are as follows:

Utilities - Electric Power	40%
- Communications	15%
Construction - Building wire	35%
Equipment manufacturers	10%

Competition

Phillips Cables Limited (54.2% owned by BICC - British Insulated Callender's Cables Limited, and 27.3% owned by General Cable Corporation of the U.S.), Pirelli Cables Ltd. (controlled by the Pirelli Group of Italy); Northern Electric Co. Ltd.; Canadian General Electric Co. Ltd.; Alcan Aluminium Ltd.

In addition to using substantial quantities of copper, Canada Wire is also a major consumer of aluminum and an important user of lead and plastics. In 1974 the company reported that 95,000 tons of metal were processed.

Canada Wire also has a fertilizer division at Belledune, New Brunswick. This plant, with a capacity of 220,000 tons per year of diammonium phosphate, was acquired through the refinancing of Brunswick Mining and Smelting. The principal raw materials are sulphuric acid, which is obtained from Brunswick, and phosphate rock which is bought from Florida.

Besides its operating divisions, Canada Wire also has investments in several companies primarily involved in research and development activities. These are shown in the organization chart under 'R & D' activities.

Foreign Operations

As noted earlier, Canada Wire has established important foreign interests. In most countries it holds a minority interest with local partners, usually important enterprises in their own country, having control. Canada Wire's main contribution to these operations is its technical knowledge and experience. It now operates in ten countries and is making plans for a new investment in the Middle East.

These interests were not acquired with a view to their becoming important outlets for Noranda's metal production. In most cases their metal requirements are purchased from producers with operations closer to the user than Noranda.

The investment in the various foreign companies with which it is associated has been of considerable benefit to Canada Wire and Cable and, therefore, Noranda, as can be seen from the table on the next page.

Investment In Foreign Operations

	\$000
Original Investment	\$ 9,700
Earnings since Acquisition	<u>26,100</u>
	35,800
Less Dividends Received	<u>7,600</u>
Net Worth	<u>\$28,200</u>

In addition to dividends, Canada Wire has received technical fees of \$3.2 million. With the adoption of equity accounting in 1972, the company now includes in the divisional reporting of its results, its share of the revenues and earnings from its foreign affiliates. In 1975, the earnings from these foreign operations will approximate \$5.6 million or \$0.24 per Noranda share.

Noranda Metal Industries

This company is the successor to Noranda Copper and Brass and Noranda Copper Mills. It produces copper and copper-based alloy products in the form of sheet, strip, rod and tube in three plants across Canada. Its principal markets are the automobile industry and the house construction industry.

Competition (copper and brass)

Anaconda; Wolverine Division of U.O.P. Manufacturing.

The company consumes significant quantities of copper and lesser amounts of other metals such as zinc. In 1974 it reported that in excess of 54,000 tons of metal were processed.

In addition to its operations in Canada, Noranda Metal Industries owns two plants in the U.S., one of which was recently closed, and has an interest in a mill in Colombia.

In an effort to reduce its dependence on the highly cyclical copper and brass business, Noranda Metal Industries is constructing a \$23.5 million plant at Arnprior, Ontario to produce zirconium alloy sheathing and pressure tubes for use in nuclear reactors.

The plant is being built in anticipation of a rapidly-growing requirement for these products as Canadian utilities, particularly Ontario Hydro, accelerate their nuclear power construction programmes. However, it will probably be some years before domestic requirements reach the level needed for this plant to operate profitably.

Zirconium tubes will be sold directly to utilities for use in conducting steam from the reactors, and to fuel cell manufacturers such as General Electric and Westinghouse Electric.

Competition (zirconium tubes)

Westinghouse Electric; Chase Brass and Copper Company (subsidiary of Kennecott Copper Corporation).

Neither of these will apparently do more than a minimum amount of this work in Canada.

Quebec Iron Foundries Limited

The company produces iron grinding media at plants at Noranda and Mont Joli, Quebec, Bathurst, New Brunswick and Surrey, B.C. Also, at Mont Joli, it produces mill liners and general castings. These products are sold primarily to the mining industry. The principal raw material used is scrap metal. In 1974, the company reported that it produced 54,400 tons of castings of which 90% was from recycled material.

As an outcome of its use of scrap metal, a scrap collection facility has been established at Moncton, New Brunswick. An automobile shredder will be installed in 1976.

Competition

Grinding Media: Steel Company of Canada; Algoma Steel; Burlington Steel.

Mill Liners: Wabi Iron Works (Subsidiary of Canron); Canadian Steel Foundries (division of Hawker-Siddeley Canada Ltd.); Letson and Burpee and Mainland Steel, (in West only).

Wire Rope Industries of Canada Limited

Bridon-American Corporation

These two companies manufacture steel wire rope. Wire Rope Industries is the largest such manufacturer in Canada, while Bridon-American is the fourth largest in the U.S. In 1974, Wire Rope Industries produced 27,000 tons of product while Bridon-American produced 36,600 tons.

In Canada the company's main competitors are Donald Ropes, Martin Black and Wright Ropes. All three are foreign controlled, the first by German interests, the other two from the U.K. All four companies operate independently from steel manufacturers. In contrast, in the U.S., Bridon-American competes mainly with large, integrated steel companies such as United States Steel, Bethlehem and Armco.

A subsidiary, Gourock Industries Limited, manufactures synthetic rope and netting at a plant near Montreal.

Other Canadian Manufacturing

Grandview Industries, Limited produces plastic pipe, fabricates plastic products and blends resins at seven plants across Canada. The company reported that in 1974, it processed in excess of 20,000 tons of raw materials.

Canplas Industries Limited produces plastic fittings at two plants.

The construction industry is the most important market for both of these companies.

U.S. Aluminum Operations

Noranda Aluminum Inc.

High purity aluminum is produced by this company at a 70,000 tons per year plant at New Madrid, Missouri. Capacity of the plant is being doubled at a cost of U.S. \$85 million, with completion set for mid-1976.

	<u>Production</u>			
	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Aluminum tons	37,000	71,500	73,000	71,000

Adjoining the reduction plant is a rod, wire and cable mill with the capacity to handle 25,000 tons of aluminum. It produces steel-reinforced aluminum conductors (ACSR) which are sold to public utilities and redraw rod which is sold to other wire manufacturers.

The principal raw material, alumina, is purchased under contract from Kaiser Aluminum and Chemical. In 1974, Noranda acquired a 38.5% interest in a joint venture which owns 51% of Friguia, which in turn mines bauxite and produces alumina in Guinea. Other members of the joint venture are Pechiney Ugine Kuhlman, a French company which manages the operation, with 36.5%, Alusuisse and British Aluminum, each with 10%, and VAW of Germany, with 5%.

Friguia has the capacity to produce in excess of 650,000 metric tons of alumina per year, of which Noranda is obligated to purchase 231,000 metric tons per year. While such an amount would be sufficient to supply the needs of its expanded plant at New Madrid, the company plans to sell this and continue purchasing its needs for New Madrid from Kaiser. It does have the right to terminate its contract with Kaiser on two years' notice.

Financial data for Noranda Aluminum is shown below.

BALANCE SHEET DATA

(US \$ Millions)

	<u>1973</u>	<u>1974</u>
Current Assets	17.0	22.9
Current Liabilities	<u>6.5</u>	<u>14.6</u>
Working Capital	<u>10.5</u>	<u>8.3</u>
Investment & Advances to Corporate Venture	-	23.8
Fixed Assets - net	92.8	98.3
Deposits & Deferred Charges	<u>1.9</u>	<u>2.1</u>
Total Assets	<u>111.9</u>	<u>146.9</u>
Capitalization		
Long-term debt - external	78.5	76.0
- Noranda	<u>39.2</u>	<u>25.3</u>
	117.7	101.3
Accrued Pension Liability	0.2	0.2
Shareholders' Equity	<u>(12.4)</u>	<u>30.9</u>
	<u>105.5</u>	<u>132.4</u>

INCOME STATEMENT DATA

(US \$ Millions)

	<u>1973</u>	<u>1974</u>
Operating Earnings before interest expenses	1.6	15.8
Interest expenses - external	4.4	4.7
- Noranda	<u>3.7</u>	<u>4.8</u>
Earnings (loss) before Taxes	(6.5)	6.3
Taxes	-	3.0
Net Earnings (loss)	<u>(6.5)</u>	<u>3.3</u>
Tax Loss Carryover	-	3.0
Total Earnings (loss)	<u>(6.5)</u>	<u>6.3</u>

Norandex Inc.

This company manufactures aluminum windows, doors, siding and other building materials at plants in Ohio and Florida. These are distributed to the construction industry through a network of eighty-five branch warehouses of which sixty-four are owned by the company. Its operations and profitability are highly dependent on the market for new homes in the United States.

Norandex is an important consumer of Noranda Aluminum's output.

NORANDA MINES LIMITED

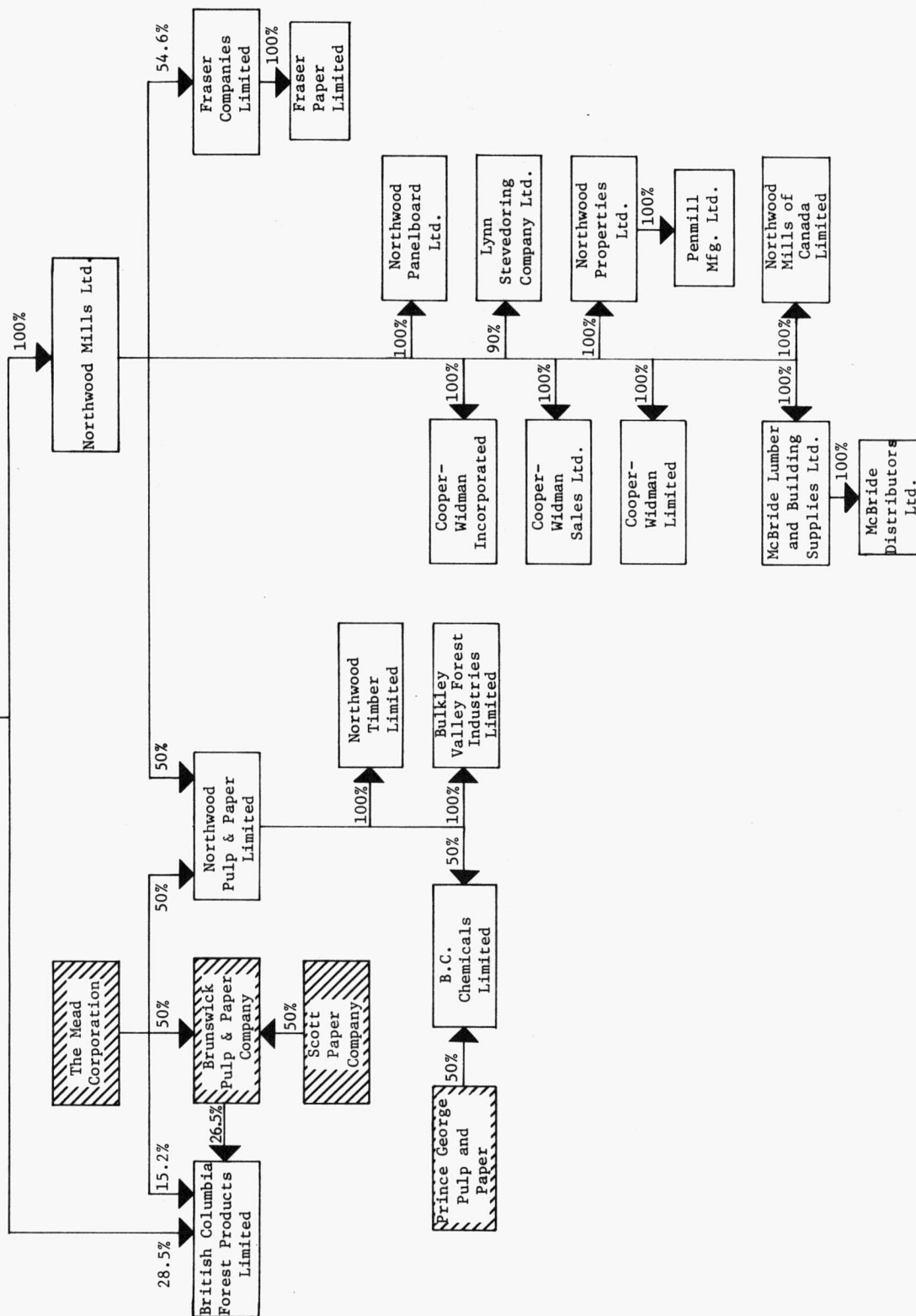


CHART IV

FOREST PRODUCTS

The major holdings and ownership interests of Noranda in this sector are shown in the accompanying organization chart. Key financial results are shown below.

TABLE VII

CONSOLIDATED FOREST PRODUCTS RESULTS

(\$ Millions)

	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	First Half <u>1974</u>	<u>1975</u>
Gross Revenue From Forest Products Operations (a)	-	-	-	168.3	193.4	168.0	253.9	365.1	135.1	143.7
Net After-Tax Earnings (Loss) From Forest Products Operations Before Common Costs (a)	<u>(5.7)</u>	<u>(2.3)</u>	<u>3.0</u>	<u>1.6</u>	<u>3.6</u>	<u>10.7</u>	<u>15.0</u>	<u>11.3</u>	<u>7.7</u>	<u>5.9</u>
Gross Capital Employed	55.0	54.0	54.0	72.0	86.0	98.0	103.0	260.0	...	...
Net Return on Gross Capital (%)	...	...	5.6	2.2	4.1	10.9	14.6	4.4	...	...

(a) Includes Noranda's share of the revenues and earnings of associated companies.

In 1974, results were adversely affected by a collapse in lumber markets, strikes and technical problems at Northwood Pulp, partially offset by higher prices and strong markets for pulp and newsprint as well as the inclusion of Fraser's results from April.

Through its various corporate interests, the Noranda group now operates in all sectors of this industry. The growth of output is shown in Table VIII which includes the entire output of all the companies in which the company has a stake.

FOREST PRODUCTS OUTPUT

TABLE VIII

	<u>Lumber</u>				<u>Pulp</u>			<u>Paper</u>	<u>Newsprint</u>
	<u>Northwood</u>	<u>BCFP</u>	<u>Fraser</u>	<u>Total</u>	<u>Northwood</u>	<u>BCFP</u>	<u>Total</u>	<u>Fraser</u>	<u>BCFP</u>
	<u>Companies</u>				<u>Pulp</u>				
	(000,000 board feet)				(000 tons)			(000 tons)	(000 tons)
1963	28.0	-	-	28.0	-	-	-	-	-
1964	60.0	-	-	60.0	-	-	-	-	-
1965	61.0	-	-	61.0	-	-	-	-	-
1966	243.0	-	-	243.0	26.0	-	26.0	-	-
1967	222.0	-	-	222.0	147.0	-	147.0	-	-
1968	257.0	-	-	257.0	196.0	-	196.0	-	-
1969	278.0	486.0	-	764.0	239.0	272.5	511.5	-	222.6
1970	308.0	484.7	-	792.7	244.0	217.5	461.5	-	186.7
1971	411.0	483.1	-	894.1	215.5	220.8	436.3	-	231.7
1972	669.0	536.8	-	1,205.8	230.0	272.9	502.9	-	232.8
1973	699.0	536.1	-	1,235.1	234.0	451.9	685.9	-	256.2
1974	557.0	474.0	46.2	1,077.2	208.0	466.0	674.0	383.1	246.2

Northwood Mills Ltd.

This company operates four sawmills in the Okanagan Region of British Columbia with the capacity to produce approximately 200 million board feet of lumber per year, principally western white spruce. It has a building materials division which operates a lumber brokerage and wholesale building materials business through warehouses across Canada. Early in 1975, it acquired Airscrew-Weyroc, now called Northwood Panelboard Limited, with a 145,000 tons per year particle board plant in Chatham, New Brunswick.

Northwood Mills' Sales Division markets its own production as well as that for Northwood Pulp and Timber and other non-affiliated producers. Over 80% of sales are in North America, the balance being in Europe and Japan.

Northwood Pulp and Timber Limited

This company has a bleached kraft pulp mill at Prince George, British Columbia with a rated capacity of 270,000 tons per year. Of this production, Mead buys up to one half, the remainder being sold in North America and overseas.

The company also operates four sawmills in the northern interior of British Columbia, with a capacity of over 500 million board feet per year, principally western white spruce. This includes the sawmill acquired with the purchase of Bulkley Valley Forest Industries. Northwood Pulp has an annual requirement of approximately 3.6 million tons of wood, most of which is obtained from its harvesting rights on timberlands in British Columbia.

Financial data for Northwood Pulp is shown below.

BALANCE SHEET DATA (\$ Millions)

	<u>1973</u>	<u>1974</u>
Current Assets	39.6	34.7
Current Liabilities	22.6	19.1
Working Capital	<u>17.0</u>	<u>15.6</u>
Investments and Mortgages	4.0	4.0
Fixed Assets, Timber, net	82.3	82.8
Total Assets	<u>125.9</u>	<u>121.5</u>
<u>Capitalization</u>		
Long-Term debt - external	33.7	28.5
- Shareholders	40.0	38.0
	<u>73.7</u>	<u>66.5</u>
Deferred Taxes	2.8	6.6
Shareholders' Equity	26.8	29.3
Total	<u>103.3</u>	<u>102.4</u>

INCOME STATEMENT DATA

(\$ Millions)

	<u>1973</u>	<u>1974</u>
Operating Earnings before interest expenses	19.4	11.9
Interest Expenses	<u>4.7</u>	<u>5.1</u>
Earnings before Taxes	14.7	6.8
Taxes	<u>7.2</u>	<u>4.0</u>
Net Earnings	7.5	2.8
Tax Loss Carry Forward	<u>3.9</u>	<u>-</u>
Total Earnings	<u>11.5</u>	<u>2.8</u>

B.C. Chemicals

This company operates two 20,000 tons per year plants, where it produces sodium chlorate for use by pulp producers, and crude tall oil for use by soap manufacturers. Chlorate production in 1974 was 14,700 tons compared to 16,900 tons in 1973.

British Columbia Forest Products Limited (BCFP)

BCFP is a major integrated forest products concern. It operates seven sawmills with combined capacity of 700 million board feet of lumber per year, two plywood plants with capacity of 1.2 billion square feet per year, a shingle mill with capacity of 150,000 squares, two kraft pulp mills with total capacity of 485,000 tons per year of market kraft pulp and a newsprint mill with an annual capacity of 260,000 tons.

Mead Pulp Sales, Inc. acts as sales agent for pulp produced by BCFP with principal market areas being the mid-western United States, Western Europe and Japan.

The total annual requirements of timber for BCFP's lumber, plywood, shingles, market pulp and newsprint mills amounts to 4.3 million tons. Most of this is obtained from its harvesting agreement covering government timberlands in British Columbia.

Fraser Companies, Limited

Fraser Companies, in which control was acquired by Noranda in April of 1974, operates the following facilities:

- (a) In New Brunswick: two sulphite pulp mills with combined capacity to produce 270,000 tons per year, a groundwood pulp mill with capacity of 135,000 tons per year and a paper board mill with capacity of 34,000 tons per year. It also has two sawmills with annual capacity of approximately 75 million board feet of spruce lumber.
- (b) In Maine, U.S.A., a paper mill with capacity to produce 170,000 tons per year from chemical pulp and 180,000 tons per year from groundwood pulp.

The majority of Fraser's output of pulp is used in its paper mills. Any production surplus to this requirement is sold as market pulp.

At times of strong demand, the company may suffer from a shortage of pulp and must buy its additional requirements.

SECTION III: ACQUISITIONS AND TAKE-OVERS

In this section, attention will be focused on those companies in which Noranda has acquired an interest, either through open-market share purchases or financing to production, and those which it has taken over entirely. In each case the steps through which its involvement progressed will be noted. Where relevant, key financial data will be provided and managerial and organizational changes examined.

For the publicly-traded companies, charts are included showing share prices, earnings, and dividends. Where an acquisition involved the exchange of Noranda shares for those of the other company, the price range, earnings and dividends of the company taken over are shown for the five years preceding the take-over beside those of Noranda itself. However, in order to reflect the ongoing investment in Noranda itself, (assuming acceptance of the offer) the share prices, earnings and dividends of the acquired company are adjusted to reflect the terms of the offer. Cash received as part of the offer was assumed reinvested in Noranda shares at the price used at the time of the offer. Further, share prices have been adjusted for stock splits so that they are equivalent to 1975 shares.

In comparing the earnings of the company taken over with those of Noranda, it should be noted that until 1968, Noranda did not consolidate the earnings of all its subsidiaries. As a result, its reported earnings included only dividends received. For the years 1954 to 1967, it reported separately its share of undistributed earnings of unconsolidated subsidiaries. The differences between reported and total consolidated earnings are shown in Chart V and Table XVI in Section V of this report.

The various companies involved will be examined in groups according to the type of take-over.

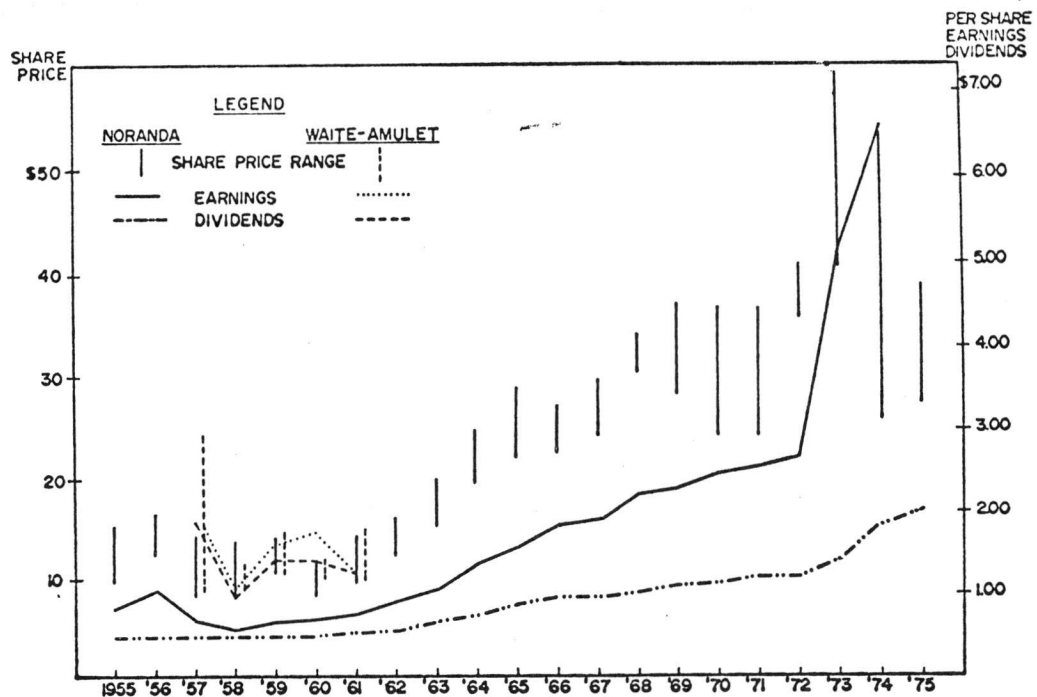
A) SHARE-EXCHANGE OFFERS - COMPANIES NO LONGER PUBLIC

In the early 1960's Noranda bought out the public interests in four of its subsidiary or associated companies, in each case through a share-exchange offer. These are examined below.

Waite-Amulet Mines Limited

As noted earlier, this was Noranda's first outside investment. Not only did it prove to be a very important source of income to Noranda, but its funds were also used to acquire interests in other companies. In particular Waite-Amulet held important positions in Mining Corporation and Geco, being one of the participants in financing Geco's development. It also acquired a 24% stake in the Mexican fluorspar property controlled by Noranda, and helped to finance Gaspé.

In early 1961, with the knowledge that its mine would be closing late in 1962, Waite-Amulet acquired an 85% interest (later increased to 100%), in a group of B.C. sawmills which were in financial difficulties. Including advances of \$2.5 million, these holdings were acquired for \$2.9 million. This step indicated that at that time no final decision had been taken to wind up the company. However, in November 1961 Noranda offered to acquire all the assets of the company and take over full control on the basis of 1 share of Noranda for 7 shares of Waite-Amulet. Prior to the offer, Noranda held 68% of the shares. Noranda offered as justification for this move the presumption that shareholders of Waite-Amulet, used to being investors in an operating mining company, would prefer to continue owning an interest in such a company, (i.e. Noranda) as opposed to becoming shareholders in an investment holding company. In the chart on the next page, the effect on shareholders can be seen from the standpoint of the value of their investment, its underlying earnings and the dividends received, (each adjusted to reflect terms of the offer).



During the last five years of its life, Waite-Amulet paid out in excess of 92% of its earnings in dividends. As a result, shareholders received an exceptionally high yield on their investment. Once the mine closed in 1962, this would inevitably have dropped sharply so a comparison with the subsequent dividends received from Noranda shares is not valid.

The Mining Corporation of Canada, Limited

As noted in Section I, Noranda first reported holding an interest in this company in 1948 when it and Waite-Amulet acquired substantial holdings. These were subsequently increased through market purchases until the time of the take-over in 1963, when Noranda owned directly 39% and indirectly another 9% for a total of 48% of the shares.

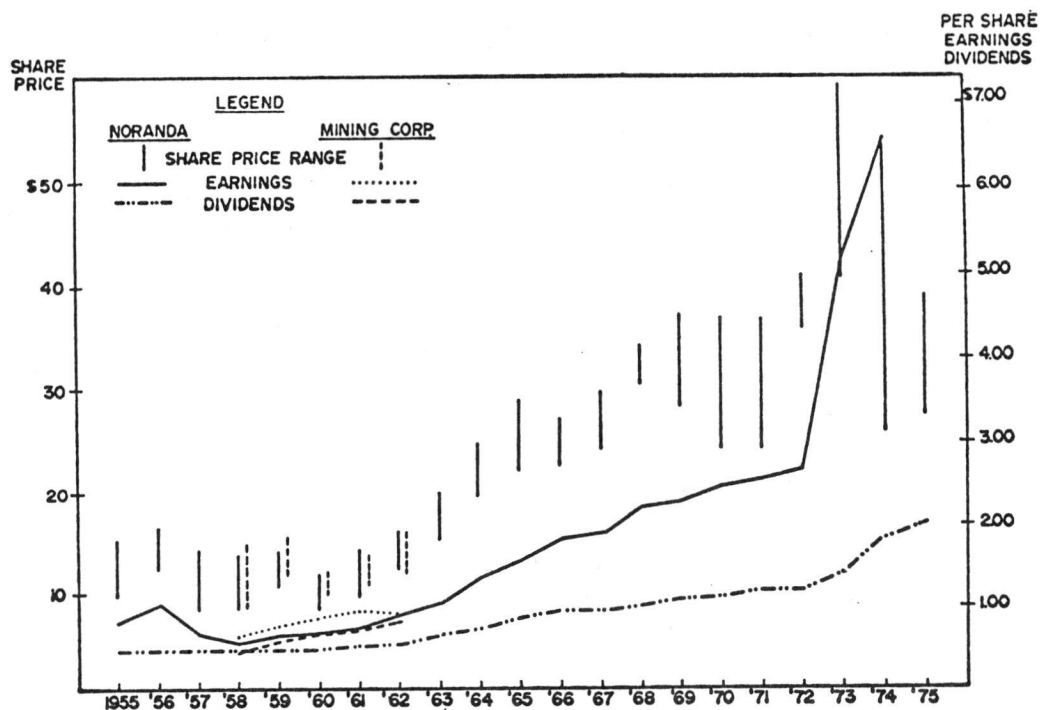
Mining Corporation was an investment holding company. Although effectively controlled by Noranda, it did operate with a certain

degree of autonomy. Four of its eight directors represented outside shareholders. It conducted its own exploration programme but, because its income was received in the form of dividends and interest, it lacked taxable income against which this could be offset. For shareholders, therefore, such expenditures were costly and they would be better served if these were conducted by a company having taxable income.

The terms of the offer were such that, for each share of Mining Corporation a shareholder received \$1 in cash plus $\frac{1}{2}$ a share of Noranda. This was achieved through Noranda acquiring the assets of Mining Corporation in exchange for cash and shares which were then distributed to shareholders.

At the time of the offer, Mining Corporation's major investments included 52% of the shares of Quemont, 48% of Normetal (zinc-copper mines later acquired by Kerr Addison), 18% of Geco and a 2.6% holding in Kerr Addison. In addition, Quemont and Normetal each held a 4% interest in Geco. Including all investments at prevailing market prices, the net asset value of the company was estimated at \$21.60 at the time of the offer, whereas its market price was \$16.00. At the same time, the shares of Noranda were selling at \$36.50 meaning that the offer was worth \$19.25 to the Mining Corporation shareholders.

During the last five and one-half years of its life as an independent company Mining Corporation paid out about 79% of its earnings in dividends. During the same period Noranda paid out about 73% of its earnings. The result of the takeover was that the Mining Corporation shareholder suffered a decline in yield but maintained the same underlying earning power to his investment.



Geco Mines Limited

The Noranda group first became associated with Geco in 1954 when Mining Corporation made an agreement to finance the mine to production and assume management. As a result, Mining Corporation and associates, including Noranda and Waite-Amulet, acquired at \$10 each, treasury shares equivalent to 25% of the total finally outstanding. The group also loaned Geco \$12 million and arranged a bank loan for working capital purposes. Production began in 1957 and dividend payments began in 1960.

The group's interests in Geco were increased through market purchases but it was not until Mining Corporation was taken over that Noranda's direct interest became significant, rising as a result of that transaction from 12% to 30%. This was further increased to 42% by late 1964 when the amalgamation was proposed. At that time, associated companies also held another 13% in Geco, for a total group interest of 55%.

The terms of the amalgamation called for Geco shareholders to receive seven shares of Noranda for eight shares of Geco. This ratio was determined by considering such factors as current and estimated future earnings and dividends; diversity and stability of sources of income; growth possibilities; nature, variety and value of assets; and market prices for Noranda and Geco shares. No specific details were provided to support the ratio.

The amalgamation was justified on the basis that the combined company would be stronger than the two would be as separate entities. Further, whereas Noranda was expected to grow, Geco was not and, due to the sensitivity of its earnings to metal prices, which were then considered high, earnings might not be maintained.

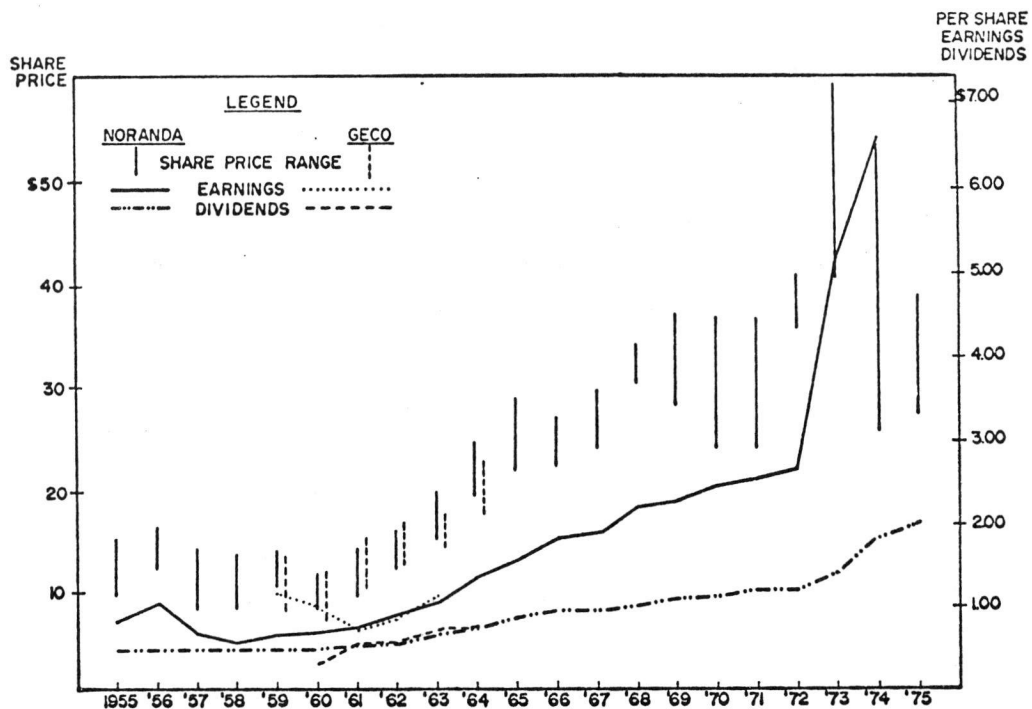
Geco had just embarked on a long-range, \$10 million, shaft-sinking programme which, it was claimed, was necessary to maintain production but would probably not result in any increase in production from the 3,500 tons per day capacity then installed. The subject of expansion was an issue at the time and some Geco shareholders were opposed to the merger on the ground that expansion, and therefore growth, was possible. In fact the mine was expanded to 5,000 tons per day but not until 1970. In the interim, as can be seen from the mine production table on the next page, copper production remained close to the 1964 level until 1968, while zinc and silver production fell.

Based on closing market prices on November 11, 1964, (Noranda \$25.12, Geco \$19.75), the date of the announcement, the Geco shareholder received an 11.3% premium as a result of the transaction.

Mine Production

	Ore Milled 000 tons	Production		
		Copper tons	Zinc tons	Silver 000 ozs.
1961	1,280	18,600	42,000	1,530
2	1,280	22,000	49,400	2,110
3	1,280	23,000	59,500	2,440
4	1,300	25,600	56,600	2,470
5	1,330	24,800	42,900	2,210
6	1,460	26,800	46,100	2,200
7	1,460	27,800	40,500	2,190
8	1,500	30,900	54,700	2,450
9	1,320	31,000	51,400	2,350
1970	1,370	23,800	41,900	1,820
1971	1,760	37,700	79,200	2,590

From the chart below, the effect on shareholders who accepted the offer can be seen from the standpoint of the value of their investment, its earnings and the dividends received, with the Geco figures adjusted to reflect the terms of the offer. Also shown, are certain financial data for Geco during its last five years as an independent company.



The shareholder experienced little change in either earnings or dividends as a result of this transaction.

	<u>Financial Data</u>					
	<u>1959</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>	<u>9 Mos. 1964</u>
Earnings Per Share	\$2.05	\$1.80	\$1.22	\$1.47	\$1.93	\$1.85
Cash Flow Per Share	-	\$2.66	\$2.45	\$1.91	\$3.14	\$2.70
Dividends Per Share	-	\$0.50	\$1.00	\$1.00	\$1.25	\$0.90
Earnings Payout Ratio	-	27.8%	82.0%	68.0%	64.8%	48.6%
Working capital per share, Dec. 31, 1963					\$ 5.15	
Book value per share, Dec. 31, 1963					\$10.56	

Canada Wire and Cable Company, Limited

Noranda first invested in Canada Wire in 1930. Later, in 1943 it increased its interest when it bought out the holding of General Cable Corporation of the U.S. and Canada Wire became a full subsidiary. Several additional purchases were made over the ensuing years and by late 1964, when Noranda offered to acquire all remaining publicly-held shares, it owned about 62% of the total shares outstanding.

The offer was proposed by Noranda for two main reasons. First, since Canada Wire was an important outlet for Noranda's copper, problems sometimes arose in determining fairness in the transfer pricing of copper. Such problems would usually occur in circumstances similar to those discussed in Section I on page 14. Second, technical innovations were being contemplated which would also lead to complications in determining which company - parent or subsidiary - should derive the advantage. Both these problems were removed by Canada Wire's becoming wholly-owned.

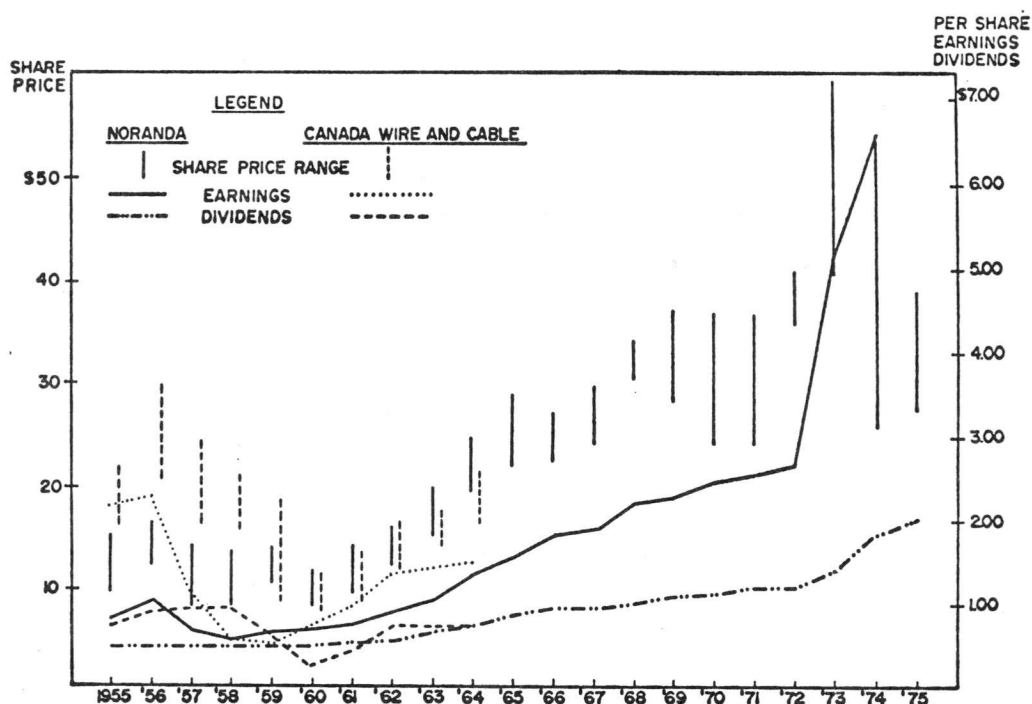
Under the terms of the offer, a Canada Wire shareholder received four Noranda shares plus \$5.00 for each class 'A' share or the same for every 10 class 'B' shares. Each class 'A' share was convertible

into 10 class 'B' shares. At the time of the offer, there were virtually no class 'A' shares still outstanding, therefore all reference will be to class 'B' shares.

The offer was announced on November 5, 1964, and formally extended on December 21. At the time of the announcement, the price of Noranda was \$49.25 while that of Canada Wire was \$16.75. On the basis of the terms, the offer was therefore worth about \$20.20 per Canada Wire share. By February 23, 1965, Noranda had received 91% of the shares it did not already own. It could therefore invoke Section 128 of the Companies Act of Canada and obtain the balance once the offer expired on April 21, 1965.

A chart showing the effect on investors who accepted the offer is shown below, together with historical financial data for Canada Wire on the next page.

By accepting the offer the shareholder experienced no material changes in either the earnings underlying his investment or dividends.



Financial Data

<u>Year</u>	<u>Net Profit</u> <u>(\$000)</u>	<u>Return On</u> <u>Average Share-</u> <u>Holders' Equity</u> <u>(%)</u>	<u>Dividends</u> <u>(\$000)</u>	<u>Payout</u> <u>Ratio</u> <u>(%)</u>
1946	200	3.7	330	170.8
1947	1,480	32.0	420	28.5
1948	1,370	23.9	350	25.3
1949	1,300	19.0	420	32.4
1950	1,930	23.7	500	26.0
1951	2,100	21.8	620	29.4
1952	1,990	18.0	620	31.2
1953	2,090	16.7	620	29.9
1954	1,340	9.9	620	46.4
1955	2,040	13.9	630	30.7
1956	1,960	12.3	780	40.1
1957	920	5.6	840	90.9
1958	500	3.1	840	166.6
1959	400	2.8	520	168.0
1960	600	3.6	210	35.3
1961	850	5.0	370	43.5
1962	1,150	6.6	640	55.3
1963	1,240	6.9	640	51.7
1964	1,680	9.1	650	38.5

Conclusion

In carrying out the four transactions described previously, Noranda obtained several advantages. First, its corporate structure was tidied up. Second, its financial position was strengthened thus enhancing its ability to undertake new developments. Third, in acquiring Geco its long-term ore reserve position was improved, an important consideration since the Horne mine was in the declining phase of its life. Fourth, problems of treating minority shareholders fairly were removed. Finally, tax advantages were obtained.

In return for these advantages, Noranda offered the shareholders of the companies acquired, the opportunity either to realize an immediate capital gain or, alternatively, the opportunity to continue as shareholders in a larger, growing entity.

It is not possible to determine how shareholders in Geco or Canada Wire, as ongoing entities, might have fared had these companies remained public. It is possible that, in light of subsequent increases in metal prices and growth in the economy, their earnings and dividends might have risen faster than did those of Noranda itself. Moreover, if Geco had remained independent, it might have undertaken its own outside exploration programme. Conceivably, this might have led to Geco finding the Sturgeon Lake mining camp instead of Mattagami Lake. Nevertheless, as shareholders of Noranda, they benefited from rising earnings, dividends and share prices.

On balance, despite the fact that these transactions were not at 'arm's length', it can be concluded that minority shareholders were fairly treated.

B) INVESTMENTS OR ACQUISITIONS - SHARES STILL TRADED

In this section will be examined companies in which Noranda has acquired a substantial or potentially controlling interest either through an offer to shareholders or through stock market purchases.

Placer Development Limited

As noted earlier, Noranda's association with Placer began before it had a direct investment, when the two companies arranged financing for the development of the mines of Craigmont and Mattagami Lake.

In 1961, a U.S. investment fund associated with Mr. L. Harder decided to sell its 23% interest in Placer. Several companies entered bids to buy the shares, and Noranda succeeded by a narrow margin. Following the purchase, two Noranda officers were elected to the Placer Board, replacing two American investors. Meanwhile, the chairman of Placer joined the Board of Noranda. This relationship has continued until the present.

Apart from having two representatives on the twelve man board, there have never been any Noranda officials in managerial capacities at Placer. Furthermore, there is no indication that Noranda has ever taken any active part in the day-to-day management of Placer. The two companies have, on occasion, competed with each other for the right to explore or develop properties.

At the fiscal year-end prior to Noranda acquiring its interest, April 30, 1961, Placer's interests were international in scope, covering the U.S., Australia, South America and New Guinea, as well as Canada. Subsequently, Placer has been responsible for developing several important mines including, in Canada, the Endako molybdenum mine and the Gibraltar copper mine, in the Philippines, the Marcopper mine, as well as several smaller mines. With the exception of a small mine operated between 1966 to 1973 in Portugal, which was managed by Placer

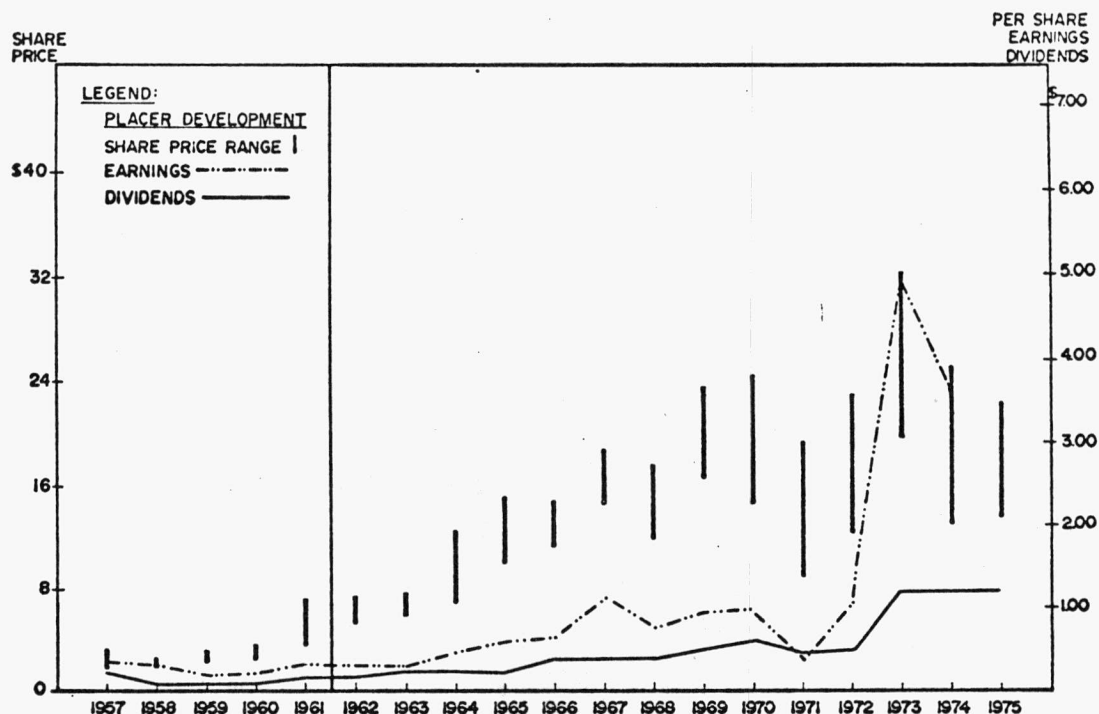
but in which Noranda held an equal interest, Noranda has taken no direct interest in Placer-managed operations since it acquired its investment.

During this period, the shares of Placer have twice been amalgamated with those of subsidiaries or affiliates. In 1966 it was amalgamated with 32.3% owned Bulolo Gold Dredging Limited. Because Bulolo also had a 5.6% interest in Placer, upon completion of the amalgamation, there were actually marginally fewer shares of Placer outstanding, but the effect on Noranda's beneficial interest in Placer was insignificant. In 1971, however, Placer was amalgamated with its subsidiary Endako Mines Limited. As a result of this transaction, Noranda's interest was reduced from 28.8% to 26.0%. This has since been increased to its current level of 31.5% through open-market purchases.

The growth of Placer in the years since Noranda first acquired an interest can be seen in the following table, showing financial data from the balance sheet, and the chart showing share price ranges, earnings and dividends.

BALANCE SHEET DATA
(\$ Millions)

	Fiscal Year Ending					
	Apr. 30 1961	1967	1971	December 31 1972	1973	1974
Current Assets	13.8	30.0	31.2	46.8	63.5	71.9
Current Liabilities	3.0	14.2	14.0	19.7	14.4	12.7
Working Capital	10.8	15.8	17.2	27.1	49.1	59.2
Investments	-	12.4	42.2	39.8	51.5	71.8
Fixed Assets	-	39.8	93.0	100.2	93.1	98.1
Total Assets	36.6	82.2	166.3	186.8	208.1	241.8
<u>Capitalization</u>						
Long-term debt	2.2	-	45.0	45.1	-	-
Deferred Taxes	2.4	-	4.6	4.6	4.4	9.9
Minority Interests	-	4.5	1.8	5.4	19.1	20.3
Shareholders' Equity	29.1	63.5	100.9	112.0	170.2	199.0
	33.7	68.0	152.3	167.1	193.7	229.2



Management Fees

In 1974, in accordance with a sales agency agreement dated October 21, 1964, between Canex Placer, a wholly-owned subsidiary of Placer Development, and Noranda Sales Corporation, Noranda was paid \$291,000 in commissions by Placer.

Board of Directors

There are 12 directors of Placer. Of these three are officers of the company while two more are former officers of the company. Two are from Noranda, with the balance representing outside shareholders. A list of the outside directors, their occupations and years of service as a director is shown below. Of these only one, Mr. J.C. Dudley, is also a director of Noranda.

<u>Name</u>	<u>Principal Occupation</u>	<u>Director Since</u>
J.C. Dudley, New York, N.Y.	President, Dudley & Wilkinson, Inc. (Investment Consultants)	1964

J.E. Richardson, Vancouver, B.C.	Chairman of the Board and Chief Executive Officer, B.C. Telephone Company	1967
P.R. Sandwell, Vancouver, B.C.	Chairman of the Board and Chief Executive Officer, Sandwell and Company, Limited (Consulting Engineers)	1972
V.F. Taylor, Jr., Denver, Colorado.	President, Westhoma Oil Company	1959
H.R. Whittall, Vancouver, B.C.	Partner, Richardson Securities of Canada (Investment Dealers)	1956

Brunswick Mining and Smelting Corporation Limited

Financing the development of Brunswick's original mining operation was arranged by a group comprising First Maritime Mining Corporation (then controlled by M.J. Boylen interests), Patino Mining Corporation and Engineering Consultants Limited (a member of the K.C. Irving Group). Funds were also provided by S.G.M. which contracted to purchase zinc and lead concentrates for a twelve-year period.

Production from Brunswick's No. 12 underground zinc-lead mine began in 1964 at a rated capacity of 4,500 tons per day. Before production began, however, the company embarked on a major expansion programme. This involved the development of the No. 6 open-pit mine at a capacity of 2,250 tons per day and, through a wholly-owned subsidiary East Coast Smelting and Chemical Company Limited (East Coast) the construction of an 'Imperial Smelting Furnace' (I.S.F.), zinc-lead smelting facility at Belledune. In addition, to utilize the sulphuric acid produced at the smelter, construction of a diammonium phosphate fertilizer plant was begun, to be owned by Belledune Fertilizer Limited, in which Brunswick and Albright and Wilson Limited of the U.K would each own 50%.

As originally planned, these projects were budgeted to cost \$50.2 million. However, costs escalated significantly over budget, while at the same time profits from the original operation declined due to weaker metal prices. As a result, the company became seriously over-extended financially.

Accordingly, on March 10, 1967, an agreement was reached with Noranda whereby Noranda injected \$50 million through purchasing 100,000 \$5 preferred shares, convertible into common and carrying 100 votes per share, and \$49.5 million 6½% income bonds due April 30, 1977, convertible on the basis of one common share for \$5 principal amount. This agreement was subject to the redemption of previously outstanding first mortgage bonds of Brunswick and the raising of \$20 million in General Mortgage bonds by East Coast.

If exercised, conversion of its securities into common would give Noranda a total of 10 million shares, 51% of the total which would then be outstanding.

This refinancing was completed August 30, 1967, and Noranda assumed managerial responsibility. The Board of Directors was increased from 9 to 15, of which 8 were representatives of Noranda, two former directors having resigned. All corporate officers were replaced by Noranda representatives. Among operating personnel the mine manager remained but a new smelter manager was appointed.

By the end of 1967, the cost of the project which had been budgeted at \$50.2 million had risen to \$101.7 million, with further expenditures still necessary. Disputes arose over amounts owing for these projects resulting in several court actions with companies of the Irving group involved in their construction. These were eventually settled in 1971.

Although operating improvements were achieved in the years following Noranda's take-over, these were not sufficient to prevent losses being incurred. In 1970 and 1971 losses started to rise due to a strike, lower metal prices, higher labour costs and increased costs of materials and supplies, particularly at the smelter. By late 1971, the financial position had again become critical, as can be seen in the table showing the company's financial condition.

By this time, it had also become apparent that the 'I.S.F.' smelter was uneconomic due to sharply higher coke prices and increased labour costs. Further, due to their poor quality, a market no longer existed for the company's lead concentrates. Therefore, it was decided to convert the zinc-lead smelter to one producing lead only, capable of treating the entire production of lead concentrates. Operating costs would be reduced through lower coke consumption and a smaller work force. Zinc concentrates, which were of good quality,

would continue to be sold to S.G.M. in Belgium. To provide the funds necessary for this conversion, restore working capital and reduce interest expenses, a second refinancing scheme was undertaken.

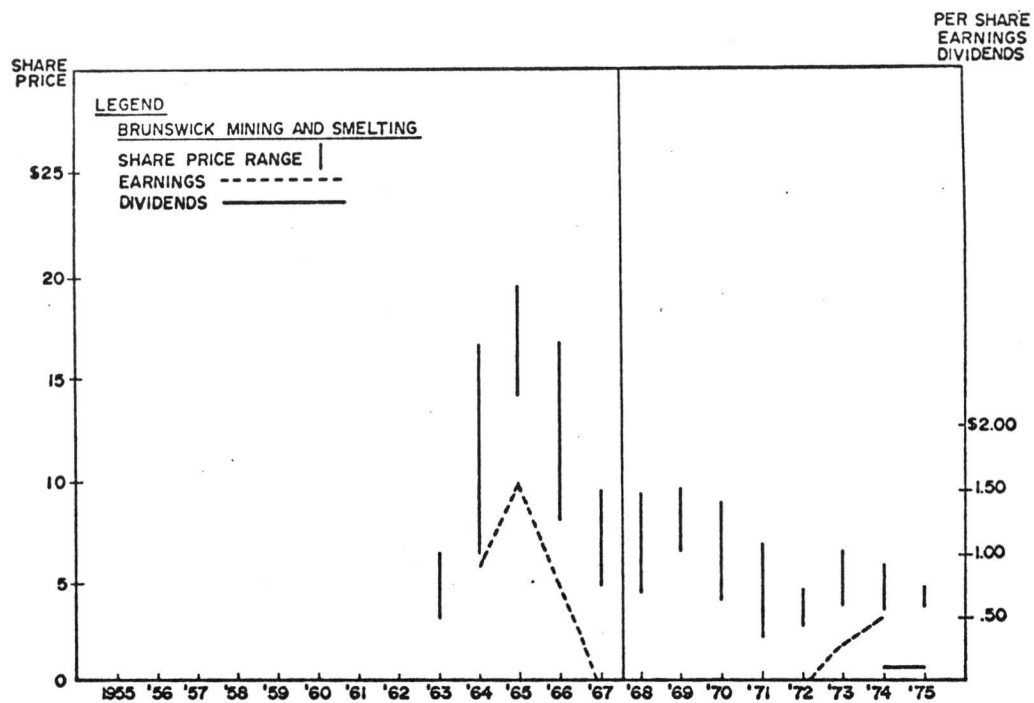
In this refinancing, Noranda converted its preferred shares and income debentures into 16,666,667 common shares. The increase in number compared to that specified in the original agreement was justified on the basis that Noranda was giving up the security provided by its first mortgage bonds and converting before the maturity date of the bonds. At the same time, shareholders were offered rights to buy 31 shares for every 100 owned at \$2.50 per share. This was underwritten by Noranda and provided \$20.2 million. Further, the assets of East Coast were transferred to Brunswick following which East Coast was bought by Noranda for \$1.5 million. Also included was an option to Noranda to acquire Brunswick's 50% interest in Belledune Fertilizer Limited at no cost. Noranda later exercised this option and, in addition, acquired the other 50% from Albright and Wilson. Belledune Fertilizer is now a division of Canada Wire and Cable.

The effect of this refinancing was to increase shareholders' equity from \$6.0 million to \$70.3 million. On a per share basis, reflecting the substantial increase in the number outstanding, equity rose from \$0.63 to \$2.05. The combination of technical and operating improvements and higher metal prices resulted in Brunswick becoming profitable in 1973 with dividend payments starting in 1974.

In acquiring control of Brunswick, Noranda has obtained a major orebody and mining complex with important long-term growth potential. At the same time, had it not stepped in when it did, Brunswick might have gone bankrupt. While undoubtedly another company would have eventually stepped in, it is quite possible that that would have occurred only after serious disruptions to the employees. Furthermore, in all probability, shareholders would have lost their entire investment.

Finally, control might well have passed into foreign hands. In conclusion, therefore, Noranda's involvement has been beneficial to all concerned.

The changes in Brunswick's earnings and financial position before and after each refinancing are shown in the tables which follow.



Management Fees

In 1974, in accordance with an agreement signed on June 22, 1967, Noranda received \$398,000 in management fees from Brunswick.

BRUNSWICK MINING AND SMELTING

BALANCE SHEET DATA

(\$ Millions)

	1966	1967	1970	Sept. 30 1971	Dec. 31 1971	1972	1973	1974
Current Assets	9.5	16.5	20.1	18.0	36.8	25.7	35.0	46.4
Current Liabilities	68.6	26.8	37.1	40.5	36.5	21.4	19.4	13.7
Working Capital (Deficit)	(59.1)	(10.3)	(17.0)	(22.5)	0.3	4.3	15.6	32.7
<u>Capitalization</u>								
Deferred Taxes	-	-	-	-	-	1.6	7.8	17.1
Long Term Debt	38.4	92.4	82.8	80.8	31.3	34.8	28.1	26.4
Shareholders' Equity	44.3	35.0	15.6	6.0	70.3	70.0	80.0	93.7
	<u>82.7</u>	<u>127.4</u>	<u>98.4</u>	<u>86.8</u>	<u>101.6</u>	<u>106.4</u>	<u>115.9</u>	<u>137.2</u>
Shares outstanding 000	8,565	8,684	9,451	9,451	34,215	34,218	34,267	34,267
Equity per share	\$5.17	\$4.03	\$1.65	\$0.63	\$2.05	\$2.05	\$2.33	\$2.73

INCOME STATEMENT DATA

(\$ Millions)

	1966	1967	1969	1970	1971 ^a	1972	1973	1974
Net Revenues	22.8	25.9	39.5	39.2	47.1	53.2	72.3	94.7
Operating Earnings before interest	7.9	(7.1)	4.0	(3.3)	(1.4)	3.1	19.3	29.9
Interest Expenses	1.4	2.3	6.8	7.2	7.4	3.0	2.7	2.0
Earnings before taxes	6.5	(9.4)	(2.8)	(10.5)	(8.8)	0.1	16.6	27.9
Taxes	-	0.2	0.4	0.1	1.1	0.5	6.7	10.8
Net Earnings before extraordinary items	6.5	(9.6)	(3.2)	(10.6)	(9.9)	(0.4)	9.9	17.1
Earnings Per Share	-	-	(0.36)	(1.12)	(1.05)	(0.01)	0.29	0.50
Dividends Per Share	-	-	-	-	-	-	-	0.10

^a Restated to reflect change in accounting in 1972. Revenue now recorded on production basis as opposed to shipment basis used previously, while taxes now recorded on tax allocation basis.

Board of Directors

There are 15 directors of Brunswick. Of these 8 are with Noranda. A list of the outside directors, their occupations and years of service as a director is shown below. Of these only one, Mr. A. Monast, is also a director of Noranda.

<u>Name</u>	<u>Principal Occupation</u>	<u>Director Since</u>
H. Blaise	Director, Société Générale des Minerais, Belgium	1954
E.R. Fingland	Chartered Accountant	1974
G. Finn	President and Chief Executive Officer Assumption Mutual Life Insurance Company	1971
J.G. Fritzinger, Jr.	Partner, Dewey, Ballantine, Bushby Palmer & Wood (Attorneys-at-Law)	1974
G. Kerlin	Partner, Shearman & Sterling (Attorneys-at-Law)	1952
J.A. MacMurray	Partner, Richardson Securities of Canada (Investment Dealer)	1973
A. Monast, Q.C.	Partner, St. Laurent, Monast, Walters and Vallieres (Advocates)	1967

British Columbia Forest Products (BCFP)

In January 1969, Noranda made a public offer to acquire 400,000 shares (10.8%) of BCFP. The price was to be one-half a share of Noranda plus \$22.50 in cash. On the day prior to the announcement, the closing share prices of Noranda and BCFP were \$35 and \$31.25 respectively. This meant the offer was equivalent to \$40 per BCFP share (\$20 per 1975 share reflecting 1973 2 for 1 split), a 28% premium.

At the time of the offer, Noranda and Mead each owned directly 427,700 shares (11.5%). In addition, through Brunswick Pulp and Paper Company, a U.S. company, Mead also had a 50% interest in 1,000,000 shares. Argus Corporation owned 500,000 shares (13.4%)

Noranda further announced that, upon completion of the offer, its holdings and those of Mead would be equalized.

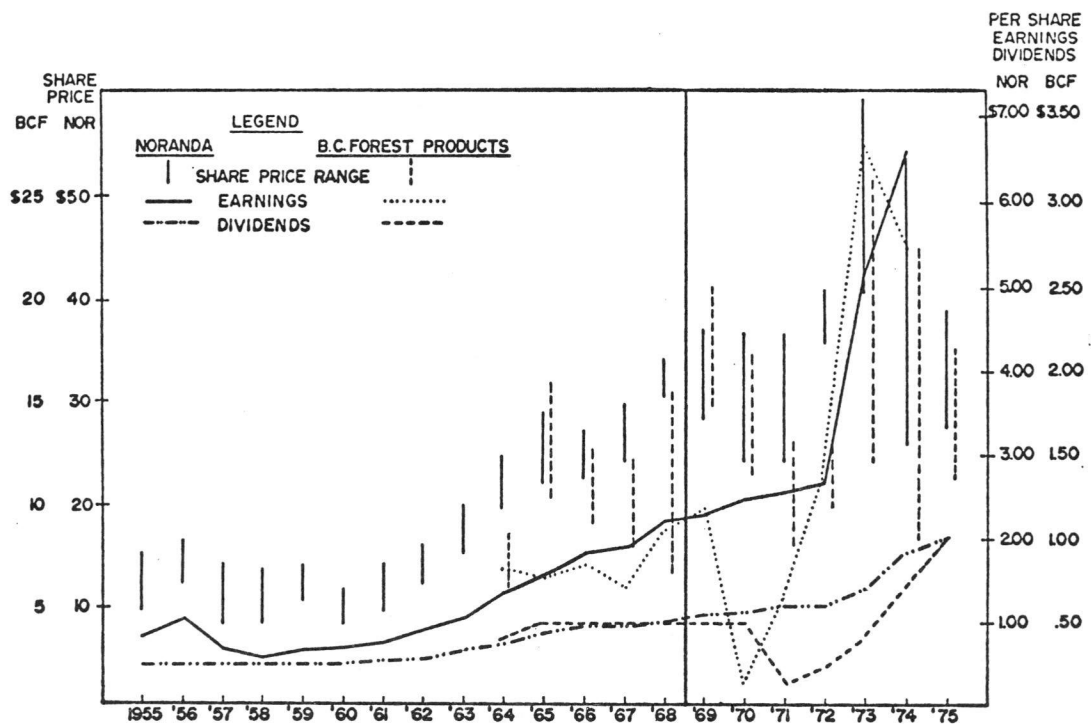
The shares owned directly by Mead and Noranda had been acquired in the open market prior to the offer. Argus was opposed to the offer and, in an effort to block it, began to buy shares in the market. In turn, this led Noranda, acting for itself and Mead, also to buy shares in the market. Argus then withdrew its active opposition and apparently resold the shares it bought, since its final holding did not change. Upon completion of the offer Noranda and Mead acquired an additional 794,000 shares which raised their total holdings to 2,149,400.

Following the offer, a voting trust agreement representing the combined holdings of the two companies was made in favour of Northwood Pulp. Of the fourteen man Board of Directors four, representing Argus Corporation, resigned. They were replaced by three representatives from Noranda, of whom two were from Noranda itself and one from Placer, and one representative from Mead, giving it a total of three. Mr. A. Powis, President of Noranda, became Chairman of the Board.

Argus Corporation did not sell any shares at the time of the offer but subsequently, in October 1973, sold half its holdings, reducing its interest to 6.6%.

Except for the changes at the Board level, there were no changes among the officers of the company. Later, however, the Executive Vice-President, Mr. T.G. Rust, left to become President of another, unrelated company.

In the chart below, the share prices, earnings and dividends of BCFP are shown together with those of Noranda, with the scales adjusted to reflect the terms of the offer. In this chart, because BCFP shares still trade, no recognition can be given to the cash part of the offer.



As noted earlier, BCFP embarked on a major expansion project at Mackenzie after Noranda and Mead gained control. This was completed early in 1973. Since control was acquired by Noranda and Mead, BCFP has made acquisitions designed to strengthen its timber supply position.

The earnings collapse in 1970, which resulted in a dividend reduction in 1971, was due to weak economic conditions, strikes and the higher value of the Canadian dollar. Key financial data are shown below.

BRITISH COLUMBIA FOREST PRODUCTS

BALANCE SHEET DATA

(\$ Millions)

	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
Working Capital	20.3	17.0	20.8	24.5	31.9	36.5	35.4	12.6	17.7	47.4	47.0
Fixed Assets	90.1	96.8	111.7	128.8	129.5	126.9	142.9	192.3	207.5	213.8	240.3
Total Assets	121.7	132.0	150.7	169.8	183.4	184.6	198.4	253.7	280.0	316.8	358.3
Capitalization											
Long-Term Debt	35.4	33.6	32.7	46.9	45.2	42.3	62.1	79.4	88.1	100.1	103.5
Deferred Taxes	14.8	20.2	24.0	26.4	29.9	29.8	31.0	36.1	43.9	50.2	58.9
Shareholders' Equity											
Preferred	-	-	12.0	11.8	11.2	10.9	10.5	10.1	9.8	9.4	9.1
Common	61.3	63.3	65.4	70.9	77.7	82.6	79.7	84.3	92.5	114.8	128.6
Total	111.5	117.1	134.1	156.1	164.0	165.6	183.3	210.0	234.3	274.5	300.1
Book Value Per Common Share	\$8.87	\$9.14	\$9.43	\$9.55	\$10.45	\$11.12	\$10.71	\$11.37	\$12.44	\$15.24	\$17.06

INCOME AND CASH FLOW DATA

(\$ Millions)

	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
Net Sales	75.8	90.2	102.9	112.6	125.4	135.5	120.5	145.2	173.8	253.6	279.1
Earnings Before Interest Expenses	13.9	13.1	14.4	13.1	19.1	21.7	4.7	13.5	23.8	54.4	50.5
Interest Expenses	1.5	1.8	1.7	2.2	2.5	2.5	2.4	2.5	2.6	6.2	8.3
Earnings Before Taxes	12.4	11.3	12.7	10.9	16.6	19.2	2.3	11.0	21.2	48.2	42.2
Taxes	6.7	5.9	6.2	4.9	8.3	9.8	1.0	5.5	10.4	22.7	21.1
Net Earnings	5.7	5.4	6.5	6.0	8.3	9.4	1.3	5.5	10.8	25.5	21.1
Cash Flow	17.9	18.3	19.0	18.7	18.0	18.4	11.6	21.2	30.0	48.5	47.0
Capital Spending	24.8	14.6	23.7	27.7	6.1	6.7	25.3	60.7	31.7	24.5	44.6
Earnings/Common Share	\$0.83	\$0.78	\$0.85	\$0.72	\$1.03	\$1.17	\$0.09	\$0.65	\$1.37	\$3.33	\$2.73
Cash Flow/Common Sh.	\$2.59	\$2.64	\$2.66	\$2.41	\$2.34	\$2.39	\$1.48	\$2.78	\$3.95	\$6.41	\$6.16
Dividends/Common Share	\$0.40	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50	\$0.10	\$0.20	\$0.40	\$0.80
Return on Common Shareholders' Equity	9.3%	8.5%	9.0%	7.5%	9.8%	10.5%	0.9%	5.8%	11.1%	21.7%	16.0%

Board of Directors

Name

Principal Occupation

Executive Committee

A. Powis,
Chairman of the Board,
Toronto, Ontario.

President and Chief Executive
Officer, Noranda Mines Limited.

I.A. Barclay,
Vancouver, B.C.

President and Chief Executive
Officer.

C.D. Dickey, Jr.,
Philadelphia, Pa.

Chairman and President,
Scott Paper Company.

O.F. Lundell, Q.C.,
Vancouver, B.C.

Senior Partner,
Lawson, Lundell & Co.

A.M. McGavin,
Vancouver, B.C.

Chairman,
McGavin Toastmaster Limited.

J.W. McSwiney,
Dayton, Ohio.

Chairman and Chief Executive Officer,
The Mead Corporation.

G.H. Sheets,
Dayton, Ohio.

Executive Vice-President,
The Mead Corporation.

A.H. Zimmerman,
Toronto, Ontario.

Executive Vice-President,
Noranda Mines Limited.

Other Directors

A.F. Armstrong,
New Westminster, B.C.

Chairman, Scott Paper Limited.

P.C. Baldwin,
Philadelphia, Pa.

Vice-Chairman, Scott Paper Company.

K.P. Benson,
Vancouver, B.C.

Senior Executive Vice-President.

H.T. Mead,
Dayton, Ohio.

Chairman, Finance Committee,
The Mead Corporation.

J.D. Simpson,
Vancouver, B.C.

Former Chairman,
Placer Development Limited.

T.B. Stanley, Jr.,
Stanleytown, Va.

Director,
The Mead Corporation.

R.B. Wilson,
Victoria, B.C.

Retired Businessman.

Fraser Companies, Limited

In April 1974, Noranda, through its subsidiary Northwood Mills Ltd., acquired a 13% holding in Fraser Companies from Genstar. Subsequently, it acquired an additional 10% through private purchases and 28% from an offer to all shareholders conducted through the facilities of the Toronto and Montreal Stock Exchanges. The public offer was priced at \$28.75, which proved to be the high for the year.

Following the take-over, three of the nine directors were replaced by two executives from Noranda and another outside director. Mr. A.H. Zimmerman, Executive Vice-President of Noranda, became Chairman of the Board and the former chairman, Mr. H.R. Crabtree, became Vice-Chairman. No other changes occurred among existing officers but an outsider, Mr. J.P. Fisher, was appointed to the position of Senior Vice-President and, subsequently has been appointed Executive Vice-President.

Fraser is expected to benefit from having access to a source (Northwood Pulp) of high quality pulp for use in its paper mills. In the past, the company has suffered from a shortage of such material, particularly when markets have been strong. Moreover, it is believed that there is potential for improving the utilization of Fraser's timber resources.

Finally, Fraser is about to embark on a major modernization programme. It is believed that Noranda can provide technical and financial assistance with this project.

In 1974, Fraser changed its method of converting foreign currencies into Canadian dollars. Previously, U.S. dollars were expressed as an equal number of Canadian dollars. Now, current assets and liabilities are converted at the exchange rate prevailing at the balance sheet date, while non-current assets and liabilities are converted at the rate prevailing at the transaction date. Retroactive adjustments to reflect

this change increased net fixed assets and retained earnings by \$1.1 million on January 1, 1974. Had the change not been made, 1974 earnings would have been \$0.4 million, \$0.19 per share higher.

Also in 1974, the company changed its auditors from the firm of Touche Ross & Company to that of Peat, Marwick, Mitchell & Company. This change was made because Peat, Marwick were already auditors for Northwood Mills and Northwood Pulp and Timber.

Board of Directors

Name

Principal Occupation

Executive Committee

A.H. Zimmerman,
Chairman of the Board,
Chief Executive Officer.

Executive Vice-President,
Noranda Mines Limited.

H.R. Crabtree,
Vice-Chairman of the Board.

Chairman and President,
Wabasso Limited.

C.R. Recor,
President.

President.

W.R. Clerihue

President and Chief Executive
Officer, Celanese Canada Limited.

D.J. Hennigar

Atlantic Regional Director,
Burns Bros. and Denton Limited.

Other Directors

C.E. Beigie

Executive Director and
Comptroller, C.D. Howe Research
Institute.

R.B. Brennan,
Senior Vice-President.

Chairman of the Board, G.E.
Barbour Co. Ltd.

K.V. Cox

President, The New Brunswick
Telephone Company, Limited.

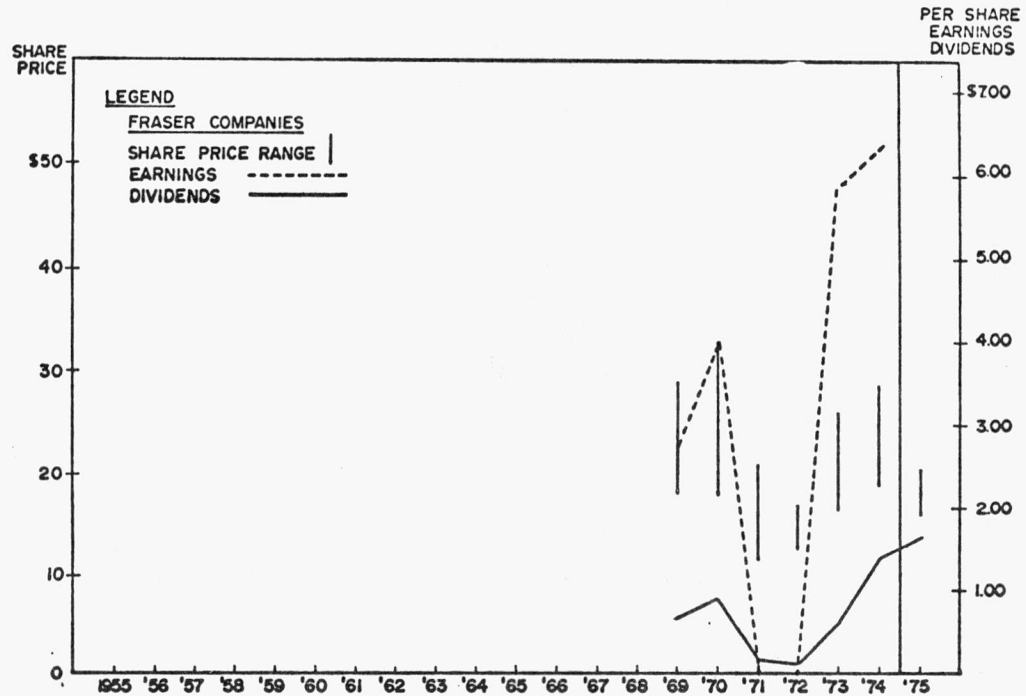
C.M. Frantz

President, Northwood Mills Ltd.

F.H. Sobey

Honorary Chairman, Sobey Stores, Ltd.

A chart and tables containing financial data for the company follow.



FRASER COMPANIES, LIMITED

BALANCE SHEET DATA

(\$ Millions)

	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Working Capital	<u>23.2</u>	<u>25.3</u>	<u>7.0</u>	<u>11.7</u>	<u>21.8</u>	<u>35.5</u>
Fixed Assets ^a (net)	<u>63.6</u>	<u>67.3</u>	<u>75.6</u>	<u>73.3</u>	<u>75.4</u>	<u>74.4</u>
Total Assets ^a	<u>97.4</u>	<u>102.0</u>	<u>97.6</u>	<u>95.1</u>	<u>117.3</u>	<u>135.2</u>
<u>Capitalization</u>						
Long-Term Debt	14.6	13.7	12.9	12.1	11.3	10.5
Deferred Taxes	8.9	7.1	2.4	1.7	6.9	7.7
Shareholders' Equity	<u>66.0</u>	<u>73.6</u>	<u>68.4</u>	<u>67.5</u>	<u>81.1</u>	<u>92.7</u>
Total	<u>89.5</u>	<u>94.4</u>	<u>83.7</u>	<u>81.3</u>	<u>99.3</u>	<u>110.9</u>
Book Value Per Share	<u>\$28.45</u>	<u>\$31.56</u>	<u>\$29.31</u>	<u>\$28.89</u>	<u>\$34.63</u>	<u>\$39.56</u>

(a) For the years 1969-1972, the amounts shown do not reflect the change in accounting for foreign exchange as outlined previously, but are as originally reported.

INCOME AND CASH FLOW DATA

(\$ Millions)

	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Net Sales	<u>91.3</u>	<u>73.7</u>	<u>62.6</u>	<u>90.9</u>	<u>111.9</u>	<u>158.2</u>
Earnings Before Interest Expenses	7.1	4.1	(10.0)	(0.9)	14.7	26.2
Interest Expenses	<u>0.7</u>	<u>0.7</u>	<u>0.6</u>	<u>0.6</u>	<u>0.5</u>	<u>0.5</u>
Earnings Before Taxes	6.4	3.4	(10.6)	(1.5)	14.2	25.7
Taxes	<u>2.0</u>	<u>0.8</u>	<u>(5.7)</u>	<u>(0.7)</u>	<u>6.4</u>	<u>10.8</u>
Net Earnings	<u>4.4</u>	<u>2.6</u>	<u>(4.9)</u>	<u>(0.8)</u>	<u>7.8</u>	<u>(6.7)</u>
Cash Flow	<u>12.1</u>	<u>6.6</u>	<u>(4.3)</u>	<u>4.8</u>	<u>19.3</u>	<u>22.6</u>
Capital Spending	<u>10.6</u>	<u>40.2</u>	<u>14.8</u>	<u>1.9</u>	<u>7.3</u>	<u>5.9</u>
Earnings Per Share	\$1.90	\$1.12	(\$2.08)	(\$0.32)	\$3.31	\$6.35
Cash Flow Per Share	\$5.20	\$2.85	(\$1.86)	\$2.04	\$8.24	\$9.63
Dividends Per Share	\$0.65	\$0.90	\$0.15	\$0.10	\$0.60	\$1.40
Return on Shareholders' Equity	6.7%	3.6%	(7.1%)	(1.1%)	9.6%	16.1%

Tara Exploration and Development

In January 1974, following delays in obtaining its state mining lease, Tara was no longer able to raise money on its own to continue development of its zinc-lead mine in Ireland. As a result, Noranda arranged a \$6 million line of credit for the company with the Toronto-Dominion Bank. In return, Noranda received warrants entitling it to buy 100,000 shares (1.5%) at \$16 for five years. Agreement was also reached whereby Tara, Northgate Exploration and Noranda would together study the feasibility of constructing a zinc refinery in Ireland.

On February 15, 1974, Cominco Ltd. made a public offer to acquire all outstanding shares of Tara at \$25. Cominco made its offer in conjunction with Charter Consolidated of the U.K., an associate of the Anglo-American Corporation of South Africa. At the time of the offer, Cominco already owned 492,000 shares (7.6%), Charter Consolidated 643,000 (10.1%) and Anglo-American 232,000 shares (3.6%), a total of 1,367,000 shares or 21.2%.

At the same time Northgate Exploration Limited owned 9.8% of the shares while Noranda disclosed that it owned in excess of 12%. Shortly after the offer was made, the President of Tara announced that holders of more than 50% of the shares had indicated that they would reject the offer. Noranda's holding was considered part of this 50%. Upon expiry of the offer, Cominco announced that, together with its associates, it owned approximately 31% of the shares. Noranda, meanwhile, had increased its holding to 19.9%.

Subsequently, Noranda has guaranteed additional loans for Tara and is providing some managerial assistance. Agreement has since been reached with the government over terms of the state mining lease. In addition to establishing taxation levels, the agreement calls for the government to receive a 25% interest in the mine. Development is now proceeding.

Kerr Addison Mines Limited

Kerr Addison has been involved in two separate series of transactions whereby it acquired several other associated companies. In each of these Noranda's direct interest in Kerr Addison was increased.

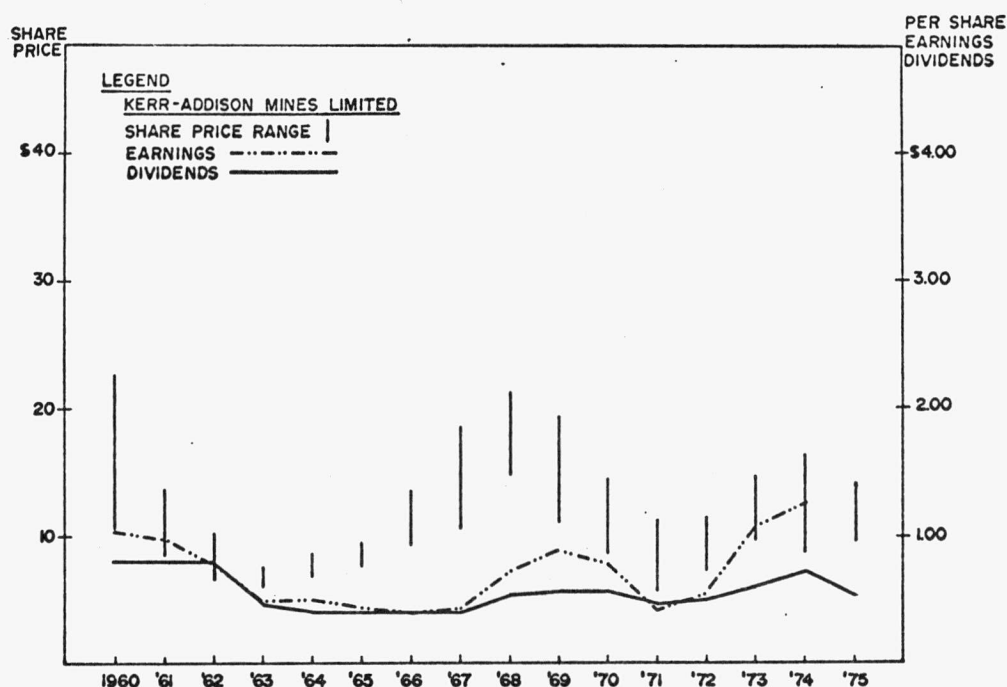
In 1963, the company acquired through acquisition or amalgamation the holdings of Anglo-Huronian Limited, Bouzan Mines Limited and Prospectors Airways Company Limited. These were achieved through issuing Kerr shares for shares of the other companies. At the time each of these companies had interlocking interests in one or more of the others as well as common interests in other ventures, mainly exploration. With the exception of Kerr Addison, which obtained the majority of its income from its gold mine, the other three obtained their income entirely from dividends and interest.

Noranda and other associated companies had varying interests in all four companies. At the same time as this transaction was taking place, Noranda was in the process of taking over Mining Corporation which also had interests in three of the companies. Upon completion of the two transactions, Noranda's direct interest in Kerr Addison had risen from 14% to 29% and its total interest including that of associates had risen from 36% to 41%. Its net beneficial interest increased from 34% to 37%.

Early in 1968, Kerr Addison acquired the assets of Quemont Mining Corporation Limited and Normetal Mining Corporation Limited in return for Kerr Addison shares. At the time Noranda held 49% direct interests in each, acquired as a result of the Mining Corporation take-over. In addition to their zinc-copper mines, Quemont and Normetal had 5.75% and 4.00% interests respectively in Canadian Electrolytic Zinc. The Quemont mine closed in 1971 while the Normetal mine closed in 1975. As a result of this transaction, Noranda's direct interest in Kerr Addison increased from 32% to 38% while its beneficial interest increased from 40% to 43%.

Both as a result of these transactions and through open market purchases, Kerr Addison has acquired 1.6 million shares of Noranda.

A share price chart and key financial data follow.



BALANCE SHEET DATA

(\$ Millions)

		1963	1967	1968	1972	1973	1974
		(1)	(2)				
Working Capital (a)		13.4	14.6	11.7	20.7	15.8	32.1
	(b)	(15.9)	(15.9)	(16.6)	(26.4)	(20.1)	(32.1)
Investments	(a)	0.2	10.7	13.5	24.5	30.5	30.7
	(b)	(0.2)	(16.1)	(27.2)	(60.0)	(78.8)	(54.3)
Total Assets	(a)	19.3	33.8	35.8	64.1	73.4	94.5
Shareholders' Equity	(a)	17.5	33.8	34.9	60.8	70.1	82.0
Per Share		\$3.69	\$4.50	\$4.90	\$6.39	\$7.35	\$8.60

(a) Book Values.

(b) Marketable securities and investments valued at market.

(1) June 30, 1963 before amalgamation.

(2) June 30, 1963 after amalgamation.

Conclusion

The investments discussed in this section were undertaken for different reasons. Whereas all were undoubtedly expected to be of long-term benefit to Noranda and its shareholders, in several cases, the rewards were to be obtained only after further substantial outlays of time, effort and money by Noranda.

Placer was considered a well-managed company with good long-term potential, and has been treated as an investment by Noranda, its involvement having been minimal.

In contrast, the investment in Brunswick has required a major commitment of time and effort by Noranda's management. In addition, as outlined previously, it had to inject large amounts of capital. In becoming involved Noranda undoubtedly saved Brunswick but it took five years before the company became profitable.

In a similar manner, Noranda's involvement in Tara will only be rewarded after a considerable period of time during which the mine is developed and debt repaid. By stepping in as it did, Noranda helped the company through a period of financial difficulty. It is providing technical and managerial assistance to the company but has not, to date, taken any direct role in Tara's management.

The investment in Kerr Addison has been an important holding for Noranda for many years. It has remained a separate company and operates with some autonomy, conducting its own exploration programme and able to finance and develop its own projects. As described previously, it has been strengthened by acquiring a number of other companies within the group. Such companies were either investment holding companies of a relatively passive nature or companies whose mines were on the decline. This policy was consistent with Noranda's own actions in taking over Waite Amulet and Mining Corporation.

On a smaller scale, this policy was also pursued with Pamour, which took over Aunor and Hallnor both of whose mines could no longer operate economically on their own. Again, the merging of the three companies has resulted in a stronger entity.

In leaving Kerr Addison and Pamour as independent companies, it is reasonable to conclude that an important consideration was their substantial holdings in Noranda itself.

The acquisition of BCFP and Fraser has considerably strengthened Noranda's position in the forest products industry. As a group, therefore, it is now an important factor in this industry. In the case of BCFP, as a well-managed company, the involvement of Noranda and Mead has been relatively passive. As noted previously, the company proceeded with a major expansion project and has made some acquisitions of its own since the take-over. These should benefit shareholders over the longer term.

In the case of Fraser, it is apparent that Noranda's involvement will be more active. With its other resources in this industry, it is hoped that its participation will benefit Fraser shareholders over the longer term. It is too soon to draw any conclusion about this situation.

On balance, it can be concluded that Noranda's role in the companies discussed in this section has been of benefit to all shareholders as well as to itself. In no case is there any evidence of unfair treatment of minority shareholders.

C) FINANCING SITUATIONS

As stated earlier, many of Noranda's important holdings have been acquired through financing a project to development. In return for spending money on exploration and providing the funds needed for development, either directly or by loan guarantees, Noranda has re-received shares in the company owning the project. Frequently these have been supplemented by open-market purchases. In this section, coverage will be limited to companies in which a public interest still exists. One of the important mines financed in this way, Geco, has been covered in section (A) due to its amalgamation with Noranda.

Gaspé Copper Mines Limited

A total of 2,650,000 shares of this company were issued in return for properties and exploration funds. Of these, all except 120,000 were issued to Noranda Mines. As a result, Noranda's ownership in Gaspé was 95.5% at the time a production decision was taken in 1950.

Development and construction of the Gaspé project, including initial expenditures for the town of Murdochville and funds for working capital, required loans totalling \$46.7 million. Of these, Noranda advanced \$42.8 million and Waite-Amulet \$3.9 million. These were fully repaid in 1963. Dividend payments started late that year.

In 1964, the decision was taken to develop the Copper Mountain orebody and expand the concentrator to 11,000 tons per day. This was completed in 1968 at a cost of \$14.1 million, the funds coming from the company's own internal sources.

In 1967, Gaspé and Noranda each took 10% interests in an oil exploration programme in Western Canada. Other participants were Great Plains Development, then controlled by Burmah Oil of the U.K and now a wholly-owned subsidiary of Norcen Energy Resources, and Barber Oil of the U.S. The programme was not successful in making any significant discoveries and was terminated in 1973. During the seven-

year period of its existence, Gaspé's share of the expenditures amounted to \$4.1 million from which \$1.6 million was recovered at its termination.

Litigation undertaken by the company against the United Steelworkers as a result of a strike in 1957 was finally settled in the company's favour in 1969.

In 1971, the company embarked on a major expansion of its facilities. This involved the construction of a new 22,000 tons per day concentrator, an expansion of the smelter to 100,000 tons per year, an acid plant and a plant to treat oxide ore. A total of \$123 million was spent on this project, the majority of which was completed in 1973. A total of \$102.6 million was obtained from issuing 5-1/2% income debentures to Noranda.

Since completion of this project, Gaspé has encountered serious operating problems. These have not yet been overcome and meanwhile losses are being incurred. As a result, dividend payments were suspended at the beginning of 1975.

The earnings and dividend history of Gaspé Copper are shown below:

<u>GASPÉ COPPER MINES</u>										
(\$)										
	<u>1956</u>	<u>1957</u>	<u>1958</u>	<u>1959</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>	<u>1964</u>	
EPS	3.10	(0.88)	0.45	0.52	1.39	0.14	2.11	2.05	1.81	
Dividend	-	-	-	-	-	-	-	0.30	1.20	
	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
EPS	2.03	3.42	3.88	3.69	3.74	4.41	3.74	2.98	0.45	0.07
Dividend	1.20	1.80	2.40	2.60	2.60	3.10	2.80	2.80	2.80	2.80

Board of Directors

There are seven directors of Gaspé Copper. Of these, five are officials of Noranda while the two outside directors are also directors of Noranda.

Mattagami Lake Mines Limited

The company was incorporated in 1958 and issued its first shares for claims on which an important zinc-copper discovery had been made. The discovery had been made by a syndicate of six mining companies. Arrangements for financing exploration and development were made with three companies, Placer Development, McIntyre Porcupine and Noranda.

In total, these three companies provided \$5 million through purchasing treasury shares equal to two-thirds of the shares then outstanding. In return for these arrangements, these three companies each appointed two members to the nine-man Board of Directors. The decision to put the property into production was taken in 1959. As development was proceeding, a dispute over control of the company arose between McIntyre on the one hand and Noranda and Placer on the other. This was only settled after Noranda and Placer acquired sufficient shares to give them control of the company. Subsequently, McIntyre's representatives resigned from the Mattagami Board and the company sold its shares.

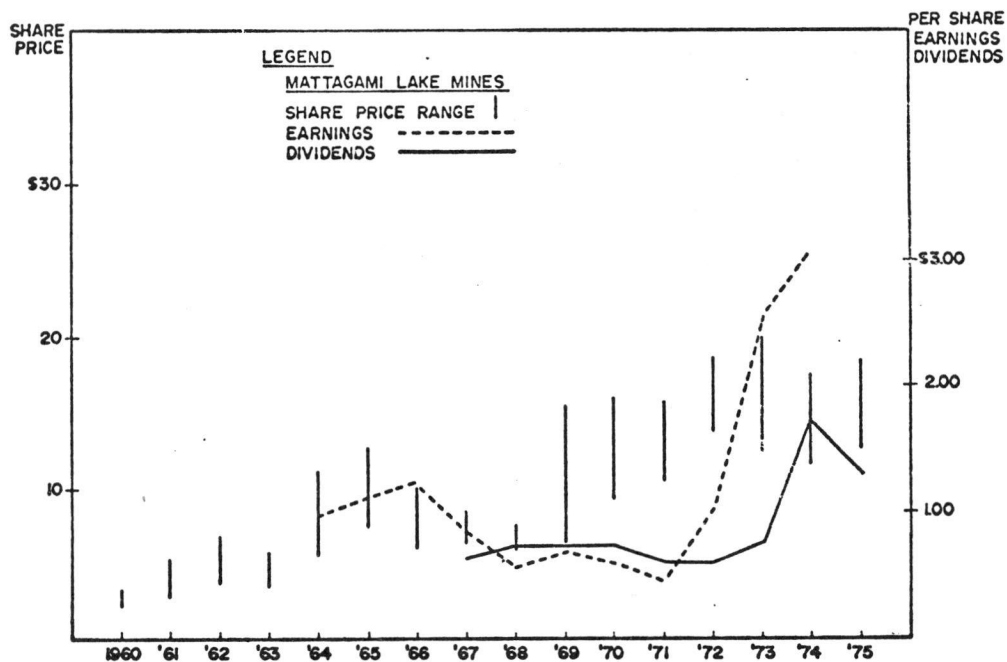
Financing for development of the mine and Mattagami's share of the construction of the Valleyfield zinc plant was obtained through issuing \$15 million in income debentures to shareholders on a pro-rata basis. The debentures carried as a bonus, common shares equal to 10% of the total previously outstanding and were underwritten by Noranda and Placer. Additional funds were provided as needed by Noranda and Placer, both directly and through guaranteeing bank loans. Production began late in 1963.

All debt was repaid by the end of 1966 and in 1967 Mattagami began paying dividends. In that year, it also undertook a "modest programme of outside exploration". In the first two years, about \$400,000 was spent. In 1969, the company had budgeted to spend another \$400,000 but this was exceeded when it made an important discovery in the

Sturgeon Lake area of Northwestern Ontario on land belonging to Abitibi Paper Company Ltd. A new company, Mattabi Mines Limited, was established and a zinc-copper-silver mine brought into production in 1972. Financing for this project was obtained through bank loans which were repaid in 1974.

In addition to the Mattabi discovery, Mattagami has also succeeded in finding several additional ore zones in the same area, but on wholly-owned ground. One of these was sold to a subsidiary of Falconbridge Copper and was brought into production late in 1974. Two others are being developed by Mattagami through its Lyon Lake Division with production due to start at a rate of 1,000 tons per day in 1977.

Following the Mattabi discovery, Noranda and Placer both added to their holdings in Mattagami through open-market purchases. A chart showing the history of Mattagami Lake's share price movements together with earnings and dividends is shown below.



Important financial data is shown below:

BALANCE SHEET DATA						
(\$ Millions)						
	<u>1963</u>	<u>1966</u>	<u>1970</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Current Assets	3.8	14.6	19.4	47.1	78.1	93.6
Current Liabilities	<u>17.2</u>	<u>2.0</u>	<u>1.6</u>	<u>20.1</u>	<u>20.3</u>	<u>34.9</u>
Working Capital	(13.4)	12.6	17.8	27.0	57.8	58.7
	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Total Assets	<u>44.2</u>	<u>53.6</u>	<u>49.9</u>	<u>116.0</u>	<u>143.2</u>	<u>163.7</u>
	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>Capitalization</u>						
Long-Term Debt	18.9	-	-	37.1	27.8	2.4
Deferred Taxes	-	-	-	-	3.3	3.5
Shareholders' Equity	<u>8.1</u>	<u>51.6</u>	<u>48.3</u>	<u>52.5</u>	<u>72.9</u>	<u>96.2</u>
Total	<u>27.0</u>	<u>51.6</u>	<u>48.3</u>	<u>89.6</u>	<u>104.0</u>	<u>102.1</u>

Management Fees

In 1974, fees were paid by Mattagami Lake as follows:

To Noranda Mines Limited	
for management of C.E.Z.	\$213,750
for accounting and head office facilities	154,000
To Noranda Sales Corporation Limited	
as sales agent for Mattagami Lake	\$282,000
as sales agent for Mattabi	145,000

Board of Directors

There are ten directors of Mattagami Lake, four from Noranda and two from Placer. The names of the four outside directors are listed below.

<u>Name</u>	<u>Principal Occupation</u>	<u>Director Since</u>
J.M.R. Corbet, Toronto, Ontario.	Company Director	1958
N.B. Keevil, Vancouver, B.C.	President and Chairman, Teck Corporation Limited.	1971
R. Letourneau, Q.C. Quebec, Quebec.	Senior partner in legal firm of Letourneau, Stein, Marseille, Selisle & LaRue	1963
J.B. Redpath, Toronto, Ontario.	President, Dome Mines Limited.	1958

Dome Mines was a member of the original Mattagami syndicate and owns 994,600 shares of Mattagami Lake, equal to 7.5%. Teck Corporation owns 665,200 shares (5.0%) of Mattagami Lake. A wholly-owned subsidiary was a member of the original syndicate.

Orchan Mines Limited

In 1958, Orchan discovered an orebody on its property adjoining that of Mattagami Lake. During that year, Noranda, Waite-Amulet and Anglo-Huronian reported that together they held a 37% interest. This was later increased through additional purchases to a total of 60%. Noranda assumed responsibility for management and advanced funds on an interim basis in order to complete exploration and planning for production. In 1961, the decision was taken to put the mine into production at the rate of 1,000 tons per day. In addition, custom milling facilities were to be provided for another small Noranda-managed operation. Furthermore, Orchan assumed an 18 3/4% interest in the zinc plant to be built at Valleyfield. Financing for these projects was obtained in part through the sale of income debentures to shareholders on a pro-rata basis underwritten by Noranda with the balance from term bank loans guaranteed by Noranda.

Production began late in 1963. Debt repayment was completed and dividends began in 1968.

In addition to production from its own mine, Orchan has also acquired several other small orebodies in the area. In two cases, these acquisitions were made for shares. In each case the acquisition was from interests not related to the Noranda group, and involved less than 10% of the shares outstanding.

The earnings and dividend history of Orchan are set forth below:

	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Earnings per share \$	0.41	0.59	0.54	0.56	0.45	0.55	0.52	0.33	0.57	0.73	0.85
Dividends per share \$	-	-	-	-	0.15	0.40	0.40	0.40	0.40	0.40	0.46

Canadian Electrolytic Zinc

In 1961, when the decision was made to build a zinc plant at Valleyfield, ownership was distributed among five companies within the Noranda group. However, the interests obtained did not accurately reflect the respective ore reserve positions or productive capacities of the various companies, but rather their individual bargaining power. In particular, because Mattagami Lake had, while McIntyre was in control, been considering building its own plant, it demanded, and received, the largest interest (62.5%). The balance was then split between Orchan and the three Mining Corporation companies, Geco, Quemont and Normetal. Later, Geco became wholly-owned by Noranda while Quemont and Normetal were taken over by Kerr Addison and their mines closed.

In order to adjust the ownership interests and reflect more accurately the relative importance as zinc producers of the owners, financing for the latest expansion has been contributed in different proportions to the original ownership. New ownership interests will take effect as of January 1, 1976. These are summarized below.

Canadian Electrolytic Zinc Ownership

	<u>Original Plant</u>	<u>Cost of Expansion</u>	<u>Expanded Plant</u>
Mattagami Lake	62.50%	30.0%	51.67%
Noranda (Geco)	9.00%	50.0%	22.67%
Orchan	18.75%	10.0%	15.83%
Kerr Addison	9.75%	10.0%	9.83%
(Quemont 5.75%)			
(Normetal 4.0%)	100.00%	100.0%	100.00%

Brenda Mines Ltd.

The Brenda property was first examined by Noranda in the 1955-57 period, but the results obtained were not sufficiently encouraging to justify further work at that time.

Serious exploration was resumed in 1965, financed in part by Japanese money. As a result of this work, and faced with competition from Power Corporation, in 1966 Noranda acquired an option to provide financing for the project. The decision to develop the mine at an estimated cost of \$60 million was taken in 1967. Noranda invested \$27.5 million in income debentures and agreed to cover any overruns. In return for providing the junior financing, Noranda received, as a bonus, 1,740,000 shares (40.6%). Added to those bought in the open market, Noranda then held a total of 50% of the shares. The remaining funds were obtained through the issuance of \$25 million first mortgage bonds to the Bank of Nova Scotia and \$7.5 million in second mortgage bonds to Japanese interests. Noranda assumed responsibility for management and, in accordance with its financing agreement, injected an additional \$2.8 million before production began early in 1970.

Operating performance was in line with expectation but, due to depressed metal markets, financial results were unsatisfactory in the first three years of operation. A substantial part of the molybdenum production in 1971 and 1972 could not be sold and, following a declaration of 'force majeure' by its Japanese customer late in 1971, about 25% of the copper concentrate production in 1972 had to be diverted to other smelters on less favourable terms. Some of this production was treated by Noranda.

The recovery in metal markets in 1973 occurred just in time to avoid the need to refinance the bank loans which came due that year. As a result, the debt owing to the bank and the Japanese was repaid in 1973 and the remaining debt, to Noranda, was repaid in 1974 and 1975.

BALANCE SHEET DATA

(\$ Millions)

	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
Current Assets	3.8	14.3	21.3	26.1	26.0	12.4
Current Liabilities	4.3	7.4	5.9	23.4	6.9	4.0
Working Capital	<u>(0.5)</u>	<u>6.9</u>	<u>15.4</u>	<u>2.7</u>	<u>19.1</u>	<u>8.4</u>
<u>Capitalization</u>						
Long-Term Debt	56.6	58.4	56.5	36.9	29.9	2.6
Deferred Taxes	-	-	-	-	1.3	4.5
Shareholders' Equity	8.0	10.9	10.9	12.4	27.2	35.6
	<u>64.6</u>	<u>69.3</u>	<u>67.4</u>	<u>49.3</u>	<u>58.4</u>	<u>42.7</u>

INCOME STATEMENT DATA

Earnings Before Interest Expenses	-	6.2	3.9	2.7	22.2	16.2
Interest Expenses	-	<u>3.1</u>	<u>4.1</u>	<u>4.1</u>	<u>3.7</u>	<u>1.0</u>
Earnings Before Taxes	-	3.1	(0.2)	(1.4)	18.5	15.2
Taxes	-	<u>0.4</u>	<u>0.1</u>	<u>0.1</u>	<u>1.8</u>	<u>6.8</u>
Net Earnings	-	<u>2.7</u>	<u>(0.3)</u>	<u>(1.5)</u>	<u>16.7</u>	<u>8.4</u>
Earnings Per Share (\$)		0.65	(0.08)	(0.35)	3.91	1.96

Management Fees

To Noranda Mines Limited in 1974, \$125,000

Board of Directors

There are nine directors of Brenda. Of these five represent Noranda. In addition, the Chairman of the Board, Mr. B.O. Brynelsen, has had a long association with Noranda in the field of exploration. He is currently President of a wholly-owned subsidiary of Noranda conducting an active exploration programme. The names of other outside directors follow on the next page.

<u>NAME</u>	<u>Principal Occupation</u>	<u>Director Since</u>
M.M. Menzies	Geological Engineer	1965
H.B. Simpson	Vice-President, Okanagan Holdings Ltd.	1973
H.R. Whittall	Partner, Richardson Securities of Canada.	1973

Conclusion

In this section important mining projects which have been financed by Noranda and in which a public interest still exists have been discussed. The basic methods of financing these projects have been similar.

Funds needed for completion of exploration and preparation of a feasibility study have normally been provided by purchasing treasury shares. The terms of the purchases usually depended on the attractiveness of the project, the amount of exploration already completed and competition from other companies to gain control. Such share purchases were usually accompanied by an agreement giving the company the right to take over management and finance the project to production. Provision of the necessary funds for mine development varied according to their scale. Usually, however, Noranda injected some or all of the necessary funds and received additional shares as a bonus. The number of shares issued in this way was intended to compensate for the risks involved and was determined by the amount of additional financing needed which would rank ahead of Noranda's funds in security, and the difference between the rate of interest on Noranda's loans and the prevailing market rate.

The Geco financing can be considered as an example of a project which was considered attractive and therefore shares were purchased at a relatively high price and the number involved did not give the buyers full control. In contrast, Brenda was considered a much

higher-risk project. The grades of ore were very low and the capital requirements were such that a significant amount of senior financing was needed in addition to that provided by Noranda. Accordingly, the share bonus was proportionately higher.

In conclusion, this method of financing new projects has been successful both for Noranda and the companies involved. Given the circumstances of the projects discussed, the terms are considered fair.

D) UNSUCCESSFUL ACQUISITIONS

As noted in Section I, not all Noranda's acquisitions have been successful. Here, facts about two ventures which were unsuccessful will be presented.

Zinc Die-Casting Operations

In an effort to take advantage of the Automobile Products Agreement and develop outlets for its growing zinc production, Noranda made a substantial investment in the zinc die-casting business. This was achieved through purchasing two separate groups of companies.

In March 1965, it acquired a 70% interest (later increased to 100%) in Coulter Manufacturing and Comco Metal Products from the Coulter family for \$1.1 million. These companies, with plants at Oshawa and Uxbridge, Ontario produced zinc die-castings and metal stampings for automobile manufacturers. Annual sales amounted to about \$10 million.

After Noranda became involved, the plant at Oshawa was replaced by a new one and another plant was acquired at Orangeville. The operations were re-organized to place greater emphasis on the die-casting business. This proved to be a mistake as the use of zinc die-castings in cars was declining and competition was intensifying. Instead of benefiting from the Automobile Products Agreement, these companies actually suffered from the loss of tariff protection which they had previously enjoyed since American suppliers could now successfully compete for Canadian business.

Noranda persevered until early 1972 in its effort to make the companies viable. At that time, having invested an additional \$4.4 million and incurred continuous losses amounting to \$5.2 million before taxes, it closed the operations. After recovering \$1.2 million from liquidation of the assets, Noranda suffered a total loss of \$8.4 million before taxes.

During the period, approximately 475 people were employed receiving \$26 million in wages and fringes.

In November 1966, an 80% interest (increased to 100% in 1967) in the Wolverine Die-Cast group of companies was acquired from a private partnership for 83,194 shares of Noranda valued at \$4.3 million. At the time, this comprised two operations in Detroit and a small one in Windsor. The Canadian operation, known as Plasticast, was actually being established with a view to producing plastics which were starting to make inroads into the market for zinc die-castings in automobiles. After Noranda took over the plant was equipped to produce large zinc die-castings such as grilles and tail-light assemblies. The market for these products deteriorated more rapidly than that for smaller products.

The Canadian plant was eventually closed in February 1970 and the two U.S. operations sold. During the period in which it operated, Plasticast provided employment for about 400 people and paid \$16 million in wages and fringes. Annual sales were in the order of \$7 to \$8 million.

In addition to its original investment, Noranda invested another \$8.3 million in these facilities, mainly in Canada. It incurred operating losses of \$12.6 million. Altogether, after accounting for the \$1.1 million realized liquidating the operations, Noranda's total losses from this venture amounted to \$24.1 million before taxes.

Fundy Forest Industries

In 1970, Noranda was asked by the government of New Brunswick to invest in this company which was building a corrugating-medium mill. Noranda guaranteed loans amounting to \$3.2 million and obtained a 25% interest in the project. The mill was to have a capacity of 240 tons per day with provision for expansion to 500 t.p.d. Production began in 1971 after a total outlay of \$16 million. Serious problems were soon encountered.

The design, although conventional, proved faulty and production fell well below capacity. Further, both management and labour were inexperienced. Finally, the market for the product was weak. Losses began to mount. Later that year, Noranda injected another \$2.5 million and received warrants entitling it to raise its interest to 56%. It did not take over management until mid-1972 by which time the company was in receivership.

In order to increase output to capacity and solve pollution problems which had also emerged, another \$10 million was needed. Such an amount was not economically justifiable and therefore the plant was closed in 1973. Noranda had lost \$5.7 million before taxes.

When operating, the project provided jobs for about 600 people in total.

SECTION IV: PRODUCT AND MARKET INFORMATION

In this section, tables are presented showing Noranda's production and, where relevant, consumption of its main products compared to Canadian and World totals.

COPPER

a) Production

In these two tables Noranda's position as a copper producer is shown. Detailed information regarding the production of the company and its associates was shown in Tables III and IV in Section II.

With the exception of production in British Columbia, all the copper produced by Noranda and its associates is smelted and refined in Canada. In addition, the company, through providing custom smelting and refining facilities, processes a substantial amount of copper for other companies. In providing this service, Noranda competes with smelters in other countries which may desire to buy unprocessed copper concentrates.

At the present time, only one other company, International Nickel Company of Canada, Limited, operates a copper refinery in Canada.

TABLE IXa

MINE PRODUCTION

	<u>Total Noranda Group</u>	<u>Canada</u>	<u>Noranda as % of Canada</u>	<u>World</u>	<u>Noranda as % of World</u>
	- 000 Tons -		%	000 Tons	%
1965	106.9	507.9	21.0	4,573.0	2.3
1966	103.5	506.1	20.5	4,780.1	2.2
1967	123.7	613.3	20.2	4,483.8	2.8
1968	126.8	633.3	20.0	4,867.9	2.6
1969	122.1	573.2	21.3	5,334.5	2.3
1970	131.4	673.7	19.5	5,702.2	2.3
1971	145.5	721.4	20.2	5,674.4	2.6
1972	196.3	793.3	24.7	6,284.0	3.1
1973	221.6	908.2	24.4	6,667.7	3.3
1974	226.3	910.8	24.8	6,877.1	3.3

TABLE IXb

METAL PRODUCTION

	<u>CCR^a</u>	<u>Canada</u>	<u>CCR as % of Canada</u>	<u>World</u>	<u>CCR as % of World</u>
	- 000 Tons -		%	000 Tons	%
1965	273.0	434.1	62.9	5,559.9	4.9
1966	285.0	433.0	65.8	5,697.3	5.0
1967	324.0	499.8	64.8	5,265.2	6.2
1968	351.0	524.5	66.9	5,946.9	5.9
1969	327.0	449.2	72.8	6,473.5	5.1
1970	349.0	543.1	64.3	6,785.6	5.1
1971	342.0	526.4	65.0	6,450.5	5.3
1972	376.0	546.7	68.8	7,074.0	5.3
1973	383.0	548.5	69.8	7,409.2	5.2
1974	427.0	616.3	69.3	7,659.6	5.6

(a) Includes production for Hudson Bay Mining and Texasgulf.

b) Consumption

Canada consumes domestically a higher proportion of its copper production than of most other metals. Noranda's subsidiaries, Canada Wire and Cable and Noranda Metal Industries are major consumers of copper and their growth has been an important contributing factor to this achievement. The products manufactured by them are sold primarily in Canada although some are exported.

TABLE IXc

	<u>CONSUMPTION</u>		
	Noranda Internal Usage - 000 tons -	Canada	Noranda as % of Canada %
1965	73.0	224.7	32.5
1966	82.0	262.6	31.2
1967	69.5	224.4	31.0
1968	84.5	250.1	33.8
1969	107.0	226.3	47.3
1970	82.5	237.9	34.7
1971	87.5	221.1	39.6
1972	97.5	228.9	42.6
1973	110.0	254.6	43.2
1974	103.5	273.4	37.9

c) Prices

In North America, copper is customarily sold on the basis of a fixed price established by producers. The Canadian price is normally close to that prevailing in the United States. Recently, however, in order to avoid any risk of being accused of 'dumping' when copper is exported to the United States, the quoted price has been fractionally higher in Canada.

Outside North America, copper is sold on the basis of London Metal Exchange prices. These fluctuate daily. As can be seen from Chart V, until 1964 there was a close relationship between North American and L.M.E. prices. Traditionally, the differential reflected U.S. import

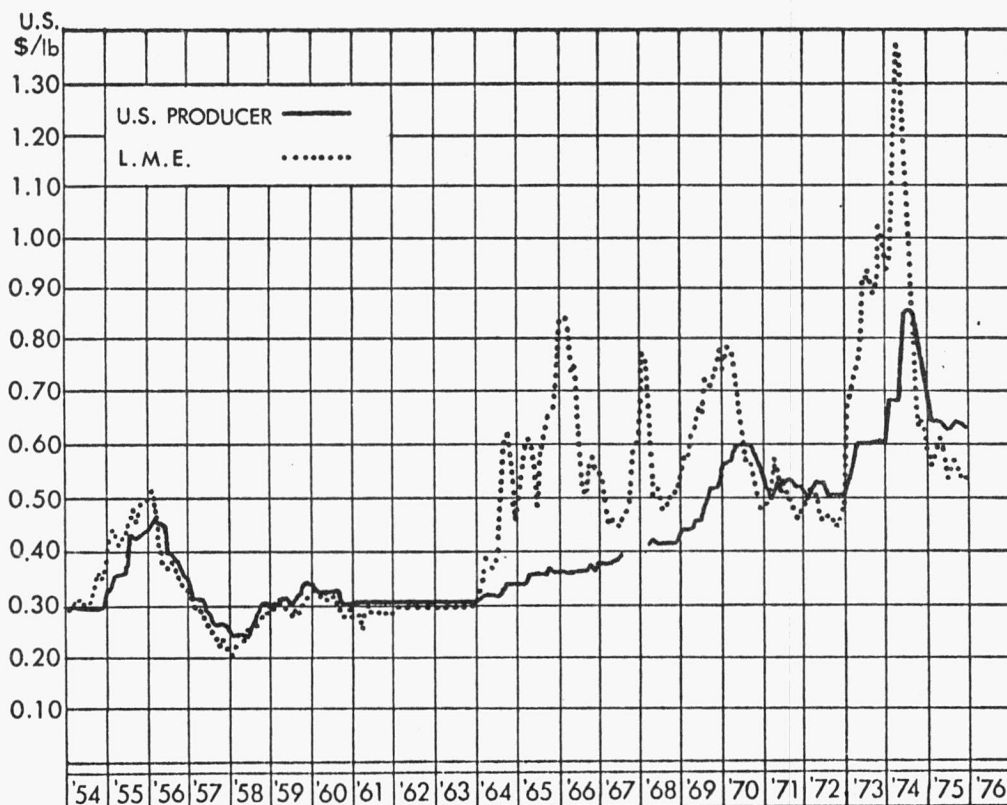
duties and the cost of freight from Europe. However, starting in 1964, there have frequently been significant differences between these prices. For a short period between January 1964 and April 1966, copper was sold outside North America on the basis of a fixed price similar to that prevailing in North America. Thereafter producers reverted to their traditional pattern of selling copper on the basis of L.M.E. prices.

The major reason copper prices in North America have not risen in line with those of the L.M.E. during time of shortage has been government pressure or outright control, both in the U.S.A. and Canada.

In contrast, during periods of oversupply, it can be seen that North American prices invariably decline once L.M.E. prices fall below the North American level. Noranda's ability to influence these prices is insignificant.

COPPER - MONTHLY AVERAGE PRICE

CHART V



ZINC

a) Production

The Noranda group is the largest in the world in terms of mine production. Nevertheless, its ability to influence prices is still extremely small. As can be seen by comparing mine production with metal production over the last ten years, the group has increased the proportion processed in Canada. This should rise further in 1976 with the completion of an expansion at Canadian Electrolytic Zinc. Production figures for both the Group and Canada were distorted by several major strikes in 1974.

TABLE Xa

MINE PRODUCTION

	Total Noranda Group	Canada	Noranda as % of Canada	World	Noranda as % of World
	- 000 Tons -		%	000 Tons	%
1963	106.6	473.7	22.5	3,081.5	3.5
1964	293.2	684.5	42.8	3,420.1	8.6
1965	289.9	822.0	35.3	3,647.4	7.9
1966	308.8	964.1	32.0	3,828.4	8.1
1967	255.0	1,111.5	22.9	4,081.6	6.2
1968	411.2	1,159.4	35.5	4,215.3	9.8
1969	391.2	1,207.6	32.4	4,515.1	8.7
1970	349.1	1,211.3	28.8	4,592.2	7.6
1971	401.1	1,397.2	28.7	4,561.9	8.8
1972	396.6	1,409.4	28.1	4,663.3	8.5
1973	482.7	1,496.5	32.3	4,847.0	10.0
1974	420.1	1,330.3	31.6	4,943.0	8.5

TABLE Xb

METAL PRODUCTION

	Total Noranda Group	Canada	Noranda as % of Canada	World	Noranda as % of World
	- 000 Tons -		%	000 Tons	%
1963	10.3	284.0	3.6	3,029.4	0.3
1964	67.7	337.7	20.0	3,266.1	2.1
1965	74.0	258.5	28.6	3,455.5	2.1
1966	87.4	382.6	22.8	3,641.8	2.4
1967	131.0	405.1	32.3	3,631.9	3.6
1968	140.2	426.7	32.9	4,078.1	3.4
1969	158.1	466.4	33.9	4,503.4	3.5
1970	160.7	460.7	34.9	4,383.7	3.7
1971	164.4	410.6	40.0	4,166.3	3.9
1972	145.9	524.9	27.8	4,536.4	3.2
1973	148.8	587.0	25.3	4,652.7	3.2
1974	134.8	469.9	28.7	4,667.0	2.9

b) Consumption

As outlined in Section III (D), Noranda's efforts to increase its domestic zinc consumption were unsuccessful. At present most of its internal consumption is for use as an alloy with copper.

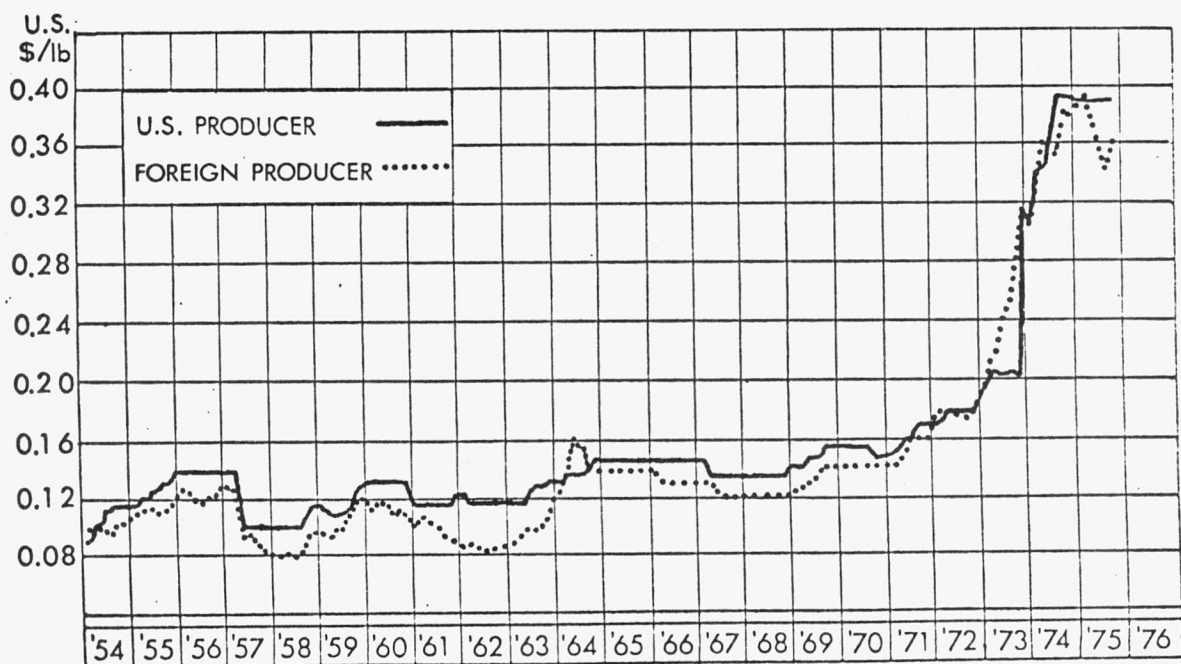
TABLE Xc

CONSUMPTION

	<u>Noranda Internal Usage</u>	<u>Canada</u>	<u>Noranda as % of Canada</u>
	- 000 Tons -		%
1965	7.5	104.6	7.2
1966	8.5	107.6	7.9
1967	8.0	110.0	7.3
1968	11.5	124.9	9.2
1969	12.0	127.2	9.4
1970	7.5	117.3	6.4
1971	11.0	122.2	9.0
1972	8.5	137.7	6.2
1973	9.0	148.5	6.1
1974	7.0	148.2	4.7

ZINC - MONTHLY AVERAGE PRICE

CHART VI



LEAD

Noranda's principal source of lead production is Brunswick, with all its output being converted to metal. In 1974 Canadian production was reduced by a lengthy strike at Cominco's B.C. operations.

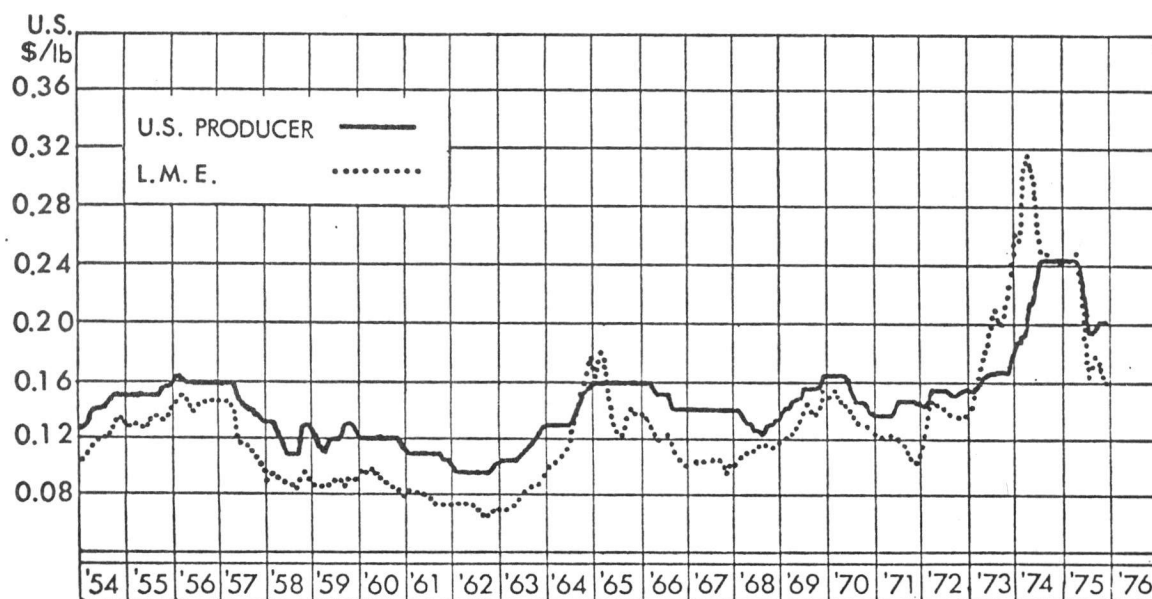
TABLE XI

METAL PRODUCTION

	Noranda (BMS)	Canada	Noranda as % of Canada	World	Noranda as % of World
	- 000 Tons -		%	000 Tons	%
1968	11.8	202.1	5.8	2,958.9	0.4
1969	16.8	187.1	9.0	3,284.0	0.5
1970	20.1	204.6	9.8	3,387.7	0.6
1971	22.4	185.6	12.1	3,228.4	0.7
1972	36.0	206.0	17.5	3,338.5	1.1
1973	34.5	206.0	16.7	3,442.0	1.0
1974	44.2	139.4	31.7	3,428.3	1.3

LEAD - MONTHLY AVERAGE PRICE

CHART VII



MOLYBDENUM

The main sources of Noranda's molybdenum production are Placer's Endako mine and Brenda. The majority of Noranda's output is exported. This market is dominated by Amax Inc. of the U.S. which accounted for about 38% of World output in 1974.

TABLE XII

<u>MINE PRODUCTION</u>					
	<u>Total Noranda Group</u>	<u>Canada</u>	<u>Noranda as % of Canada</u>	<u>World</u>	<u>Noranda as % of World</u>
	- million lbs -		%	million lbs	%
1964	0.4	1.2	33.3	75.0	0.5
1965	9.3	9.6	96.9	92.0	10.1
1966	16.1	20.6	78.2	130.0	12.4
1967	17.9	21.4	83.6	130.0	13.8
1968	15.0	22.5	66.7	132.0	11.4
1969	21.4	29.7	72.1	139.0	15.4
1970	29.2	33.8	86.4	160.0	18.3
1971	26.4	27.8	95.0	170.8	15.5
1972	19.7	28.9	68.2	135.0	14.6
1973	20.5	30.4	67.4	150.0	13.7
1974	21.6	29.6	73.0	165.0	13.1

ALUMINUM

Even when its expansion is completed in 1976, Noranda will only be a minor factor in the aluminum market. It is an important consumer in Canada but buys its requirements from domestic producers.

TABLE XIII

<u>METAL PRODUCTION</u>			
	<u>Noranda</u>	<u>U.S.A.</u>	<u>Noranda as % of U.S.A.</u>
	- 000 Tons -		%
1971	37.0	3,230.4	1.1
1972	71.5	3,392.7	2.1
1973	73.0	3,727.4	2.0
1974	71.0	4,035.1	1.8

FOREST PRODUCTS

The Noranda group has now become an important factor in this industry. However, since the majority of the output is exported its ability to influence prices is negligible.

LUMBER

TABLE XIVa

	PRODUCTION		Noranda as % of Canada
	<u>Total Noranda Group</u>	<u>Canada</u>	
	million board feet		%
1963	28.0	9,409.7	0.3
1964	60.0	9,829.4	0.6
1965	61.0	10,290.5	0.6
1966	243.0	10,026.4	2.4
1967	222.0	9,739.2	2.3
1968	257.0	10,762.3	2.4
1969	764.0	10,990.7	7.0
1970	792.7	10,787.4	7.3
1971	894.1	12,274.7	7.3
1972	1,205.8	13,444.1	9.0
1973	1,235.1	14,940.3	8.3
1974	1,077.2	13,000.0e	8.3

PULP

TABLE XIVb

BLEACHED SULPHATE PRODUCTION

	<u>Total Noranda Group</u>	<u>Canada</u>	<u>Noranda as % of Canada</u>
	- 000 Tons -		%
1966	26.0	2,440.0	1.1
1967	117.0	2,681.0	4.4
1968	196.0	3,401.0	5.8
1969	511.5	4,032.0	12.7
1970	461.5	4,034.0	11.4
1971	436.3	4,248.0	10.3
1972	502.9	4,840.0	10.4
1973	685.9	5,562.0	12.3
1974	674.0	6,520.0	10.3

SECTION V FINANCIAL DATA

In this section, financial information about Noranda is presented. Share price ranges, earnings and dividends for the 1945 - 1974 period are shown in Chart VIII and Table XV. Also shown in Table XV is shareholders' equity per share and the annual returns on the average shareholders' equity outstanding for each year. In each case the figures are those actually reported for the particular year, and do not reflect the effect of subsequent restatements due to acquisitions or accounting changes. As a result, earnings and returns on shareholders' equity for 1973 and subsequent years are not directly comparable to those for previous years due to the adoption of equity accounting. Important changes in accounting policy are listed beneath Chart VIII.

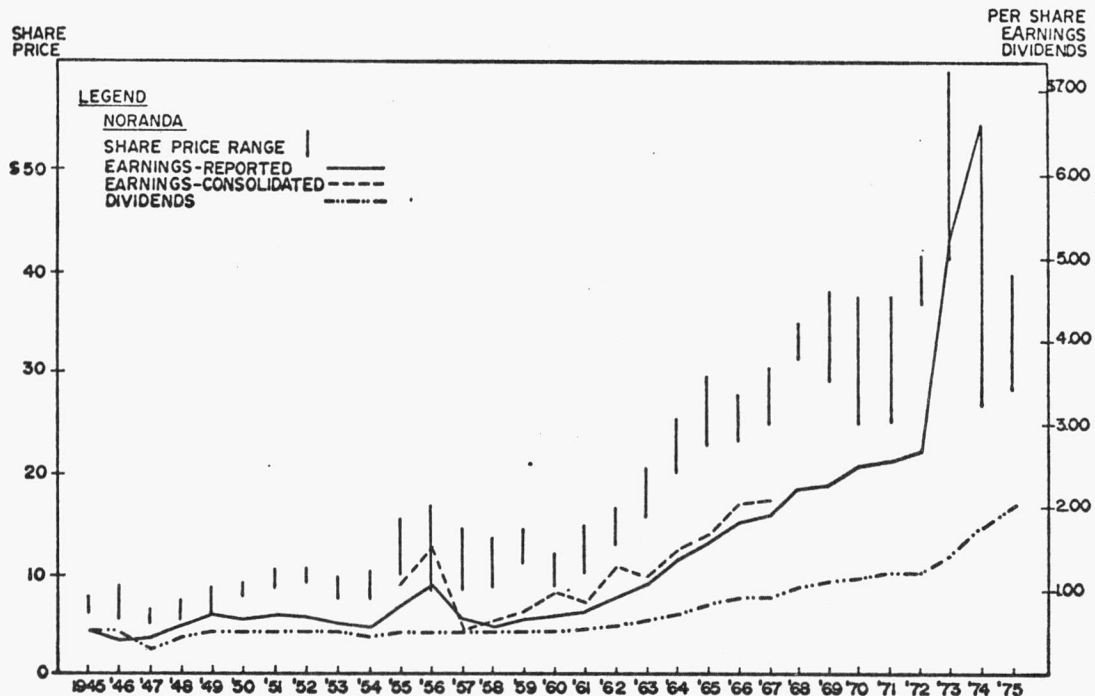
In Tables XVI, XVII and XVIII key financial data from the company's consolidated statements is shown. The growth in assets and sources of capital can be seen from Balance Sheet Data in Table XVI. The growth in revenue, sources of earnings by major category (operations or investments), and tax rates can be seen from Income Statement Data in Table XVII. The growth in cash flow and its disposition can be seen in Cash Flow Data, Table XVIII. Unless otherwise noted, this data is as originally reported.

In Table XIX data shown on a divisional basis in Section II is recapitulated in summary form. Also shown are common costs. Net earnings shown in this table are the same as those shown in Table XVII.

In these tables the year refers to the company's fiscal year which ends on December 31.

STOCK PRICE CHART
(1945 - 1975)

CHART VIII



ACCOUNTING CHANGES

- Deferred tax accounting was adopted in 1957.
- Until 1962, subsidiaries were not consolidated and reported earnings included only dividends received.
- In 1962, certain wholly-owned subsidiaries were consolidated for the first time. Impact on earnings was approximately \$0.05 per 1975 share.
- In 1962, the company changed the method of valuing inventories from standard, fixed prices to estimated realizable values. Impact on profits was not material.
- Equity accounting was first used in 1967 to reflect the results of 50%-owned Northwood Pulp.
- In 1968, all significant operating subsidiaries in Canada and the U.S. were consolidated for the first time.
- In 1973, foreign subsidiaries were consolidated and equity accounting for associated companies was adopted.

TABLE XV

Year	PER SHARE DATA ^a										Book Value ^a Per Share \$	Net Return On Average Shareholders' Equity %
	Share Prices		Earnings Per Share	Cash Flow ^b	Dividends ^b		Payout Ratio % of EPS	% of CFPS				
	High \$	Low \$	Reported ^b \$	Consolidated ^c \$	Per Share \$	Per Share \$				% of EPS		
1945	7.94	6.25	0.50	...	0.53	0.50	100.0	94.3		1.92	26.1	
1946	9.09	5.62	0.35	...	0.37	0.50	142.9	135.1		1.80	18.9	
1947	6.75	5.25	0.38	...	0.40	0.25	65.8	62.5		1.92	20.2	
1948	7.25	5.37	0.56	...	0.57	0.41	73.2	71.9		2.02	28.2	
1949	8.70	6.06	0.71	...	0.73	0.50	70.4	68.5		2.23	33.5	
1950	9.34	7.87	0.66	...	0.69	0.50	75.8	72.5		2.35	28.7	
1951	10.69	8.62	0.71	...	0.75	0.50	70.4	66.7		2.56	29.0	
1952	10.62	9.12	0.68	...	0.72	0.50	73.5	69.4		2.75	25.7	
1953	9.84	7.31	0.60	...	0.63	0.50	83.3	79.4		2.84	21.4	
1954	10.37	7.25	0.55	0.76	0.62	0.41	74.5	66.1		2.99	19.0	
1955	15.62	10.00	0.83	1.08	0.89	0.50	60.2	56.2		3.32	26.3	
1956	16.66	12.31	1.04	1.60	1.19	0.50	48.1	42.0		3.85	28.9	
1957	14.31	8.25	0.67	0.55	0.87	0.50	74.6	57.5		4.02	16.9	
1958	13.87	8.81	0.53	0.65	0.75	0.50	94.3	66.7		4.05	13.0	
1959	14.50	11.06	0.64	0.76	1.05	0.50	78.1	47.6		4.17	15.5	
1960	12.19	9.00	0.70	1.00	1.00	0.50	71.4	50.0		4.39	16.4	
1961	14.94	10.00	0.75	0.90	0.99	0.525	70.0	53.0		4.71	16.7	
1962	16.81	12.94	0.93	1.27	0.86	0.56	60.2	65.1		5.99	16.6	
1963	20.75	15.75	1.04	1.20	1.35	0.65	62.5	48.1		7.66	15.8	
1964	25.37	20.06	1.35	1.46	1.83	0.725	53.7	39.6		8.08	17.9	
1965	29.50	22.44	1.53	1.69	2.06	0.85	55.6	41.3		9.19	17.5	
1966	27.75	23.00	1.83	2.03	2.49	0.925	50.5	37.5		10.12	18.9	
1967	30.25	24.56	1.91	2.09	2.65	0.925	48.4	34.9		11.30	17.8	
1968	34.50	31.12	2.20	-	3.08	1.025	46.6	33.3		14.20	16.1	
1969	37.87	29.00	2.25	-	3.23	1.10	48.9	34.1		15.74	15.1	
1970	37.37	24.87	2.46	-	3.31	1.125	45.7	34.0		17.03	15.0	
1971	37.25	23.75	2.53	-	3.75	1.20	47.4	32.0		18.35	14.3	
1972	42.00	32.62	2.65	-	4.54	1.20	45.3	26.4		19.77	13.9	
1973 ^d	59.37	41.50	5.17	-	7.62	1.40d	27.1	18.4		23.73	22.8	
1974 ^d	54.00	26.62	6.59	-	10.60	1.80d	27.3	17.0		28.35	24.4	
1975 ^d	39.75	28.00	2.65e	-	5.75e	2.00d	75.5	34.8		...	...

a Adjusted to reflect 2 for 1 stock splits on May 11, 1955, May 30, 1962 and December 10, 1968.

b As originally reported.

c Includes undistributed earnings of unconsolidated subsidiaries. From 1968, reported earnings includes results from all subsidiaries.

d Class A Shares

e Estimated

Note: Earnings and returns on shareholders' equity were increased significantly in 1973 due to the adoption of equity accounting.

TABLE XVI

BALANCE SHEET DATA

(\$ Millions)

	1945	1950	1955	1960	1965	1970	1971	1972	1973	1974	June 30 1975
Current Assets											
Current Liabilities	22.0	20.8	22.0	36.4	110.9	310.2	323.1	341.9	480.7	605.4	718.0
	4.1	7.7	26.9	19.7	51.6	178.3	183.6	221.1	334.1	422.5	581.6
Working Capital	17.9	13.1	(4.9)	16.7	59.3	131.9	139.5	120.8	146.6	182.9	136.4
Investments and Advances											
Fixed Assets (net)	16.9	26.9	78.8	67.2	91.4	222.1	189.8	204.7	220.6	326.0	354.9
Other	2.6	4.4	10.2	14.0	69.6	301.2	464.6	526.1	582.7	685.0	753.0
	1.5	2.8	2.6	3.1	17.4	37.8	45.0	52.0	69.6	90.8	106.1
Total Assets	43.0	54.9	113.6	120.7	289.3	871.3	1,022.5	1,124.7	1,353.6	1,707.3	1,932.0
Capitalization:											
Deferred Liabilities	-	-	-	-	-	3.3	6.0	4.3	5.2	6.8	8.0
Deferred Taxes	-	-	-	1.5	9.5	37.2	26.7	40.1	56.8	101.5	109.9
Long-term Debt	-	-	22.2	17.2	10.5	224.1	321.0	349.8	335.6	383.7	408.9
Minority Interests	-	-	-	-	0.3	16.1	40.0	29.0	44.2	99.9	118.6
Reserves	4.4	5.0	5.1	3.7	-	-	-	-	-	-	-
Shareholders' Equity	34.5	42.1	59.4	78.6	217.4	412.3	445.2	480.4	577.7	692.8	705.0
Total	38.9	47.1	86.7	101.0	237.7	693.0	838.9	903.6	1,019.5	1,284.7	1,350.4
Shares Outstanding											
Actual (000)	2,239.8	2,239.8	4,479.5	4,479.9	11,836.6	24,214.2	24,257.4	24,297.8	24,343.8	24,442.4	
1975 Equivalent (000)	17,918.2	17,918.2	17,918.2	17,918.2	23,673.2	24,214.2	24,257.4	24,297.8	24,343.8	24,442.4	

TABLE XVII

INCOME STATEMENT DATA
(\$ Millions)

	1950	1955	1960	1965	1970	1971	1972	1973	1974	June 30 1974	1975
Operating Revenues	19.0	26.1	47.1	221.1	465.9	461.5	581.1	848.5	1,147.0	560.4	591.3
Operating Earnings Before Interest & Taxes	9.2	14.4	15.3	42.0	80.0	81.1	91.3	126.7	257.1	121.1	80.2
Interest Expense	-	1.3	1.5	0.6	17.1	16.0	19.2	19.8	33.8	17.2	21.4
Operating Earnings Before Taxes	9.2	13.1	13.8	41.4	62.9	65.1	72.1	106.9	223.3	103.9	58.8
Taxes (Tax Rate)	2.1	3.9	5.7	17.5	33.4	29.5	35.8	54.2	106.6	41.4	35.8
Minority Interests	(22.8%)	(29.8%)	(41.3%)	(42.3%)	(53.1%)	(45.3%)	(49.7%)	(50.7%)	(47.8%)	(39.8%)	(60.9%)
	-	-	-	-	(1.0)	(2.7)	(2.0)	1.3	17.1	9.2	7.0
Net Operating Income	7.1	9.2	8.1	23.9	30.5	38.3	38.3	51.4	99.6	53.3	16.0
Investment Income:											
Dividends, Interest, Gains on sales (a)	4.7	5.6	4.5	12.3	21.3	18.0	-	-	-	-	-
Dividends, Interest, Gains on sales (b)	-	-	-	-	-	-	3.1	2.1	4.9	0.6	1.3
Share of Profits in Associated Companies	-	-	-	-	7.7	5.2	27.8	67.9	50.4	32.4	18.5
Net Earnings (as reported)	11.8	14.8	12.6	36.2	59.5	61.5	69.2	121.4	154.9	86.3	35.8

Note: Years 1950-1971 as originally reported; 1972-1974 reflecting current accounting methods.
 (a) Adjusted to reflect estimated taxes on investment income.
 (b) Unadjusted.

CASH FLOW DATA

(\$ Millions)

	1960	1965	1970	1971	1972	1973	1974	June 30 1974	1975
<u>Source of Funds</u>									
Cash Generated from Operations	16.6	48.7	79.2	88.3	98.9	135.6	244.3	122.4	77.7
Other	0.1	6.8	74.5	87.3	69.9	21.8	79.5	57.1	33.7
Total	16.7	55.5	153.7	175.6	168.8	157.4	323.8	179.5	111.4
<u>Use of Funds</u>									
Dividends	9.0	20.1	27.2	29.0	28.1	32.9	42.3	20.0	23.6
Capital Expenditures	0.7	17.3	126.1	93.4	118.4	94.2	128.1	38.0	90.7
Investments	(7.9)	3.5	17.5	31.2	9.0	(11.7)	84.8	36.8	23.8
Other	18.4	10.5	(73.0)	14.4	24.0	24.7	32.3	23.9	19.8
Total	20.2	51.4	97.8	168.0	179.5	140.1	287.5	118.7	157.9
Net Change in Working Capital	(3.5)	4.1	55.9	7.6	(10.7)	17.3	36.3	60.8	(46.5)

Note: Years 1950-1971 as originally reported; 1972-1974 reflecting current accounting methods.

CONSOLIDATED DIVISIONAL RESULTS

(\$ MILLIONS)

	1967	1968	1969	1970	1971	1972	1973	1974	First Half 1974 1975
REVENUE FROM METALS, PRODUCTS AND CUSTOM TOLLS									
Total mining and metallurgical operations	..	..	..	300.7	293.4	355.4	557.5	733.7	370.6 351.1
Manufacturing operations	..	..	..	250.7	265.5	339.7	438.8	564.0	289.3 274.7
Forest Products operations	..	..	..	168.3	193.4	168.0	253.9	365.1	135.1 143.7
Gross revenue	..	..	..	719.7	752.4	863.1	1,250.2	1,662.8	795.0 769.6
Less: Sales between divisions	..	..	..	76.5	75.7	72.1	102.7	170.0	88.8 47.0
Sales by associated companies	..	..	..	186.3	215.1	209.9	299.0	345.7	145.8 131.3
Revenue as reported	372.7	426.3	428.5	456.9	461.5	581.1	848.5	1,147.0	560.4 591.3
EARNINGS									
Net mining and metallurgical earnings	52.8	56.1	59.9	61.2	62.4	66.2	107.1	134.2	72.4 35.8
Manufacturing operations and investments	7.2	9.2	3.1	5.8	5.4	11.4	23.2	39.3	20.4 14.5
Forest products operations	(5.7)	(2.3)	3.0	1.6	3.6	10.7	15.0	11.3	7.7 5.9
Earnings before common costs	54.3	63.0	66.0	68.6	71.4	88.3	145.3	184.9	100.5 56.2
Less: Corporate office costs	..	..	..	6.2	5.2	6.3	7.5	9.9	4.6 4.6
Interest expense net of revenue	..	..	..	10.1	10.7	19.1	23.6	32.5	18.1 20.9
Unallocated research costs	..	..	..	0.9	0.9	0.6	1.0	1.1	0.5 0.7
Less: applicable tax reductions	..	..	..	(8.1)	(6.9)	(6.9)	(8.1)	(13.4)	(9.1) (5.7)
Total common costs	4.8	10.5	11.7	9.0	9.9	19.1	23.9	30.0	14.2 20.4
Earnings	49.5	52.5	54.3	59.5	61.5	69.2	121.4	154.9	86.3 35.8
Gross Capital Employed	550.0	643.0	647.0	830.0	1,085.0	1,207.0	1,395.0	1,840.0	.. ..
Construction in Progress	22.0	190.0	213.0	99.0	56.0	102.0	-	-	.. ..
Total	572.0	833.0	860.0	929.0	1,141.0	1,309.0	1,395.0	1,840.0	.. ..
Earnings before common costs as % of Gross Capital	9.5%	9.8%	10.2%	8.3%	6.6%	7.3%	10.4%	10.0%	.. ..
Net earnings as % of Gross Capital	9.0%	8.2%	8.4%	7.2%	5.7%	5.7%	8.7%	8.4%	.. ..

Note: Revenue and earnings include the company's share of revenue and earnings of associated companies accounted for on an equity basis. Prior to 1972, only Brenda Mines Ltd. (then 50% owned), Northwood Pulp and Timber and British Columbia Forest Products were included on this basis. Since 1972, all associated companies are included.

SUMMARY AND CONCLUSION

Noranda Mines Limited has grown to become one of Canada's most important natural resource companies. It is active in three industries: mining, manufacturing and forest products. It is a Canadian company but operates as an independent entity, with effective control resting with management and the board of directors.

In the mining sector, Noranda produces a wide range of products including copper, zinc, lead, gold, silver, molybdenum and potash. With most of its products Noranda has developed facilities to process them domestically. Moreover, through its custom smelting and refining activities, Noranda has provided processing facilities for other companies whose products might otherwise have been exported for upgrading.

Growth in Noranda's manufacturing activities has, to a considerable extent, been a direct outcome of its mining operations. Through this manufacturing activity, a growing market for Canadian mine products has been developed.

Noranda's entry into forest products has been through a combination of internal growth and acquisitions. Taken together, its various interests have made it an important factor in this industry, with involvement in all major sectors.

Over the last twenty years, Noranda's total assets have increased from \$114 million at the end of 1955 to \$1,932 million as at June 30, 1975. To a considerable extent this growth has been achieved through developing new projects rather than through acquisitions. New projects have been undertaken both internally and through financing projects on behalf of other companies.

These activities have created a significant number of new jobs. Of total domestic employment of 31,100 people, approximately one-third are employed at projects or operations which Noranda has been responsible for developing during the last twenty years. In addition, its previous operations have grown considerably during the same period. Further, companies such as

Placer, Brunswick and B.C. Forest Products, in which Noranda has acquired an important or dominant interest, have also expanded since Noranda became involved. Finally, Noranda has rescued some companies (e.g. Brunswick) and re-activated others (e.g. Airscrew-Weyroc).

Not all Noranda's new projects have been successful. Some, such as the zinc die-casting operations, have had to be abandoned, but only after considerable effort had been made to make them viable. Moreover, several major projects have failed to make a satisfactory return on investment. As a result, the growth in assets over the last twenty years has not been matched by an equivalent growth in profits.

Between the years 1955 and 1974, net profits increased from \$15 million to \$155 million. This record will deteriorate significantly when results for 1975 are reported. Whereas assets have continued to rise in 1975, profits have fallen sharply and, for the first time since 1958, Noranda will report a decline in earnings compared to the previous year.

Shareholders of Noranda have fared well over this period. However, it is apparent that the growth in net profits and maintenance of a satisfactory return on shareholders' equity has been achieved through the increasing use of debt financing. As a result, future growth may be more difficult to achieve and will only be undertaken at an increasing risk to shareholders.

A more accurate indication of Noranda's use of capital is shown in Tables II, V, VII and XIX, which show the total returns on capital employed, by division and for the whole company. In the case of mining, recent returns have not matched those of earlier years, reflecting the deteriorating environment for mining in Canada.

In the case of manufacturing, with the exception of 1974, the returns have generally been unsatisfactory. However, it should be pointed out that these are distorted by the inclusion of the U.S. aluminum operations in this sector, the returns from which have been quite poor to date. Manufacturing returns have been improved by inclusion of Canada Wire's foreign operations which, as shown in Section II, are extremely profitable.

In the case of forest products, the return on capital employed has exceeded 10% only twice in the 1967-1974 period. For all sectors, the returns will be sharply lower in 1975.

During the course of its existence, Noranda has acquired interests in many different companies. These interests have been obtained through open-market share purchases and earned through financing projects to production. In most cases, these companies have continued as public companies and frequently operate quite independently. Only when the company ceases to be viable as an independent entity is it taken over entirely, usually when its ore reserves are nearly exhausted. A prominent exception was the amalgamation with Geco which had many years of life ahead of it. However, with the possible exception of this particular transaction, it can be concluded that Noranda's treatment of outside or minority shareholders has been quite fair.

It is possible to conclude that, as a result of the existence of Noranda, a larger proportion of Canada's mining industry is Canadian-owned. Indeed, it is possible to suggest that, if other industries, notably oil, had had an entity equivalent to Noranda, a greater proportion of Canadian industry might now be domestically controlled.

In conclusion, therefore, the existence of Noranda has been a positive force in Canadian development.

APPENDIX

NORANDA GROUP

ORE RESERVES DECEMBER 31, 1974

	Tons (000)	Copper %	Zinc %	Lead %	Silver oz/ton	Gold oz/ton	Molybdenum %
<u>Noranda</u>							
Horne Division							
Horne Mine	400	1.74	-	-	0.151	-	-
Chadbourne	1,100	-	-	-	0.111	-	-
Magusi	1,569	2.10	-	-	-	-	-
Magusi	468	8.83	-	-	-	-	-
New Insc0	1,148	2.11	-	-	-	-	-
Geco Division	28,600	1.87	3.69	-	1.59	-	-
Bell Division	34,390	0.489	-	-	-	0.012	-
Boss Division	2,700 ^a	-	-	-	-	-	0.25 ^a
<u>Gaspé Copper Mines</u>							
Needle Mountain	22,900	1.33	-	-	-	-	...
Copper Mountain	212,000	0.38	-	-	-	-	...
	34,000	0.45	-	-	-	-	...
<u>Brenda Mines</u>	127,000	0.177	-	-	-	-	0.046
<u>Brunswick Mining & Smelting</u>							
Zinc - Lead Reserves							
No. 12 Mine - Proven	64,466	0.27	9.21	3.74	2.74	-	-
- Probable	22,604	0.30	9.57	4.08	2.96	-	-
No. 6 Mine - Proven	2,379	0.42	4.91	1.77	1.78	-	-
Copper Reserves							
No. 12 Mine - Proven	9,474	1.11	1.13	0.40	0.85	-	-
<u>Kerr Addison Mines</u>							
Kerr-Addison Mine	1,559	-	-	-	-	0.47	-
Blue Hill Mine	701	1.59	5.31	-	-	-	-
Bouzan Joint Venture	222	1.80	-	-	-	0.02	-
<u>Mattagami Lake Mines</u>							
Mattagami Lake	12,000	0.66	8.7	-	0.98	0.015	-
Lyon Lake Division - indicated	3,100	1.15	6.20	0.60	3.30	0.11	-
Mattabi Mine	11,059	0.74	6.51	0.64	2.42	0.007	-
<u>Orchan Mines</u>							
Orchan Mine	1,351	1.1	8.8	-	-	-	-
Garon Lake	215	1.8	1.5	-	-	-	-
Norita Division - indicated	1,637	0.7	7.6	-	-	-	-
Bell Allard - indicated	140	2.0	1.0	-	-	-	-
<u>Pamour Porcupine Mines</u>							
Pamour Mines 1, 2 and 3	2,500	-	-	-	-	0.137	-
Schumacher Division	2,300	0.66	-	-	-	0.034	-
Schumacher Division	428	-	-	-	-	0.249	-
<u>Placer Development</u>							
Endako	214,500	-	-	-	-	-	0.143 ^b
Craigm0nt	8,599	1.84	-	-	-	-	-
Gibraltar	319,000	0.36	-	-	-	-	-
Marcopper	102,000	0.58	-	-	-	-	-

(a) Last stated in 1971. Operations were suspended Dec.3/71 and resumed in Jan/74.

(b) Molybdenum disulphide.